

4 Change History

Document history		
Version	Date	History
Ver. 1.00	September 16, 2011	Approved by the 81th ARIB Standard Assembly
Ver. 1.10	December 6, 2011	Revised by the 82th ARIB Standard Assembly
Ver. 1.20	July 3, 2012	Revised by the 84th ARIB Standard Assembly
Ver. 1.30	September 25, 2012	Revised by the 85th ARIB Standard Assembly
Ver. 1.40	December 18, 2012	Revised by the 86th ARIB Standard Assembly
Ver. 1.50	March 19, 2013	Revised by the 87th ARIB Standard Assembly
Ver. 2.00	July 3, 2013	Revised by the 88th ARIB Standard Assembly Added release 11 standard
Ver. 2.10	September 26, 2013	Revised by the 89th ARIB Standard Assembly
Ver. 2.20	December 10, 2013	Revised by the 90th ARIB Standard Assembly
Ver. 2.30	March 18, 2014	Revised by the 91th ARIB Standard Assembly
Ver. 2.40	July 31, 2014	Revised by the 92th ARIB Standard Assembly
Ver. 2.50	October 2, 2014	Revised by the 93th ARIB Standard Assembly
Ver. 2.60	December 16, 2014	Revised by the 94th ARIB Standard Assembly
Ver. 2.70	March 17, 2015	Revised by the 95th ARIB Standard Assembly
Ver. 3.00	July 3, 2015	Revised by the 96th ARIB Standard Assembly Added release 12 standard
Ver. 3.10	September 30, 2015	Revised by the 97th ARIB Standard Assembly
Ver. 3.20	December 3, 2015	Revised by the 98th ARIB Standard Assembly
Ver. 3.30	March 25, 2016	Revised by the 99th ARIB Standard Assembly
Ver. 4.00	July 6, 2016	Revised by the 100th ARIB Standard Assembly Added release 13 standard
Ver. 4.10	September 29, 2016	Revised by the 101th ARIB Standard Assembly
Ver. 4.20	December 9, 2016	Revised by the 102th ARIB Standard Assembly
Ver. 4.30	March 24, 2017	Revised by the 103th ARIB Standard Assembly

(Annex 1)

3GPP ARIB Change history List of Standards (ARIB STD-T104 Ver. 1.00)

16 September 2011

1. Release 10

1.1. Added Standards

Added Standard Number	Version at ARIB STD-T104 Ver.1.00		3GPP WG	Title	New Document Summary
25.460	10.0.1		R3	UTRAN Iu-ur interface: General aspects and principles	Creation of Rel-10 version based on v9.0.0. Clarification on the use of Reference (TS 21.801 CR#0030)
25.461	10.2.0		R3	UTRAN Iu-ur interface: Layer 1	Introduction of L-band in TS 25.461 CR UMTS/LTE-3500 spectrum band definition additions for TDD Iu-ur interface to TS 25.461 Band XII channel arrangement correction on 25.461 Clarification on the use of References (TS 21.801 CR#0030) Add 2 GHz band LTE for ATC of MSS in North America to TS25.461 (Rel-10) Add Expanded 1900 MHz Band for UTRA and LTE to TS25.461 (Rel-10) Removal of unused references
25.462	10.1.0		R3	UTRAN Iu-ur interface: Signalling transport	Creation of Rel-10 version based on v9.0.0 Clarification on the use of References (TS 21.801 CR#0030) Removal of unused references

Added Standard Number	Version at ARIB STD-T104 Ver.1.00		3GPP WG	Title	New Document Summary
25.466	10.2.0		R3	UTRAN luan interface: Application part	Creation of Rel-9 version based on v9.2.0 Spectrum band definition additions for TDD 2600 MHz Introduction of L-band in TS 25.466 CR UMTS/LTE-3500 spectrum band definition additions for TDD luan interface to TS 25.466 Clarification on the use of References (TS 21.801 CR#0030) Add 2 GHz band LTE for ATC of MSS in North America to TS25.466 (Rel-10) Add Expanded 1900 MHz Band for UTRA and LTE to TS25.466 (Rel-10) Removal of unused references
36.101	10.3.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Introduced core requirements for User Equipment radio transmission and reception for LTE and LTE-Advanced as well as LTE.
36.104	10.3.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Introduced core requirements for Base Station radio transmission and reception for LTE-Advanced as well as LTE.
36.113	10.3.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) and repeater ElectroMagnetic Compatibility (EMC)	Introduced EMC requirements for LTE-Advanced (as well as LTE) Base Station.
36.124	10.2.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Electromagnetic compatibility (EMC) requirements for mobile terminals and ancillary equipment	Introduced EMC requirements for LTE-Advanced (as well as LTE) mobile terminals and ancillary equipment.
36.133	10.3.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Introduced requirements for support of radio resource management for LTE-Advanced as well as LTE.
36.141	10.3.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Introduced core requirements for Base Station conformance testing for LTE-Advanced as well as LTE.
36.171	10.1.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for Support of Assisted Global Navigation Satellite System (A-GNSS)	Introduced requirements for support of assisted Global Navigation Satellite System for LTE-Advanced. As well as LTE

Added Standard Number	Version at ARIB STD-T104 Ver.1.00		3GPP WG	Title	New Document Summary
36.201	10.0.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE physical layer; General description	The present document describes a general description of the physical layer of the E-UTRA radio interface. The present document also describes the document structure of the 3GPP physical layer specifications, i.e. TS 36.200 series.
36.211	10.2.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical Channels and Modulation	The present document describes the physical channels for evolved UTRA.
36.212	10.2.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	The present document specifies the coding, multiplexing and mapping to physical channels for E-UTRA.
36.213	10.2.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	The present document specifies and establishes the characteristics of the physicals layer procedures in the FDD and TDD modes of E-UTRA.
36.214	10.1.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer; Measurements	The present document contains the description and definition of the measurements done at the UE and network in order to support operation in idle mode and connected mode.
36.216	10.3.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer for relaying operation	The present document describes the characteristics of eNB - relay node transmissions.

Added Standard Number	Version at ARIB STD-T104 Ver.1.00		3GPP WG	Title	New Document Summary
36.300	10.4.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	clarification on redirection in 36.300 CR to 36.300 for eICIC updates Update of the MCCH Structure description for CountingRequest message Miscellaneous corrections to 36.300 Correctoin on eICIC description Some small corrections to 36.300 UE receiver window for Inter-band non-contiguous CA Capture the stage2 RLF agreement Clarification on MME selection Correction on the Release of Supporting SRVCC Correction of the area restrictions description Correcting the Note regarding the usage of the GUMMEI Correction of Counting Function Correction of MBMS Service Suspension and Resumption Function Relaying Stage 2 Corrections Correction of Reset Cleanup general topics before Rel-10 closure Cleanup of HeNB related topics before Rel-10 closure Clarification to detection of unnecessary IRAT handover Release the UE context in the source HeNB-GW after HeNB-HeNB X2 HO Corrections of MRO
36.302	10.2.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	DL Assignment in MBSFN Subframe
36.304	10.2.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	CR to align NAS and AS for handling of CSG cells Clean up of MDT section
36.305	10.2.0		R2	Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Stage 2 functional specification of User Equipment (UE) positioning in E-UTRAN	Corrections to Align Stage2 with Stage3 Corrections to the LPP protocol layering

Added Standard Number	Version at ARIB STD-T104 Ver.1.00		3GPP WG	Title	New Document Summary
36.306	10.2.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Clarification of optionality of UE features without capability Options for CSFB to GSM CR to 36.306 on UE capabilities for Rel-10 LTE features CA and MIMO Capabilities in LTE Rel-10 Introduction of UE capability for enhanced redirection to UTRA TDD Clarification of "supportedMIMO-CapabilityDL" Correction of "total number of soft channel bits" for category 6 and 7
36.307	10.1.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Introduced requirements on User Equipments supporting a release-independent frequency band for LTE-Advanced as well as LTE.
36.314	10.1.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Layer 2 - Measurements	L2 measurements in an eNB serving RNs L2 measurements in an eNB with MBSFN, ABS subframes
36.321	10.2.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	CQI reporting and deactivation timer Miscellaneous Corrections P _{max,c} reporting for type 2 PH Type-1-triggered SRS transmission independent of DRX UL transmissions when the timeAlignmentTimer is not running Clarifications to Ci field in MAC CE on CA Clarification of padding BSR behaviour SPS reception in MBSFN subframes Power management related PHR triggering condition Clarifications on PHR Power Management trigger
36.322	10.0.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Link Control (RLC) protocol specification	new
36.323	10.1.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification	Clarification on the number of ROHC instances in a PDCP entity Addition of integrity protection of DRBs in PDCP for RNs

Added Standard Number	Version at ARIB STD-T104 Ver.1.00		3GPP WG	Title	New Document Summary
36.331	10.2.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	<p>Add MBMS counting procedure to processing delay requirement for RRC procedure Section 11.2</p> <p>Add pre Rel-10 procedures to processing delay requirement for RRC procedure Section 11.2</p> <p>Addition of a specific reference for physical configuration fields</p> <p>Clarification of inter-frequency RSTD measurement indication procedure</p> <p>Clarification of optionality of UE features without capability</p> <p>Clarification on the definition of maxCellBlack</p> <p>Clarification on upper layer requested connection release</p> <p>Clarification regarding eICIC measurements</p> <p>CR for s-measure handling</p> <p>CR on clarification of RLF Report in Carrier Aggregation</p> <p>FGI bit for handover between LTE FDD/TDD</p> <p>Further updates on L1 parameters</p> <p>General error handling for extension fields</p> <p>Additional information for RLF report</p> <p>Introduction of TCE ID for logged MDT</p> <p>Miscellaneous corrections (related to review in preparation for ASN.1 freeze)</p> <p>PLMN check for MDT logging</p> <p>UE actions upon leaving RRC_CONNECTED</p> <p>Clarification on bandEUTRA-r10 and supportedBandListEUTRA</p> <p>Updated value range for the Extended Wait Timer</p> <p>Value range of DRX-InactivityTimer</p> <p>Correction for SR-VCC and QCI usage</p> <p>Restructuring of CQI-ReportConfig-r10</p> <p>Correction on DL allocations in MBSFN subframes</p> <p>Reference SFN for MeasSubframePattern</p> <p>Clarifications to CA related field descriptions</p> <p>Corrections to codebookSubsetRestriction and SRS parameters</p> <p>Corrections to the handling of ri-ConfigIndex for TM9</p> <p>UE capabilities for Rel-10 LTE features with eICIC</p>

Added Standard Number	Version at ARIB STD-T104 Ver.1.00		3GPP WG	Title	New Document Summary
					measurement restrictions as FGI (Alt.1) CR to 36.331 on redirected ultra-TDD carrier frequency Explicit AS signalling for mapped PTMSI/GUTI Counter proposal for Updates of mandatory information in AS-Config CR for Reconfiguration of discardTimer in PDCP-Config On the missing multiplicity of UE capability parameters Radio frame alignment of CSA and MSP Reconfiguration involving critically extended IEs (using fullFieldConfig i.e. option 2) Counter proposal to R2-112753 on CR to remove CSG Identity validity limited to CSG cell Increase of prioritisedBitRate CA and MIMO Capabilities in LTE Rel-10
36.355	10.2.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Clarifications to description of OTDOA positioning fields

1.2. Revised Standards

None

(Annex 2)

3GPP ARIB Change history List of Standards (ARIB STD-T104 Ver. 1.10)

6 December 2011

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

Revised Standard Number	Version at ARIB STD-T104 Ver.1.10	Version at ARIB STD-T104 Ver.1.00	3GPP WG	Title	Change Summary
36.101	10.4.0	10.3.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Unnecessary channel bandwidths from REFSENS tables are removed. Clarification on BS precoding information field for RI FDD and PUCCH 2-1 PMI tests is made. Band 14 receiver requirements are introduced. Correction on the accuracy test of CQI, CQI mapping index of TDD RI test, code block numbers for some reference measurement channels (RMCs), UL RMC for FDD and TDD are made. Codebook subset restriction for single layer closed-loop spatial multiplexing test is added. Correction of the ACK/NACK feedback mode for sustained data rate test is made. MBSFN FDD requirements are corrected. TDD MBMS performance requirements for 64QAM mode are corrected. Dual-layer beamforming demodulation requirements are corrected as a clarification. Requirements for Band 22 are introduced. Modifications of Band 42 and 43 are made. Static channels for CQI tests, CSI reference channel subframe description, requirements for UL MIMO are corrected. Power control accuracy for intra-band carrier aggregation is corrected. In-band emissions requirements for intra-band carrier aggregation are corrected. Operating band for UL-MIMO is added. Corrections to intra-band contiguous CA RX requirements are made. Intra-band contiguous CA MPR requirement refinements, correction on intra-band contiguous CA EVM are made. Corrections for downlink CA demodulation requirements, CA UE demodulation requirements for TDD are made.

Revised Standard Number	Version at ARIB STD-T104 Ver.1.10	Version at ARIB STD-T104 Ver.1.00	3GPP WG	Title	Change Summary
36.104	10.4.0	10.3.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Necessary changes for Band 3/III operation in Japan are made. Corrections for Band 42 and 43 (LTE 3500 (TDD)) requirements, introduction of Band 22/XXII for LTE/UMTS 3500 (FDD) requirements are made. Correlation matrices for UL MIMO Performance requirements for UL-MIMO are introduced. Captions of minimum requirements table of Operating Band Unwanted Emissions are corrected. Co-existence and co-location requirements are corrected. Co-existence requirements for Band 25/XXV are corrected. PUSCH performance requirements are corrected.
36.113	10.4.0	10.3.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) and repeater ElectroMagnetic Compatibility (EMC)	Necessary changes for Band 3/III operation in Japan are made. Corrections for Band 42 and 43 (LTE 3500 (TDD)) requirements, introduction of Band 22/XXII requirements (LTE/UMTS 3500 (FDD)) are made. Introduction of correlation matrices for UL MIMO is made. Performance requirements for UL-MIMO are introduced. Minimum requirements of Operating Band Unwanted Emissions are corrected. Co-existence and co-location corrections requirements are corrected. Co-existence requirements for Band 25/XXV are corrected. PUSCH performance requirements are corrected.
36.124	10.3.0	10.2.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Electromagnetic compatibility (EMC) requirements for mobile terminals and ancillary equipment	Band 22/XXII requirements (LTE/UMTS 3500 (FDD)) are introduced.

Revised Standard Number	Version at ARIB STD-T104 Ver.1.10	Version at ARIB STD-T104 Ver.1.00	3GPP WG	Title	Change Summary
36.133	10.4.0	10.3.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>Thresholds and margins for reporting of neighbour cells in RRM test A.8.9.1, Thresholds and margins for RRM tests A.5.2.1 and A.5.2.2, Thresholds and margins for RRM tests A.5.2.4 and A.5.2.5 are corrected. []s in section 8.1.2.2.2.2 for Rel-10 are removed. Conditions of UTRA TDD measurement report delay requirements are added. Correction to clarify time points and time duration for RLM tests A.7.3.x is made. Enhanced UTRA TDD cell identification requirements are added. E-UTRAN FDD GSM event triggered reporting in AWGN with enhanced BSIC identification requirement, requirements for RRC Connection Release with Redirection are corrected. Missing RSRQ in Intra-frequency measurement requirements are introduced. Requirements for RRC Connection Release with Redirection for TDD are corrected. Introduction of Band 22 requirements, modifications of Band 42 and 43 are made. RRC connection mobility control in CA, RSTD Measurement Requirements under Handover, RSTD Measurement Requirements under Pcell Switching are corrected. Editorial corrections for 36.133 (Rel-10) are made. RRC connection mobility control in CA is corrected. TDD inter frequency measurements with autonomous gaps is modified. Frequency band related requirements are corrected. References are corrected and alignment of the carrier aggregation terminology is made. Band simplification for core requirements is made. Clarification in inter-frequency RSTD accuracy tests is corrected. Editorial corrections for RRM requirements are made. Missing RSRQ in E-UTRA carrier aggregation measurement requirements are introduced. Clarification of TDD uplink-downlink subframe configurations applicability for RSTD measurement in CA is made. UE interruption requirements in SCC measurements with deactivated SCell when common DRX is used is corrected. Alignment of terminology for SCell measurement cycle is made. P_{cmx,c} reporting requirements for carrier aggregation are introduced. RSTD Accuracy Requirements for Carrier Aggregation is corrected. Power headroom reporting requirement for carrier aggregation are introduced. RSRP and RSRQ measurement requirements for eICIC are corrected.</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.1.10	Version at ARIB STD-T104 Ver.1.00	3GPP WG	Title	Change Summary
36.141	10.4.0	10.3.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Necessary changes for Band 3/III operation in Japan are made. Uncertainties and Test Tolerances for 3000MHz to 4200MHz (Band 42 and 43 for LTE 3500 (TDD)) are corrected. Requirements for Band 22/XXII (LTE/UMTS 3500 (FDD)) are introduced. Test tolerances for UL-MIMO performance test cases are introduced. Performance requirements for UL-MIMO are introduced. Acceptable uncertainty of OBW test in CA are specified. Captions of Table for Operating Band Unwanted Emissions are corrected. General correction for the specification are made. Co-existence and co-location corrections requirements are corrected. PUSCH test requirements are corrected. CA PUCCH performance requirements are introduced.
36.211	10.3.0	10.2.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	Clarify applicability of precoding power scaling factors for PDSCH. Correction on section 5.8 "Modulation and upconversion" to handle PRACH signal. Clarify DMRS sequence for the extended CP subframe. Clarify cyclic prefix of PDSCH in MBSFN subframes. Correction on indication in scrambling identity field in DCI format 2B and 2C.
36.212	10.3.0	10.2.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Correction on ACK/NACK mapping. Correction on channel coding of control information. Correction on Figure 5.2.2-1 "Transport block processing for UL-SCH". Correction on size of DCI format 0, 1A, and 1. Minor correction on DCI format 1. Specify zero padding bit(s) to DCI format 1B and 1D. Correction on DCI format 4. Clarify configuration signalling condition for channel quality information formats. Clarify CQI/PMI information multiplexing with data.

Revised Standard Number	Version at ARIB STD-T104 Ver.1.10	Version at ARIB STD-T104 Ver.1.00	3GPP WG	Title	Change Summary
36.213	10.3.0	10.2.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Clarify reference PDSCH power for CSI-RS based CSI feedback. Correction on PUSCH and PUCCH modes. Clarify PDCCH assignment procedure. Correction on physical uplink control channel procedure. Correction on the condition of enabling PMI feedback. Correction on UE procedure for reporting HARQ-ACK. Correction on UE HARQ-ACK procedure. Correction on CSI reporting. Clarify uplink transmission scheme for random access. Clarify PHICH-triggered spatial multiplexing retransmission procedure. Correction on UL DMRS resources for PHICH-triggered retransmission. Correction on UE reception of PRS in MBSFN subframes.
36.216	10.3.1	10.3.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer for relaying operation	Minor editorial changes.
36.300	10.5.0	10.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	<ul style="list-style-type: none"> RLC/MAC synchronization for MBSFN Miscellaneous correction to 36.300 on Security Overview Corrections to 1xRTT CS Fallback Corrections on MCCH and MBMS counting Correction on the MME Direct Information Transfer procedure Security Mechanism for H(e)NB "no-IPsec" usage option Correction of MBMS Suspension Function Cleanup of editor's notes for relay Correction on LIPA PDN Deactivation for X2 HO Correction of Release Indication Correction of Trace Function RN security correction Correction of Emergency Call Overload Handling by HeNB GW Synchronisation of MBMS Service Resumption Miscellaneous Correction for MBMS Small correction on unnecessary IRAT HO Clarification of TAI handling between MME and HeNB(-GW)

Revised Standard Number	Version at ARIB STD-T104 Ver.1.10	Version at ARIB STD-T104 Ver.1.00	3GPP WG	Title	Change Summary
36.304	10.3.0	10.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Correction of inter-frequency or inter-RAT cell reselection criteria for UTRA TDD case
36.305	10.3.0	10.2.0	R2	Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Stage 2 functional specification of User Equipment (UE) positioning in E-UTRAN	Clarification on E-CID method
36.306	10.3.0	10.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	The SON feature in optional features without UE radio access capability parameters Additional Spectrum Emissions in CA Correction to UE capability parameters for handover to CSG cell
36.307	10.2.0	10.1.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Requirements for Band 22 (LTE/UMTS 3500 (FDD)) are introduced.
36.314	10.2.0	10.1.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Layer 2 - Measurements	Addition of L2 measurements for Data Loss for RNs
36.321	10.3.0	10.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	Clarifications on MCH reception and Stop MTCH Configuration of extended BSR-sizes CR to 36.321 on Small correction of PHR parameter Corrections to PCMAX,c field in Extended PHR

Revised Standard Number	Version at ARIB STD-T104 Ver.1.10	Version at ARIB STD-T104 Ver.1.00	3GPP WG	Title	Change Summary
36.331	10.3.0	10.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	<p>TS36.331 Correction maxNumberROHC-ContextSessions when no ROHC profile is supported Correction to Subframe Allocation End in PMCH-Info Correction on PUCCH configuration for Un interface Miscellaneous corrections to 36.331 36.331 correction on CSG identity validity to allow introduction of CSG RAN sharing AdditionalSpectrumEmissions in CA CR to 36.331 on Small correction of PHR parameter Clarifications to P-max on CA Clarification on for which subframes signalling MCS applies Corrections in RRC Replace the tables with exception list in 10.5 AS-Config Corrections to the field descriptions Configuration of simultaneous PUCCH&PUSCH Corrections to release of csi-SubframePatternConfig and cqi-Mask GERAN SI format for cell change order&PS handover&enhanced redirection to GERAN Corrections to PUCCH-Config field descriptions</p>
36.355	10.3.0	10.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	<p>Various corrections to LPP Mandatory support of PRS for OTDOA measurements</p>

(Annex 3)

3GPP ARIB Change history List of Standards (ARIB STD-T104 Ver. 1.20)

3 July 2012

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #54 Berlin , Germany

Revised Standard Number	Version at ARIB STD-T104 Ver.1.20	Version at ARIB STD-T104 Ver.1.10	3GPP WG	Title	New Document Summary
25.461	10.3.0	10.2.0	R3	UTRAN Iu-nt interface: Layer 1	Removal of references to operating bands i) and h)
25.466	10.3.0	10.2.0	R3	UTRAN Iu-nt interface: Application part	Removal of references to operating bands i) and h)

Revised Standard Number	Version at ARIB STD-T104 Ver.1.20	Version at ARIB STD-T104 Ver.1.10	3GPP WG	Title	New Document Summary
36.101	10.5.0	10.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<p>New test case and updating parameters for TDD SDR test scenario, the framework and the parameters for the PDSCH, PDCCH and PHICH tests for eICIC, a framework for CQI reporting and TDD PMI reporting accuracy requirements for eDL-MIMO, and the framework of RI reporting test for eDL-MIMO are introduced.</p> <p>Emission requirements with respect to out-of-band emissions and spurious emissions domains, the expected TE behaviour during rank switching, UE category for reference measurement channels, definition of channel bandwidths for CC combinations, OCN pattern for CA demodulation performance requirements, "Fraction of Maximum Throughput" in the performance requirement for CA cases, the reference values of SNR(dB) for test cases, intra-band CA UL configuration for receiver requirements, the special use of the function of MPR for intra-band contiguous CA, the purpose of the P-MPR, and the assumptions used to compute P_{cm_a,c} for carrier aggregation, are clarified. Some reference measurement channels, and spurious emission requirements for FDD-TDD coexistence case, new UE category, definition of scrambling identities for TDD MU-MIMO test case, and requirements for time domain measurements restriction under colliding CRS with non-MBSFN ABS, are added. And also modification of the parameter (N_P -> N_{Pd}), removal of square brackets for all PUCCH 2-1 and PUSCH 2-2 PMI requirements, correction of frequency range (upper limit) for spurious emission requirements, and modification of MPR mask for single CC multi-cluster waveforms are made.</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.1.20	Version at ARIB STD-T104 Ver.1.10	3GPP WG	Title	New Document Summary
36.104	10.5.0	10.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Clarification of general blocking requirements for co-existence, the receiver requirements applied with the transmitter ON, correction of Band 42 and 43, correction of frequency range (upper limit) for spurious emission requirements, removing square bracket and editorial correction in Section 6.2.5., and clarification of definition of DTX to ACK probability are made. And also performance requirements of PUCCH format 1b and PUCCH format 3 are introduced.

Revised Standard Number	Version at ARIB STD-T104 Ver.1.20	Version at ARIB STD-T104 Ver.1.10	3GPP WG	Title	New Document Summary
36.133	10.5.0	10.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>Corrections of inter-frequency measurement accuracy RSRP test cases, the identification time in DRX for UTRA TDD, the side condition for SCH, and event triggered reporting are made. Expected RSTD and expected RSTD uncertainty in RSTD test cases, RSTD test cases, successful percentage for measurement performance requirements, and PRS bandwidth are clarified. New reference channel for RLM testing with eICIC, RSRQ in intra-frequency measurement requirements for eICIC, Inter-RAT UTRAN FDD SI reading requirements, Bandwidth 10MHz for RLM test cases, test case for E-UTRA TDD cell identification, test case for E-UTRAN FDD - UTRAN TDD enhanced cell identification, test case for RRC connection release with redirection to UTRAN, test case for RRC connection release with redirection to GERAN, test case for cell identification with eICIC, test case for inter frequency cell reselection, test case for inter frequency handover, test case for inter frequency event triggered reporting, test case for TDD RLM to verify Out-of-Sync performances, test case for RLM In-Sync detection for eICIC, test case for absolute and relative RSRP/RSRQ accuracy in CA, test case for event triggered reporting on deactivated Scell in non-DRX, test case at lower RSRP level for the serving cell measurement accuracy, Out-of-Sync FDD test cases for eICIC with non-MBSFN ABS configurations, optional shorter value of TmeasureFDD and TmeasureE-UTRA for higher priority cells, and Band XX are added. And also Removing square brackets in TDD CSFB requirements, RLM requirements, Cell identification requirements, removing editor's note in RSTD requirements, changing thresholds and margins in RRM test cases (A.8.11.3, A.8.11.4, A.8.11.5 and A.8.11.6), changing "Serving cell" to "PCell" in the relevant test cases, and replacing the RSRP absolute accuracy Io breakpoints at -70dBm/ BWChannel are made.</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.1.20	Version at ARIB STD-T104 Ver.1.10	3GPP WG	Title	New Document Summary
36.141	10.5.0	10.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Clarification of general blocking requirements for co-existence, the receiver requirements applied with the transmitter ON, correction of frequency range (upper limit) for spurious emission requirements, removing square bracket and editorial correction in Section 6.2.8., clarification of test tolerance for performance requirements of PUCCH format 1b and PUCCH format 3, definition of the same test requirements for Band 22 than for Band 42 and 43, modification of the propagation conditions and adding the number of transmit antennas for CA PUCCH format 1b/3 requirements and PRACH requirements, and clarification of the test procedure for ACK false detection of multi-user PUCCH format 1a are made. MIMO correlation matrices and Home BS output power for co-channel E-UTRA protection are introduced.
36.211	10.4.0	10.3.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical Channels and Modulation	Corrections on the CSI-RS pattern in Figure 6.10.5.2-2. Move the precoding codebooks for 8Tx antennas from 36.211 section 6.3.4.2.3 to 36.213 section 7.2.4.
36.212	10.4.0	10.3.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Clarify that the TPMI in DCI format 4 is linked to the codebook indices in 36.211 for uplink spatial multiplexing. Remove the reference to the two HARQ-ACK feedback modes for TDD in section 5.2.4.1.
36.213	10.4.0	10.3.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Clarify UE behavior on PUSCH power control in DRX (5.1.1.1). Clarify accumulation of power control commands from DCI format 3/3A (5.1.1.1, 5.1.2.1). Corrections on periodic CSI reporting using PUCCH (7.2.2). Corrections on CQI and PMI definitions (7.2.3, 7.2.4). Corrections on the description for ACK/NACK piggyback on PUSCH with $W_{DAI}^{UL} = 1$ or 2 when PUCCH format 1b with channel selection is configured for TDD (7.3). Clarify PUCCH format 1b with channel selection HARQ-ACK procedure for TDD (10.1.3.2.1). Add description for the second PUCCH resource when HARQ-ACK repetition with PUCCH format 1a/1b or when SR transmission is enabled on two antenna ports (10.1.4).

Revised Standard Number	Version at ARIB STD-T104 Ver.1.20	Version at ARIB STD-T104 Ver.1.10	3GPP WG	Title	New Document Summary
36.300	10.6.0	10.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Correction on RN security HeNB Architecture Clarification Correction of Support for RACH optimization Correction of inbound mobility Correction of MBMS Resumption Function Routing of MME Direct Information Transfer message Correction of support for Mobility Robustness Optimisation Clarification of MRO Unnecessary Handover Correction of the MRO stage-2 description
36.302	10.3.0	10.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	Corrections to channel model
36.304	10.4.0	10.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Clarification of inter-RAT cell reselection enhancements
36.306	10.4.0	10.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Corrections to enhancedDualLayerTDD Optionality of SR Masking Optionality of UE Rx-Tx time difference report Correction to the number of soft channel bits
36.321	10.4.0	10.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	UE soft buffer handling in MAC Correction on determining SPS occasions CSI/SRS reporting at DRX state transitions CSI/SRS reporting at unexpected Active Time stopping
36.331	10.4.0	10.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Clarification of PCI range for CSG cells Clarifications to Default Radio Configurations Corrections to enhancedDualLayerTDD Miscellaneous small corrections Correction on notation of SRS transmission comb 36.331 CR SPS reconfiguration Clarification of list sizes in measurement configuration stored by UE Clarification of the event B1 and ANR related FGI bits Clarification on MBSFN and measurement resource restrictions Clarification on parallel message transmission upon connection re-establishment

Revised Standard Number	Version at ARIB STD-T104 Ver.1.20	Version at ARIB STD-T104 Ver.1.10	3GPP WG	Title	New Document Summary
36.355	10.4.0	10.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Clarification of packed encoding rules of LPP Clarification of first bit in BIT STRING definitions

3GPP TSG #55 Xiamen, China

Revised Standard Number	Version at ARIB STD-T104 Ver.1.20	Version at ARIB STD-T104 Ver.1.10	3GPP WG	Title	New Document Summary
36.101	10.6.0	10.5.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	As corresponding changes in V9.11.0, updates and corrections to the RMC-s related annexes and editorial corrections for RF sections are made. The following parts are corrected or updated: eICIC ABS pattern, eICIC interference models, eDL-MIMO channel model using cross-polarized antennas, MBMS Performance Test Parameters, Harmonic exceptions in LTE UE to UE co-ex tests, Unified titles for CSI tests, Reference channel for eICIC demodulation, Actual code rate for CSI RMCs, Definition of synchronized operation, requirements of Intra band contiguous CA UE to UE Co-ex, editorial expression of CA specification, Beamforming model for TM9, Requirement for CA demodulation with power imbalance Band 23 duplex specifications, UE Coexistence Requirements for Band 23, CA demodulation performance requirements for LTE TDD, Requirement for CA SDR FDD test scenario, TM9 demodulation performance requirements, CA demodulation test for UE soft buffer management testing, MPR formula for intra-band contiguous CA Bandwidth Class C, Band 41 REFSSENS and Maximum Output Power changes to accommodate single filter architecture, TM3 tests for eICIC, Requirements of CQI reporting definition for eICIC, eDL MIMO CSI requirements.
36.104	10.6.0	10.5.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	A corresponding change in V9.11.0 (Expression of BS output power requirements) is made. Tx antenna number for CA PUCCH requirements is added. Definition of synchronized operation is corrected. Home BS Output Power parameter for co-channel E-UTRA protection is updated. Band 23 HeNB specifications is added.

Revised Standard Number	Version at ARIB STD-T104 Ver.1.20	Version at ARIB STD-T104 Ver.1.10	3GPP WG	Title	New Document Summary
36.133	10.6.0	10.5.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	As corresponding changes in V9.11.0, Test cases for E-UTRA TDD/FDD RRC connection release redirection to UTRA TDD without SI, thresholds and margins for E-UTRAN to C2K RRM reselection test cases are corrected, E-UTRAN TDD-HRPD Cell Reselection: HRPD is of Lower Priority test case, E-UTRAN TDD-cdma2000 1X Cell Reselection: cdma2000 1X is of Lower Priority test case, E-UTRAN TDD-HRPD Handover test case, E-UTRAN TDD-cdma2000 1X Handover test case, E-UTRAN FDD-TDD inter frequency RSRQ measurement accuracy test case are introduced, and thresholds and margins in RRM test case A.8.11.4, TDD PRACH Test cases value of PRACH Configuration Index and first preamble power, PDSCH and OCN pattern in PRACH Test cases A.6.2.1 and A.6.2.3 are corrected. RSTD signalling, RLM test cases with SNRs for OOS and INS for E-UTRAN TDD in eICIC, Io difference band-independent in Inter-frequency RSRP TDD TC A.9.1.4 are corrected. Clarification of colliding CRS in MBSFN ABS is made. Editorial corrections on the test cases of RRC connection release with redirection to UTRAN FDD is made. Core requirements for E-UTRAN TDD inter-RAT UTRAN FDD SI acquisition using autonomous gaps is corrected. Side condition clarification for eICIC with MBSFN is corrected. Clarification on reported cells with eICIC is made RSTD accuracy test cases for TDD, RLM requirements with autonomous gaps, SNR levels in out-of-sync RLM test cases for eICIC are corrected. Band 41 REFSENS and MOP changes to accommodate single filter architecture is made. eICIC measurement accuracy is corrected. Several editorial modifications are also made.
36.141	10.6.0	10.5.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	BS In-channel selectivity test section is updated. Definition of synchronized operation is corrected. Home BS Output Power parameters for co-channel E-UTRA protection is updated. Band 23 HeNB specifications is added.
36.212	10.5.0	10.4.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Clarification of two HARQ-ACK feedback bits on PUSCH (5.2.2.6). Corrections on payload size adjustment for DCI format 1A and 1 (5.3.3.1.2, 5.3.3.1.3).

Revised Standard Number	Version at ARIB STD-T104 Ver.1.20	Version at ARIB STD-T104 Ver.1.10	3GPP WG	Title	New Document Summary
36.213	10.5.0	10.4.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Clarification of RNTI configuration associated with DL resource allocation type 2 (7.1.6.3). Corrections for ACK/NACK related procedure in case of TDD UL-DL configuration 0 (7.3, 10.1.3.2.2).
36.300	10.7.0	10.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Correction to the handling of RRC container during the inter-RAT handover Correction on unnecessary HO Restriction on Rel-10 X2-based handover between HeNBs
36.302	10.4.0	10.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	Correction to the combination of physical uplink channels
36.304	10.5.0	10.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	MBMS Multibands Cell Selection and Reselection
36.306	10.5.0	10.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Clarification on physical layer parameter values requirement Clarification on number of PDCP SDUs for categories 6-7 UEs UE processing requirement in the presence of MCH transmission
36.307	10.3.0	10.2.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	A new section for Band 26/XXVI as release 10 is introduced.
36.321	10.5.0	10.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	Correction to multiplexing and assembly

Revised Standard Number	Version at ARIB STD-T104 Ver.1.20	Version at ARIB STD-T104 Ver.1.10	3GPP WG	Title	New Document Summary
36.331	10.5.0	10.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Limiting MBMS counting responses to within the PLMN CR to 36.331 on cdma2000 band classes and references Clarification on MBSFN and measurement resource restrictions On SIB10/11 Reception Timing Clarification on MBMS counting for uncipherable services Minor correction regarding limited service access on non-CSG-member cell Time to keep RLF Reporting logs Introducing means to signal different FDD/TDD Capabilities/FGIs for Dual-xDD UE Clarification on SRB2 resumption upon connection re-establishment (parallel message transmission) Duplicated ASN.1 naming correction

(Annex 4)

3GPP ARIB Change history List of Standards (ARIB STD-T104 Ver. 1.30)

September 25 2012

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #56 Ljubljana

Revised Standard Number	Version at ARIB STD-T104 Ver.1.30	Version at ARIB STD-T104 Ver.1.20	3GPP WG	Title	New Document Summary
36.101	10.7.0	10.6.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	無線設備規則と齟齬があるため、トランスポートしない
36.104	10.7.0	10.6.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	無線設備規則と齟齬があるため、トランスポートしない
36.113	10.5.0	10.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) and repeater ElectroMagnetic Compatibility (EMC)	It is clarified E-UTRA BS or UTRA BS should conform to Applicability of EMC requirement.

Revised Standard Number	Version at ARIB STD-T104 Ver.1.30	Version at ARIB STD-T104 Ver.1.20	3GPP WG	Title	New Document Summary
36.133	10.7.0	10.6.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>The requirements of Enhanced ICIC for non-CA based deployments of heterogeneous networks for LTE are introduced.</p> <p>Correction of a timer period in inter-frequency measurement tests, Correction of UL Transmit Timing Requirements, Clarifications of OCN patterns and Editorial corrections, Corrections to FDD-TDD Inter-freq RSRP measurement accuracy test case parameters, Addition of E-UTRAN FDD-TDD/TDD-FDD Inter-frequency event triggered reporting when DRX is used under fading propagation conditions in asynchronous cells test case, Addition of E-UTRAN FDD – TDD/TDD-FDD Inter-frequency identification of a new CGI of E-UTRA cell using autonomous gaps test case, Addition of E-UTRAN TDD-HRPD event triggered reporting under fading propagation conditions test, Addition of E-UTRAN TDD-CDMA2000 1X event triggered reporting under fading propagation conditions test case, Editorial corrections on the test cases of RRC connection release with redirection to UTRAN FDD, Finalization of cell reselection enhancement related test cases, Correction to E-UTRAN FDD/TDD - UTRAN FDD /TDD enhanced cell identification test case, Corrections on RRC signalling in RLM test cases for eICIC, Correction to E-UTRAN TDD redirection to UTRAN FDD test configuration, Clarification on the number of monitoring layers for CA UEs, Correction of interruptions on PCell at SCell activation/ deactivation when measCycleSCell is smaller than 640 ms, Correction of measurement requirements for UE that can carry out measurements without measurement gaps, Correction of PRS bandwidth in RSTD accuracy requirements, Clarification of UE behavior in the uplink subframe after measurement GAP, Correction of Reporting criteria requirements for carrier aggregation, Removal of [] from eICIC RSRP, RSRQ Es/lot side conditions, Correction to RLM requirements in eICIC with Autonomous gaps, Correction to RSTD measurement reporting delay requirement in CA, Clarification on UE Rx-Tx with eICIC, Addition of E-UTRAN FDD/TDD RSTD measurement accuracy test case in carrier aggregation, Addition of Band 25 lo values, Clarification for cell identification condition in inter-RAT SI reading requirement, and Removal of PDSCH Reference Measurement channel for cell 2 in test cases are made. And also sr-ConfigIndex in TDD DRX test cases is changed.</p> <p>RSRQ measurement requirements in TS 36.133 with TS 36.101 regarding the modification of B41 REFSSENS are aligned.</p> <p>RRC connection release with redirection from E-UTRAN FDD/TDD to GERAN without System Information, E-UTRA TDD RRC connection release redirection to UTRA FDD test without SI provided, E-UTRAN FDD to UTRAN FDD RRC connection release with redirection test case when SI is not provided, Test cases for FDD/TDD RSTD measurement reporting requirements for carrier aggregation, and Test case for event-triggered reporting on deactivated SCell with PCell interruption are introduced.</p>
36.141	10.7.0	10.6.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	無線設備規則と齟齬があるため、トランスポーズしない

Revised Standard Number	Version at ARIB STD-T104 Ver.1.30	Version at ARIB STD-T104 Ver.1.20	3GPP WG	Title	New Document Summary
36.211	10.5.0	10.4.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	Corrections to group hopping and sequence hopping for uplink reference signals (5.5.1.3, 5.5.1.4). Correction to resource mapping for PDSCH (6.3.5). Correction to assumed CSI-RS transmissions in subframes used for paging (6.10.5.2).
36.212	10.6.0	10.5.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Small correction in 5.2.2.7. Correction to CSI request field size in DCI format 0 and DCI format 4 (5.3.3.1.1, 5.3.3.1.8).
36.213	10.6.0	10.5.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Correction on transmission mode 9 with a single antenna port transmission (7.1). Correction to FDD UE procedure for reporting HARQ-ACK when both HARQ-ACK and SR are transmitted in the same sub-frame (7.3):
36.300	10.8.0	10.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Correction to Measurement Restriction Description of eICIC in 36.300 Korean Public Alert System (KPAS) in relation to CMAS Correction of eMBMS architecture deployment consideration Clarification on MME's support for inter-PLMN handover to CSG and hybrid cells GUMMEI handling by RN and HeNB
36.304	10.6.0	10.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Korean Public Alert System (KPAS) in relation to CMAS Avoiding unexpected UE prioritization for MBMS where MBMS is not deployed
36.306	10.6.0	10.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Korean Public Alert System (KPAS) in relation to CMAS
36.307	10.4.0	10.3.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	APAC700 (FDD), APAC700 (TDD), Band 27, Band 41CA and CA_1A-19A are introduced. And correction of references is made.

Revised Standard Number	Version at ARIB STD-T104 Ver.1.30	Version at ARIB STD-T104 Ver.1.20	3GPP WG	Title	New Document Summary
36.331	10.6.0	10.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	SPS Reconfiguration Change in Scheduling Information for ETWS Clarification of mch-SchedulingPeriod configuration Change in Scheduling Information for CMAS Introducing means to signal different REL-10 FDD/TDD Capabilities/FGIs for Dual-xDD UE Clarification on setting of dedicated NS value for CA by E-UTRAN T321 value for UTRA SI acquisition Korean Public Alert System (KPAS) in relation to CMAS Introduction of supported bandwidth combinations for CA Introduction of multiple frequency band indicator
36.355	10.5.0	10.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Usage of additionalInformation IE

(Annex 5)

3GPP ARIB Change history List of Standards (ARIB STD-T104 Ver. 1.40)

December 18 2012

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #57 Chicago

Revised Standard Number	Version at ARIB STD-T104 Ver.1.40	Version at ARIB STD-T104 Ver.1.30	3GPP WG	Title	New Document Summary
36.101	10.8.0	10.6.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	(V10.6.0->V10.7.0) The following corrections are made: <ul style="list-style-type: none">- Removal of TBD in Carrier aggregation Relative power tolerance requirements.- UE spurious emissions for Band 7 and Band 38 coexistence- Deleting square brackets in Reference Measurement Channels- Addition of Maximum Throughput for R.30-1 TDD RMC- Correction on parameters for the eDL-MIMO CQI and PMI tests- Fixed reference channel for PDSCH demodulation performance requirements on eDL-MIMO – NOT implemented as it is based on a wrong version of the Spec- The clarification of MPR and A-MPR for CA- Corrections for eICIC demod test case with MBSN ABS- RMC correction on eDL-MIMO RI test.- FRC correction on frequency selective CQI and PMI test- Corrections and clarifications on eICIC demodulation tests

Revised Standard Number	Version at ARIB STD-T104 Ver.1.40	Version at ARIB STD-T104 Ver.1.30	3GPP WG	Title	New Document Summary
					<ul style="list-style-type: none"> - Corrections and clarifications on eICIC demodulation tests - Correction on test point for PMI test - Corrections and clarifications on eICIC CSI test - Corrections on UE performance requirements - Addition of ETU30 channel model - EVM and global in channel test for Intra-Band CA - Extension of static eICIC CQI test - Introduction of PDCCH test with colliding RS on MBSFN-ABS - Several clarifications and OCNG pattern for eICIC demodulation requirements - Introduction of TDD CA Soft Buffer Limitation - Corrections on CQI and PMI test - FRC for TDD PMI test - Clean-up of UL-MIMO requirements. - SNR definition - Removal of unnecessary references to single carrier requirements from Interband CA sub-clauses. - Editorial simplification to CA REFSSENS UL allocation table - PDCCH wrong detection in receiver spurious emissions test - Corrections to 3500 MHz band requirements - Target SNR setting for eICIC demodulation requirement - Correction of wrong table refernces in CA receiver tests - SNR reference values for FDD CA soft buffer tests - Correction of PHS protection requirements - Revision of subclause 4.3A - Revision on subclause 6.3.4A - Correction of CSI configuraiton for CA TM4 tests - CA UE receiver timing window <p>(V10.7.0->V10.8.0) The following corrections are made:</p> <ul style="list-style-type: none"> - Correct Transport Block size in 9RB 16QAM Uplink

Revised Standard Number	Version at ARIB STD-T104 Ver.1.40	Version at ARIB STD-T104 Ver.1.30	3GPP WG	Title	New Document Summary
					<ul style="list-style-type: none"> - Reference Measurement Channel Corrections to power allocation parameters for <ul style="list-style-type: none"> - transmission mode 8 - RF-CA: non-CA notation and applicability of test points in scenarios without and with CA operation - ACK/NACK feedback modes for FDD and TDD TM4 CA demodulation requirements - Correction of feedback mode for CA TDD demodulation requirements - ABS pattern setup for MBSFN ABS test - eICIC CQI definition test - Transmission of CQI feedback and other corrections - Target SNR setting for eICIC MBSFN-ABS demodulation requirements - Corrections of spurious emission band UE co-existence applicable in Japan - Correction on RMC for frequency non-selective CQI test - Requirements for the eDL-MIMO CQI test - Clarification on PDSCH test setup under MBSFN ABS - Applicability of statement allowing RBW < Meas BW for spurious - Clarification of RB allocation for DRS demodulation tests - Removal of brackets for CA Tx - Corrections of FRC subframe allocations and other minor problems - Adding missed code rate of R.35-1 TDD - Introduction of requirements for TDD CA Soft Buffer Limitation - Correction of eDL-MIMO CSI RMC tables and references - Correction of MIMO channel model for polarized antennas - Addition of 15 and 20MHz Bandwidths for Band 23 - CR for A-MPR masks for NS_CA_1C - Introduction of Japanese Regulatory Requirements to LTE Band 8 - Requirements for eDL-MIMO RI test - Corrections to TM9 demodulation tests

Revised Standard Number	Version at ARIB STD-T104 Ver.1.40	Version at ARIB STD-T104 Ver.1.30	3GPP WG	Title	New Document Summary
					<ul style="list-style-type: none"> - Correction to PCFICH power parameter setting - Correction on frequency non-selective CQI test - eDL-MIMO CQI/PMI test - Correction of the definition of unsynchronized operation - Correction to Transmit Modulation Quality Tests for Intra-Band CA - Bandwidth combination sets for intra-band and inter-band carrier aggregation - FRC for TM9 FDD - Random precoding granularity in PMI tests - Introduction of RI test for eICIC - Notes for deltaTib and deltaRib tables
36104	10.8.0	10.6.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	<p>(V10.6.0->V10.7.0)</p> <ul style="list-style-type: none"> - Correction of PHS protection requirements - Corrections of Time alignment error headline <p>(V10.7.0->V10.8.0)</p> <ul style="list-style-type: none"> - Introduction of Japanese regulatory requirements for LTE band 8 in 36.104 R10 <p>Modifications of frequency ranges on spurious emission requirements for Band 6, 18, 19</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.1.40	Version at ARIB STD-T104 Ver.1.30	3GPP WG	Title	New Document Summary
36133	10.8.1	10.7.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>The following part are corrected or changed:</p> <ul style="list-style-type: none"> - Identification of Cell 3 in RRM Test cases A.4.2.7 and A.4.2.8 - Making FDD-TDD Inter-freq RSRQ measurement accuracy test case band-agnostic - Thresholds and margins in RRM test cases A.8.16.1 and A.8.16.2 - Modification of Handover Delay Requirement and Test Cases from E-UTRAN to cdma2000 1x (Rel-10) - RSRP/RSRQ measurement accuracy tests in MBSFN - Activation/deactivation core requirement for carrier aggregation - E-UTRAN and GSM measurements without Measurement Gaps and Rx-Tx measurements when PCell is changed - RRM requirements for CA REFSENSE - Square Bracket Removal for RSTD measurement requirement in Pcell changing and Handover - Correction to the E-UTRAN secondary component carrier measurements when common DRX is used - Requirements for Inter-frequency Measurements without Gaps when DRX is used - Clarification on TDD UL-DL subframe configurations in inter-frequency RSTD measurement without gaps - Correction for E-UTRA TDD RRC connection release redirection to UTRA TDD test case - Correction to E-UTRAN TDD-FDD Inter-frequency event triggered reporting test case - Correction to RSRQ accuracy test cases - Alignment for ABS configurations in RRM Tests - Radio conditions for PBCH reading in E-UTRA - Introduction of inter-frequency/ RAT measurements in CA - ABS signal transmission configuration for RRM tests <p>Few editorial corrections</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.1.40	Version at ARIB STD-T104 Ver.1.30	3GPP WG	Title	New Document Summary
36.141	10.8.0	10.6.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	<p>(V10.6.0->V10.7.0)</p> <ul style="list-style-type: none"> - Editorial corrections in Home BS output power tests - Time alignment error headline - Time alignment procedure. - Correction of PHS protection requirements <p>(V10.7.0->V10.8.0)</p> <ul style="list-style-type: none"> - Clarification of inter-band CA test configuration generation - Introduction of Japanese regulatory requirements for LTE band 8 <p>Modifications of frequency ranges on spurious emission requirements for Band 6, 18, 19</p>
36.213	10.7.0	10.6.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	<p>Clarification of reference serving cell for pathloss estimation (5.1.1.1). Correction for power control for PUCCH format 3 with single configured cell (5.1.2.1). Clarification of codebook subsampling for PUCCH CSI reporting mode 2-1 (7.2.2). Corrections for Handling CSI-RS patterns (7.2.5). Remove parameter <i>ue-TransmitAntennaSelection-r10</i> in Section 8.7. Clarification of PUCCH resource for format 1b with channel selection HARQ-ACK procedure (10.1.2.2.1). Clarification of TDD HARQ-ACK procedure for PUCCH format 1b with channel selection in carrier aggregation (10.1.3.2.1).</p>
36.305	10.4.0	10.3.0	R2	Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Stage 2 functional specification of User Equipment (UE) positioning in E-UTRAN	<p>Clarification on the case that the eNB functions as an LCS client</p>
36.306	10.7.0	10.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	<p>Voice support Capabilities Clarification on spatial multiplexing requirement in supportedBandCombination</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.1.40	Version at ARIB STD-T104 Ver.1.30	3GPP WG	Title	New Document Summary
36.307	10.5.0	10.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	The following changes are made: - Introduction of CA_1A-21A - Introduction of CA_B38 - Introduction of CA_B7_B20 - Add requirements for inter-band CA of B_1-18 - Introduction of CA band combination Band3 + Band5 - Introduction of LTE_CA_B7 - Introduction of CA_3A-20A - Introduction of CA_B8_B20 RF requirements - Relation between EARFCN for overlapping bands with multiple FBI indication Introduction of CA_B3_B7
36.321	10.6.0	10.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	P bit in Extended PHR MAC CE Deadlock of PHR transmission
36.331	10.7.0	10.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	CR on scell measurement cycle CR on measurement report Voice support Capabilities Differentiating UTRAN modes in FGIs Correction for PUCCH/SRS Release
36.355	10.6.0	10.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Corrections to GNSS Acquisition Assistance Data

(Annex 6)

3GPP ARIB Change history List of Standards (ARIB STD-T104 Ver. 1.50)

March 19 2013

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #58 Barcelona

Revised Standard Number	Version at ARIB STD-T104 Ver.1.50	Version at ARIB STD-T104 Ver.1.40	3GPP WG	Title	Change Summary
36.101	10.9.0	10.8.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Correction of some errors in reference sensitivity for CA, Correction of RI test and CSI/demodulation test, Correction of SNR definition, Correction of test configuraitons and FRC for CA demodulation with power imbalance, Introduction of one periodic CQI test for CA deployments, Changes for CA tests and overview table of DL measurement channels, Intoriduction of out-of-band blocking requirements for inter-band CA, Correction of spurious emission requirements for UE coexistence, Clarification for PDCCH/PCFICH ABS-MBSFN test cases, Definition of OCN patterns for Sustained Data rate testing, Adding references to the appropriate beamforming model, Introduction of UL RB restrictions for the 20 MHz channel in 1920-1940 MHz and the 15 MHz channel in 1925-1940 MHz,and Clean up of specification are made. Frequency ranges of spurious emissons requirements in Band 1, 9, 11, 18, 19, 21 and 34 are modified to introduce Band 3 into Japan.
36.104	10.9.0	10.8.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	ACLR requirement is modified to apply for inter-band CA BS. And also Corrections of medium correlation matrices, Removal of brackets and Editorial corrections were made.

Revised Standard Number	Version at ARIB STD-T104 Ver.1.50	Version at ARIB STD-T104 Ver.1.40	3GPP WG	Title	Change Summary
36.133	10.9.0	10.8.1	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	New section 3.5.1 into the RRM test configuration to define the impact of receiver sensitivity relaxation on test cases due to the insertion loss, and Note to each table in Annex B stating that for CA the RSRP, SCH_RP and PRP side conditions are modified by the relaxation of receiver sensitivity $\Delta RIB,c$ were added. And also Clarification of the TDM pattern conditions, Correction to high priority cell measurement of UTRA TDD, Clarification of Test Requirements for CA RSRP, RSRQ Test Cases, Removal of square brackets from the probability of reselection from Cell 2 to Cell 1 during T3, Correction to RSTD Measurement Reporting Delay for Carrier Aggregation Test Cases, Updating OCNG Patterns for the FDD and TDD UE Rx – Tx Time Difference Test Cases, Clarification on RSTD measurement requirement under HO, Correction to Time offset in CA test cases, Correction on test requirement for handover to UTRAN TDD, and Editorial correction are made.
36.141	10.9.0	10.8.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	ACLR requirement is modified to apply for inter-band CA BS. New row to specify the rated output power of HeNB with up to 8 Tx antennas is added. And also Corrections of medium correlation matrices, Correction to test requirements of operating band unwanted emissions, Clarification of BS RF channels to be tested for ACLR, Removal of brackets and Editorial corrections were made.
36.211	10.6.0	10.5.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	Correction to assumed CSI-RS transmissions in secondary cells.
36.212	10.7.0	10.6.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Correction to the parameter ue-Category-v10xy. Correction on bit sequence for channel coding of RI on PUCCH.
36.213	10.8.0	10.7.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Correction of reference signal scrambling sequence initialization for SPS in transmission mode 7. Correction to the parameter ue-Category-v10xy. Correction of codebook subsampling for PUCCH mode 2-1.
36.300	10.9.0	10.8.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Correction to padding on RLC UM PDU corresponding to MTCH/MCCH correction for Inter-RAT ANR

Revised Standard Number	Version at ARIB STD-T104 Ver.1.50	Version at ARIB STD-T104 Ver.1.40	3GPP WG	Title	Change Summary
36.305	10.5.0	10.4.0	R2	Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Stage 2 functional specification of User Equipment (UE) positioning in E-UTRAN	Addition of Network Triggered Service Request for LPP and LPPa Positioning Editorial clean up
36.306	10.8.0	10.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Clarification on UL Carrier Aggregation capability Clarification on Power Headroom Reporting
36.307	10.6.0	10.5.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	CA band combination Band 2 + Band 17, Band 2 + Band 29, Band 3 + Band 8, Band 3 + Band 5, Band 4 + Band 7, Band 4 + Band 12, Band 4 + Band 13, Band 4 + Band 17, Band 4 + Band 29, Band 5 + Band 12, Band 5 + Band 17, and Band 11+ Band 18 are introduced.
36.321	10.7.0	10.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	Clarification on DRX for Relay Clarification on V field in Extended PHR MAC CE
36.323	10.2.0	10.1.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification	Prevention of HFN de-synchronization due to PDCP SN over-allocation
36.331	10.8.0	10.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Clarification on Multiple Frequency Band Indicator RRC procedure delay for Carrier Aggregation FGI correction Clarification on measurement reporting on SCells
36.355	10.7.0	10.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Correcting the referencing of QoS parameters Correction to missing field description in GNSS AcquisitionAssistance IE

(Annex 7)

3GPP ARIB Change history List of Standards (ARIB STD-T104 Ver. 2.00)

July 3 2013

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #59 Vienna

Revised Standard Number	Version at ARIB STD-T104 Ver.2.00	Version at ARIB STD-T104 Ver.1.50	3GPP WG	Title	Change Summary
36.101	10.10.0	10.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	The following changes are made: <ul style="list-style-type: none">- Removing brackets in TM4 rank indicator Test 3.- Corrections to CQI reporting.- Correction of CA performance requirements.- Corrections for eICIC performance requirements.- Correction of CA power imbalance performance requirements.- Clarification of spurious emission domain for CA.- Changes on CA_NS_02 and CA_NS_03 A-MPR.- Addition of UE Regional Requirements to Band 23 Based on New Regulatory Order in the US.- Removing [] from CSI test case parameters.- UE-UE co-existence between Band 1 and Band 33/39.- Cleanup for CA UE RF requirements.- Corrections on UL configuration for CA UE receiver requirements.- Correction of Transmit modulation quality requirements for CA.- Revision of Common Test Parameters for User-specific Demodulation Tests.- Correction of CA CQI test setup.- Correction of table reference.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.00	Version at ARIB STD-T104 Ver.1.50	3GPP WG	Title	Change Summary
36.104	10.10.0	10.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	BS performance requirements are corrected.
36.133	10.10.0	10.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>The following changes or corrections are made:</p> <ul style="list-style-type: none"> - Correction to Inter-frequency Measurements in CA mode test case. - Secondary Component carrier levels for CA RSRP Test cases A.9.1.6 and A.9.1.7. - Removing intra-frequency relative Requirement for CA RSRQ Test Cases. - Cell timing for CA RSRP and RSRQ Test cases. - Clarification of retuning interruption in single carrier operation. - RRM: RMC and OCNG pattern for FDD CGI test with autonomous gaps. - Correction to CSG proximity requirements. - E-UTRAN FDD Proximity Indication RRM Requirements. - UE interruption requirements in SCC RSTD measurements with de-activated Scell. - Clarification on intra-frequency RSTD measurement accuracy requirement. - Measurement gap clarification in case of carrier aggregation. - Editorial corrections for eICIC. - Editorial corrections for RRM. - A clarification on measurement gap pattern in RSTD requirements. - Modification of PRS configuration for RSTD measurement reporting delay test cases. - E-UTRAN FDD Proximity Indication Test Case.
36.141	10.10.0	10.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	BS performance conformance tests and test requirements for PUSCH with 20 MHz channel bandwidth are corrected.
36.211	10.7.0	10.6.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	Clarification of CSI RS mapping to resource elements.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.00	Version at ARIB STD-T104 Ver.1.50	3GPP WG	Title	Change Summary
36.213	10.9.0	10.8.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Correction on UE-specific RS overhead for deriving CQI when PMI/RI is configured in TM9. Corrections on UE specific search and Common search space overlap on PDCCH. Corrections for SRS power scaling in UpPTS. Correction on UE procedure for reporting HARQ-ACK (on determining N_{bundled} for TDD UL-DL configuration 0).
36.302	10.5.0	10.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	Parallel reception of PDSCH on SCell and Msg2 on PCell
36.306	10.9.0	10.8.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	MIMO capability related correction Clarification on cross carrier scheduling capability Introduction of PDSCH TM5 capabilities for FDD and TDD
36.321	10.8.0	10.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	Draft CR to 36 321 for Clarification of PDCCH-subframe definition in Rel-10
36.331	10.9.0	10.8.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Mandatory supporting of B1 measurement to UMTS FDD (FGI bit 15) The presence of bandcombination for non-CA capable UEs Invalidation of ETWS with security feature Invalid measurement configuration with different (E)ARFCN Correcting further UE aspects regarding multi band cells Clarification on EARFCN signalling in Mobility control info Extension of FBI and EARFCN Inter RAT inconsistency RLF report Mandating the settings of FGI bit 14, 27 and 28 to true
36.355	10.8.0	10.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Correction to missing field description in GNSS-AcquisitionAssistance IE Extending E-UTRA Frequency Band and EARFCN value range Correction to PRS Muting Configuration

2. Release 11

1.3. Added Standards

3GPP TSG #59 Vienna

Added Standard Number	Version at ARIB STD-T104 Ver.2.00		3GPP WG	Title	New Document Summary
25.460	11.0.0		R3	UTRAN luant interface: General aspects and principles	Update to Rel-11 version
25.461	11.2.0		R3	UTRAN luant interface: Layer 1	Addition of new Band 26 for E850 Introduction of E850_LB (Band 27) to TS 25.461 Introduction of Band 28 Introduction of Band 44 Introduction of band 22 in TS 25.461 Introduction of Band 29 into TS 25.461
25.462	11.0.0		R3	UTRAN luant interface: Signalling transport	Update to Rel-11 version
25.466	11.3.0		R3	UTRAN luant interface: Application part	Addition of new Band 26 for E850 Introduction of E850_LB Band 27 to TS 25.466 Introduction of LTE band for 700 MHz digital dividend Introduction of TDD band for 700 MHz digital dividend Operating bands Numbering for UTRA and EUTRA Introduction of band 22 in TS 25.466 Introduction of Band 29 into TS 25.466

Added Standard Number	Version at ARIB STD-T104 Ver.2.00		3GPP WG	Title	New Document Summary
36.101	11.4.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<p>Rel-11 version of the TS is derived based on V10.6.0 in Rel-10 by introducing the following changes:</p> <ul style="list-style-type: none"> - Introduction of Band 26/XXVI to TS 36.101 - Band 41 CA CR for TS36.101, section 5 - Band 41 CA CR for TS36.101, section 6 - Band 41 CA CR for TS36.101, section 7 <p>Since then, changes correspond to Rel-10 updates and the following additional changes have been made as specifications for Rel-11.</p> <ul style="list-style-type: none"> - Carrier aggregation Relative power tolerance, removal of TBD.. - UE spurious emissions for Band 7 and Band 38 coexistence. - Deleting square brackets in Reference Measurement Channels. - CR to TS36.101: Correction on parameters for the eDL-MIMO CQI and PMI tests. - CR to TS36.101: Fixed reference channel for PDSCH demodulation performance requirements on eDL-MIMO. - RMC correction on eDL-MIMO RI test. - Corrections on UE performance requirements. - Addition of ETU30 channel model. - Addition of Maximum Throughput for R.30-1 TDD RMC. - CR for 36.101: The clarification of MPR and A-MPR for CA. - Corrections for eICIC demod test case with MBSN ABS. - Introduction of PDCCH test with colliding RS on MBSFN-ABS. - Some clarifications and OCNG pattern for eICIC demodulation requirements. - Introduction of TDD CA Soft Buffer Limitation. - Corrections on CQI and PMI test. - FRC for TDD PMI test. - Clean-up of UL-MIMO for TS36.101. - Removal of unnecessary references to single carrier requirements from Interband CA sub-clauses.

Added Standard Number	Version at ARIB STD-T104 Ver.2.00		3GPP WG	Title	New Document Summary
					<ul style="list-style-type: none"> - PDCCH wrong detection in receiver spurious emissions test. - Corrections to 3500 MHz. - Target SNR setting for eICIC demodulation requirement. - Editorial simplification to CA REFSENS UL allocation table. - Correction of wrong table refernces in CA receiver tests. - Correction of PHS protection requirements for TS 36.101. - Proposed revision of subclause 4.3A for TS36.101. - Proposed revision on subclause 6.3.4A for TS36.101. - SNR definition. - Extension of static eICIC CQI test. - Correct Transport Block size in 9RB 16QAM Uplink Reference Measurement Channel. - Corrections of spurious emission band UE co-existence applicable in Japan. - Correction on RMC for frequency non-selective CQI test. - Requirements for the eDL-MIMO CQI test. - Clarification on PDSCH test setup under MBSFN ABS. - Applicabilty of statement allowing RBW < Meas BW for spurious. - Clarification of RB allocation for DRS demodulation tests. - Removal of brackets for CA Tx. - Corrections of FRC subframe allocations and other minor problems. - Introduction of requirements for TDD CA Soft Buffer Limitation. - Correction of eDL-MIMIO CSI RMC tables and references. - Correction of MIMO channel model for polarized antennas. - Requirements for eDL-MIMO RI test. - Corrections to TM9 demodulation tests. - Correction to PCFICH power parameter setting. - Correction on frequency non-selective CQI test. - eDL-MIMO CQI/PMI test. - Correction of the definition of unsynchronized operation. - Correction to Transmit Modulation Quality Tests for Intra-Band CA. - Bandwidth combination sets for intra-band and inter-band carrier

Added Standard Number	Version at ARIB STD-T104 Ver.2.00		3GPP WG	Title	New Document Summary
					<p>aggregation.</p> <ul style="list-style-type: none"> - FRC for TM9 FDD. - Random precoding granularity in PMI tests. - Introduction of RI test for eICIC. - Notes for deltaTib and deltaRib tables. - CR for A-MPR masks for NS_CA_1C. - Some changes related to CA tests and overview table of DL measurement channels. - Correction of eICIC CQI tests. - Correction of eICIC demodulation tests. - Correction on CSI-RS subframe offset parameter. - Correction on FRC table in CSI test. - Correction of reference channel table for TDD eDL-MIMO RI test. - OCN patterns for Sustained Data rate testing. - Introduction of one periodic CQI test for CA deployments. - Introducing the additional frequency bands of 5 MHz x 2 in 1.7 GHz in Japan to Band 3. - CR on eICIC RI test. - Out-of-band blocking requirements for inter-band carrier aggregation. - Band 1 to Band 33 and Band 39 UE coexistence requirements. - Correction of eDL-MIMO RI test and RMC table for the CSI test. - Correction of SNR definition. - Brackets clean up for eICIC CSI/demodulation. - Correction on FRC table. - Low-channel Band 1 coexistence with PHS. - UE-UE coexistence between bands with small frequency separation. - Maintenance of Band 23 UE Coexistence. - Corrections to TM4 rank indicator Test 3. - Correction of test configurations and FRC for CA demodulation with power imbalance. - Applicable OFDM symbols of Noc_2 for PDCCH/PCFICH ABS-MBSFN test cases.

Added Standard Number	Version at ARIB STD-T104 Ver.2.00		3GPP WG	Title	New Document Summary
					<ul style="list-style-type: none"> - Corrections to CQI reporting. - Correction of CA power imbalance performance requirements. - CR for CA performance requirements. - Addition of UE Regional Requirements to Band 23 Based on New Regulatory Order in the US. - Remove [] from CSI test case parameters. - UE-UE co-existence between Band 1 and Band 33/39. - Cleanup for CA UE RF requirements. - Corrections on UL configuration for CA UE receiver requirements. - Correction of Transmit modulation quality requirements for CA. - Revision of Common Test Parameters for User-specific Demodulation Tests. - Correction of CA CQI test setup. - Correction of table reference.

Added Standard Number	Version at ARIB STD-T104 Ver.2.00		3GPP WG	Title	New Document Summary
36.104	11.4.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	<p>Rel-11 version of the TS is derived based on V10.6.0 in Rel-10 by introducing the following changes:</p> <ul style="list-style-type: none"> - Introduction of intra-band non-contiguous operation for E-UTRA. - TS36.104 change for B41 CA. - Introduction of Band 26/XXVI. <p>Since then, changes correspond to Rel-10 updates and the following additional changes have been made as specifications for Rel-11.</p> <ul style="list-style-type: none"> - Time alignment error headline. - Correction of PHS protection requirements for TS 36.104. - Modifications of frequency ranges on spurious emission requirements for Band 6, 18, 19. - Removal of brackets around medium correlation in table. - Correction of BS performance requirements.
36.113	11.2.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) and repeater ElectroMagnetic Compatibility (EMC)	<p>Rel-11 version of the TS is derived based on V10.4.0 in Rel-10 by introducing the following changes:</p> <ul style="list-style-type: none"> - Upper Extended 850 MHz addition. <p>Since then, following changes have been made as specifications for Rel-11.</p> <ul style="list-style-type: none"> - Applicability of EMC requirements. - Introduction of APAC700(FDD). - Introduction of APAC700(TDD). - Introduction of e850_LB (Band 27). - Introduction of Band 29.

Added Standard Number	Version at ARIB STD-T104 Ver.2.00		3GPP WG	Title	New Document Summary
36.124	11.2.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Electromagnetic compatibility (EMC) requirements for mobile terminals and ancillary equipment	<p>Rel-11 version of the TS is derived based on V10.3.0 in Rel-10 by introducing the following changes:</p> <ul style="list-style-type: none"> - Upper Extended 850 MHz addition. <p>Since then, following changes have been made as specifications for Rel-11.</p> <ul style="list-style-type: none"> - Applicability of EMC requirements. - Introduction of APAC700(FDD). - Introduction of APAC700(TDD). - Introduction of e850_LB (Band 27). - Introduction of Band 29.
36.133	11.4.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>Rel-11 version of the TS is derived based on V10.6.0 in Rel-10 by introducing the following changes:</p> <ul style="list-style-type: none"> - Introduction of Band 26/XXVI. <p>Since then, following changes have been made as specifications for Rel-11.</p> <ul style="list-style-type: none"> - Resolve Band 41 omission between R4-120125 and R4-121106. - Corrections to FDD-TDD Inter-freq RSRP measurement accuracy test case parameters. - OCNG and PDSCH for FDD-TDD event triggered reporting test cases. - RRC Connection Release with Redirection from E-UTRAN FDD to GERAN without System Information. - RRC Connection Release with Redirection from E-UTRAN TDD to GERAN without System Information. - OCNG Patterns for MBSFN ABS. - CR to TS36.133 Corrections on RRC signalling in RLM test cases

Added Standard Number	Version at ARIB STD-T104 Ver.2.00		3GPP WG	Title	New Document Summary
					<p>for eICIC.</p> <ul style="list-style-type: none"> - Test case for event-triggered reporting on deactivated SCell with PCell interruption. - Finalization of Rel.9 cell reselection enhancement related test cases. - E-UTRAN FDD to UTRAN FDD RRC connection release with redirection test case when SI is not provided. - No interruptions on PCell at SCell activation/ deactivation when measCycleSCell is smaller than 640 ms. - Editorial corrections. - Reporting criteria requirements for carrier aggregation. - Cell identification requirements with DRX. - Phase II eICIC FDD: absolute and relative RSRP accuracies in non-MBSFN ABS. - Phase II eICIC TDD: absolute and relative RSRP accuracies in non-MBSFN ABS. - RLM requirements with autonomous gaps for DRX. - CR for 36.133: Aligning RSRQ measurement requirements in TS 36.133 with TS 36.101 regarding the modification of B41 REFSSENS. - Bands 22, 23, 42 and 43 side conditions for inter-frequency measurements with autonomous gaps. - Clarification on UE Rx-Tx with eICIC. - sr-ConfigIndex in TDD DRX test cases. - Remove [] from eICIC RSRP, RSRQ Es/lot side conditions. - RRM: Clarifications to the OCNG patterns. - Intra-Frequency FDD RSRQ Accuracy under Time Domain Measurement Resource Restriction with MBSFN ABS. - eICIC FDD out-of-sync RLM test case in MBSFN ABS. - eICIC TDD out-of-sync RLM test case in MBSFN ABS. - On UE behavior in the uplink subframe after measurement GAP. - Clarification on the number of monitoring layers for CA UEs. - Inter-frequency and Inter-RAT Requirements for Measurements without Measurement Gaps.

Added Standard Number	Version at ARIB STD-T104 Ver.2.00		3GPP WG	Title	New Document Summary
					<ul style="list-style-type: none"> - Editorial corrections. - Correction of a timer period in inter-frequency measurement tests. - UL Transmit Timing Requirements. - Phase IIbis eCIC FDD absolute and relative RSRP accuracy with MBSFN ABS. - Phase IIbis eCIC TDD absolute and relative RSRP accuracy with MBSFN ABS. - OCNG correction in Phase I eCIC test cases. - Identification of Cell 3 in RRM Test cases A.4.2.7 and A.4.2.8. - Making FDD-TDD Inter-freq RSRQ measurement accuracy test case band-agnostic. - Thresholds and margins in RRM test cases A.8.16.1 and A.8.16.2. - Minor corrections for E-UTRAN GSM measurements without Measurement Gaps and Rx-Tx measurements when PCell is changed. - Radio conditions for PBCH reading in E-UTRA. - Introduction of inter-frequency/ RAT measurements in CA. - ABS signal transmission configuration for RRM tests. - Editorial correction RRM. - Clarification of Test Requirements for CA RSRP, RSRQ Test Cases. - Remove [] from 10% requirement in RRM Test cases A.4.2.7 and A.4.2.8. - Clean up for CA. - Editorial corrections. - Band correction in RRM requirements. - Correction to RSTD Measurement Reporting Delay for Carrier Aggregation Test Cases. - Band-dependent RRM requirements for CA. - Correction of OCNG Patterns for UE Rx - Tx Time Difference Test Cases. - Editorial corrections RRM. - Conditions in CSG reselection requirements.

Added Standard Number	Version at ARIB STD-T104 Ver.2.00		3GPP WG	Title	New Document Summary
					<ul style="list-style-type: none"> - Correcting inconsistency between inter-RAT UTRA measurements and requirements. - Refsens requirements for CA capable UE. - Clarification of the TDM pattern conditions. - Secondary Component carrier levels for CA RSRP Test cases A.9.1.6 and A.9.1.7. - Remove intra-frequency relative Requirement for CA RSRQ Test Cases. - Cell timing for CA RSRP and RSRQ Test cases. - Clarification of retuning interruption in single carrier operation. - Editorial corrections for eICIC. - Editorial corrections RRM. - A clarification on measurement gap pattern in RSTD requirements.
36.141	11.4.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	<p>Rel-11 version of the TS is derived based on V10.6.0 in Rel-10 by introducing the following changes:</p> <ul style="list-style-type: none"> - Changes Band 41 CA. - Introduction of Band 26/XXVI. <p>Since then, following changes have been made as specifications for Rel-11.</p> <ul style="list-style-type: none"> - Editorial corrections in Home BS output power tests. - Time alignment error headline. - Time alignment procedure in 36.141. - Correction of PHS protection requirements for TS 36.141. - Clarification of inter-band CA test configuration generation. - Modifications of frequency ranges on spurious emission

Added Standard Number	Version at ARIB STD-T104 Ver.2.00		3GPP WG	Title	New Document Summary
					requirements for Band 6, 18, 19. - CR to add the rated output power for 8 Tx antennas. - Correction to test requirement of operating band unwanted emissions. - Removal of brackets around medium correlation in table. - Clarification of BS RF channels to be tested for ACLR. - Correction of BS performance conformance tests. - Correction to test requirements for PUSCH with 20 MHz channel bandwidth.
36.171	11.0.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for Support of Assisted Global Navigation Satellite System (A-GNSS)	Update to Rel-11 from V.10.1.0 without any technical change.
36.201	11.1.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE physical layer; General description	From previous Release version 10.0.0, introduction of Coordinated Multi-Point Operation, and Enhanced Downlink Control Channels.
36.211	11.2.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	From previous Release version 10.5.0, introduction of Carrier Aggregation Enhancements, Coordinated Multi-Point Operation, and Enhanced Downlink Control Channels.
36.212	11.2.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	From previous Release version 10.6.0, introduction of Carrier Aggregation Enhancements, Coordinated Multi-Point Operation, and Enhanced Downlink Control Channels.
36.213	11.2.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	From previous Release version 10.7.0, introduction of Carrier Aggregation Enhancements, Coordinated Multi-Point Operation, Enhanced Downlink Control Channels, and different UL-DL configurations across component carriers for TDD.
36.214	11.1.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer; Measurements	From previous Release version 10.1.0, introduction of UL Relative Time of Arrival to E-UTRAN measurement abilities.
36.216	11.0.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer for relaying operation	Automatic upgrade from previous Release version 10.3.1.
36.300	11.5.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	This provides an overview and overall description of the E-UTRAN radio interface protocol architecture.

Added Standard Number	Version at ARIB STD-T104 Ver.2.00		3GPP WG	Title	New Document Summary
36.302	11.2.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	This is a technical specification of the services provided by the physical layer of E-UTRA to upper layers.
36.304	11.3.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	This specifies the Access Stratum (AS) part of the Idle Mode procedures applicable to a UE and the model for the functional division between the NAS and AS in a UE.
36.305	11.3.0.		R2	Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Stage 2 functional specification of User Equipment (UE) positioning in E-UTRAN	This specifies the stage 2 of the UE Positioning function of E-UTRAN, which provides the mechanisms to support or assist the calculation of the geographical position of a UE.
36.306	11.3.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	This defines the E-UTRA UE Radio Access Capability Parameters.
36.307	11.3.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	<p>Rel-11 version of the TS is derived based on V10.2.0 in Rel-10 by introducing the following changes:</p> <ul style="list-style-type: none"> - Introduction of Band 26/XXVI. <p>Since then, following changes have been made as specifications for Rel-11.</p> <ul style="list-style-type: none"> - Introduction of CA_1A-19A to TS 36.307. - Introduction of APAC700(FDD) into TS 36.307 Rel-11. - Introduction of APAC700(TDD) into TS 36.307 Rel-11. - Introduction of e850_LB (Band 27) to TS 36.307. - Introduction of CA_1A-21A to TS 36.307. - Relation between EARFCN for overlapping bands with multiple FBI indication. - 36.307 CR for LTE_CA_B7. - TS 36.307 CR for CA_38. - Introduction of CA_B7_B20 in 36.307. - Introduction of CA band combination Band3 + Band5 to TS 36.307. - Introduction of CA_3A-20A to TS 36.307. - Add requirements for inter-band CA of B_1-18 in TS36.307. - Introduction of CA_8_20 RF requirements into TS36.307.

Added Standard Number	Version at ARIB STD-T104 Ver.2.00		3GPP WG	Title	New Document Summary
					<ul style="list-style-type: none"> - Introduction of CA_B3_B7 in 36.307. - Introduction of CA_4A-5A into 36.307. - Introduction of CA band combination Band4 + Band13 to TS 36.307 (Rel-11). - Introduction of Band 5 + Band 17 inter-band CA configuration into 36.307. - Introduction of CA_3A-8A to TS 36.307. - Introduction of CA_B5_B12 in 36.307. - Introduction of CA_4-12 into TS 36.307 (Rel-11). - Introduction of inter-band CA_11-18 into TS36.307. - Release-independent implementation of carrier aggregation configuration CA_4-7. - Introduction of Band 29. - Introduction of CA band combination Band2 + Band17 to TS 36.307 (Rel-11). - Introduction of CA band combination Band4 + Band17 to TS 36.307 (Rel-11).
36.314	11.1.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Layer 2 - Measurements	This contains the description and definition of the measurements performed by E-UTRAN that are transferred over the standardised interfaces in order to support E-UTRA radio link operations, radio resource management (RRM), network operations and maintenance (OAM), and self-organising networks (SON).
36.321	11.2.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	This specifies the E-UTRA MAC protocol.
36.322	11.0.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Link Control (RLC) protocol specification	Upgrade to Release 11 - no technical change
36.323	11.2.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification	This provides the description of the Packet Data Convergence Protocol (PDCP).

Added Standard Number	Version at ARIB STD-T104 Ver.2.00		3GPP WG	Title	New Document Summary
36.331	11.3.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	This specifies the Radio Resource Control protocol for the radio interface between UE and E-UTRAN as well as for the radio interface between RN and E-UTRAN.
36.355	11.2.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	This contains the definition of the LTE Positioning Protocol (LPP).

1.4. Revised Standards

None

(Annex 8)

3GPP ARIB Change history List of Standards (ARIB STD-T104 Ver. 2.10)

September 26 2013

1. Release 10

1.1. Added Standards

Added Standard Number	Version at ARIB STD-T104 Ver.2.10	Version at ARIB STD-T63 Ver.10.00	3GPP WG	Title	Change Summary
36.508	10.5.0.	10.4.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing	(moved from ARIB STD-T63) Removal of technical content in 36.508 v10.4.0 and substitution with pointer to the next Release
36.509	10.1.0	10.0.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Special conformance testing functions for User Equipment (UE)	(moved from ARIB STD-T63) Removal of FFS from UPDATE UE LOCATION INFORMATION support
36.521-1	10.6.0	10.5.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing	(moved from ARIB STD-T63) Removal of technical content in 36.521-1 v10.5.0 and substitution with pointer to the next Release
36.521-2	10.6.0	10.5.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)	(moved from ARIB STD-T63) Removal of technical content in 36.521-2 v10.5.0 and substitution with pointer to the next Release
36.521-3	10.4.0	10.4.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	(moved from ARIB STD-T63)
36.523-1	10.3.1	10.3.1	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	(moved from ARIB STD-T63)

Added Standard Number	Version at ARIB STD-T104 Ver.2.10	Version at ARIB STD-T63 Ver.10.00	3GPP WG	Title	Change Summary
36.523-2	10.3.0	10.3.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	(moved from ARIB STD-T63)
36.523-3	10.4.0	10.3.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	(moved from ARIB STD-T63) Addition of GCF WI-088/096/097/099/151/159 test cases. Baseline upgrade of TTCN-3 ATSS to March-13 in Rel-11 Other corrections and updates.
37.320	10.4.0	10.4.0	R2	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	(moved from ARIB STD-T63)
37.571-1	10.4.0	10.3.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	(moved from ARIB STD-T63) New test cases for FDD-FDD inter-frequency RSTD/TDD inter-frequency RSTD. Other corrections and updates.
37.571-2	10.3.0	10.2.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	(moved from ARIB STD-T63) New test case for inter-frequency RSTD measurement indication procedure Other corrections and updates.
37.571-3	10.4.0	10.3.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	(moved from ARIB STD-T63) Applicability for new test case 7.5.1 for inter-frequency RSTD measurement indication procedure Applicabilities for new TDD inter-frequency tests 9.2.2 and 9.2.5 Addition of the Applicability for FDD-FDD inter-frequency RSTD Test Cases Other corrections and updates.
37.571-4	10.2.0	10.1.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test	(moved from ARIB STD-T63) Addition of EUTRA UE Positioning test case 7.1.1 / 7.3.1.1 / 7.3.2.1 / 7.3.2.2 / 7.3.2.3 / 7.3.5.1_1s / 7.3.5.1_5s / 7.3.5.1_6s /

Added Standard Number	Version at ARIB STD-T104 Ver.2.10	Version at ARIB STD-T63 Ver.10.00	3GPP WG	Title	Change Summary
				suites	7.3.4.2_5s / 7.3.4.2_6s / 7.3.4.4_5s
37.571-5	10.4.0	10.3.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	(moved from ARIB STD-T63) Additional OTDOA assistance data for new inter-frequency tests Introduction of GLONASS acquisition assistance data Other corrections and updates.

1.2. Revised Standards

3GPP TSG #60 Aruba

Revised Standard Number	Version at ARIB STD-T104 Ver.2.10	Version at ARIB STD-T104 Ver.2.00	3GPP WG	Title	Change Summary
36.101	10.11.0	10.10.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<p>Transport format parameters for CQI index 10(15 RBs), Test parameters for eCIC performance/CSI requirements, Resource allocation for the multiple PMI Cat 1 UE test, RMC-s for sustained data rate test, UE maximum output power for intra-band CA, CA CQI test setup, ACLR for CA, co-existence requirements, and NS_11 A-MPR Table were corrected.</p> <p>Adding description for definition of MIMO Correlation Matrices using cross polarized antennas, Clarification of requirements for carrier aggregation in multi RAT and multiple band combination terminals, Completion of out-of-band blocking requirements for inter-band CA with one UL, Adding description for bandwidth coverage of CA demodulation/CQI performance, Maintenance of Band 23 A-MPR, Modification of configured output power to account for larger tolerance, and Editorial corrections were made.</p>
36.104	10.11.0	10.10.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	<p>Changing TAE value for inter-band carrier aggregation, Editorial correction for the UL-MIMO channel model, and Clarification of HARQ transmission for two codewords were made.</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.2.10	Version at ARIB STD-T104 Ver.2.00	3GPP WG	Title	Change Summary
36.133	10.11.0	10.10.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Adding clarification for begin and end of measurement GAP, Adding required measurement gap, Additional corrections on intra-frequency RSTD test parameters, Additional corrections on inter-frequency RSTD test parameters, Changing TDD PRACH configuration index for Test Case, Changing sr-ConfigIndex in TDD-FDD Inter-frequency event triggered DRX Test case, Clarification on inter-frequency RSTD measurement accuracy requirement, Clarification on supported bandwidth combinations in RSTD requirements with CA, Clarification of Pcell, Clarification for UE Rx-Tx with eICIC, Clarification on measurement gap pattern in RSTD requirements, Clarification of list of GERAN carrier frequencies is provided in the "RRCConnectionRelease" message, Correction of cell-specific test parameters for RSRP Test cases A.9.1.3 and A.9.1.4, Updating on the GSM carrier RSSI measurement period when DRX is used, Correction of section numbering, Correction to test parameters for combined E-UTRA – E-UTRA and GSM cell search, Correction on fading propagation condition for CA inter-RAT test cases, Corrections on RSTD measurement test cases, Correction of Time Alignment Timer in Test case, Corrections of E-UTRAN FDD CSG Proximity Indication Test Case, Correction of reporting time for intra-frequency RSTD reporting delay test cases, Corrections in RSTD requirements, Modification of OCNG patterns of RRM test configuration for 20MHz, Removal of [] from GCI identification Test cases, Testing of CA tests with multiple BW combinations, Cleanup for RSRP, RSRQ RRM eICIC Test case, and Editorial corrections were made.
36.141	10.11.0	10.10.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Changing TAE value for inter-band carrier aggregation and Clarification of HARQ transmission for two codewords were made.
36.171	10.2.0	10.1.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for Support of Assisted Global Navigation Satellite System (A-GNSS)	Correction to assistance data required for testing was made.
36.212	10.8.0	10.7.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Correction on RI bit width.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.10	Version at ARIB STD-T104 Ver.2.00	3GPP WG	Title	Change Summary
36.213	10.10.0	10.9.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Correction on secondary cell activation / deactivation timing. Correction to bit padding of DCI format 1A for secondary cell without uplink component carrier. Correction on RI bit width. Correction on HARQ-ACK transmission for a UE configured with PUCCH format 3.
36.300	10.10.0	10.9.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Correction to correlation ID in LIPA Correction on the another secured interface for LIPA Correction on RLF Indication procedure
36.307	10.7.0	10.6.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Introduction of CA_3A-19A, CA_19A-21A, and A_2A-13A was made. Introduction of Band 30 and Introduction of LTE 450 were made. Release independent specifications for Band 28 and Band 44 were corrected.
36.321	10.9.0	10.8.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	HARQ RTT Timer Rel-10 CR on SCell activation time
36.331	10.10.0	10.9.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Clarification on the redirection to UTRA-TDD frequency in case of CSFB High Priority Correction of wrong reference measCycleSCell upon SCell configuration Security key generation in case of MFBI Clarification on UE CA capability Clarification on the configuration of the extended PHR Clarifications on SystemTimeInfoCDMA2000 IE Clarification on inclusion of non-CA band combinations MFBI aspects for dedicated signalling
36.355	10.9.0	10.8.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Correction for ASN.1 error from CR0082r1 Correction to integer code phase field description in GNSS Acquisition Assistance Correction to serving cell terminology

2. Release 11

2.1 Added Standards

Added Standard Number	Version at ARIB STD-T104 Ver.2.10	Version at ARIB STD-T63 Ver.10.00	3GPP WG	Title	Change Summary
36.508	11.1.0	11.0.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing	(moved from ARIB STD-T63) Addition of default parameters for ePDCCH/CoMP. Addition of generic procedure for XCAP establishment/IMS call release. Addition of test frequencies for CA_2A-17A / CA_4A-17A / CA_4-12 / CA_5-12. Other corrections and updates.
36.521-1	11.1.0	11.0.1	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing	(moved from ARIB STD-T63) Additions of eDL-MIMO / eICIC test cases Addition of band 44 CA_1A-18A, CA_2A-17A, CA_3A-8A, CA_4A-5A, CA_4A-13A, CA_4A-17A, CA_11A-18A addition Other corrections and updates.
36.521-2	11.1.0	11.0.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)	(moved from ARIB STD-T63) Changes related to 36.521-1 changes.
36.521-3	11.1.0	11.0.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	(moved from ARIB STD-T63) Changes related to eICIC RRM test and CA RRM test. Other corrections and updates.
36.523-1	11.3.0	11.2.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	(moved from ARIB STD-T63) Addition of new test cases for eMDT, CA, NIMTC, TDD additional special subframe configuration. Other corrections and updates.
36.523-2	11.3.0	11.2.2	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part	(moved from ARIB STD-T63) Changes related to 36.523-1 changes.

Added Standard Number	Version at ARIB STD-T104 Ver.2.10	Version at ARIB STD-T63 Ver.10.00	3GPP WG	Title	Change Summary
				2: Implementation Conformance Statement (ICS) proforma specification	
36.523-3	11.0.0	N/A	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	This document is part 3 of a multi-part conformance test specification for the 3GPP evolved UE. This contains a TTCN-3 design frame work and the detailed test specifications in TTCN-3 for evolved UE at the UE-E-UTRAN radio interface.
37.320	11.3.0	11.3.0	R2	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	(moved from ARIB STD-T63)

2.2 Revised Standards

3GPP TSG #60 Aruba

Revised Standard Number	Version at ARIB STD-T104 Ver.2.10	Version at ARIB STD-T104 Ver.2.00	3GPP WG	Title	Change Summary
36.101	11.5.0	11.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<p>The corresponding changes made in V10.11.0 were done.</p> <p>UE TM3 demodulation performance requirements under high speed and FeICIC demodulation performance requirements were introduced. New tests and requirements for FDD soft buffer management and sustained data rate were introduced. And also related new reference channels are added.</p> <p>Adding the definition of CA_NS_05 and CA_NS_06 for additional spurious emissions for CA, Correction of the CSI-RS parameter configuration, Corrections to Rx requirements for inter-band CA configurations with REFSENS exceptions, Corrections to NS_12 A-MPR Table, Addition of Band 41 for intra-band non-contiguous CA, Removal of note 2 from band 28, Removal of bracket from CA_11A-18A requirements, Adding description for MPR applied for intra-band non-contiguous CA, Definition of minimum channel spacing for non-contiguous intraband CA, and Editorial corrections were made.</p>
36.104	11.5.0	11.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	<p>The corresponding changes made in V10.11.0 were done.</p> <p>Editorial correction on definition of Sub-block Bandwidth for intra-band non-contiguous spectrum, Editorial correction of inter band CA table, Addition of Bands for intra-band non-contiguous CA, Modification on co-location spurious emission requirement for Medium Range BS, Correction on the interfering signal offsets for ACS requirement for Medium range BS, and Modification on co-location blocking requirement for Medium Range BS were made.</p> <p>Multi-band BS was introduced.</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.2.10	Version at ARIB STD-T104 Ver.2.00	3GPP WG	Title	Change Summary
36.133	11.5.0	11.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>The corresponding changes made in V10.11.0 were done. Removal Brackets in cell identification of FeICIC, Editorial corrections for FeICIC, Removing an eICIC note on measurements, Correction of the total number of reporting criteria, Condition clarification in MDT requirements, Corrections for Band 26 test cases, Clarification on antenna ports in the measured and aggressor cells with FeICIC, Corrections on Wideband RSRQ inter-frequency accuracy requirements, Capturing RF requirements in the core specification, Adding UE Rx-Tx accuracy/measurement requirements with FeICIC, Clarification of measurement requirements with interruptions due to CA, Clean up for CA and band 44, Modification of interruptions requirements to apply for all cases of intra-band CA not only contiguous intra-band CA, and Editorial corrections were made.</p> <p>RSRP and RSRQ relative accuracy requirements for FeICIC, E-UTRAN RLM Out-of-sync Test of FeICIC, Test case for cell identification with FeICIC, Test case for UE Transmit Timing Accuracy for SCell, Test case for UE Rx-Tx accuracy with eICIC in FDD, E-UTRAN TDD UE Rx-Tx time difference test case in eICIC, and Test case for in-sync detection with CRS assistance information with non-MBSFN ABS were introduced.</p>
36.141	11.5.0	11.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	<p>The corresponding changes made in V10.11.0 were done. Editorial correction of inter band CA table, Correction of non-contiguous spectrum operation, Addition of Bands for intra-band non-contiguous CA, Addition of receiver requirements test procedure for Medium Range BS, Clarifications on transmitter spurious emission test, Clarification on non-contiguous spectrum operation test configuration, Modification on co-location spurious emission requirement for Medium Range BS, and Modification on co-location blocking requirement for Medium Range BS were made.</p>
36.171	11.1.0	11.0.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for Support of Assisted Global Navigation Satellite System (A-GNSS)	<p>The corresponding changes made in V10.2.0 were done.</p>
36.211	11.3.0	11.2.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	<p>Correction to EPDCCH PRB pair indication. Correction on collision between EPDCCH and PSS / SSS / PBCH.</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.2.10	Version at ARIB STD-T104 Ver.2.00	3GPP WG	Title	Change Summary
36.212	11.3.0	11.2.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Correction on RI bit width. Clarification on DL DAI usage in inter-band TDD CA. Correction on HARQ-ACK resource offset bit setting for DL DCIs carried by EPDCCH. Correction to bit padding of DCI format 1A for secondary cell without uplink component carrier. Correction on DCI format 4 payload size. Correction on DCI time span.
36.213	11.3.0	11.2.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Correction on secondary cell activation / deactivation timing. Correction to PUSCH / PUCCH transmit power after PRACH power ramping. Correction on SRS power scaling with multiple TAGs. Correction on UE-specific RS scrambling for SPS PDSCH in TM10. Correction on MBSFN subframe configuration. Correction on parallel reception of PDSCH and Message 2. Correction on RI bit width. Clarification for the UE capability signaling of the parameter N_{CSI-P} . Correction on 'RI-reference CSI process' with subframe sets. Correction on valid downlink subframe for TDD. Correction on zero power CSI-RS resource configuration. Correction on HARQ-ACK transmission for a UE configured with PUCCH format 3. Removal of the case for spatial domain bundling in TDD UL-DL configuration 0. Corrections on different TDD UL-DL configurations on different bands. Correction of PHICH resource for half duplex TDD UE. Correction to EPDCCH monitoring in case of cross-carrier scheduling. Correction on EPDCCH hashing function. Correction on EPDCCH decoding candidates under two overlapped EPDCCH resource sets. Correction on EPDCCH PRB pair indication. Correction on PUCCH resource determination for FDD EPDCCH. Correction on n_{HARQ} for TDD CA with different UL-DL configurations. Correction on implicit HARQ-ACK resource determination for PUCCH format 1b with channel selection for TDD CA with different UL-DL configurations.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.10	Version at ARIB STD-T104 Ver.2.00	3GPP WG	Title	Change Summary
36.300	11.6.0	11.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Correction to correlation ID in LIPA Correction on the another secured interface for LIPA Correction on RLF Indication procedure Introduction of SIB16 Correction of timing reference of sTAG Correction on physical layer part on TS36.300 Clarification on area restriction information propagation Correction on the update of time of MBMS data transfer Clarification on the UE reported timer in MRO
36.302	11.3.0	11.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	Clarification on EPDCCH reception in MBSFN subframes Correction on downlink reception type combinations for UEs supporting multiple TAGs Downlink Reception Type Combinations for MBMS capable UE
36.304	11.4.0	11.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Correction of MBMS prioritisation Updating 3GPP2 specification references
36.307	11.4.0	11.3.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Introduction of CA_3A-19A, CA_19A-21A, and A_2A-13A was made. Introduction of Band 30 and Introduction of LTE 450 were made. Introduction of CA_1-8, CA_4A-4A, CA_3-28, CA_3-26 and CA_23-29 was made.
36.321	11.3.0	11.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	HARQ RTT Timer Rel-10 CR on SCell activation time Clarification on the PDCCH-subframe definition for TDD UE Correction to the definition of drxRetransmissionTimer Further issues on removing optionality of CSI/SRS transmission during transient state

Revised Standard Number	Version at ARIB STD-T104 Ver.2.10	Version at ARIB STD-T104 Ver.2.00	3GPP WG	Title	Change Summary
36.331	11.4.0	11.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	<p>Clarification on the redirection to UTRA-TDD frequency in case of CSFB High Priority</p> <p>Correction of wrong reference</p> <p>Clarification to support of deprioritisation feature</p> <p>Clarification on KASME key usage</p> <p>Correction on multi-TA capability</p> <p>MBMS interest indication upon handover/ re-establishment</p> <p>Conditions RI reference inheriting CSI process (DL CoMP)</p> <p>Clarification on NZP CSI-RS resource configuration for UE supporting 1 CSI process</p> <p>Corrections to field description of pdsch-Start-r11</p> <p>Need code corrections in Rel-11 RRC</p> <p>Miscellaneous small corrections</p> <p>FDD/TDD diff column correction for FGI31</p> <p>measCycleSCell upon SCell configuration</p> <p>Clarification on RRC Connection Reconfiguration with Critical Extension</p> <p>Security key generation in case of MFBI</p> <p>Clarification on UE CA capability</p> <p>Clarification on the configuration of the extended PHR</p> <p>Clarifications on SystemTimeInfoCDMA2000 IE</p> <p>Clarification on inclusion of non-CA band combinations</p> <p>MFBI aspects for dedicated signalling</p> <p>CR on ROHC parameter configuration in Rel-11 RRC</p> <p>Updating 3GPP2 specification references</p> <p>MFBI impact on MBMS service continuity</p>
36.355	11.3.0	11.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	<p>Correction for ASN.1 error from CR0082r1</p> <p>Correction to integer code phase field description in GNSS Acquisition Assistance</p> <p>Correction to serving cell terminology</p> <p>Encoding of LPP IEs</p>

(Annex 9)

3GPP ARIB Change History List of Standards (ARIB STD-T104 Ver. 2.20)

December 10 2013

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #61 Porto

Revised Standard Number	Version at ARIB STD-T104 Ver.2.20	Version at ARIB STD-T104 Ver.2.10	3GPP WG	Title	Change Summary
36.101	10.12.0	10.11.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Applicability of CA sustained data rate tests, CA capabilities for the soft buffer tests, missing frequency range for B7 UE co-existence requirements, UE REFSENS when supporting intra-band CA and inter-band CA, matrix for high speed train demodulation scenarios, Sustained data rate test (as in V9.17.0), "multi-cluster" transmission.CA UE Coexistence Table update, Incorrect REFSENS UL allocation for CA_1C and Contiguous intraband CA REFSENS with one UL are corrected. The Pcmx clauses are restructured

Revised Standard Number	Version at ARIB STD-T104 Ver.2.20	Version at ARIB STD-T104 Ver.2.10	3GPP WG	Title	Change Summary
36.133	10.12.0	10.11.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Corrections on: RSTD CA test parameters, RSTD measurement reporting test cases for CA with 20MHz BW (FDD), RSTD measurement reporting test cases for CA with 20MHz BW(TDD), Cell time offset in TDD Inter-RAT test cases, Synchronization requirements for E-UTRAN to CDMA2000, PCell Interruptions, Antenna ports for timing and eCID test cases as clarification are made. Addition of TDD serving cell measurement accuracy tests is added. Test cases of E-UTRAN FDD RSTD Measurement Accuracy for Carrier Aggregation for 20MHz, Test case of E-UTRAN TDD RSTD Measurement Accuracy for Carrier Aggregation for 20MHz are made. Modification on the requirement for PCell interruption is made. Phase II CA 20 MHz Tests: Event triggered reporting on SCell with PCell interruption, TDD configurations in RRM requirements are corrected. Clarification on tests for multiple bandwidths is made.
36.141	10.12.0	10.11.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Editorial correction for the UL-MIMO channel model is made. Receiver Blocking test procedure for Home BS is added.
36.300	10.11.0	10.10.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Modification to CA downlink timing difference Transfer GRE key to MME for PMIP-based S5
36.302	10.6.0	10.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	Miscellaneous correction to 36.302
36.306	10.10.0	10.9.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Remove TBD in max MCH TB size table Clarification of InterFreqRSTDMeasurementIndication procedure support
36.307	10.8.0	10.7.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Changes for LTE_CA_C_B3, Band 31 release independence for UE demodulation performance are made. Requirements for CA_1A-18A are modified. Requirements for CA_1A-26A, CA_2A-4A inter-band CA of Band 2+5 are introduced.
36.331	10.11.0	10.10.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction on the first subframe of the measurement gap
36.355	10.10.0	10.9.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Correction on svReqList

Revised Standard Number	Version at ARIB STD-T104 Ver.2.20	Version at ARIB STD-T104 Ver.2.10	3GPP WG	Title	Change Summary
36.523-3	10.5.0	10.4.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	Removal of technical content in 36.523-3 v10.4.0 and substitution with pointer to the next Release
37.571-1	10.5.0	10.4.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	- Uncertainties and Test Tolerances for RSTD test cases Other corrections.
37.571-2	10.4.0	10.3.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	Clarifications to 7.3.3.1
37.571-3	10.5.0	10.4.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	Correction to 7.3.3.1
37.571-4	10.3.0	10.2.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	Some corrections.
37.571-5	10.5.0	10.4.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Some corrections.

2. Release 11

2.1 Added Standards

None

2.2 Revised Standards

3GPP TSG #61 Porto

Revised Standard Number	Version at ARIB STD-T104 Ver.2.20	Version at ARIB STD-T104 Ver.2.10	3GPP WG	Title	Change Summary
36.101	11.6.0	11.5.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Some of corresponding changes made in V10.12.0 are made. Performance requirements of CA soft buffer management is corrected. Management and performance requirement for UE under EVA200 are made. Correction of FeICIC PBCH performance requirement, introduction of FeICIC RI reporting requirements, correction of Beamforming model for EPDCCH test, correction of performance requirements for verifying the receiver type for CSI-RS based advanced receivers (FDD/TDD) are made. Definition of 5+20MHz for spectrum emission mask for CA is added. Introduction of FeICIC CQI requirements are made. CA UE. Coexistence Table is updated. Coexistence between Band 27 and Band 38, Remianed Transmitter requirements for intra-band non-contiguous CA are corrected. Correction A-MPR for CA_NS_04 is made. MPR for intra-band non-contiguous CA is corrected.
36.104	11.6.0	11.5.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Correction of rated output power of MR BS for E-UTRA, single-band operation of multi-band BS and Non-contiguous intraband CA minimum channel spacing are made.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.20	Version at ARIB STD-T104 Ver.2.10	3GPP WG	Title	Change Summary
36.133	11.6.0	11.5.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Part of the corresponding changes in V.10.12.0 is made. Correction on: the test cases for UE Transmit Timing Accuracy for SCell, Timing and RSRP value corrections in Test cases A.9.2.6 and A.9.2.9, Bands for 20MHz CA Test cases, the SNR values for RLM tests with non-MBSFN ABS in FeICIC, E-UTRAN FDD RSRP Measurement Accuracy Test in FeICIC, E-UTRAN TDD RSRP Measurement Accuracy Test in FeICIC, E-UTRAN FDD UE Rx-Tx Time difference test in FeICIC, E-UTRAN TDD UE Rx-Tx Time difference test in FeICIC are made. UE Rx-Tx accuracy requirements in FeICIC, UE Rx-Tx measurement requirements in FeICIC, Antenna port for timing and eCID test cases, Refesens in WB-RSRQ sections are clarified. The brackets of FeICIC side conditions are removed. Intra-frequency RSRQ test case for FDD, Intra-frequency RSRQ test case for TDD, SCH Es/lot side condition for intra-frequency measurements under time domain measurement resource restriction with CRS assistance information are corrected. Editorial corrections RRM is made. CGI reading requirements is corrected. Editorial corrections in capturing RF requirements are made. Time stamp accuracy for RLF and handover failure reporting with eMDT, Cell identification test case with FeICIC, RLM requirements, FeICIC FDD Test for In-sync With MBSFN ABS, FeICIC TDD Test for In-sync With MBSFN ABS are corrected.
36.141	11.6.1	11.5.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Corresponding changes as in V10.12.0 are made. V.11.6.1 contains correction of the change history table in V.11.6.0.
36.211	11.4.0	11.3.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	One sentence is moved to TS 36.213 to clarify quasi co-location assumption (6.2.1).
36.213	11.4.0	11.3.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Correction on PUCCH power control (5.1.2.1). Correction on the ratio of PDSCH EPRE to CRS EPRE for TM10 (5.2). Correction to PDSCH mapping for CoMP (7.1.9). Correction for EPDCCH search space (7.1, 8.0). Clarification on EPDCCH search space for cross-carrier scheduling (9.1.4). Correction to the UE behaviour in case of collision between PRS and EPDCCH in different CP case (9.1.4). Correction on higher layer parameter name for EPDCCH resource mapping (9.1.4.3). Clarification on quasi co-location assumption (12).

Revised Standard Number	Version at ARIB STD-T104 Ver.2.20	Version at ARIB STD-T104 Ver.2.10	3GPP WG	Title	Change Summary
36.300	11.7.0	11.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Modification to CA downlink timing difference Correction on the MBMS session update Transfer GRE key to MME for PMIP-based S5 Correction of HeNB Verification Correction of Service Area Identity Null Correction of terminology concerning the mobility restriction function
36.302	11.4.0	11.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	Miscellaneous correction to 36.302
36.304	11.5.0	11.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Cell reselection criteria with threshServingLowQ provided
36.306	11.4.0	11.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Remove TBD in max MCH TB size table Clarification of InterFreqRSTDMeasurementIndication procedure support
36.307	11.5.0	11.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Changes for LTE_CA_C_B3 are made. Band 31 release independence for UE demodulation performance is introduced. Requirements for CA_1A-18A is and Requirments for CA_1A-26A are modified. Requirements for CA_2A-4A and inter-band CA Band 2+5 are introduced.
36.331	11.5.0	11.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Clarification on PhysCellIdRange Correction on the first subframe of the measurement gap Correction for MFBI in SIB15 and SIB6 Clarification of MFBI impact on MBMS service continuity Clarification of UE action for otherwise in conditions Corrections to the 3GPP2 specification references in 36.331 Clarifications regarding the usage of "rlf-Cause" in case of handover failure
36.355	11.4.0	11.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Correction on svReqList
36.508	11.2.0	11.1.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment	- Addition of frequency of CA_2A-17A, CA_4A-17A, CA_3-8 and CA_3A-5A. - Addition of Band 31 to 36.508

Revised Standard Number	Version at ARIB STD-T104 Ver.2.20	Version at ARIB STD-T104 Ver.2.10	3GPP WG	Title	Change Summary
				(UE) conformance testing	- Introduction of new messages for eMBMS service continuity testing Other corrections and updates.
36.521-1	11.2.0	11.1.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing	- LTE Type A performance requirements - Addition of Band 31 - Introduction of eICIC_enh_LTE - Addition of new TCs for FDD/TDD PDSCH Spatial Multiplexing ..etc.
36.521-2	11.2.0	11.1.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)	Changes related to 36.521-1 changes.
36.521-3	11.2.0	11.1.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	- Uncertainties and Test Tolerances for eICIC and Inter-freq RSRP TCs - Addition of new CA TCs ..etc.
36.523-1	11.4.0	11.3.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	- Addition of new eMDT TCs - New eMBMS service continuity TCs ..etc.
36.523-2	11.4.0	11.3.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	Changes related to 36.523-1 changes.
36.523-3	11.1.0	11.0.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	- Addition of LTE-A ZUC TCs - Addition of WI-096/154/162/167/169 TCs - Addition of CA RRC TCs ..etc.

(Annex 10)

3GPP ARIB Change History List of Standards (ARIB STD-T104 Ver. 2.30)

March 18 2014

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #62 Busan

Revised Standard Number	Version at ARIB STD-T104 Ver.2.30	Version at ARIB STD-T104 Ver.2.20	3GPP WG	Title	Change Summary
36.101	10.13.0	10.12.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Clean-up of uplink reference measurement channels, Modification of Band 38 UE P-max value (changing from 20 dBm to 19 dBm), Clarification for applicable channel bandwidth combinations for intraband CA, clarification of the applicability of UE co-existence requirements, Clarification for allowed power reductions for multiple transmissions, Correction on the UE category for eICIC CQI test, Correction of CA NS_02 A-MPR, Correction of FRC of power imbalance test, Addition of UE emissions for co-existence of Band 40, Correction of nominal guard bands for bandwidth classes A and C, and editorial corrections, were made. The in-band blocking test cases for Band 12 and Band 17 were changed to align with the other E-UTRA bands.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.30	Version at ARIB STD-T104 Ver.2.20	3GPP WG	Title	Change Summary
36.133	10.13.0	10.12.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Introduction of the minimum requirements of SCell Activation Delay for other activation actions, Clarification for the case no reference signal for measurement before the reporting, Clarification for interruptions during measurements on SCC for CA, Clarification on Pcell Interruption shall not occur before SF n+5, Corrections to CA event triggered tests on deactivated SCell with PCell interruption in non-DRX, Correction of proximity indication test case, Correction of RSTD requirements and test cases, Clarification CGI reading in the autonomous gaps, Clarification of CRS Es/lot for eICIC RSRP/RSRQ with MBSFN ABS test cases, Correction for the OCN pattern for test cases, and editorial corrections, were made.
36.213	10.11.0	10.10.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Correction on CSI reporting type and parameters.
36.304	10.7.0	10.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Correction of MBMS prioritisation for DL only carrier
36.306	10.11.0	10.10.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Introduction of capability bit for UTRA MFBI Clarification on eRedirection to UMTS TDD with multiple UMTS TDD frequencies Addition of inter-frequency RSTD measurement capability indicator for OTDOA
36.307	10.9.0	10.8.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	The editorial modifications to Forward and Scope clauses and introducing "General" clause, were done. Clarification to apply RRM requirements and UE performance requirements for release independent specification was made. CA B2+B12, CA B12+B25, CA B5+B25, CA B5+B7, CA B7+B28, CA B23, and CA B27, were introduced.
36.321	10.10.0	10.9.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	Clarification on the HARQ feedback for SCell activation/deactivation command MAC CE

Revised Standard Number	Version at ARIB STD-T104 Ver.2.30	Version at ARIB STD-T104 Ver.2.20	3GPP WG	Title	Change Summary
36.331	10.12.0	10.11.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Introduction of capability bit for UTRA MFBI Addition of inter-frequency RSTD measurement capability indicator for OTDOA Clarification on supportedBand measResultLastServCell for SON-HOF report Correction on presence of codebookSubsetRestriction-r10 Clarification on eRedirection to UMTS TDD with multiple UMTS TDD frequencies Clarifications on Measurement Correction to InterFreqRSTDMeasurementIndication field descriptions Correction of Inter-frequency RSTD indication for multiple frequencies
36.355	10.11.0	10.10.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Correction to missing capability indication for inter-frequency RSTD measurements Correction to Galileo assistance data elements
36.523-3	10.5.1	10.5.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	Deletion of the nonexistent references for TS 36.523-1 and TS 36.523-2.
37.571-1	10.6.0	10.5.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Introduction E-UTRAN FDD/TDD UE Rx-Tx time difference (feICIC) Addition of new tests for 20MHz CA Other corrections/updates.
37.571-2	10.5.0	10.4.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	Addition of missing IEs from otdoa-ProvideCapabilities in 7.3.1.1 Change Applicability of test 7.3.5.1 Addition of Capability exchange in various clause 7 tests Clarification of Provide Capabilities content for test 7.2.2.2

Revised Standard Number	Version at ARIB STD-T104 Ver.2.30	Version at ARIB STD-T104 Ver.2.20	3GPP WG	Title	Change Summary
37.571-3	10.6.0	10.5.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	Corrections to Applicabilities C12es and C13es Addition of Applicabilities for 9.2.1 - 9.2.5 Change Applicability of test 7.3.5.1 Applicabilities for new tests 10.1a, 10.2a, 10.3a and 10.4a
37.571-4	10.4.0	10.3.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	Addition of EUTRA UE Positioning test case 7.3.4.1_1s Addition of EUTRA UE Positioning test case 7.3.4.3_1s CR to 37.571-4: Add new verified and e-mail agreed TTCN test cases in the TC lists in 37.571-4 (prose), Annex A
37.571-5	10.6.0	10.5.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Addition of OTDOA Assistance Data for new 20MHz CA test cases Other corrections.

2. Release 11

2.1 Added Standards

None

2.2 Revised Standards

3GPP TSG #62 Busan

Revised Standard Number	Version at ARIB STD-T104 Ver.2.30	Version at ARIB STD-T104 Ver.2.20	3GPP WG	Title	Change Summary
36.101	11.7.0	11.6.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	The corresponding changes made in V10.13.0 are done. Introduction of test 1-A for CoMP, Correction of NS_05 for carrier aggregation combination, Clarification of NS values for CA reference sensitivities, Clarification of CA performance requirements for TDD intra-band NC CA, Introduction of the test parameters and test requirements for PDSCH demodulation in CoMP scenario 3 and 4, Introduction of fading CQI test and RI test for CoMP, Introduction of the channel model for CoMP fading CQI tests, Introduce testing scenario, test metrics and performance requirement of the DL CoMP static CQI tests, Correction of nominal guard bands for bandwidth classes A and C, Correction of TDD PCFICH/PDCCH test parameter table, Updateing of the definition of fraction of maximum throughput for CA, Correction of test configurations of CA soft buffer tests, Introduction of UE TM3 demodulation performance requirements under ETU300, Modification of TM9 test to verify correct SNR estimation, Clarification of test point for CA demodulation test, Adding EVA200 to table of channel model parameters, Clarification of FeICIC demodulation performance requirements(included PBCH), Introduction of RI requirements and RI test for FeICIC, Introduction of high SNR TM3 test for FeICIC PDSCH, Introduction of reference SNR for FeICIC demodulation performance requirements, Introduction of the beamforming model for EPDCCH localized transmission mode test, Clarification of EPRE ratio for EPDCCH performance requirements, Introduction of the OCN patterns for EPDCCH tests, Introduction of the demodulation performance of EPDCCH and distributed EPDCCH demodulation, Introduction of DL reference measurement channels for EPDCCH performance requirements, Introduction of SDR tests for PDSCH with EPDCCH scheduling, and Removing square brackets and capturing requirement values for receiver type verification for CSI-RS, were made.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.30	Version at ARIB STD-T104 Ver.2.20	3GPP WG	Title	Change Summary
36.104	11.7.0	11.6.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Adding Cumulative ACLR requirements for MR/LA BS, Removal of CA OBW requirements for non-contiguous operation, and Correction for Inband non-contiguous CA minimum channel spacing were made. It was clarified that transmitters are ON when a BS has some transmitters for receiver requirement on MB-MSR BS. Definitions, ACLR, operating band unwanted emissions, transmitter spurious emissions for co-existence and co-location, transmitter intermodulation, ACS, blocking, receiver spurious emissions and receiver intermodulation requirements for multi-band operation were corrected.
36.133	11.7.0	11.6.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	The corresponding changes made in V10.13.0 are done. Correction to SNR values for RLM tests with MBSFN ABS in FeICIC, Correction for the RSRP/RSRQ test cases in FeICIC, Correction ABS pattern for in-sync with MBSFN ABS in FeICIC, Removing the brackets of SNR values in RLM test cases in FeICIC, Introduction of E-UTRAN TDD WB-RSRQ test case, Clarifications for intra-band non-contiguous CA, Introduction of inter-frequency WB-RSRQ FDD test case, Introduction of the band groups, Clarification of FeICIC requirements under different BWs, Correction in cell search FeICIC test cases, Clarification of interference requirements in FeICIC, and Editorial corrections, were made.
36.141	11.7.0	11.6.1	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Adding Cumulative ACLR requirements for MR/LA BS, Removal of CA OBW requirements for non-contiguous operation, and Correction for test requirement of PUSCH with 20 MHz channel bandwidth were made.
36.211	11.5.0	11.4.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	Correction on the derivation of the non-MBSFN region by PCFICH.
36.212	11.4.0	11.3.0-	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Clarification on parameter <i>ue-Category</i> .
36.213	11.5.0	11.4.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Clarification on parameter <i>ue-Category</i> . Correction on CSI reporting type and parameters. Correction on determination of modulation order and transport block size. Correction on deriving the length of the non-MBSFN region.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.30	Version at ARIB STD-T104 Ver.2.20	3GPP WG	Title	Change Summary
36.300	11.8.0	11.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Clarification on Minimum Transport Block Size of Msg3 Maximum uplink transmission difference Correction of Weight Factor
36.304	11.6.0	11.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Correction of MBMS prioritisation for DL only carrier Updating 3GPP2 specification references Cell reselection criteria with threshServingLowQ provided Correction of MBMS prioritisation for DL only carrier
36.306	11.5.0	11.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Introduction of capability bit for UTRA MFBI Clarification on eRedirection to UMTS TDD with multiple UMTS TDD frequencies Addition of inter-frequency RSTD measurement capability indicator for OTDOA MBMS reception on any configured or configurable SCell Enabling SRVCC from GERAN without forwarding UE-EUTRA-Capability Capturing mandatory/optional agreements on Rel-11 UE features
36.307	11.6.0	11.5.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	The corresponding changes made in V10.9.0 are done. Intorducction of Intra-band non-contiguous CA B3 and CA 7A-7A were made.
36.321	11.4.0	11.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	Clarification on the HARQ feedback for SCell activation/deactivation command MAC CE

Revised Standard Number	Version at ARIB STD-T104 Ver.2.30	Version at ARIB STD-T104 Ver.2.20	3GPP WG	Title	Change Summary
36.331	11.6.0	11.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	<p>Introduction of capability bit for UTRA MFBI</p> <p>Addition of inter-frequency RSTD measurement capability indicator for OTDOA</p> <p>Clarification on supportedBand</p> <p>Capturing mandatory/optional agreements on Rel-11 UE features</p> <p>Clarification on otherwise behaviour</p> <p>Corrections of the 3GPP2 references in TS 36.331</p> <p>measResultLastServCell for SON-HOF report</p> <p>Clarification to timeInfoUTC field in SIB16</p> <p>Correction on presence of codebookSubsetRestriction-r10</p> <p>Clarification on eRedirection to UMTS TDD with multiple UMTS TDD frequencies</p> <p>Delta signalling for critical extension</p> <p>Clarifications on Measurement</p> <p>Correction to InterFreqRSTDMeasurementIndication field descriptions</p> <p>Correction of Inter-frequency RSTD indication for multiple frequencies</p> <p>Enabling SRVCC from GERAN without forwarding UE-EUTRA-Capability</p> <p>System information and change monitoring procedure</p>
36.355	11.5.0	11.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	<p>Correction to missing capability indication for inter-frequency RSTD measurements</p> <p>Correction to Galileo assistance data elements</p>
36.508	11.3.0	11.2.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing	<p>Addition of CA band combinations</p> <p>Other corrections/clarifications.</p>
36.521-1	11.3.0	11.2.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing	<p>Introduction of feICIC tests.</p> <p>Addition of Inter Band CA combo</p> <p>Other corrections/updates.</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.2.30	Version at ARIB STD-T104 Ver.2.20	3GPP WG	Title	Change Summary
36.521-2	11.3.0	11.2.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)	Changes related to 36.521-1 changes.
36.521-3	11.3.0	11.2.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	Introduction of feICIC tests. Other corrections/updates.
36.523-1	11.5.0	11.4.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	New test cases for aSRVCC(E-UTRA to GSM), SIMTC, eMDT、 ..etc. Other corrections/updates.
36.523-2	11.5.0	11.4.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	Changes related to 36.523-1 changes.
36.523-3	11.2.0	11.1.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	Addition of WI-086/091/096/154/156/159/162/169 test cases and other test cases. Other corrections/updates.

(Annex 11)

3GPP ARIB Change History List of Standards (ARIB STD-T104 Ver. 2.40)

July 31 2014

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #63 Fukuoka

Revised Standard Number	Version at ARIB STD-T104 Ver.2.40	Version at ARIB STD-T104 Ver.2.30	3GPP WG	Title	Change Summary
36.101	10.14.0	10.13.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Changes of structure change of CA soft buffer tests, introduction of 15MHz based SDR tests and test point table, correction of coding rate for 18RBs in UL RMC table, correction of configured transmitted power for CA, and editorial correction on OCNG pattern were made.
36.133	10.14.0	10.13.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Correction of Proximity Indication Test Case, CSI Reporting in SCell Activation Requirements, Missing condition in CGI identification requirements, Alignment between interruption requirements for RSTD and mobility measurements for SCell, Correction on PDSCH allocation in PRS subframe, and PRS_RA corrections were made.
36.213	10.12.0	10.11.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	SRS configuration index $I_{SRS} = 0$ is changed to "reserved" for trigger type 1 SRS and TDD.
36.304	10.8.0	10.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Clarification on MBMS prioritisation for DL only carrier

Revised Standard Number	Version at ARIB STD-T104 Ver.2.40	Version at ARIB STD-T104 Ver.2.30	3GPP WG	Title	Change Summary
36.307	10.10.0	10.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Changes restricting release independent handling of LTE UE performance requirements to 5MHz tests for band 31 and CA performance requirements only was introduced. Clarification of the bandwidth (of 5MHz) for Band 31 and some editorial corrections were made. Introduction of CA band combination Band 3 and Band 27, Band 39A and Band 41A, CA in Band 39, Band 2A and band 29A, Band 4A and 29A are introduced. Release independence of Band 14 High Power UE was introduced.
36.509	10.2.0	10.1.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Special conformance testing functions for User Equipment (UE)	Update to UE test mode procedure for CSG proximity testing
37.571-1	10.7.0	10.6.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Addition of E-UTRA band groups LBS RF: Aperiodic CQI configuration for 1.4 MHz bandwidth subtests Other corrections
37.571-2	10.6.0	10.5.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	Add Assistance Data delivery to test 7.3.5.1 Other corrections.
37.571-4	10.5.0	10.4.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	A-GNSS ASN.1 reference Addition of EUTRA UE Positioning test case 7.3.5.1_2s Addition of EUTRA UE Positioning test case 7.3.5.1_4s Other corrections
37.571-5	10.7.0	10.6.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Introducing Ephemeris files in Rinex format Other corrections.

2. Release 11

2.1 Added Standards

3GPP TSG #63 Fukuoka

Added Standard Number	Version at ARIB STD-T104 Ver.2.40		3GPP WG	Title	New Document Summary
37.571-1	11.0.0		R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	This document specifies the procedures for the conformance test of the measurement requirements for FDD mode of UTRA and FDD or TDD mode of E-UTRA for the UE that supports one or more of the defined positioning methods. UTRA: A-GPS, A-GNSS. E-UTRA: A-GNSS, OTDOA, ECID.

2.2 Revised Standards

3GPP TSG #63 Fukuoka

Revised Standard Number	Version at ARIB STD-T104 Ver.2.40	Version at ARIB STD-T104 Ver.2.30	3GPP WG	Title	Change Summary
36.101	11.8.0	11.7.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Changes as maintenance of CA soft buffer tests, change on TM9 localized ePDCCH test, on reference measurement channel for ePDCCH test were made, Cleanup of the specification for FeICIC was made. UL-DL configuration and other parameters for FeICIC TDD CQI fading test were changed. Changes for introduction of 15MHz based SDR tests, for COMP demodulation requirements, for Combinations of channel model parameters, for EPDCCH power allocation, on reference measurement channel for TM10 PDSCH demodulation test, of EPDCCH localized test with TM10 QCL Type-B configuration were made. Correction of coding rate for 18RBs in UL RMC table, changes to finalize RI test for CoMP, for distributed EPDCCH Demodulation Test, for finalize fading CQI test for CoMP, correction of table notes for NS_12-NS_15 spurious emissions requirements were made. Configured transmitted power for CA was modified. Channel spacing for non-contiguous intra-band carrier aggregation was changed. Clarification of contiguous and non-contiguous intra-band UE capabilities in the same band was made. Correction of a table note for P _{max} , and editorial correction on OCNG pattern, on correction of downlink SDR tests with EPDCCH scheduling were made. Requirements for SNR test for TM9 was corrected. Correction on DL CoMP static CQI tests was made.
36.104	11.8.1	11.7.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Abbreviations for negative acknowledgement were corrected.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.40	Version at ARIB STD-T104 Ver.2.30	3GPP WG	Title	Change Summary
36.133	11.8.0	11.7.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	TDD UL/DL subframe configurations in requirements, Missing condition in CGI identification requirements were corrected. Band simplification clean up was made. CSI Reporting in SCell Activation Requirements, Proximity Indication Test Case were corrected. Several editorial corrections, alignment between interruption requirements for RSTD and mobility measurements for SCell, clarification of BW applicability in Rx-Tx Time Difference measurement, and correction on PDSCH allocation in PRS subframe were made. RSTD reporting delay tests for TDD was corrected.
36.141	11.8.0	11.7.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Abbreviations for negative acknowledgement, some references to tables were corrected. Multi-band BS testing was introduced into classes 1 to 5. Introduction of test requirements for multi-band operation with conformance test improvement for multi-carrier testing was made.
36.213	11.6.0	11.5.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	SRS configuration index $I_{SRS} = 0$ is changed to "reserved" for trigger type 1 SRS and TDD. UE Categories 9 and 10 are added. Clarification on how to count unreported CSI processes in TM10. Clarification on common search space monitoring for MBMS.
36.300	11.9.0	11.8.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Introduction of CS to PS SRVCC
36.302	11.5.0	11.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	MBMS reception on any configured or configurable SCell
36.306	11.6.0	11.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	New UE categories for DL 450Mbps class SS and common channel interference handling IoT indication for inter-band TDD CA with different UL/DL configuration
36.307	11.7.0	11.6.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Necessary corresponding changes made in V.10.10.0 was made with proper editorial formatting.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.40	Version at ARIB STD-T104 Ver.2.30	3GPP WG	Title	Change Summary
36.321	11.5.0	11.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	BCCH reception for MBMS on any configured or configurable SCell
36.331	11.7.0	11.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	New UE categories for DL 450Mbps class Clarification regarding need codes, conditions and ASN.1 defaults for extension fields ASN.1 issue with inter-node signalling (AS-Config) IoT indication for inter-band TDD CA with different UL/DL configuration Clarification on the presence of TDD special subframe Clarification for the SIB occurrence in a single SI message
36.508	11.4.0	11.3.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing	Removal of technical content in 36.508 v11.3.0 and substitution with pointer to the next Release
36.521-1	11.4.0	11.3.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing	Removal of technical content in 36.521-1 v11.3.0 and substitution with pointer to the next Release
36.521-2	11.4.0	11.3.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)	Removal of technical content in 36.521-2 v11.3.0 and substitution with pointer to the next Release
36.521-3	11.4.0	11.3.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	Removal of technical content in 36.521-3 v11.3.0 and substitution with pointer to the next Release
36.523-1	11.6.0	11.5.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	Removal of technical content in 36.523-1 v11.5.0 and substitution with pointer to the next Release

Revised Standard Number	Version at ARIB STD-T104 Ver.2.40	Version at ARIB STD-T104 Ver.2.30	3GPP WG	Title	Change Summary
36.523-2	11.6.0	11.5.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	Removal of technical content in 36.523-2 v11.5.0 and substitution with pointer to the next Release
36.523-3	11.3.0	11.2.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	Addition of test cases for GCF WI-082/086/103/154/162, MDT, NIMTC, ..etc. Other corections.

(Annex 12)

3GPP ARIB Change History List of Standards (ARIB STD-T104 Ver. 2.50)

October 2 2014

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #64 Sophia Antipolis

Revised Standard Number	Version at ARIB STD-T104 Ver.2.50	Version at ARIB STD-T104 Ver.2.40	3GP PWG	Title	Change Summary
36.101	10.15.0	10.14.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Clarification on Intra-band contiguous CA (Class C) narrow band blocking requirements, Additional correction to In-band blocking case numbering re-establishment, Corrections to spurious emission requirements with NS different than NS_01, Clarification on co-existence requirements between B42/B43, Corrections to CA (Class C) performance with power imbalance, Clean-up for demodulation requirements, Corrections to throughput calculation for eICIC demodulation requirements, Clean-up for terminology for Rx requirements, Separating CA demodulation tests from single carrier tests, Correction to CA capability, Clarification on Test configuration for intra-band contiguous CA power control, Clarification on CA bandwidth classes, Corrections to CA CQI tests, Clarification on PDSCH transmission for eICIC CSI requirements, and Corrections to Band 12/17 in-band blocking test cases were made.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.50	Version at ARIB STD-T104 Ver.2.40	3GP PWG	Title	Change Summary
36.133	10.15.0	10.14.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Adding SCell activation and deactivation delay test cases for known SCell, Clarification on UE transmit timing accuracy test cases in DRX mode, Clean-up of time offset between cells in RSTD tests, Clarification on RSTD inter-frequency requirements applicability, Correction to periodicity of ABS pattern in eICIC RRM test cases, Removing square brackets from eICIC RLM test requirement, Correction to OCNG pattern number in RRM tests, Removing DPCH for handover from E-UTRAN to UTRA TDD, Corrections on test cases for eICIC, Correction to PDSCH allocation in PRS subframe, Correction to RSTD measurement accuracy in CA in RRM tests, Clarification on E-UTRAN TDD-UE timing advance adjustment accuracy test, and editorial corrections were made. CGI reading requirements in CA were introduced.
36.307	10.11.0	10.10.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Correction to Common RRM requirements for CA, and Clarification on UE performance requirements (Void Annex B.3.1 to B.3.3), were made. Modification of CA configurations CA_3A-5A, CA_3A-20A, CA_4A-5A, CA_4A-12A, and CA_7C to refer to Rel-12 specifications were made. CA_1A-5A, CA_1A-11A, CA_1A-20A, CA_4A-27A, CA_20A-32A, CA_41D, and CA_42C were introduced.
36.323	10.3.0	10.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification	Clarification of CID reuse
36.331	10.13.0	10.12.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Removal of comment line from EUTRA-UE-Variables imports Correction on measObjectList in VarMeasConfig ACK/NACK feedback mode on PUSCH Clarification of E-UTRA MFBI signaling Inter-RAT ANR capability signalling in FGI33 when UE supports UTRA TDD only Allowing TDD/FDD split for FGI111 and FGI112
36.355	10.12.0	10.11.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Signaling of OTDOA Neighbour Cell Information and Measurements

Revised Standard Number	Version at ARIB STD-T104 Ver.2.50	Version at ARIB STD-T104 Ver.2.40	3GP PWG	Title	Change Summary
37.571-2	10.7.0	10.6.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	-Clarification of use of satellite simulator -Correction to EUTRA UE Positioning test cases 7.3.4.x
37.571-3	10.7.0	10.6.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	-Correction to test case title in the Applicability Table 4-1 and Table 4-3 -Correction of conditions of C26es and C27es.
37.571-4	10.6.0	10.5.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	-Addition of EUTRA UE Positioning test cases 7.2.1.1, 7.2.1.2, 7.2.1.3, 7.3.4.4.1s, 7.3.4.2.1s, 7.3.4.3.4s, 7.3.4.4.4s -Addition of UTRAN UE Positioning test cases 6.2.3.3, 6.2.3.4, 6.2.3.5
37.571-5	10.8.0	10.7.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Mainly corrections.

2. Release 11

2.1 Added Standards

None

2.2 Revised Standards

3GPP TSG #64 Sophia Antipolis

Revised Standard Number	Version at ARIB STD-T104 Ver.2.50	Version at ARIB STD-T104 Ver.2.40	3GP PWG	Title	Change Summary
36.101	11.9.0	11.8.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	The corresponding changes made in V10.15.0 were done. Correction to TDD IRC CQI test, Correction and removal of square brackets on CSI-RS configurations, Removal of square brackets for SNR test for TM9, Correction to UE TM3 demodulation performance requirements, Correction to EPDCCH test, Modification on FeICIC rank testing, Updating for FeICIC PBCH performance requirement, Correction to out-of-band blocking for CA, Updating demodulation performance requirements with new UE categories, Correction to CA sustained data rate test, Clarification on OCNB and propagation conditions for dual layer TM9 test, Correction to CA soft buffer test, Removal of square brackets from eICIC TDD RI requirement, Clarification on exceptions of REFSENS requirements for CA, Clarification on applicability of exceptions to reference sensitivity requirements for CA, Editorial corrections for UE performance requirements, Correction to FRC tables for COMP demodulation requirements, Correction and removal of square brackets for CoMP demodulation test cases, Removal of square brackets for CSI reporting requirements, Adding RMC tables for DL CoMP CSI test, Introduction of FeICIC TM9 testing, Correction to test parameters for EPDCCH(TDD) SDR test, Addition for missed UL/DL configuration to eICIC TDD RI requirement,

Revised Standard Number	Version at ARIB STD-T104 Ver.2.50	Version at ARIB STD-T104 Ver.2.40	3GP PWG	Title	Change Summary
					Correction on test configurations for intra-band non-contiguous CA, Correction on DL SDR tests with EPDCCH scheduling, Correction on CA_7C A-MPR, Updating CSI RMC overview table, and Correction on TM10 CSI reporting requirements were made. Band 28 requirements for flexible operation in Japan were introduced.
36.104	11.9.0	11.8.1	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Clarification on receiver requirement on MB-MSR BS, and Clarification on definitions and ACLR requirement were made.
36.133	11.9.0	11.8.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	The corresponding changes made in V10.15.0 were done. Correction to PCI configuration conditions in FeICIC tests, Correction to CQI feedback periodicity for RLM in eICIC/FeICIC test setup, Removing square brackets in FeICIC test cases, and Clean-up for Band 29 were made.
36.141	11.9.0	11.8.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Corrections to multi-band BS testing, Correction to manufacturer's declaration, Clarification on definitions and ACLR requirement, and Correction to Band 29 were made.
36.212	11.5.0	11.4.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Clarification on determination on soft buffer size.
36.213	11.7.0	11.6.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Clarification on SRS colliding with PUCCH in the same cell when the UE is configured with multiple TAGs.
36.300	11.10.0	11.9.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Update of CA deployment scenarios
36.306	11.7.0	11.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Network-requested CA Band Combination Capability Signalling eMBMS reception on SCell and Non-Serving Cell
36.307	11.8.0	11.7.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	The corresponding changes made in V10.11.0 were done. CA 2A-2A, CA NC Band 42, and Band 40D were introduced.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.50	Version at ARIB STD-T104 Ver.2.40	3GP PWG	Title	Change Summary
36.323	11.3.0	11.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification	Clarification of CID reuse
36.331	11.8.0	11.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Removal of comment line from EUTRA-UE-Variables imports Correction on measObjectList in VarMeasConfig Clarification on precedence of SCell SI provided dedicatedly ACK/NACK feedback mode on PUSCH Network-requested CA Band Combination Capability Signalling Introduction of UE capability for eMBMS reception on SCell and Non-Serving Cell SIB15 enhancement for service availability information Clarification of E-UTRA MFBI signaling Inter-RAT ANR capability signalling in FGI33 when UE supports UTRA TDD only Allowing TDD/FDD split for FGI111 and FGI112
36.355	11.6.0	11.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Signaling of OTDOA Neighbour Cell Information and Measurements
36.523-3	11.4.0	11.3.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	Addition of MDT, MultiLayer SRVCC, LTE eMBMS, Home eNB, Carrier Aggregation test cases and so on. Other corrections.
37.571-1	11.1.0	11.0.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Addition of felCIC test cases. Other corrections.

(Annex 13)

3GPP ARIB Change History List of Standards (ARIB STD-T104 Ver. 2.60)

December 16 2014

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #65 Edinburgh

Revised Standard Number	Version at ARIB STD-T104 Ver.2.60	Version at ARIB STD-T104 Ver.2.50	3GP PWG	Title	Change Summary
--------------------------------	--	--	----------------	--------------	-----------------------

Revised Standard Number	Version at ARIB STD-T104 Ver.2.60	Version at ARIB STD-T104 Ver.2.50	3GP PWG	Title	Change Summary
36.101	10.16.0	10.15.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<p>The following corrections, changes or modifications were made;</p> <ul style="list-style-type: none"> - Corresponding changes made in V.9.20.0 (captured in ARIB standard T63, V.10.6.0). - Correction on support of a bandwidth combination set. - Removal of the invalid TDD single-antenna test and maintenance of applicability table for CA sustained data rate test.* - Unequal DL CC RB allocation conditions in Maximum input level requirements. - Clarification of intra-band contiguous CA ACS case 2 test. - Corrections on delta Tc for UE MOP for intra-band contiguous CA. - Removal of Class B in UE TX requirement. - CA applicability rule. - Editorial corrections for CA performance tests. - CA power imbalance tests. - Correction to NS_20 A-MPR for Band 23. <p>Note:* This change was made for Rel-10 only.</p>
36.133	10.16.0	10.15.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>The following corrections, changes or modifications were made;</p> <ul style="list-style-type: none"> - Corresponding changes made in V.9.21.0 (captured in ARIB standard T63, V.10.6.0). - Clarification to RSTD CA Reporting Delay tests.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.60	Version at ARIB STD-T104 Ver.2.50	3GP PWG	Title	Change Summary
36.307	10.12.0	10.11.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	<p>The following changes or modifications were made;</p> <ul style="list-style-type: none"> - Introduction of a subclause for UE performance requirement for Band 31 was introduced (cooresponds to the change made in V.9.13.0, which was captured in ARIB standard T63, V.10.6.0). - Introduction of a subclause for CA UE performance requirement. - Introduction of 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 3 and Band 8. - Introduction of 3 Band Carrier Aggregation of Band 1,Band 3 and Band 5. - Introduction of 3 DL CA for Band 1+7+20. - Introduction of CA 8+11. - Introduction of CA band combination Band 1, Band 3 and Band 20. - Introduction of CA_1A-7A. - Introduction of CA_41A-42A. - Introduction of CA_B1_B3. - Introduction of CA_B1_B3_B19. - Introduction of CA_B1_B5_B7. - Introduction of inter-band CA_18-28. - Introduction of new CA_40C bandwidth combination set. - Introduction of requirements for 3DL inter-band carrier aggregation (FDD) and 2DL fallback. - Introduction of requirements for 3DL inter-band carrier aggregation including Band 30 and 2DL fallback.
36.331	10.14.0	10.13.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	<p>FDD&TDD split for CA</p> <p>Clarification for time-domain resource restriction pattern applicable to neighbour cell RSRQ measurements.</p> <p>Mandating the FGI bit 31 to true.</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.2.60	Version at ARIB STD-T104 Ver.2.50	3GP PWG	Title	Change Summary
36.509	10.3.0	10.2.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Special conformance testing functions for User Equipment (UE)	Reservation of message types for antenna test function.
37.571-2	10.8.0	10.7.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	Corrections and clarifications.
37.571-4	10.7.0	10.6.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	Routine maintenance and updates.
37.571-5	10.9.0	10.8.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Adding missing informations.

2. Release 11

2.1 Added Standards

3GPP TSG #65 Edinburgh

Added Standard Number	Version at ARIB STD-T104 Ver.2.60		3GP PWG	Title	New Document Summary
37.571-3	11.0.0		R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	This document provides the ICS proforma for 3GPP UE supporting UE positioning.

2.2 Revised Standards

3GPP TSG #65 Edinburgh

Revised Standard Number	Version at ARIB STD-T104 Ver.2.60	Version at ARIB STD-T104 Ver.2.50	3GP PWG	Title	Change Summary
-------------------------	-----------------------------------	-----------------------------------	---------	-------	----------------

Revised Standard Number	Version at ARIB STD-T104 Ver.2.60	Version at ARIB STD-T104 Ver.2.50	3GP PWG	Title	Change Summary
36.101	11.10.0	11.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<p>The following changes or modifications were made:</p> <ul style="list-style-type: none"> - Corresponding changes made in V.10.12.0. - Correction on CQI reporting TDD CSI meas in case two CSI subframe sets with CRS test (Rel-11) - Correction on RI reporting CSI meas in case two CSI subframe sets with CRS tests (Rel-11) - Clarification of high speed train scenario in 36.101 (Rel-11) - Introduction of FeICIC TM9 testing (Rel-11) - Maintenance of CoMP demodulation performance requirements - Clean-up CR for EPDCCH and FeICIC PBCH (Rel-11) - Throughput calculation for feICIC demodulation requirements - Max input for Intra-band non-contiguous CA - Correction on A-MPR table. - Corrections to spurious emission band co-existence requirement for Band 44. - CQI reporting under fading: CQI indices in set. - CA applicability rule. - Editorial corrections for CA performance tests. - Cleanup and better description of DL-RMC-s with dynamic coding rate for CSI requirements. - Corrections to spurious emission band co-existence requirement for Band 44.
36.104	11.10.0	11.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	<p>The following correction and modifications were made;</p> <ul style="list-style-type: none"> - Clarification of high speed train conditions. - Correction on UEM related to multi-band operation.
36.133	11.10.0	11.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>The following corrections, changes or modifications were made;</p> <ul style="list-style-type: none"> - Corresponding changes made in V.10.16.0. - Correction to periodicity of ABS pattern in feICIC RRM test cases.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.60	Version at ARIB STD-T104 Ver.2.50	3GP PWG	Title	Change Summary
36.141	11.10.0	11.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	The following correction and modifications were made; <ul style="list-style-type: none"> - Clarification of high speed train conditions. - Correction on UEM related to multi-band operation. - Correction of applicability of test configuration table for a BS capable of multi-carrier and/or CA operation in both contiguous and non-contiguous spectrum in single band.
36.211	11.6.0	11.5.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	Clarification of port 5 UE-specific reference signal generation and mapping when TM7 PDSCH is overlapped with EPDCCH.
36.212	11.5.1	11.5.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Correction of several instances of red text.
36.213	11.8.0	11.7.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Clarification on UL/DL configuration.
36.300	11.11.0	11.10.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Clarification on Service Continuity. Corrections to MBMS SAI 0.
36.306	11.8.0	11.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	The PDCP SDU number limitation for Category 9-10 UE. Corrections to UE capabilities and features.
36.307	11.9.0	11.8.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	The following corrections, changes or modifications were made: <ul style="list-style-type: none"> - Corresponding changes made in V.10.12.0. - Introduction of CA_41C-41A and CA_41A-41C and New BW Combination Set for CA_41C. - Introduction of a new bandwidth combination set for CA_25A-25A. - Introduction of Band 40D. - Introduction of CA_42C.
36.323	11.4.0	11.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification	Clarification of the decompressor state and mode after PDCP re-establishment.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.60	Version at ARIB STD-T104 Ver.2.50	3GP PWG	Title	Change Summary
36.331	11.9.0	11.8.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	FDD&TDD split for CA Correction to Network-requested CA Band Combination Capability Signalling. Clarification on double indication of SAI in SIB15. Clarification on MBMSCountingResponse. Clarification on the setting of SupportedBandCombination-v1130. Correction of E-UTRAN UE capabilities description in HandoverPreparationInformation message field descriptions. Clarification on determining MBMS frequencies of interest in MBMSInterestIndication. Clarification for time-domain resource restriction pattern applicable to neighbour cell RSRQ measurements. Mandating the FGI bit 31 to true.
36.523-3	11.5.0	11.4.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	Addition of WI-086/154/162/164/172 testcases. Addition of eMBMS testcases and multilayer aSRVCC test cases and others. Other corrections.
37.320	11.4.0	11.3.0	R2	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	Reporting and measurement collection triggers for immediate MDT.
37.571-1	11.2.0	11.1.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Clarifications and corrections.

(Annex 14)

3GPP ARIB Change History List of Standards (ARIB STD-T104 Ver. 2.70)

March 17 2015

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #66 Maui

Revised Standard Number	Version at ARIB STD-T104 Ver.2.70	Version at ARIB STD-T104 Ver.2.60	3GP PWG	Title	Change Summary
36.101	10.17.0	10.16.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<p>Following corresponding change in release 9 were reflected:</p> <ul style="list-style-type: none"> - CR for 1 PRB allocation performance in presence of MBSFN <p>Following corresponding change in release 9 were reflected with additional modifications to Rel-10 and beyond:</p> <ul style="list-style-type: none"> - CQI reporting in AWGN: CQI indices in set. <p>Following changes or corrections were made:</p> <ul style="list-style-type: none"> - Correction on out-of-band blocking for intra-band CA - Maintenance of CA demodulation performance requirements. - Defintion of the bits in the bitmap for indication of modified MPR behavior. - REFSENSE in lower SNR and change history. - Removal of bracket for UL MIMO - Delete the incorrect notes for FDD DMRS demodulation tests - Band 22 correction in UE to UE co-existence table. - Correction to Transmit Modulation Quality for CA - Removal CA capability column in CA performance test tables - CR for CA applicability rule. - Clarification of UL and DL CA configuration. - Clarification of notes relating to interferer offsets in intrabnd CA receiver requirement tables. - Correction to Note 2 of Harmonic Signal Exceptions in Spurious Emissions. - Removal of brackets and TBD from CA feature. - Maintenance of CA performance requirements UE to UE co-existence between B42/B43

Revised Standard Number	Version at ARIB STD-T104 Ver.2.70	Version at ARIB STD-T104 Ver.2.60	3GP PWG	Title	Change Summary
36.133	10.17.0	10.16.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>Following corresponding change in release 9 were reflected with additional modifications to Rel-10 and beyond:</p> <ul style="list-style-type: none"> - Correction of PRS Signal Levels in RSTD Reporting Tests. - Clarifications to RSTD values. <p>Following changes or corrections were made:</p> <ul style="list-style-type: none"> - Correction of Es/Noc values in inter-frequency RSTD tests. - Clarification on time to identify the target UTRA TDD cell for blind redirection from E-UTRA to UTRA TDD - SCell activation and deactivation delay test case for unknown SCell R10 - Correction to RSTD Intra Frequency Delay Test Case. - Correction on CA test cases. - Correction to PRS Signal Levels in RSTD Reporting Tests for Carrier Aggregation.
36.300	10.12.0	10.11.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Order of MCCH messages in a MAC PDU
36.307	10.13.0	10.12.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	<ul style="list-style-type: none"> - Re-arrangement of UE RF requirements description for frequency bands specified in the release 11 and beyond was made. - Missing CA configuration of CA_40D was included. - Additional band combination of CA_B5_B13 was introduced. - Additional band combinations for 3DL inter-band CA were introduced.
36.331	10.15.0	10.14.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	<ul style="list-style-type: none"> - Correction of remaining TBD for Rel-10 FGIs. - UE capability for modified MPR behavior.
37.571-2	10.9.0	10.8.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	<ul style="list-style-type: none"> - Clarification to OTDOA Assistance Data. - Addition of Galileo in test 7.3.3 - Correction to OTDOA related default message contents in LPP common procedure for Position Capability Transfer.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.70	Version at ARIB STD-T104 Ver.2.60	3GP PWG	Title	Change Summary
37.571-4	10.8.0	10.7.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	<ul style="list-style-type: none"> - Addition of GCF WI-166 EUTRA UE Positioning test case 7.3.4.2.4s. - Usage of <MULTIPLE_CNF> in UpperTesterFunctions. - CR to 37.571-4: Add new verified and e-mail agreed TTCN test cases in the TC lists in 37.571-4 (prose), Annex A
37.571-5	10.10.0	10.9.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	<ul style="list-style-type: none"> - LBS Perf: Adding missing information for Galileo. - LBS Sig: Adding missing information for Galileo. - Clarification to OTDOA Assistance Data. - Update Galileo ICD reference.

2. Release 11

2.1 Added Standards

3GPP TSG #66 Maui

Added Standard Number	Version at ARIB STD-T104 Ver.2.70	Version at ARIB STD-T63 Ver.10.60	3GP PWG	Title	New Document Summary
36.111	11.4.0	11.3.0	R4	Location Measurement Unit (LMU) performance specification; Network based positioning systems in Evolved Universal Terrestrial Radio Access Network (E-UTRAN).	(moved from ARIB STD-T63)
36.112	11.1.0	11.0.0	R4	Location Measurement Unit (LMU) conformance specification; Network based positioning systems in Evolved Universal Terrestrial Radio Access Network (E-UTRAN)	(moved from ARIB STD-T63)
37.571-2	11.0.0	N/A	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	This document specifies the protocol conformance testing for the 3gpp UTRAN and E-UTRAN UE supporting UE positioning. The following information can be found in this part: <ul style="list-style-type: none"> - the overall protocol conformance test structure; - the protocol conformance test configurations; - the conformance requirement and reference to the core specifications; - the test purposes; and - a brief description of the test procedure, the specific test requirements and short message exchange table.
37.571-5	11.0.0	N/A	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	This document specifies the test scenarios and assistance data required for the conformance test for FDD or TDD mode of UTRA and E-UTRA for the UE that supports one or more of the defined positioning methods.

2.2 Revised Standards

3GPP TSG #66 Maui

Revised Standard Number	Version at ARIB STD-T104 Ver.2.70	Version at ARIB STD-T104 Ver.2.60	3GP PWG	Title	Change Summary
-------------------------	-----------------------------------	-----------------------------------	---------	-------	----------------

Revised Standard Number	Version at ARIB STD-T104 Ver.2.70	Version at ARIB STD-T104 Ver.2.60	3GP PWG	Title	Change Summary
36.101	11.11.0	11.10.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<p>Following corresponding change in release 10 were reflected:</p> <ul style="list-style-type: none"> - CR for 1 PRB allocation performance in presence of MBSFN - CR for REFSENSE in lower SNR and change history. - Definition of the bits in the bitmap for indication of modified MPR behavior.. - Delete the incorrect notes for FDD DMRS demodulation tests - Clarification of notes relating to interferer offsets in intraband CA receiver requirement tables. - Correction to Transmit Modulation Quality for CA - Correction to Note 2 of Harmonic Signal Exceptions in Spurious Emissions. <p>Following corresponding change in release 10 were reflected with additional modifications to Rel-11 and beyond:</p> <ul style="list-style-type: none"> - Maintenance of CA demodulation performance requirements. - Removal of bracket for UL MIMO - Maintenance of CA performance requirements. - UE to UE co-existence between B42/B43 - Clarification of UL and DL CA configuration. - Band 22 correction in UE to UE co-existence table. - CA applicability rule. - Removal of brackets and TBD from CA feature. - CQI reporting in AWGN channel. <p>Following changes or corrections were made:</p> <ul style="list-style-type: none"> - Clean up for FelCIC demodulation performance requirements - CR to fix error of CA capability for CA performance tests. - Editorial CR for UL configuration table for intra-band contiguous and non-contiguous CA - Applicability of in-gap and out-of-gap measurements for intra-band NC CA - Maintenance of TM10 demodulation test configurations on PQI set and ZP-CSIRS (Rel-11 test 8.3.1.3.2, 8.3.2.4.2) - Correction of CoMP TDD CSI tests. - Band 28 and NS_24 - Removal of brackets (RF)

Revised Standard Number	Version at ARIB STD-T104 Ver.2.70	Version at ARIB STD-T104 Ver.2.60	3GP PWG	Title	Change Summary
36.104	11.11.0	11.10.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Correction on transmitter intermodulation requirement was made.
36.113	11.3.0	11.2.0	R4	E-UTRA, UTRA and GSM/EDGE; Multi-Standard Radio (MSR) Base Station (BS) Electromagnetic Compatibility (EMC)	EMC testing of multi-band operation for MSR BS was corrected.
36.133	11.11.0	11.10.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>Following corresponding change in release 10 were reflected:</p> <ul style="list-style-type: none"> - Correction of PRS Signal Levels in RSTD Reporting Tests. - Correction of Es/Noc values in inter-frequency RSTD tests. - Clarification on time to identify the target UTRA TDD cell for blind redirection from E-UTRA to UTRA TDD - SCell activation and deactivation delay test case for unknown SCell R11 - Changes to RSTD CA Reporting Delay tests. - Clarifications to RSTD values. - Correction to RSTD Intra Frequency Delay Test Case. - Correction on CA test cases in R11 - CR on PRS Signal Levels in RSTD Reporting Tests for Carrier Aggregation. <p>Following changes or corrections were made:</p> <ul style="list-style-type: none"> - Correction to ABS pattern and CRS Es/lot in felCIC RRM test cases. - Correction on Io value in CA 20MHz RSRQ test case R11 - Introduction of UE requirements for PCell interruptions (Rel-11) - Corrections to E-UTRAN TDD RLM In-sync under Time Domain Measurement Resource Restriction with CRS assistance information. - Corrections to E-UTRAN TDD RLM Out-of-sync under Time Domain Measurement Resource Restriction with CRS Assistance Information. - Test case for inter-RAT HO to multicarrier UTRA - Requirements for multicarrier handover from EUTRA to UTRA.

Revised Standard Number	Version at ARIB STD-T104 Ver.2.70	Version at ARIB STD-T104 Ver.2.60	3GP PWG	Title	Change Summary
36.141	11.11.0	11.10.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	<ul style="list-style-type: none"> - Multi-band test configurations corrections were made. - Transmitter intermodulation requirement was corrected.
36.213	11.9.0	11.8.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	
36.300	11.12.0	11.11.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Order of MCCH messages in a MAC PDU
36.306	11.9.0	11.8.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	<ul style="list-style-type: none"> - Introduction of capability for serving cell interruptions - New UE categories for DL 600Mbps
36.307	11.10.0	11.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	<ul style="list-style-type: none"> - Re-arrangement of UE RF requirements description for frequency bands specified in the release 12 and beyond was made. - Additional band combination of CA_B5_B13 was introduced. - Additional band combinations for 3DL inter-band CA were introduced.
36.331	11.10.0	11.9.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	<ul style="list-style-type: none"> - Correction of remaining TBD for Rel-10 FGIs. - New UE categories for DL 600Mbps. - Introduction of signalling for serving cell interruptions. - UE capability for modified MPR behavior.
36.523-3	11.6.0	11.5.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	<ul style="list-style-type: none"> - Addition of GCF WI-87/91/154/159/162/167/172/178/179/183 test cases. - Addition of other test cases related to aSRVCC, bSRVCC, MDT, eMDT, eMBMS, eICIC, feICIC, ..etc. - Other corrections.

(Annex 15)

3GPP ARIB Change History List of Standards (ARIB STD-T104 Ver. 3.00)

July 3, 2015

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #67 Shanghai

Revised Standard Number	Version at ARIB STD-T104 Ver.3.00	Version at ARIB STD-T104 Ver.2.70	3GP PWG	Title	Change Summary
36.101	10.18.0	10.17.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Removal of UL-RMC-s in sections A.2.3 and A.2.3.3, and According update of UL-RMC-s overview Table A.2.1.3-1 were made. Correction to eICIC aggressor cell configurations, Corrections to CA in-band emissions requirement, and Corrections to the CA power imbalance test were made. New section with NS_23 table included the additional emission requirements, and Additional frequency offset information for B42/B43 using NS_23 were added. Editorial correction for CA UE performance tests, Removal of eDL-MIMO term from specification, Removal of P _{cm} requirements for UL inter-band CA, Correction of UE spurious emissions structure for CA, and Changing the wording of the note to read “The maximum number of uplink HARQ transmission is ≤ 2” allowing test implementations to use 1 UL HARQ, were made.
36.133	10.18.0	10.17.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Removal of incorrect note from CA RSTD Accuracy tests, Correction of RMC and OCNG pattern in event triggered tests without measurement gap, Clarification that the maximum 7 layers are effective number of carriers, and Clarification that “one GSM layer corresponds to 32 carriers” in 8.1.2.1.1.1, were made.
36.306	10.12.0	10.11.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Introduction of UE capability for modified MPR behavior
36.307	10.14.0	10.13.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Some wordings for demodulation and CSI tests were corrected in an aligned way from other CA bands.
36.331	10.16.0	10.15.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Clarification on the absence of supportedMIMO-CapabilityUL-r10 Clarification on CSI measurement subframe set Correction of presence of codebookSubsetRestriction

Revised Standard Number	Version at ARIB STD-T104 Ver.3.00	Version at ARIB STD-T104 Ver.2.70	3GP PWG	Title	Change Summary
37.571-4	10.9.0	10.8.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	Addition of WI-166 test case. Other corrections.

2. Release 11

2.1 Added Standards

3GPP TSG #67 Shanghai

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
37.571-4	11.0.0		R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	<p>This document is part 4 of a multi-part conformance test specification.</p> <p>The specification contains a TTCN design frame work and the detailed test specifications in TTCN for the UE:</p> <ul style="list-style-type: none"> - A-GPS at the UTRA Uu interface in TTCN-2; - A-GNSS at the UTRA Uu interface in TTCN-3; - LTE positioning at the LTE-Uu interface in TTCN-3.

2.2 Revised Standards

3GPP TSG #67 Shanghai

Revised Standard Number	Version at ARIB STD-T104 Ver.3.00	Version at ARIB STD-T104 Ver.2.70	3GP PWG	Title	Change Summary
36.101	11.12.0	11.11.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<p>Removal of UL-RMC-s in sections A.2.3 and A.2.3.3, and According update of UL-RMC-s overview Table A.2.1.3-1 were made.</p> <p>Correction to eICIC aggressor cell configurations,</p> <p>Corrections to CA in-band emissions requirement, and Corrections to the CA power imbalance test were made.</p> <p>New section with NS_23 table included the additional emission requirements, and Additional frequency offset information for B42/B43 using NS_23 were added. Editorial correction for CA UE performance tests, Removal of eDL-MIMO term from specification, Removal of P_{cm} requirements for UL inter-band CA,</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.3.00	Version at ARIB STD-T104 Ver.2.70	3GP PWG	Title	Change Summary
					<p>Correction of UE spurious emissions structure for CA, and Changing the wording of the note to read “The maximum number of uplink HARQ transmission is ≤ 2” allowing test implementations to use 1 UL HARQ, were made.</p> <p>Correction for timing offset test for intraband non-contiguous CA, Modification of CSI reference measurement channel, Editorial correction on symbols for enhanced performance requirements type A, and Corrections of the frequency range of DTT protection limit, were made.</p> <p>Clarification to implemente CA configurations in a release independent way was made.</p>
36.133	11.12.0	11.11.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>Corresponding change in V10.18.0 was made.</p> <p>Clarification of UE Behaviour after Measurement Gap, Changing CPICH Ec/No to CPICH Ec/Io in EUTRA FDD to UTRA FDD HO test cases, Correction of implementation errors in Intra-frequency RSTD measurement reporting delay test cases, Correction of referencing section name in CA measurements, and Correction of the Time-domain measurement resource restriction pattern for neighbour cell measurements in test case A.9.2.16 were made.</p> <p>Time-domain measurement resource restriction pattern for serving cell measurements bit pattern in the general test parameters was specified.</p>
36.213	11.10.0	11.9.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	<p>TM10 CSI-IM Interference Measurements</p> <p>Clarification on common search reception related to MBMS</p>
36.300	11.13.0	11.12.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Correction of the Usage of the MultibandInfoList IE
36.306	11.10.0	11.9.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Introduction of UE capability for modified MPR behavior

Revised Standard Number	Version at ARIB STD-T104 Ver.3.00	Version at ARIB STD-T104 Ver.2.70	3GP PWG	Title	Change Summary
36.307	11.11.0	11.10.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Correction of some wordings for demodulation and CSI tests to align with other CA bands, Updating Table in B3.2, and Correction of UE RF requirements for dual uplink, were made. CA_42C release independent requirements in section 119, were moved to section 76 to align other release.
36.321	11.6.0	11.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	Introduction of UE behaviour on uplink transmission time difference
36.331	11.11.0	11.10.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Clarification on Measurement Configuration handling Clarification on Handling of WB RSRQ parameters Clarification to usage of field deltaTxD-OffsetPUCCH-Format1bCS-r11 in dedicated uplink power control parameter signalling Clarification on CSI measurement subframe set Correction of DRB establishment in case of fullConfig Clarification on the absence of supportedMIMO-CapabilityUL-r10 Correction of presence of codebookSubsetRestriction

3. Release 12

3.1 Added Standards

3GPP TSG #67 Shanghai

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
25.460	12.0.0		R3	UTRAN Iuant interface: General aspects and principles	Update to Rel-12 version
25.461	12.1.0		R3	UTRAN Iuant interface: Layer 1	Introduction of LTE 450 MHz Introduction of Band 30 Introduction of Band 32, XXXII
25.462	12.0.0		R3	UTRAN Iuant interface: Signalling transport	Update to Rel-12 version
25.466	12.2.0		R3	UTRAN Iuant interface: Application part	Introduction of LTE 450 MHz Introduction of Band 30 Introduction of L-band for Supplemental Downlink in E-UTRA and UTRA Correction of the reference
36.101	12.7.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Rel-12 version was created based on V11.5.0. Since then, Introduction of CA Band 2 and Band 13, Introduction of Band 31, Introduction of Band 30, Introduction of CA B19+B21, Addition of performance requirements of CA soft buffer management, introduction of TM3 and TM4 test for 5MHz channel bandwidth, Addition of performance requirement for UE under EVA200, Introduction of FeICIC requirement, Additional requirement for CA_1A-18A, Introduction of CA B2+B5, Introduction of CA B2+B12, Introduction of CA B12+B25, Introduction of intra-band contiguous CA B23, Introduction of CA_3A-3A, Introduction of reference SNR-s for FeICIC demodulation performance requirements, Introduction of UE TM3 demodulation performance requirements under ETU300, Introduction of CA B5+B25, Introduction of DL CoMP, Introduction of CA B5+B7, Introduction of CA B7+B28, Introduction of CA_7A-7A, Extension of regional requirements of Band 41 for deployments within 2595-2645MHz, Introduction of ePDCCH TM10 localized test, Introduction of SDR test for PDSCH with ePDCCH scheduling, Introduction of CA

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
					<p>B3+B27, Introduction of requirements for SNR test for TM9, Introduction of CA BW class D requirements, Introduction of CA performance requirements, Introduction of CA B1+B11, Introduction of CA B8+B40, Introduction of CA_2A-2A, Introduction of 4Tx beam steering model, Introduction of CA NC B42, Introduction of CA B1+B20, Introduction of CA B1+B3+B19, Introduction of 3DL CA B1+B3+B20, Introduction of CA B8+B11, Introduction of CA B19+B42+B42, Introduction of CA B1_B42_B42, Introduction of CA B41+ B42, Introduction of CA B18+B28, Introduction of CA_1A-7A, Introduction of 3DLs CA B1+B5+B7, Introduction of CA B1+B3+B8, Introduction of CA B1+B7+B20, Introduction of CA B1+B3+B5, Introduction of PUSCH 3-2 requirements, Introduction of CA_B5+B13, Introduction of Dual Connectivity, Introduction of dual uplink inter-band CA, Introduction of CA_B1+B28, Introduction of measurement accuracy requirements for UE category 0, Measurements requirements for UE category 0 with 1 Rx, SI reading requirements for UE category 0 with 1 Rx in FDD, TDD and HD-FDD, Introduce RLM requirements for LC-MTC in TS36.133, Introduction of CQI tests for TDD-FDD CA, Introduction of 256QAM demodulation performance requirements</p>
36.104	12.7.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	<p>Rel-12 version was created based on V11.5.0.</p> <p>Since then, Introduction of CA B1+B8, Introduction of CA B3+B28, Introduction of CA B23+B29, Introduction of CA B3+B26, Introduction of CA B3+B19, Introduction of CA B19+B21, Introduction of CA B2+B4, Introduction of intra-band non-contiguous CA B4, Introduction of Band 30, Introduction of Band 31, Introduction of CA B2+B13, Addition of CA_3C in Table 5.5-2, Addition of requirements for CA_B1+B26, Introduction of CA B2+B5, Definition of minimum channel spacing for non-contiguous intra-band CA, Introduction of intra-band contiguous CA for B27, Introduction of intra-band non-contiguous CA in B23, Introduction of CA B2+B12, Introduction of CA B12+B25, Addition of 8Rx performance requirements, Introduction of intra-band contiguous CA in B23, Introduction of intra-band non-contiguous CA in B3, Introduction of CA B5+B25, Introduction of CA B5+B7, Introduction of CA B7+B28, Introduction of intra-band non-contiguous CA in B7, Extension of regional requirements of Band 41 for deployments</p>

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
					within 2595-2645MHz, Introduction of CA B39+B41, Introduction of CA B3+B27, Introduction of operating Band 32 and CA B20+B32, Introduction of CA B8+B40, Introduction of CA B1+B11, Introduction of CA B4+ B27, Introduction of intra-band non-contiguous CA B2, Introduction of CA_NC_B42, Introduction of CA B1+B20, Introduction of intra-band non-contiguous CA B41 for 3DL, Introduction of intra-band CA B42C, Introduction of CA B1+B3+B8, Clarification of high speed train conditions, Introduction of CA B8+B11, Introduction of CA B1+B3, Introduction of CA B1+B3+B19, Introduction of CA B19+B42+B42, Introduction of CA B1+B42+B42, Introduction of CA B1+B7 and B1+B5+B7, Introduction of CA B1+B3+B5, Introduction of CA B18+B28, Introduction of CA B1+B3+B20, Introduction of CA combinations, Introduction of FRC for PUSCH with TTI bundling and enhanced HARQ pattern, Introduction of inter-band CA_B1+B28, Addition of CA B5+B13 to Table 5.5-3, Introduction of performance requirements for PUSCH with TTI bundling and enhanced HARQ pattern, Addition of RE power control dynamic range and EVM requirement for 256QAM, Introduction of 3DL CA combinations, Introduction of CA_3A-42A and CA_3A-42C, Introduction of CA for TDD+FDD, were made.
36.111	12.0.0		R4	Location Measurement Unit (LMU) performance specification; Network based positioning systems in Evolved Universal Terrestrial Radio Access Network (E-UTRAN)	Rel-12 version was upgraded automatically from previous Release version 11.4.0.
36.112	12.2.0		R4	Location Measurement Unit (LMU) conformance specification; Network based positioning systems in Evolved Universal Terrestrial Radio Access Network (E-UTRAN)	Rel-12 version was created based on V11.0.0. Since then, Update of annex references, Addition of missing tables, Editorial cleanup, and Update of annex C.2 were made.
36.113	12.3.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) and repeater ElectroMagnetic Compatibility (EMC)	Rel-12 version was created based on V11.2.0. Since then, New bands (Band 30, Band 31, and Band 32) were introduced. Update of definitions to support supplemental DL, and Clarification of EMC test conditions and configurations for multi-band BS were made.
36.124	12.1.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Electromagnetic compatibility (EMC) requirements for mobile terminals and ancillary equipment	Rel-12 version was created based on V11.2.0. Since then, New bands (Band 30, Band 31, and Band 32) were introduced.

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
36.133	12.7.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>Rel-12 version was created based on V11.5.0.</p> <p>Since then, Introduction of Band 30, Introduction of Band 31, Correction on the test cases for UE transmit timing accuracy for SCell, Corrections on RSTD CA test parameters, FeICIC related changes made in the previous releases, CQI feedback periodicity correction for RLM in eICIC/FeICIC test setup. Addition of TDD serving cell measurement accuracy tests, Clarification on tests for multiple bandwidths, Introduction of E-UTRAN TDD WB-RSRQ test case, Clarifications for intra-band non-contiguous CA, Addition of new OCNG pattern and RMC for E-UTRA TDD with 5MHz BW, Clarification on UE transmit timing accuracy test cases in DRX mode, Correction to periodicity of ABS pattern and OCNG pattern number in RRM tests, Introduction of Band 32/XXXII, Introduction of RRM measurement requirements for eIMTA, Introduction of RRM requirements for TDD-FDD CA, test cases for accuracies of RSRP or RSRQ in CA for FDD and TDD, Introduction of test cases for RSTD Measurement reporting test case, Introduction of test cases for event triggered reporting on deactivating Scells in non-DRX FDD and TDD, Introduction of test cases for event triggered reporting on deactivated SCell with PCell interruption in non-DRX, Introduction of test cases for absolute and relative RSRQ accuracies in CA for FDD and TDD, Clarification on cell identification for TDD config 0, Correction on Io value in CA 20MHz RSRQ test case, Correction on Io value in CA 10MHz+5MHz RSRQ test case, Clarification of parallel reporting criteria, Introduction of requirements for small cell enhancement, Introduction of positioning enhancement requirement for UE Rx-Tx accuracy, Introduction of RSRP measurement accuracy requirement for DRS based measurement, Introduction of RRM requirements for Dual Connectivity, Introduction of high doppler measurement accuracy requirements, Introduction of non-contiguous intra-band and inter-band 2UL CA, Correction of interruptions with RSTD measurements for 3DL CA, Introduction of CA measurement accuracy requirements for SCE, Correction on Io in carrier aggregation test cases, Introduction of RSRQ accuracy requirement, range increase</p>
36.141	12.7.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	<p>Rel-12 version was created based on V11.5.0.</p> <p>Since then, Introduction of CA B1+B8, Introduction of CA B3+B28,</p>

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
					<p>Introduction of CA B23+B29, Introduction of CA B3+B26, Introduction of CA B3+B19, Introduction of CA B19+B21, Introduction of CA B2+B4, Introduction of intra-band non-contiguous CA B4, Introduction of Band 30, Introduction of Band 31, Introduction of CA B2+B13, Addition of requirements for CA_B1+B26, Introduction of CA B2+B5, Introduction of intra-band contiguous CA for B27, Introduction of intra-band non-contiguous CA in B23, Introduction of CA B2+B12, Introduction of CA B12+B25, Addition of conformance test of 8Rx, Introduction of intra-band contiguous CA in B23, Introduction of intra-band non-contiguous CA in B3, Introduction of CA B5+B25, Introduction of CA B5+B7, Introduction of CA B7+B28, Introduction of intra-band non-contiguous CA in B7, Extension of regional requirements of Band 41 for deployment within 2595-2645MHz, Introduction of CA B39+B41, Introduction of CA B3+B27, Introduction of test requirements of multi-band operation with conformance test improvement, Addition of reference for Band 29 in Table 5.5-1, Introduction of operating Band 32 and CA B20+B32, Introduction of CA B8+B40, Introduction of CA B1+B11, Introduction of CA B4+B27, Introduction of intra-band non-contiguous CA B2, Introduction of CA_NC_B42, Introduction of CA B1+B20, Introduction of intra-band non-contiguous CA B41(3DL), Introduction of intra-band CA B42C, Introduction of CA B1+B3+B8, Introduction of CA B8+B11, Introduction of CA B1+B3, Introduction of CA B1+B3+B19, Introduction of CA B19+B42+B42, Introduction of CA B1+B42+B42, Introduction of CA B1+B7 and B1+B5+B7, Introduction of CA B1+B3+B5, Introduction of CA B18+B28, Introduction of CA B1+B3+B20, Introduction of CA combinations, Update of definitions to support supplemental DL, Introduction of CA B1+B7+B20, Introduction of FRC and test tolerance for PUSCH coverage enhancement performance with TTI bundling, Introduction of test requirements for PUSCH with TTI bundling and enhanced HARQ pattern, Introduction of test for 256QAM, Introduction of 3DL CA combinations, Introduction of CA_3A-42A and CA_3A-42C, Introduction of CA for TDD+FDD, were made.</p>

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
36.171	12.1.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for Support of Assisted Global Navigation Satellite System (A-GNSS)	Rel-12 version was created based on V11.1.0. Since then, Introduction BDS to A-GNSS of E-UTRA, and Correction on BDS satellites number were made.
36.201	12.2.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE physical layer; General description	Introduction of TDD-FDD CA, Small-Cell Enhancements, Dual Connectivity, eIMTA, WLAN/3GPP interworking Introduction of ProSe
36.211	12.5.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	Introduction of Rel 12 feature for Downlink MIMO Enhancement On PMCH starting symbol in an MBSFN subframe CR on antenna port definitions Clarification of downlink subframes Inclusion of eIMTA, TDD-FDD CA, and coverage enhancements Inclusion of low-cost MTC and 256QAM CR on port 5 UE-specific reference signal when PDSCH is overlapped with EPDCCH Clarification of PUSCH rate matching with SRS Inclusion of small-cell enhancements Inclusion of ProSe Correction on 256QAM applicability to PMCH Correction of discovery signal transmission
36.212	12.4.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Introduction of Rel 12 feature for Downlink MIMO Enhancement Clarification on UE antenna port based CRC masking Correction on UCI multiplexing on PUSCH Introduction of Rel 12 features of TDD-FDD CA and eIMTA Clarification of downlink subframes CR for 36.212 on 256QAM and LC-MTC CR for 36.212 on 256QAM and LC-MTC Clarification of PUSCH rate matching with SRS Introduction of Dual Connectivity feature into 36.212 Introduction of D2D feature into 36.212
36.213	12.5.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Introduction of Rel 12 feature for Downlink MIMO Enhancement Correction to CSI Reporting

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
					<p>Clarification on PUCCH Mode 1-1 for 4Tx Dual Codebook</p> <p>Common search space monitoring for MBMS</p> <p>Introduction of new UE categories</p> <p>Modification to I_SRS = 0 for trigger type 1 SRS and TDD</p> <p>Correction to CSI processing in TM10</p> <p>Clarification on PUCCH reporting type payload size</p> <p>Clarification on SRS colliding with PUCCH in the same cell when the UE is configured with multiple TAGs</p> <p>Clarification on SRS antenna switching</p> <p>Introduction of Rel-12 LTE-Advanced features in 36.213</p> <p>Correction on SRS transmission for TDD-FDD CA</p> <p>Correction on beta_{offset}^{HARQ-ACK} determination for a UE configured with two uplink power control subframe sets</p> <p>Corrections for TDD eIMTA</p> <p>CR on HARQ-ACK Multiplexing in PUSCH for TDD-FDD CA</p> <p>Correction to UCI embedding in case of a single serving cell and simultaneous PUSCH and PUCCH transmission</p> <p>Corrections on UL-reference UL/DL configuration</p> <p>CR for Clarification of special subframe and usage alignment</p> <p>Introduction of low-cost MTC and 256QAM features</p> <p>Introduction of Dual Connectivity, Small Cell Enhancements, NAICS, eIMTA, and TDD-FDD CA features</p> <p>Clarification of periodic CSI feedback for subband CQI and PMI</p> <p>Correction of the parameter CSIProcessIndex</p> <p>Introduction of D2D feature into 36.213</p> <p>Correction to PUCCH procedures in case of FDD Pcell and TDD Scell in TDD-FDD CA</p> <p>Correction on higher layer parameter names for 256QAM</p> <p>TM10 CSI-IM Interference Measurements</p> <p>Clarification on common search reception related to MBMS</p> <p>Correction to Discovery in Small Cell Enhancement feature</p> <p>Corrections to Dual Connectivity feature</p>

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
36.214	12.2.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer; Measurements	Inclusion of definition of WLAN Beacon RSSI in LTE specifications Introduction of MBSFN radio measurement Measurement definitions for measurements with discovery signals New E-UTRA RSRQ measurement definition Inclusion of measurement for ProSe
36.216	12.0.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer for relaying operation	Update to Rel-12 version
36.300	12.5.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Introduction of Load reporting between LTE and eHRPD Introduction of LAPI for NNSF Introduction of Restoration of eMBMS Bearer Services Introduction of Kill All Warning Messages Introduction of Collocated L-GW for SIPTO@LN Introduction of SIPTO@LN Stand-Alone Introduction of support for connected mode inbound mobility to shared CSG/hybrid cell Introduction of CS to PS SRVCC Introduction of Reporting of User Location Information at E-RAB release Introduction of PWS Restart Indication Update of CA deployment scenarios Correction of Outdated Statement on Security Key Corruption Introduction of eIMTA feature Introduction of Power Saving Mode feature for LTE Introduction of TDD-FDD CA Introduction of WLAN/3GPP Radio Interworking for LTE Introduction of LTE TDD eIMTA Introduction of MBMS Bearer priority Update Introduction of HeNB ID verification in PWS Restart Indication message Updating X2 GW Stage 2 Description Introduction of WLAN/3GPP Radio Interworking for LTE Clarification on Service Continuity

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
					<p>Introduction of low complexity UE features</p> <p>Introduction of the UE history reported from the UE</p> <p>Corrections to MBMS SAI 0</p> <p>Introduction of inter-eNB CoMP</p> <p>Introduction of context fetch</p> <p>Delete stage 3 detail on cause of the RLF</p> <p>Introduction of Radio-interface Based Synchronization by OAM configuration</p> <p>Introduction of CN assistance information</p> <p>Corrections for RAN assisted WLAN interworking</p> <p>Clarification on handling of dedicated parameters upon cell selection&reselection</p> <p>Introduction of Increased Carrier monitoring feature</p> <p>Introduction of SystemInformationBlockType17</p> <p>Clarification on Order of MCCH messages in a MAC PDU</p> <p>Introduction of Small Cell Enhancements Physical Layer feature</p> <p>Introduction of NAICS</p> <p>Correction to stage 2 description of Low Complexity UEs</p> <p>Introduction of Dual Connectivity</p> <p>Introduction of ProSe</p> <p>Introduction of RLF reporting over S1</p> <p>Introduction of further detail on the required OAM configuration to support RIBS</p> <p>Introduction of inter-eNB CoMP</p> <p>Clarification on TNL address selection for HeNB scenario</p> <p>Introduction of X2 Removal Signaling Description</p> <p>Clarification of the usage of radio measurements in the RLF report</p> <p>Corrections to stage 2 description of ProSe</p> <p>Introduction of PDCP-PDU retransmission to PDCP functions</p> <p>Clarification on DC</p> <p>Clarification on SCG change definition</p> <p>Introduction of MBMS congestion management for Public Safety</p>

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
					<p>Group Call Correction of the Usage of the MultibandInfoList IE Clarification of the description of the NAICS procedure Correction on SeNB behaviour for distinguishing uplink PDCP PDUs Correction on DL Data Forwarding for Split Bearer Minor corrections on DC 36.300</p>
36.302	12.3.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	<p>Introduction of the Downlink Reception Types for TDD eIMTA Correction on simultaneous DL physical channels for idle UE Updates for low complexity UEs, and the improvements for the representation of the reception requirements Introduction of dual connectivity Removal of unnecessary requirement to receive MIB on SCell</p>
36.304	12.4.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	<p>Introduction of UE mobility history reporting (option 2) Introduction of support for UE power saving mode Introduction of RRC Connection Establishment failure temporary Qoffset handling Introduction of MBSFN MDT Introduction of procedures of WLAN/3GPP Radio Interworking for LTE Clarification on handling of dedicated parameters upon cell selection Corrections of UE behavior when the cell temporarily becomes unsuitable. Introduction of UE capability signaling for WLAN/3GPP radio interworking Cleanup on RAN-assisted WLAN interworking Correction on WLAN identifiers Introduction of ProSe</p>
36.305	12.2.0		R2	Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Stage 2 functional specification of User Equipment (UE) positioning in E-UTRAN	<p>Introduction of BDS in LTE Addition of Inter-RAT Measurements to Stage 2 Location Specification Update of BDS version to 2.0</p>
36.306	12.4.0		R2	Evolved Universal Terrestrial Radio Access (E-	Corrections to UE capability and feature descriptions

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
				UTRA); User Equipment (UE) radio access capabilities	<p>Introduction of the enhancement for TTI bundling for FDD</p> <p>Introduction of FDD/TDD CA full duplex support</p> <p>Introduction of Extended RLC LI field</p> <p>Introduction of Network-requested CA Band Combination Capability Signalling</p> <p>Introduction of RRC Connection Establishment failure temporary Qoffset handling</p> <p>Introduction of capability for eMBMS reception on SCell and Non-Serving Cell</p> <p>Introduction of PDCP SDU number limitation for Category 9-10 UE</p> <p>Introduction of UE capabilities for Hetnet mobility</p> <p>Introduction of UE eIMTA capabilities</p> <p>Corrections to UE capabilities and features</p> <p>Introduction of MBSFN MDT capability</p> <p>Introduction of Category 0 for low complexity UEs</p> <p>Clarification on DL parallel reception of category 0 UEs</p> <p>Introduction of Optional features for Hetnet mobility</p> <p>Corrections to eIMTA capabilities</p> <p>Introduction of extended RSRQ value range and new RSRQ definition</p> <p>Introduction of support of Discovery Signals</p> <p>Introduction of Prohibit timer for SR</p> <p>Introduction of UE capability for IncMon</p> <p>Introduction of capability for serving cell interruptions</p> <p>Introduction of missing Rel-12 UE capabilities</p> <p>Correction of Optionality support of UE mandatory features for Category 0 UEs</p> <p>Introduction of Dual Connectivity</p> <p>Introduction of NAICS Capability</p> <p>Clarification of Mandatory support of TTI bundling without resource allocation restriction for LTE coverage enhancements</p> <p>Introduction of UE capability signaling for WLAN/3GPP radio</p>

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
					interworking Introduction of support of 256QAM Introduction of UE capability for modified MPR behavior Correction to UE capabilities for Low Complexity UEs Clarification on TDD DC capability Introduction of Extended number of measurement identities capability Introduction of total L2 buffer sizes for UEs supporting split bearers Introduction of ProSe Introduction of the capability for the prioritization of frequency bands in mFBI Introduction of UL64QAM based on split of DL and UL categories
36.307	12.7.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Rel-12 version was created based on V11.3.0. Since then, Band 30, Band 31, CA B1+B8, CA B3+B28, CA B23+B29, CA B3+B26, CA B2+B5, CA B2+B12, CA B12+B25, CA B5+B25, CA B5+B7, CA B7+B28, CA B3+B27, CA B1+B5, CA B20+B32, CA B1+B11, CA B4+B27, CA B3+B27, CA B1+B20, CA B18+B28, CA B1+B3+B19, CA B1+B3, CA B1+B5+B7, CA B1+B7+B20, CA B8+B11, CA B1+B3+B5, CA B1+B3+B8, CA B1+B3+B20, CA B1+B28, CA B5+B13, CA_3A-19A, CA_19A-21A, CA_2A-13A, CA_4A-4A, CA_3C, CA_1A-26A, CA_2A-4A, CA_23A-23A, CA_C_B27, CA_23B, CA_7A-7A, CA_39C, CA_39A-41A, CA_2A-2A, CA_NC_B42, CA_41D, CA_1A-7A, CA_41A-42A, CA_41C-41A, CA_41A-41C, CA_NC_B3, a new bandwidth combination set for CA_25A-25A, 2DL inter-band CA (FDD) and 2DL fallback, 3DL inter-band CA including Band 30, New CA_40C bandwidth combination set, Additional band combinations for 3DL inter-band CA, A new annex with common RRM requirements, and Common UE performance requirements, were introduced. The explanatory sentences in 'Scope' was moved to a new 'General' clause, and also Addition of text describing the purpose of Annex B, Update of Common RRM requirements for CA, and Update of CA performance tests, were made.
36.314	12.0.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Layer 2 - Measurements	Updated to Rel-12 version with some corrections

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
36.321	12.5.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	<p>Clarification on Power Headroom MAC CE</p> <p>Clarification on BCCH reception for MBMS on any configured or configurable SCell</p> <p>Introduction of Long DRX Command MAC Control Element</p> <p>Introduction of FDD/TDD CA</p> <p>Introduction of TDD eTMA</p> <p>Introduction of low complexity UEs</p> <p>Introduction of Category 0 report in Msg3</p> <p>Correction on DRX Operation</p> <p>Introduction of Prohibit timer for SR</p> <p>Introduction of dual connectivity in MAC</p> <p>Clarification on the Logical channel prioritization in DC</p> <p>Introduction of MBMS congestion management for Public Safety Group Call</p> <p>Introduction of ProSe in MAC</p> <p>Introduction of UE behaviour on Uplink transmission time difference</p> <p>Editorial updates</p>
36.322	12.2.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Link Control (RLC) protocol specification	<p>Introduction of Extended RLC LI field</p> <p>Corrections on configuration of extended RLC LI field</p> <p>Correction on RLC concatenation for extended LI field</p> <p>Introduction of ProSe Direct Communication</p> <p>MCC editorial update</p>
36.323	12.3.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification	<p>Clarification of ROHC Feedback Handling</p> <p>Clarification of the decompressor state and mode after PDCP re-establishment</p> <p>Introduction of dual connectivity in PDCP</p> <p>Correction on Reconfiguration of PDCP reordering timer for DC</p> <p>Introduction of ProSe Direct Communication</p>
36.331	12.5.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	<p>Introducing UE support for inbound mobility to a shared CSG cell</p> <p>Introduction of support of further DL MIMO enhancement</p> <p>Introduction of SSAC in CONNECTED</p>

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
					<p>Update of CMAS reference to E-UTRAN specific sections in TS23.041</p> <p>Introduction of Cell-specific time-to-trigger</p> <p>Clarification on UE autonomous modification of cellsTriggered upon serving cell addition/ release</p> <p>Introduction of T312</p> <p>Introduction of UE-supported EARFCN list in handover preparation information for MFBI</p> <p>Correction of Connection Establishment Failure Report</p> <p>Clarification on the presence of TDD special subframe</p> <p>Introduction of UE mobility history reporting (option 2)</p> <p>Clarification on need codes, conditions and ASN.1 defaults for extension fields</p> <p>Clarification on ASN.1 issue with inter-node signalling (AS-Config)</p> <p>Clarification for the SIB occurrence in a single SI message</p> <p>Introduction of new UE categories for DL 450Mbps class</p> <p>Introduction of IoT indication for inter-band TDD CA with different UL/DL configuration</p> <p>Removal of comment line from EUTRA-UE-Variables imports</p> <p>Correction on measObjectList in VarMeasConfig</p> <p>Minor correction inbound mobility to shared CSG cell</p> <p>Clarificaton on precedence of SCell SI provided dedicately</p> <p>Introduction of support of the enhancement for TTI bundling for FDD</p> <p>Corrections on timer T312</p> <p>Correction to the description of physCellIdRange in MeasObjectEUTRA</p> <p>Corrections to UE mobility history information</p> <p>Clarification on ACK/NACK feedback mode on PUSCH</p> <p>Introduction of SIB15 enhancement for service availability information</p> <p>Introduction of FDD/TDD CA UE capability</p> <p>Clarification of E-UTRA MFBI signalling</p>

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
					<p>Introduction of Extended RLC LI field</p> <p>Introduction of Network-requested CA Band Combination Capability Signalling</p> <p>Clarification on allowing TDD/FDD split for FGI111 and FGI112</p> <p>Clarification on inter-RAT ANR capability signalling in FGI33 when UE supports UTRA TDD only</p> <p>Introduction of TDD eIMTA</p> <p>Minor Corrections to T312</p> <p>Introduction of RRC Connection Establishment failure temporary Qoffset handling</p> <p>Introduction of UE capability for eMBMS reception on SCell and Non-Serving Cell</p> <p>Clarification on FDD&TDD split for CA</p> <p>Introduction of UE capabilities for Hetnet mobility</p> <p>Introduction of UE eIMTA capabilities</p> <p>Corrections to extended RLC LI field</p> <p>Introduction of TAI reporting of last serving cell</p> <p>Correction to Network-requested CA Band Combination Capability Signalling</p> <p>Clarification on double indication of SAI in SIB15</p> <p>Clarification on MBMSCountingResponse</p> <p>Clarification on the setting of SupportedBandCombination-v1130</p> <p>Correction of E-UTRAN UE capabilities description in HandoverPreparationInformation message field descriptions</p> <p>Introduction of MBSFN measurement by extension of logged measurements</p> <p>Introduction of ACB skip for MMTEL voice/video and SMS</p> <p>Clarification on determining MBMS frequencies of interest in MBMSInterestIndication</p> <p>Introduction of signaling support for low complexity UEs</p> <p>Rel-12 ASN.1 correction</p> <p>Introduction of shorter MCH scheduling period</p>

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
					<p>Clarification on time-domain resource restriction pattern applicable to neighbour cell RSRQ measurements</p> <p>Correction of stop condition for "Chiba offset"</p> <p>Mandating the FGI bit 31 to true</p> <p>Introduction of Connected mode procedures and RRC signaling of WLAN/3GPP Radio Interworking for LTE</p> <p>Clarification on WLAN interworking</p> <p>Correction of handling of dedicated parameters during re-establishment</p> <p>Correction of WLAN/3GPP Radio Interworking for LTE</p> <p>Reduction of possible values for WLAN backhaul rate thresholds</p> <p>Clarification on PDCP SN size change during HO for RLC-UM mode bearers</p> <p>Introduction of support of TTI bundling without resource allocation restriction for LTE coverage enhancements for Rel-12</p> <p>Corrections to eIMTA capabilities</p> <p>Introduction of ACB, ACB-skip, CSFB and SSAC signalling per PLMN</p> <p>Minor corrections regarding WLAN interworking</p> <p>Correction of remaining TBD for Rel-10 FGIs</p> <p>Introduction of new UE categories for DL 600Mbps</p> <p>Introduction of Dual Connectivity</p> <p>Prohibit timer for SR</p> <p>Introduction of support of 256QAM (per band 256QAM capability report)</p> <p>Introduction of increased number of frequencies to monitor</p> <p>Introduction of extended RSRQ value range and new RSRQ definition</p> <p>Introduction of signalling for serving cell interruptions</p> <p>Correction of p0-Persistent-SubframeSet2 Handling</p> <p>Introduction of missing Rel-12 UE capabilities</p> <p>Correction of Extended RLC LI field</p>

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
					<p>Removal of outstanding Need OP for non-critical extension</p> <p>Clarification on statusReportRequired handling</p> <p>Introduction of MCH BLER and RSRQ for MBSFN MDT</p> <p>Clarification on optionality support of UE mandatory features for Category 0 UEs</p> <p>Clarifications on eIMTA and eICIC</p> <p>Introduction of UE capability for modified MPR behavior</p> <p>Introduction of support of Discovery Signals measurement</p> <p>Introduction of RRC Parameters for NAICS</p> <p>Introduction of UE capability signaling for WLAN/3GPP radio interworking</p> <p>MCC editorial update</p> <p>Clarification on the setting of measScaleFactor without reducedMeasPerformance</p> <p>Clarification on Measurement Configuration handling</p> <p>Clarification to usage of field deltaTxD-OffsetPUCCH-Format1bCS-r11 in dedicated uplink power control parameter signalling</p> <p>Clarification on CSI measurement subframe set</p> <p>Clarification on absence of supportedMIMO-CapabilityUL-r10</p> <p>Clarification on presence of codebookSubsetRestriction</p> <p>Miscellaneous changes resulting from review for REL-12 ASN.1 freeze</p> <p>Introduction of ProSe</p>

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
36.355	12.4.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Introduction of BDS Correction of Galileo assistance data elements Clarification on gnss-DayNumber Introduction of signaling of OTDOA Neighbour Cell Information and Measurements Correction to Galileo Assistance Data Introduction of an Early Position Fix Update of BDS version to 2.0 Correction of GLONASS system time Clean-up
36.508	12.5.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing	This document contains definitions of reference conditions and test signals, default parameters, reference radio bearer configurations used in radio bearer interoperability testing, common radio bearer configurations for other test purposes, common requirements for test equipment and generic set-up procedures for use in conformance tests for the 3G E-UTRAN UE.
36.521-1	12.5.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing	This document specifies the measurement procedures for the conformance test of the UE that contain transmitting characteristics, receiving characteristics and performance requirements as part of the 3G LTE.
36.521-2	12.5.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)	This document provides the ICS proforma for 3G E-UTRA UE.
36.521-3	12.5.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	This document specifies the measurement procedures for the conformance test of the UE that contain requirements for support of RRM as part of the 3G LTE.

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
36.523-1	12.5.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	<p>This document specifies the protocol conformance testing for the 3G E-UTRAN UE.</p> <p>This is the first part of a multi-part test specification. The following information can be found in this part:</p> <ul style="list-style-type: none"> - the overall test structure; - the test configurations; - the conformance requirement and reference to the core specifications; - the test purposes; and - a brief description of the test procedure, the specific test requirements and short message exchange table.
36.523-2	12.5.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	<p>This document provides the ICS proforma for 3G UE, in compliance with the relevant EPS (E-UTRA/EPC) requirements.</p>
36.523-3	12.1.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	<p>This document specifies the protocol and signalling conformance testing in TTCN-3 for the 3GPP UE at the UE E-UTRAN radio interface.</p> <p>The following TTCN test specification and design considerations can be found in the present document:</p> <ul style="list-style-type: none"> - the test system architecture; - the overall test suite structure; - the test models and ASP definitions; - the test methods and usage of communication ports definitions; - the test configurations; - the design principles and assumptions; - TTCN styles and conventions; - the partial PIXIT proforma; - the test suites.

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
37.320	12.2.0		R2	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	Introduction of Cell_FACH with Second DRX to 3G Logged MDT Introduction of MBMS operations Support for E-UTRA Minor corrections to MDT Stage-2 Clarification on reporting and measurement collection triggers for immediate MDT
37.571-1	12.2.0		R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	This document specifies the procedures for the conformance test of the measurement requirements for FDD or TDD mode of UTRA and FDD or TDD mode of E-UTRA for the UE that supports one or more of the defined positioning methods. These positioning methods are for UTRA: A-GPS, A-GNSS and for E-UTRA: A-GNSS, OTDOA, ECID.
37.571-2	12.1.0		R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	This document specifies the protocol conformance testing for the 3G UTRAN and E-UTRAN UE supporting UE positioning. This is the second part of a multi-part test specification. The following information can be found in this part: - the overall protocol conformance test structure; - the protocol conformance test configurations; - the conformance requirement and reference to the core specifications; - the test purposes; and - a brief description of the test procedure, the specific test requirements and short message exchange table.
37.571-3	12.2.0		R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	This document provides the ICS proforma for 3G UTRAN and E-UTRAN UE supporting UE positioning
37.571-4	12.0.0		R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	This document is part 4 of a multi-part conformance test specification. The specification contains a TTCN design frame work and the detailed test specifications in TTCN for the UE: - A-GPS at the UTRA Uu interface in TTCN-2; - A-GNSS at the UTRA Uu interface in TTCN-3; - LTE positioning at the LTE-Uu interface in TTCN-3.

Added Standard Number	Version at ARIB STD-T104 Ver.3.00		3GP PWG	Title	New Document Summary
37.571-5	12.1.0		R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	This document specifies the test scenarios and assistance data required for the conformance test for FDD or TDD mode of UTRA and E-UTRA for the UE that supports one or more of the defined positioning methods. For UTRA these are A-GPS and A-GNSS. For E-UTRA these are A-GNSS, OTDOA and ECID.

3.2 Revised Standards

None

(Annex 16)

3GPP ARIB Change History List of Standards (ARIB STD-T104 Ver. 3.10)

September 30 2015

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #68 Malmö

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
36.101	10.19.0	10.18.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	The following essential corrections were made: <ul style="list-style-type: none">• Correction of intra-band contiguous CA reference sensitivity definition for Class D.• Correction of UE to UE co-existence requirements between B42/B43.• Correction of 3.5 GHz out-of-band blocking.• Correction of NS value for intra-band contiguous CA configurations not allowed A-MPR.• NS_22 and NS_23 corrections.• Clarification to spurious emission requirement for the edge of spurious domain.• Clarification on uplink configuration for reference sensitivity of inter-band CA.• Correction of EVM for Intra-band contiguous UL CA for non-equal Channel BWs.• Updates to the definitions of CA capability.• Correction for updating CA applicability rule.
36.133	10.19.0	10.18.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	The following essential correction was made: <ul style="list-style-type: none">• Correction of Cell Time offset in RSTD CA Test cases.

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
36.213	10.13.0	10.12.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Clarification on PUCCH Format 3 Resource Derivation for TDD UL/DL Configuration 5
36.306	10.13.0	10.12.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Corrections on MIMO capabilities UE support of CA fallback configurations
36.307	10.15.0	10.14.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Introduction of CA_42D, and Removal of CA_2A-2A-13A, CA_4A-4A-13A were made. 2DL CA combinations B2-B28, B3-B31, B4-B28, B7-B22, B20-B31, and B25-B26 were added. 3DL CA combinations B1-B3-B28, B1-B7-B28, B2-B5-B29, B3-B3-B5, B3-B7-B7, B3-B7-B8, B3-B7-B28, B7-B7-B28, B38-B40-B40, and B41-B42-B42 were added.
36.331	10.17.0	10.16.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction on Aperiodic CSI Reporting for 1.4MHz cell Correction to additionalSpectrumEmission Restriction to CA capability signalling
36.523-1	10.4.0	10.3.1	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	Correction to TS 36.523-1 Rel-10 pointer

2. Release 11

2.1 Added Standards

None

2.2 Revised Standards

3GPP TSG #68 Malmö

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
36.101	11.13.0	11.12.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<p>Subset of the corresponding changes made in V.10.19.0 were made.</p> <p>The following essential corrections were made:</p> <ul style="list-style-type: none"> • Corrections on UL transmit power for CA receiver requirements. • Clarification of PDSCH allocation in CSI PUSCH 3-0 feICIC tests.. • Correction to CA_7C A-MPR in CA-NS_06. • Correction of receiver spurious emissions requirements for downlink-only bands. • Editorial correction for CA UE performance tests. • Correction of CA performance tests. • Updates to the definitions of CA capability. • Correction for updating CA applicability rule.
36.104	11.12.0	11.11.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Clarification of parameter P for emission requirements, and Some corrections related to single carrier requirements, were made.

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
36.133	11.13.0	11.12.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	The corresponding change made in V.10.19.0 was also made. The following essential corrections were made: <ul style="list-style-type: none"> • Correction of E-UTRAN TDD-TDD Inter-frequency event triggered reporting under fading propagation conditions in synchronous cells for 20 MHz +20 MHz bandwidth. • Correction of E-UTRAN TDD with 20 MHz +20 MHz bandwidth to UTRAN TDD cell search under fading propagation conditions. • Correction of E-UTRAN TDD activation and deactivation of known SCell in non-DRX for 20 MHz +20 MHz bandwidth. • Correction of E-UTRAN TDD activation of unknown SCell in non-DRX for 20 MHz +20 MHz bandwidth. • Correction to felCIC cell configurations in RLM. • Correction to A.8.1.8.
36.141	11.12.0	11.11.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Clarification of parameter P for emission requirements, and Some corrections related to single carrier requirements, were made.
36.213	11.11.0	11.10.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Clarification on PUCCH Format 3 Resource Derivation for TDD UL/DL Configuration 5
36.306	11.11.0	11.10.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Corrections on MIMO capabilities UE support of CA fallback configurations
36.307	11.12.0	11.11.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Introduction of CA_42D, Introduction of dual UL CA (1A-18A, 1A-26A, 18A-28A, and 1A-28A), Clarification of the wordings for UE demodulation and CSI tests for each CA configuration for release independent releases for dual UL, Corrcction of the typos remained in the specification, and Introduction of 3DL intra-band NC CA combination in Band 42, were made. 2DL CA combinations B2-B28, B3-B31, B4-B28, B7-B22, B20-B31, and B25-B26 were added. 3DL CA combinations B1-B3-B28, B1-B7-B28, B2-B2-B12, B2-B5-B29, B3-B3-B5, B3-B3-B8, B3-B7-B7, B3-B7-B8, B3-B7-B28, B7-B7-B28, B38-B40-B40, and B41-B42-B42 were added. 4DL CA combinations B2-B2-B4-B4, B2-B2-B4-B12, B2-B2-B5-B30, B2-B2-B12-B30, B2-B2-B29-B30, B2-B4-B4-B12, B2-B4-B5-B30, B2-B4-B12-B30, and B2-B4-B29-B30 were added.

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
36.331	11.12.0	11.11.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction on Aperiodic CSI Reporting for 1.4MHz cell Clarification regarding no MBMS sessions ongoing Correction to additionalSpectrumEmission Restriction to CA capability signalling
36.523-1	11.7.0	11.6.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	Correction to TS 36.523-1 Rel-11 pointer

Release 12

3.1 Added Standards

3GPP TSG #68 Malmö

Added Standard Number	Version at ARIB STD-T104 Ver.3.10		3GP PWG	Title	New Document Summary
36.509	12.0.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Special conformance testing functions for User Equipment (UE)	<u>This document defines for UE in E-UTRA FDD or TDD mode those special functions and their activation/deactivation methods that are required in UE for conformance testing purposes.</u> <u>This document also describes the operation of these special functions for UEs supporting E-UTRA FDD or TDD mode, when operating in UTRA FDD and TDD mode, in GSM/GPRS mode, and in CDMA2000 mode.</u>

2.2 Revised Standards

3GPP TSG #68 Malmö

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
36.101	12.8.0	12.7.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Subset of the corresponding changes made in V.11.13.0 were made. The following essential corrections were made: <ul style="list-style-type: none"> • Clarification of PDSCH allocation in CSI PUSCH 3-0 feICIC tests. • Correction to CA_7C A-MPR in CA-NS_0. • Receiver spurious emissions requirements for downlink-only band. • Correction of the 3DL CA REFSEN. • Corrections to test configurations for 3DL inter-band C.

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
					<ul style="list-style-type: none"> • Corrections on UL transmit power for CA receiver requirements. • Corrections to test configurations for intra-band non-contiguous C. • Introduction of TDD SU-MIMO multi-cell tes. • Clarification on RMC for D2D UE. • Corrections to EVM requirements for ProSe and Annex F. • Correction on corrections to D2D RF core requirements. • Correction clarification of RMC for HD FDD. • Intra-band contiguous CA reference sensitivity definition for Class D. • Correction to restore R.10-2 FDD. • Correction of maximum aggregated bandwidth for CA_26A-41A. • Correction of FRC table for CA demodulation with power imbalance. • Add Scell power levels for 2DL CA power imbalance test. • Corrections to the CA power imbalance test. • Correction as maintenance for 3DL CA performance requirements. • Correction as maintenance for TDD FDD CA demodulation performance requirements. • Updates to the definitions of CA capability. • Amendments to MPR for uplink inter-band and intra-band non-contiguous CA. • NS values for secondary cells of non-contiguous CA configurations. • Adding REFSENS exception requirements for 1+3+26. • Corrections to 41D fallback. • Removal of B27 from 2UL CA_7A_20A co-existence protected band list. • Change of 1.4MHz single carrier SNR values for multiple CA configurations. • Correction for updating CA applicability rule. • A-MPR correction for CA_39C CA_NS_07. • Corrections on eIMTA PDSCH functionality test.

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
					<ul style="list-style-type: none"> • Correction on MTC CQI tests. • Correction on 256QAM demodulation performance requirements. • Maintenance update for DC demodulation performance requirements. • Correction of FRC names. • Corrections on 2UL intra-band non-contiguous CA requirements. • Correction to update UE performance tests for UE DL category. • Correction to update Annex for new DL category. • Clarification on uplink configuration for reference sensitivity of inter-band CA. <p>The following corrections were made to introduce rel-12 features:</p> <ul style="list-style-type: none"> • Correction for NAICS – Definitions. • Introduction of CQI requirement for TDD eIMTA. • Introduction of UE category 0 PDSCH/PHICH/PBCH performance requirements. • Correction on 256QAM sustained data rate tests for single carrier and TDD or FDD CA. • Correction on 256QAM CQI test. • Correction on 256QAM sustained data rate tests for TDD FDD CA. • Correction on DC SDR tests. • Applicability rule for DC SDR test.
36.104	12.8.0	12.7.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Changes correspond to Rel-11(V11.12.0) were made.
36.133	12.8.0	12.7.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>Subset of the corresponding changes made in V.11.13.0 were made.</p> <p>The following essential corrections were made:</p> <ul style="list-style-type: none"> • Correction of maximum Rx difference between Pcell and Scell in section 7.9. • Correction of E-UTRAN TDD - UE Transmit Timing Accuracy Tests for SCell in sTAG for 20 MHz +20 MHz bandwidth.

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
					<ul style="list-style-type: none"> • Correction of E-UTRAN TDD – UE Timing Advance Adjustment Accuracy Test for Scell in sTAG for 20 MHz +20 MHz bandwidth. • Correction to measurement scaling factor for incmon. • Correction of RSRP requirement for SCE. • Correction of requirements for ProSe in DRX. • Clarification of MBMSBLER reporting in section 9. • Correction of DC interruption requirements. • Corrections on RRM tests for D2D Discovery. • Corrections on RRM tests for D2D Communication. • Correction on interruption during D2D discovery for D2D single RF chain. • Clarifications of ProSe requirements in ONC. • Correction to Asynchronous Requirements for DC for only FDD-FDD. • Correction of E-UTRAN TDD-TDD Inter-frequency event triggered reporting under fading propagation conditions in synchronous cells for 20 MHz +10 MHz bandwidth. • Correction of E-UTRAN TDD - UE Transmit Timing Accuracy Tests for SCell for 20 MHz +10 MHz bandwidth. • Correction of E-UTRAN TDD - UE Transmit Timing Accuracy Tests for SCell in sTAG for 20 MHz +10 MHz bandwidth. • Correction of E-UTRAN TDD – UE Timing Advance Adjustment Accuracy Test for Scell in sTAG for 20 MHz +10 MHz bandwidth. • Correction of modification for interruption period for SCell (de-)activation with 3DL. • Correction to E-UTRA TDD event triggered reporting under deactivated SCell in non-DRX for 20 MHz + 10 MHz. • Correction on side conditions for inter-frequency measurement for SCE. • Correction on minimum number of subframes for discovery-based measurements. • Clarification of ProSe requirements in ONC. • Correction of OTDOA RSTD Measurements on different secondary component carriers.

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
					<ul style="list-style-type: none"> • Correction of implementation of CR 2644 in Table A.9.8.1.1-1. • Addition of PDSCH RMC for 5MHz with user data. • Correction on E-UTRAN TDD-TDD inter frequency measurements when DRX is used.. • Correction for test case of new RSRQ measurement accuracy in FDD. • Correction for test case of new RSRQ measurement accuracy in TDD. <p>The following corrections were made to introduce rel-12 features:</p> <ul style="list-style-type: none"> • Test case for 3DL CA: Event triggered reporting on deactivated SCells and interruption probability (0.5%) without DRX (FDD CA). • Absolute and relative RSRP accuracies in FDD 3 DL CA. • Incmon correction for FDD-FDD Interfrequency correct reporting of measurement events without reduced performance group configured, non DRX. • Incmon correction for TDD-TDD Interfrequency correct reporting of measurement events without reduced performance group configured, non DRX. • Testcases for E-UTRA Incmon idle interfrequency reselection. • FDD-FDD Interfrequency correct reporting of measurement events with reduced performance group configured for non DRX IncMon. • TDD-TDD Interfrequency correct reporting of measurement events with reduced performance group configured for non DRX IncMon. • Idle mode FDD to UTRA FDD interRAT reselection • Idle mode TDD to UTRA FDD interRAT reselection. • E-UTRA FDD InterRAT UTRA FDD correct reporting of measurement events with reduced performance group configured, non DRX. • E-UTRA TDD InterRAT UTRA FDD correct reporting of measurement events with reduced performance group configured, non DRX. • Test cases of Idle mode E-UTRA to UTRA TDD interRAT cell reselection for IncMon.

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
					<ul style="list-style-type: none"> • Test cases of Interfrequency correct reporting of measurement events with reduced performance group configured, DRX. • E-UTRA TDD InterRAT UTRA TDD correct reporting of measurement events with reduced performance group configured non DRX IncMon. • E-UTRA FDD InterRAT UTRA TDD correct reporting of measurement events with reduced performance group configured non DRX for IncMon. • RMC for 10 MHz for UE category 0 RRM tests. • Test for CGI acquisition requirements for UE category 0. • Test for cell identification for UE category 0. • Test for handover requirements for UE category 0. • Test for RRC re-establishment requirements for UE category 0. • HD-FDD handover requirements for UE category 0. • RSRP accuracy FD-FDD Intra frequency case for UE category 0. • RSRP accuracy HD-FDD Intra frequency case for UE category 0. • RSRP accuracy TDD Intra frequency case for UE category 0. • RSRQ accuracy FD-FDD Intra frequency case for UE category 0. • RSRQ accuracy HD-FDD Intra frequency case for UE category 0. • RSRQ accuracy TDD Intra frequency case for UE category 0. • E-UTRAN FD-FDD Radio Link Monitoring Tests for UE .category 0. • E-UTRAN HD-FDD Radio Link Monitoring Tests for UE category 0. • E-UTRAN TDD Radio Link Monitoring Tests for UE category 0. • E-UTRAN FDD PCell interruption at transitions between active and non-active when DRX is used in PSCell in asynchronous dual connectivity. • Correction on FDD-FDD inter-frequency absolute and relative CRS RSRP accuracy test case. • Correction on TDD-TDD inter-frequency absolute and relative CRS RSRP accuracy test case.

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
					<ul style="list-style-type: none"> • Correction on FDD absolute and relative CSI-RSRP accuracy test case for E-UTRAN Carrier Aggregation. • Correction on TDD absolute and relative CSI-RSRP accuracy test case for E-UTRAN Carrier Aggregation. • Correction on FDD-FDD inter-frequency absolute and relative CSI-RSRP accuracy test case. • Correction on TDD-TDD inter-frequency absolute and relative CSI-RSRP accuracy test case. • Correction on FDD intra frequency absolute and relative CSI-RSRP accuracy test case. • Correction on TDD intra frequency absolute and relative CSI-RSRP accuracy test case. • Intra-frequency absolute and relative RSRP accuracies in CRS based discovery signal. • Absolute and relative RSRP accuracies for E-UTRAN Carrier Aggregation in CRS based discovery signal. • SCE FDD intra-frequency absolute RSRQ accuracy. • SCE TDD intra-frequency absolute RSRQ accuracy. • SCE FDD absolute RSRQ accuracy for CA. • SCE TDD absolute RSRQ accuracy for CA. • E-UTRAN FDD intra frequency CRS based discovery signal measurements when DRX is used. • E-UTRAN TDD intra frequency CRS based discovery signal measurements when DRX is used. • E-UTRAN FDD-FDD inter-frequency event triggered reporting under fading propagation conditions in DRX based on CRS based discovery signal. • E-UTRAN TDD-TDD inter-frequency event triggered reporting under fading propagation conditions in DRX based on CRS based discovery signal. • E-UTRAN FDD event triggered reporting under deactivated SCell in non-DRX based on CRS based discovery signal. • E-UTRAN TDD event triggered reporting under deactivated SCell in non-DRX based on CRS based discovery signal. • Test case of FDD-FDD inter-frequency RSRQ measurement accuracy in discovery signal occasions. • Correction on test case for RSRQ TDD-TDD inter frequency

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
					<p>measurement accuracy requirement for SCE.</p> <ul style="list-style-type: none"> • FDD-FDD intra frequency event triggered reporting in DRX based on CSI-RS based discovery signal. • TDD-TDD intra frequency event triggered reporting in DRX based on CSI-RS based discovery signal. • FDD-FDD inter frequency event triggered reporting in DRX based on CSI-RS based discovery signal. • TDD-TDD inter frequency event triggered reporting in DRX based on CSI-RS based discovery signal. • FDD event triggered reporting under deactivated SCell in non-DRX based on CSI-RS based discovery signal. • TDD event triggered reporting under deactivated SCell in non-DRX based on CSI-RS based discovery signal. • FDD RLM Test Case for Out-of-sync in DRX for PSCell in asynchronous DC. • FDD RLM Test Case for In-sync in DRX for PSCell in asynchronous DC. • Introduction of DC intra-frequency event triggered reporting with DRX in synchronous FDD DC. • Introduction of DC intra-frequency event triggered reporting with DRX in synchronous TDD DC. • Introduction of DC intra-frequency event triggered reporting with DRX in asynchronous FDD DC. • Introduction of DC inter-frequency event triggered reporting with DRX in synchronous FDD DC. • Introduction of DC inter-frequency event triggered reporting with DRX in synchronous TDD DC. • E-UTRAN FDD Radio Link Monitoring Test for In-sync in DRX for PSCell in synchronous dual connectivity. • E-UTRAN TDD Radio Link Monitoring Test for In-sync in DRX for PSCell in synchronous dual connectivity. • PSCell Add and Release Delay Tests for Synchronous DC. • PSCell Add and Release Delay Tests for Asynchronous DC. • E-UTRAN FDD PCell interruption at transitions between active and non-active when DRX is used in PSCell in synchronous dual connectivity. • E-UTRAN TDD PCell interruption at transitions between active

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
					<p>and non-active when DRX is used in PSCell in synchronous dual connectivity.</p> <ul style="list-style-type: none"> • E-UTRAN FDD inter-frequency event triggered reporting in asynchronous dual connectivity. • E-UTRAN FDD Radio Link Monitoring Test for Out-of-sync in DRX for PSCell in synchronous dual connectivity. • E-UTRAN TDD Radio Link Monitoring Test for Out-of-sync in DRX for PSCell in synchronous dual connectivity. • Event triggered reporting on deactivated SCells in non-DRX (FDD CA). • Event triggered reporting on deactivated SCells in non-DRX (TDD CA). • Test case of FDD-FDD inter-frequency new RSRQ measurement accuracy. • Test case of TDD-TDD inter-frequency new RSRQ measurement accuracy. • Test case for 3DL CA: Event triggered reporting on deactivated SCells and interruption probability (0.5%) without DRX (TDD 3 DL CA). • Absolute and relative RSRP accuracies in TDD 3 DL CA. • 3 DL CA Phase I tests # 1-2: Event triggered reporting tests with deactivated SCells in non-DRX for TDD-FDD CA. • Test case for 3DL CA: PCell in FDD: Event triggered reporting on deactivated SCells and interruption probability (0.5%) without DRX (TDD-FDD CA). • Test case for 3DL CA: PCell in TDD: Event triggered reporting on deactivated SCells and interruption probability (0.5%) without DRX (TDD-FDD CA). • Introduction of RRM test case for E-UTRAN TDD-FDD 3 DL CA activation and deactivation of known SCell in non-DRX with PCell in FDD. • Introduction of RRM test case for E-UTRAN TDD-FDD 3 DL CA activation and deactivation of known SCell in non-DRX with PCell in TDD. • 3DL CA Phase I tests #11_3DL FDD CA SCell activation and deactivation for known SCells without DRX. • 3DL CA Phase I tests #12_3DL TDD CA SCell activation and

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
					<ul style="list-style-type: none"> deactivation for known SCells without DRX. • PCell in FDD: absolute and relative RSRQ accuracies in TDD-FDD 3 DL CA. • PCell in TDD: absolute and relative RSRQ accuracies in TDD-FDD 3 DL CA. • 3 DL CA Phase II tests # 1-2: RSRP measurement accuracies for TDD-FDD CA. • Correction on absolute and relative RSRQ accuracies in TDD 3DL CA. • Correction on absolute and relative RSRQ accuracies in FDD 3DL CA. • RSTD measurement reporting in FDD 3 DL CA. • RSTD measurement reporting in TDD 3 DL CA. • RSTD measurement accuracy in FDD 3 DL CA. • RSTD measurement accuracy in TDD 3 DL CA.
36.141	12.8.0	12.7.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Changes correspond to Rel-11(V11.12.0) were made.
36.211	12.6.0	12.5.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	Alignment of ProSe parameters
36.212	12.5.0	12.4.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Corrections on eIMTA RRC parameter naming Correction for 36.212 on soft buffer assumption
36.213	12.6.0	12.5.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	<ul style="list-style-type: none"> Clarification on HARQ-ACK repetition Clarification on PUCCH Format 3 Resource Derivation for TDD UL/DL Configuration 5 Clarification on the PRACH power in subframe i2-1 for PCM2 Clarification on the MTA operation in PCM1 Correction of higher layer parameter names in dual connectivity Correction on UE procedure of determining subframe pool for PSCCH and PSSCH in ProSe Correction on UE procedure of transmitting PSCCH in ProSe Correction on UL Power Control for Synchronous Dual Connectivity Correction on UL Power Control for Asynchronous Dual Connectivity Correction to Rel-12 UE category signal name Corrections on eIMTA RRC parameter naming Correction on Closed Loop Antenna Selection for Dual Connectivity Alignment of Prose parameter names
36.300	12.6.0	12.5.0	R2	Evolved Universal Terrestrial Radio Access (E-	Resource pool for out of coverage UE

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
				UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Dual Connectivity Corrections Corrections on Stage-2 descriptions for ProSe Need for SIB18 in a cell on non-Public Safety ProSe Carrier Allocation of LCID in DC Addition of DC Operation Overview and Minor Clarifications Clarification on CQI reporting in dual connectivity Correction to the characteristics of SL-DCH Clarification on UE-AMBR for split bearer Introduction of Group Call eMBMS congestion management Correction on SeNB initiated SeNB Modification procedure Correction on MeNB behaviour for distinguishing downlink PDCP PDUs
36.302	12.4.0	12.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	Introduction of ProSe
36.304	12.5.0	12.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Correction on limited service state conditions Correction to SI acquisition failure
36.306	12.5.0	12.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Dual Connectivity L2 buffer size for category combinations with UL64QAM Corrections on MIMO capabilities Clarification on UL 64QAM capability UE support of CA fallback configurations Corrections on requirements of sidelink reception Introduction of new DL UE categories 15&16
36.307	12.8.0	12.7.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Introduction of CA_42D, Introduction of CA_3A-40A, Introduction of CA_3A-40C, Introduction of dual UL CA (1A-18A, 1A-26A, 18A-28A, and 1A-28A), Removal of TDD-FDD CA tests and addition of new DC tests in B3.2 table, and Introduction of 3DL intra-band NC CA combination in Band 42, were made. 2DL CA combinations B3-B5, B5-B7, B1-B40, B2-B28, B3-B31, B3-B38, B4-B28, B5-B40, B7-B22, B20-B31, and B25-B26 were added. 3DL CA combinations B1-B3-B28, B1-B3-B42, B1-B7-B28, B1-B19-B42, B1-B21-B42, B2-B2-B12, B2-B5-B29, B3-B3-B5, B3-B3-B8, B3-B7-B7, B3-B7-B8, B3-B7-B28, B3-B19-B42, B7-B7-B28, B8-B41-B41, B19-B21-B42, B21-B42-B42, B38-B40-B40, and B41-B42-B42 were added. 4DL CA combinations B2-B2-B4-B4, B2-B2-B4-B12, B2-B2-B5-B30, B2-B2-B12-B30, B2-B2-B29-B30, B2-B4-B4-B12, B2-B4-B5-B30, B2-B4-B12-B30, B2-B4-B29-B30, and B25-B41-B41-B41 were added.

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
36.321	12.6.0	12.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	SL-DCH transmission for autonomous resource allocation mode Minor corrections for ProSe Clarification on deactivation operation Handling of erroneous PDU on MCH Corrections on 36.321 for ProSe Correction to the figure of MAC structure overview for sidelink Prohibit timer for SR Resource selection for SL-DCH
36.323	12.4.0	12.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification	COUNT derivation in ProSe Miscellaneous corrections for DC BSR Triggering for Split Bearers
36.331	12.6.0	12.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction field description of networkControlledSyncTx Clarification on SCG reconfiguration Correction for aperiodic CSI trigger Correction on handling of wlan-OffloadConfigDedicated upon leaving RRC_CONNECTED Reconfiguration of SPS Correction on Aperiodic CSI Reporting for 1.4MHz cell Clarification on PDCP reconfiguration Correction to SCG change Minor corrections for PSCell configuration in DC Correction on ROHC for split bearer Clarification on FDD/TDD differentiation of FGIs/capabilities in TDD-FDD CA Correction to SCG and split bearer configuration Clarifications on use of preconfigComm for direct communication Miscellaneous corrections (a.o. Sidelink) Conditions for establishing RRC Connection for sidelink transmission Correction on field description on SL-TF-ResourceConfig Mandatory present of supportedMIMO-CapabilityDL-r10 Clarification on Cell barring for downlink only bands Clarification regarding no MBMS sessions ongoing Correction to additionalSpectrumEmission Clarification on extended RSRQ range support Restriction to CA capability signalling Clarification on PUCCH and SRS Introduction of new DL UE categories 15&16

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
					Correction to IDC signalling Change of LCID upon DC-specific DRB reconfiguration Correction to PHR format Correction on conditions for sidelink operation Correction on the SL-TF-IndexPair values for ProSe Direct Discovery and Clean-up corrections
36.508	12.6.0	12.5.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing	Addition of Carrier Aggregation band combination. Addition of test procedure for EVS, CAT. Introduction of EUTRA-WLAN interworking test environment parameters and message contents Addition of Device to Device Proximity Services Test Environment ..etc.
36.521-1	12.6.0	12.5.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing	Mainly, introduction of new test cases related to CA. Other new test cases. Other corrections and updates.
36.521-2	12.6.0	12.5.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)	Changes related to 36.521-1 changes. Other corrections.
36.521-3	12.6.0	12.5.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	Addition of test cases for CA. Other corrections.
36.523-1	12.6.0	12.5.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	New test cases for WLAN offload, FDD-TDD CA, ..etc. Other corrections.
36.523-2	12.6.0	12.5.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	Changes related to 36.523-1 changes.

Revised Standard Number	Version at ARIB STD-T104 Ver.3.10	Version at ARIB STD-T104 Ver.3.00	3GP PWG	Title	Change Summary
36.523-3	12.2.0	12.1.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	New test cases for WI-097/191/209, LTE_CA_enh, CA, eMBMS-SC-CA, CoMP, ..etc. Other corrections.
37.571-1	12.3.0	12.2.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Introduction of new test case 8.1.3, 8.1.4. Add TDD to A-GNSS testing Other corrections.
37.571-2	12.2.0	12.1.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	IMS settings for LTE Positioning test cases Addition of "early fix" to A-GNSS tests Other corrections.
37.571-3	12.3.0	12.2.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	RSTD accuracy changes for Rel-12 Missing applicability of test case executions in Table 4-3 for E-UTRA pc_eTDD tests Change Galileo Release Applicability
37.571-4	12.1.0	12.0.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	Addition of UTRAN UE Positioning test case 6.2.3.2.4s Improvement of function f_POS_CheckGnssSupportList Addition of GCF WI-166 EUTRA UE Positioning test case 7.3.3.1 Other corrections.
37.571-5	12.2.0	12.1.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Add TDD to A-GNSS Assistance Data Missing RSTD new tests for 10.2D and 10.4D Corrections to the Ionospheric Model of BDS

(Annex 17)

3GPP ARIB Change History List of Standards (ARIB STD-T104 Ver. 3.20)

December 3 2015

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #69 Phoenix

Revised Standard Number	Version at ARIB STD-T104 Ver.3.20	Version at ARIB STD-T104 Ver.3.10	3GP PWG	Title	Change Summary
36.101	10.20.0	10.19.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	The following essential corrections were made: <ul style="list-style-type: none">- UE co-existence requirements between Band 42 and Japanese bands.- Correction to RI test parameters.- Correction of applicability of CA_NS_31.- Correction to PDCCH/PCFICH test parameters.- Correction to PMI delay in PMI test for TDD.- Correction on UE maximum output power class of Band 22 for UL MIMO.
36.133	10.20.0	10.19.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	The following essential corrections were made: <ul style="list-style-type: none">- Correction of Ior/loc value in RRM Test case A.4.3.1.1.- Corrections to the RMC configurations.
36.212	10.9.0	10.8.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Introducing 4-layer MIMO transmission in TM3 and TM4
36.306	10.14.0	10.13.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Remove support of additionalSpectrumEmissionPCell Introduction of Capability for 4-layer MIMO with TM3 and TM4

Revised Standard Number	Version at ARIB STD-T104 Ver.3.20	Version at ARIB STD-T104 Ver.3.10	3GP PWG	Title	Change Summary
36.307	10.16.0	10.15.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	<p>The following essential corrections were made since Intra-band NC CA should be release independent from Rel-11 and 3CC DL CA should be release independent from Rel-10:</p> <ul style="list-style-type: none"> - Deleting the NC CA from Rel-10. - Adding the missed 3CC DL CA in Rel-10. <p>The following 2DL and 3DL CA combinations were introduced as release independent features: CA_4A-12A, CA_2A-12A, CA_19A-28A, CA_1A-19A-28A, CA_1A-8A-11A, CA_1A-3C.</p> <p>4DL inter-band CAs fall back mode was introduced.</p>
36.331	10.18.0	10.17.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	<p>Correction on Restriction to CA capability signalling</p> <p>Correction to additionalSpectrumEmission - Option 1</p> <p>Introduction of Signalling for 4-layer MIMO with TM3 and TM4</p>

2. Release 11

2.1 Added Standards

Added Standard Number	Version at ARIB STD-T104 Ver.3.20		3GP PWG	Title	New Document Summary
36.509	11.0.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Special conformance testing functions for User Equipment (UE)	This document defines for UE in E-UTRA FDD or TDD mode those special functions and their activation/deactivation methods that are required in UE for conformance testing purposes.

2.2 Revised Standards

3GPP TSG #69 Phoenix

Revised Standard Number	Version at ARIB STD-T104 Ver.3.20	Version at ARIB STD-T104 Ver.3.10	3GP PWG	Title	Change Summary
36.101	11.14.0	11.13.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	With the corresponding changes made for ver. 10.20.0, the following essential corrections were made: <ul style="list-style-type: none"> - Correction to CoMP demodulation requirements. - Correction to RC.2 TDD Nr. HARQ Proc.
36.104	11.13.0	11.12.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Clarification of the terminologies, such as replacing P _{max} to P _{max,c} in the Home BS requirement etc. were made in order to remove ambiguity or inconsistencies.
36.133	11.14.0	11.13.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Corresponding changes made in ver. 10.20.0 were made.
36.141	11.13.0	11.12.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	With the corresponding changes made in TS36.104 (ver.11.13.0) in order to remove ambiguity or inconsistencies, clarification of Multi-band high PSD test configuration was made.
36.212	11.6.0	11.5.1	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Introducing 4-layer MIMO transmission in TM3 and TM4

Revised Standard Number	Version at ARIB STD-T104 Ver.3.20	Version at ARIB STD-T104 Ver.3.10	3GP PWG	Title	Change Summary
36.306	11.12.0	11.11.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Remove support of additionalSpectrumEmissionPCell Introduction of Capability for 4-layer MIMO with TM3 and TM4 IDC signalling enhancement for UL CA
36.307	11.13.0	11.12.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	<ul style="list-style-type: none"> - Incorrect references or indication of releases were corrected. - Addition of Rel-13 2DL CA combinations (CA_4A-12A, CA_2A-12A) - Addition of Rel-13 3DL CA combinations (CA_19A-28A, CA_1A-19A-28A, CA_1A-8A-11A, CA_1A-3C) - 4DL inter-band CAs were introduced. - 3DL/2UL inter-band CA combinations without self-interference issues were introduced. - Additional bandwidth combination set for LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 4 was introduce.
36.331	11.13.0	11.12.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	<p>Correction on Restriction to CA capability signalling Correction to additionalSpectrumEmission - Option 1 Introduction of Signalling for 4-layer MIMO with TM3 and TM4</p> <p>IDC signalling enhancement for UL CA Correction on the reference of EPDCCH</p>

Release 12

3.1 Added Standards

None

2.2 Revised Standards

3GPP TSG #69 Phoenix

Revised Standard Number	Version at ARIB STD-T104 Ver.3.20	Version at ARIB STD-T104 Ver.3.10	3GP PWG	Title	Change Summary
36.101	12.9.0	12.8.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<p>With the corresponding changes made for ver. 11.14.0, the following essential corrections and changes were made:</p> <ul style="list-style-type: none"> - Correction of Table 7.3.1A-0f (2UL CA MSD) notes numbering. - Correction to TDD FDD CA. - Corrections on CA reference sensitivity requirements. - Corrections of Spurious emission band UE co-existence for interband 2UL CA in Table 6.6.3.2A-0. - Correction of MTC CSI performance requirements. - Correction of SCE demodulation and CSI requirements. - Correction of DC demodulation performance requirements and SDR tests. - Cleanup of TDD-FDD CA demodulation performance requirements. - Cleanup of R12 SU-MIMO Enhanced Performance Type C requirements. - Removal of square brackets for Cat-0 UE demodulation requirements. - Removal of square brackets for LTE-CA_B41_B42. - Corrections on 3DL CA performance requirements. - Spreading of harmonic for 2UL interband and 2 UL non-contiguous intraband CA. - Correction to FDD-TDD closed loop spatial multiplexing 3CC requirement table. - Correction to DC supported testable bandwidth list. - Clarification of UL configuration for CA demodulation

Revised Standard Number	Version at ARIB STD-T104 Ver.3.20	Version at ARIB STD-T104 Ver.3.10	3GP PWG	Title	Change Summary
					<ul style="list-style-type: none"> requirements. - Corrections to CSI RMCs used for PUSCH 3-2 testing. - Correction for eIMTA CQI tests. - Change on demodulation performance requirements for D2D Discovery. - Change on demodulation performance requirements for D2D Communication. - Change of NAICS - Demodulation Test. - Change of NAICS - Interference Models. - Change of NAICS - CQI Tests. - Change of NAICS - Fixed Reference Channels. - Corrections to CSI PUCCH 1-0 static test 4 and PUSCH 3-2 tests. - Alignment of CA Receiver requirements parameters. - UE co-existence requirements between Band 42 and Japanese bands. - Introduction of relaxation rule for multiple 3DL inter-band CA configurations. - Removal of square brackets of B42 requirements in Rel-12 specification. - Maintenance of eIMTA PDSCH demodulation test. - Revisions of Spurious emission band UE co-existence in Table 6.6.3.2-1. - Correction of typo in Table 7.3.1-1B (for CA_2A-5A-13A) as a minor correction. - Change of adding clarification for Band 28 restrictions in 36.101 - Change for UE performance tests for intra-band contiguous CA with minimum channel spacing on Band 41 - Modification of test parameters for TM9 demodulation with 256QAM. - Corrections to applicability of CSI requirements for low UE categories. - NAICS - TM10 Demodulation and CSI Test
36.104	12.9.0	12.8.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Corresponding changes made in ver. 11.13.0 were made.
36.133	12.9.0	12.8.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio	With the corresponding change made in ver. 12.9.0, the following corrections and changes were made:

Revised Standard Number	Version at ARIB STD-T104 Ver.3.20	Version at ARIB STD-T104 Ver.3.10	3GP PWG	Title	Change Summary
				resource management	<ul style="list-style-type: none"> - Corrections of interruptions at overlapping addition/ release/ activation/ deactivation of SCells - Modifying test case of E-UTRAN 2DL TDD CA activation of unknown SCell in non-DRX in Rel-12 - Change on item title of table in clause 8.1.2.4.5.1. - Cleanup of 3DL CA RRM Test cases. - Change of title of new section A.7.4. - Correction of SNR levels and Reference channels for DC RLM test cases. - Correction of inconsistency in 3 DL CA Event Triggered Reporting under Deactivated SCells in Non-DRX. - Changes on Interruptions at PSCell Addition/release. - Correction to HD - FDD CGI acquisition using autonomous gaps test for UE category 0. - Remove the Brackets in RLM Tests for UE category 0. - Adding SNR values to DC RLM test cases. - Change on delete note in table 8.5.2.1.6.1-1. - Change on reference configurations for D2D RRM tests. - Change on RRM tests for D2D Discovery. - Change on RRM tests for D2D Communication. - Correction of Time offset between cells. - Changes on editorial corrections. - Corrections to the RMC configurations. - Correction to UE transmit timing accuracy tests. - Modifying test case of E-UTRAN 2DL FDD CA activation of unknown SCell in non-DRX. - Correction on Band 31 test cases. - Introduction of 3DL CA Phase II tests #15_SCell activation and deactivation for unknown SCells without DRX (FDD 3 DL CA). - Introduction of 3DL CA Phase II tests #16_SCell activation and deactivation for unknown SCells without DRX (TDD 3 DL CA). - Introduction of RRM test case for E-UTRAN TDD-FDD 3DL CA activation and deactivation of unknown SCell in non-DRX with PCell in FDD. - Introduction of RRM test case for E-UTRAN TDD-FDD 3DL CA activation and deactivation of unknown SCell in non-DRX with PCell in TDD

Revised Standard Number	Version at ARIB STD-T104 Ver.3.20	Version at ARIB STD-T104 Ver.3.10	3GP PWG	Title	Change Summary
36.141	12.9.0	12.8.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Corresponding changes made in ver. 11.13.0 were made
36.211	12.7.0	12.6.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	Clarification on SRS BW configuration
36.212	12.6.0	12.5.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Introducing 4-layer MIMO transmission in TM3 and TM4 Introduction of MIMO capability signalling for intra-band contiguous CA
36.213	12.7.0	12.6.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	UE processing time relaxation on Type 2 Power Headroom Reporting Correction of ProSe parameters Clarification on power control for PCM2
36.300	12.7.0	12.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Sidelink terminology alignment
36.302	12.5.0	12.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	Rapporteur's clean up with following changes: - Remove empty sections by setting it to 'Void' - Remove unused abbreviations - Remove unused reference by setting it to 'Void' - Add text to 6.1.2 Random-access Channel - Some miscellaneous editorial changes.
36.304	12.6.0	12.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Sidelink terminology alignment
36.306	12.6.0	12.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Remove support of additionalSpectrumEmissionPCell Introduction of Capability for 4-layer MIMO with TM3 and TM4 IDC signalling enhancement for UL CA Capturing PCell support for FDD-TDD CA Clarification of the maximum number of bits of a single DL-SCH transport block for DL Category 16 Capturing mandatory/optional features of Rel-12 UEs Corrections on UE sidelink capabilities Additional MIMO/CSI capability for intra-band contiguous CA

Revised Standard Number	Version at ARIB STD-T104 Ver.3.20	Version at ARIB STD-T104 Ver.3.10	3GP PWG	Title	Change Summary
36.307	12.9.0	12.8.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	<ul style="list-style-type: none"> - Incorrect references or indication of releases were corrected. - Addition of Rel-13 2DL CA combinations (CA_4A-12A, CA_2A-12A) - Addition of Rel-13 3DL CA combinations (CA_19A-28A, CA_1A-19A-28A, CA_1A-8A-11A, CA_1A-3C, CA_20A-42A, CA_20A-42A-42A, CA_3A-8A-40A) - 4DL inter-band CAs were introduced. - 3DL/2UL inter-band CA combinations without self-interference issues (CA_1A-5A-7A, CA_1A-3A-5A, CA_1A-3A-8A, CA_1A-3A-19A, CA_1A-19A-21A, CA_2A-4A-12, CA_3A-7A-20A, CA_2A-5A-13A, CA_4A-5A-13A, CA_1A-18A-28A) were introduced. - Additional bandwidth combination set for LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 4 was introduced. - A dual uplink CA combination (CA_1A-42A) was introduced. - Introduction of CA_7A-40A and CA_7A-40C.
36.321	12.7.0	12.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	<ul style="list-style-type: none"> Correction on Type 2 PH reporting Corrections for reporting and cancellation of SL BSR Corrections to Sidelink in MAC Miscellaneous corrections on Sidelink
36.322	12.3.0	12.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Link Control (RLC) protocol specification	Corrections for STCH

Revised Standard Number	Version at ARIB STD-T104 Ver.3.20	Version at ARIB STD-T104 Ver.3.10	3GP PWG	Title	Change Summary
36.331	12.7.0	12.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	<p>Correction on Restriction to CA capability signalling Correction to additionalSpectrumEmission - Option 1 Introduction of Signalling for 4-layer MIMO with TM3 and TM4 IDC signalling enhancement for UL CA Correction on the reference of EPDCCH</p> <p>Correction on UE band combination capability Clarificatin on the support of UL64QAM Small corrections concerning RadioResourceConfig Sidelink discovery related corrections Clarification of Beacon RSSI Encoding Clarification on cell selection sequence upon leaving RRC_CONNECTED Introducing general handling and guidelines concerning critical extensions within a release Applicability of longCodeState1XRTT for 1xRTT IRAT ANR Sidelink terminology alignment in TS 36.331 Clarification for NAICS capability signalling Additional MIMO/CSI capability for intra-band contiguous CA Allowing NAICS with TM10</p>
36.508	12.7.0	12.6.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing	<p>Changes related to CA Other corrections</p>
36.509	12.1.0	12.0.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Special conformance testing functions for User Equipment (UE)	<p>Correction to Device to Device Proximity Services Test Loop Add minimum loopback buffer size requirement for Category 0 UE Update to Loopback data procedure with IMS signalling</p>
36.521-1	12.7.0	12.6.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing	<p>Addition of new CA test cases. Introduction of FDD TM3/TM4/TM8/TM9 test cases Introduction of eDL MIMO enhancement test cases Addition of test cases for UE category 0 Other corrections</p>
36.521-2	12.7.0	12.6.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)	<p>Changes related to 36.521-1 changes</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.3.20	Version at ARIB STD-T104 Ver.3.10	3GP PWG	Title	Change Summary
36.521-3	12.7.0	12.6.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	Addition of CA test cases Other corrections
36.523-1	12.7.0	12.6.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	Addition of D2D test cases Addition of new EUTRAN-WLAN interworking test cases Addition of test cases for Category 0 UE Other corrections
36.523-2	12.7.0	12.6.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	Changes related to 36.523-1 changes
36.523-3	12.3.0	12.2.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	Addition of GCF WI-159/162/200/201/209/210/223/224/227 test cases Addition of EUTRA-1xRTT test cases Addition of LTE-A eMDT test cases Addition of LTE-A SIMTC test cases Addition of LTE-A Rel-10/Rel-11 Carrier Aggregation test cases Other corrections.
37.571-1	12.4.0	12.3.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	CA LBS: Clarification of PHICH configuration Update of Galileo OS SIS ICD reference Update of felCIC Test cases update of the "non-specific references" in section 2 according to the approved R5-153582 and an action point on ETSI MCC
37.571-2	12.3.0	12.2.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	Correction to GANSS Multi-frequency Measurement Requested IE Corrections to MEASUREMENT CONTROL messages Missing " earlyFixReport-r12 " in Table 7.2.2.2.3.3-13 update of the "non-specific references" in section 2 according to the approved R5-153582 and an action point on ETSI MCC

Revised Standard Number	Version at ARIB STD-T104 Ver.3.20	Version at ARIB STD-T104 Ver.3.10	3GP PWG	Title	Change Summary
37.571-3	12.4.0	12.3.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	Incorrect ICS information in Table 4-7 Change BDS Applicability for LCR TDD Restoration of condition C21es Adding applicability statements for ECID eICIC test cases 8.1.3 and 8.1.4 update of the "non-specific references" in section 2 according to the approved R5-153582 and an action point on ETSI MCC
37.571-4	12.2.0	12.1.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	Addition of UTRAN UE Positioning test case 6.2.1.1.4s Correction to EUTRA Positioning functions Correction to Upper Tester modules Addition of UTRAN UE Positioning test cases update of the "non-specific references" in section 2 according to the approved R5-153582 and an action point on ETSI MCC
37.571-5	12.3.0	12.2.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Corrections to UTC Model and Time Model Missing RSTD information for multiple test cases Missing BDS reference in the A-GNSS Minimum Performance Testing Update to Galileo Assistance Data IEs Update of Galileo OS SIS ICD reference Corrections to BDS Clock Model and Navigation Model for SIG/Perf tests update of the "non-specific references" in section 2 according to the approved R5-153582 and an action point on ETSI MCC

(Annex 18)

3GPP ARIB Change History List of Standards (ARIB STD-T104 Ver. 3.20)

March 25 2016

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #70 Sitges

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.101	10.21.0	10.20.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Removal of 1.4MHz MBMS test, Correction to reference channel for CQI requirements, Corrections to applicability of CSI requirements for low UE categories, and Clarification of Pcell support in CA scenarios, were made. Missing RB allocation and OCNG pattern for Cat 1 UEs in Multiple PMI CSI Reference Symbol tests, were corrected.
36.133	10.21.0	10.20.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Correction of RSRQ value in RRM Serving Cell Test cases A.9.9.1 and A.9.9.2, Correction on measurement category for reporting criteria, Alignment of dB values for 2DL CA activation and deactivation test cases, Correction of definition of antenna connection in some RSTD tests, Updating of 2DL CA activation and deactivation of unknown SCell test cases A.8.16.19+A.8.16.20, Further correction of cell time offset in RSTD CA test cases, and Alignment of time when UE starts CSI reporting for activated SCell, were made. Missing implementation from CR 2642 to Table A.8.12.2.1-1, was corrected for only this version.
36.304	10.9.0	10.8.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Enabling multiple NS and P-Max operation per cell

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.306	10.15.0	10.14.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Introduction of UE capability for enabling multiple NS and P-Max operation per cell
36.307	10.17.0	10.16.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Introduction of 1447-1467MHz Band, Band 65, Band 66, Intra-band CA 5B, Intra-band CA 8B, B20 + B67 CA, and Addition of 3DL CA combinations, were made. The CA_1A-3A-8A BCS3 release independent feature in clause 85, and new CA sections to the specification were added to introduce the finished 4DL inter-band CA.
36.331	10.19.0	10.18.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction to UE messages to be sent only after security activation Introduction of MaxLayerMIMO in HandoverPreparationInformation Enabling multiple NS and P-Max operation per cell
37.571-1	10.8.0	10.7.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Removal of technical content in 37.571-1 v10.7.0 and substitution with pointer to the next Release
37.571-2	10.10.0	10.9.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	Removal of technical content in 37.571-2 v10.9.0 and substitution with pointer to the next Release
37.571-3	10.8.0	10.7.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	Removal of technical content in 37.571-3 v10.7.0 and substitution with pointer to the next Release
37.571-4	10.10.0	10.9.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	Removal of technical content in 37.571-4 v10.9.0 and substitution with pointer to the next Release
37.571-5	10.11.0	10.10.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Removal of technical content in 37.571-5 v10.10.0 and substitution with pointer to the next Release

2. Release 11

2.1 Added Standards

None

2.2 Revised Standards

3GPP TSG #70 Sitges

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.101	11.15.0	11.14.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Changes correspond to Rel-10(V10.21.0) were made. A-MPR correction for CA_NS_06 CA-7C non-contiguous RB allocation, Changing description of Note 3 of FRC for single layer spatial multiplexing, Correction to physical channel for CQI reporting in type A test case, and Editorial correction for Table 6.2.4-8 A-MPR for "NS_14", were made.
36.104	11.14.0	11.13.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Transmitter intermodulation requirement were clarified. Definition of f_offsetmax for BS operating in multiple bands or non-contiguous spectrum, and UEM requirement for MB-MSR, were corrected. And also editorial corrections were made.
36.133	11.15.0	11.14.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Changes correspond to Rel-10(V10.21.0) were made.
36.141	11.14.0	11.13.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Transmitter intermodulation requirement were clarified. Definition of f_offsetmax for BS operating in multiple bands or non-contiguous spectrum, and UEM requirement for MB-MSR, were corrected. And also editorial corrections were made.
36.300	11.14.0	11.13.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	IDC Overview Correction
36.304	11.7.0	11.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Enabling multiple NS and P-Max operation per cell
36.306	11.13.0	11.12.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Introductino of UE capability for enabling multiple NS and P-Max operation per cell

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.307	11.14.0	11.13.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Changes correspond to Rel-10(V10.17.0) were made. Release independent requirements for CA_42E, 4DL NC CA in Band 42, Dual uplink CA, 3DL/2UL inter-band CA combinations with self-interference issues, 3DL/2UL inter-band CA for CA_39A-41C and CA_39C-41A, 3DL/2UL inter-band CA_3A-7A-28A, CA_7A-7A BCS1, 2UL and 3DL mixed inter/intra cases without MSD, Intra-band non-contiguous CA in Band 41 for 4DL, and Intra-band non-contiguous CA in Band 5, were introduced.
36.331	11.14.0	11.13.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction to UE messages to be sent only after security activation Introduction of MaxLayerMIMO in HandoverPreparationInformation Enabling multiple NS and P-Max operation per cell Clarification on FDD/TDD difference for UL CA IDC indication Correction to SystemTimeInfoCDMA2000 IE
36.523-3	11.7.0	11.6.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	Removal of technical content in 36.523-3 v11.6.0 and substitution with pointer to the next Release
37.571-1	11.3.0	11.2.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Removal of technical content in 37.571-1 v11.2.0 and substitution with pointer to the next Release
37.571-2	11.1.0	11.0.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	Removal of technical content in 37.571-2 v11.0.0 and substitution with pointer to the next Release
37.571-3	11.1.0	11.0.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	Removal of technical content in 37.571-3 v11.0.0 and substitution with pointer to the next Release
37.571-4	11.1.0	11.0.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	Removal of technical content in 37.571-4 v11.0.0 and substitution with pointer to the next Release

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
37.571-5	11.1.0	11.0.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Removal of technical content in 37.571-5 v11.0.0 and substitution with pointer to the next Release

3. Release 12

3.1 Added Standards

None

3.2 Revised Standards

3GPP TSG #70 Sitges

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.101	12.10.0	12.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Changes correspond to Rel-11(V11.15.0) were made. ProSe direct discovery demodulation requirements, Applicable UE categories for 256QAM UE demodulation performance requirements, TDD-FDD CA/FDD CA and TDD TDD CA performance requirements, CSI minimum requirement for PUSCH 3-2, MIMO correlation matrices using cross polarized antennas, SNR definition for CSI test, CA_4A-4A-5A table reference, Uplink configuration for CA_18-28, Supported sub-block frequency arrangement for CA_41-41, Test configuration for combinations of inter-band/intra-band CA, CQI test 1A for TDD eIMTA, Resource allocation in FRC for Cat 0 UE demodulation tests, MSD levels for 2UL inter-band CA, and P _{cm} ax for CA to include delta_T_ProSe were corrected. Editorial correction for eIMTA CQI tests, Introduction of finalized demodulation performance requirements for D2D communication, Clarification of Simplified CA testing method, Clarification for UE performance tests for intra-band contiguous CA with minimum channel spacing on Band 41, Introduction of 2UL and 3DL interband cases with MSD, Removal square brackets and minor corrections for NAICS demodulation Test, Clarification on relative power tolerance for CA, Removal of DC channel bandwidth combination set table, Clarification on demodulation requirements of Dual Connectivity, Removal of (NOTE 4) from Table 5.6A.1-2a, Introduction of FDD/TDD ETU600 demodulation performance requirements, and Modification to A-MPR values on NS_05 requirements to achieve efficient spectral usage in Japan, were made. NS_04 OOB requirements and AMPR values were changed.

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.104	12.10.0	12.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Changes correspond to Rel-11(V11.14.0) were made.
36.133	12.10.0	12.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Changes correspond to Rel-11(V11.15.0) were made. E-UTRAN TDD-FDD CA event triggered reporting under deactivated SCell in Non-DRX with PCell in FDD/TDD, E-UTRAN TDD-FDD CA event triggered reporting on deactivated SCell with PCell interruption in non-DRX with PCell in FDD/TDD, RSRP/RSRQ for E-UTRAN TDD-FDD CA with PCell in FDD/TDD, Trstd values in 3DL RSTD Measurement Accuracy test cases, Cells in OTDOA assistance data in 3DL RSTD measurement reporting delay test cases, Definition of pTAG and psTAG, RSRQ measurement report mapping, E-UTRAN FDD/TDD activation and deactivation of known SCell in non-DRX, DL PCell in FDD/TDD CA activation and deactivation of known SCell in Non-DRX, and 3DL FDD/TDD CA activation and deactivation of known SCell in non-DRX, were corrected. Editorial cleanup for D2D RRM requirements, Removal of brackets in RSTD measurement accuracy and CSI-RSRP measurement, Clarification of UE reporting criteria requirements, Removal of square brackets for some CA requirements, Cleanup of 3DL CA RRM test cases, Introduction of OTDOA requirements in CA with different TDD configurations, Updating of 3DL CA activation and deactivation of unknown SCell Test cases A.8.16.41+A.8.16.42, Updating to RRM test case for E-UTRAN TDD-FDD 3DL CA activation and deactivation of unknown SCell in non-DRX with PCell in FDD/TDD, Adding the title of A.8.22, Clarification for Rel-12 cat 0 MTC requirements, and Modification of ProSe UE transmission timing accuracy in any Cell selection state, were made.
36.141	12.10.0	12.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Changes correspond to Rel-11(V11.14.0) were made.
36.211	12.8.0	12.7.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	Modify max TA for dual connectivity
36.212	12.7.0	12.6.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Correction on rank indication bit widths

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.213	12.8.0	12.7.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Clarification of PUCCH resource allocation related to EPDCCH SCells Clarification on the parameter notations for eIMTA Correction on aperiodic CSI transmission without UL-SCH according to table 7.2.1-1C Introduction of new maximum TBS for TM9/10 Clarification of PHICH resource assignment related to EPDCCH scheduled PUSCH Modify max TA for dual connectivity
36.300	12.8.0	12.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	IDC Overview Correction Corrections on sidelink related description
36.302	12.6.0	12.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	Corrections to Sidelink
36.304	12.7.0	12.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Enabling multiple NS and P-Max per cell
36.306	12.7.0	12.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Introduction of UE capability for enabling multiple NS and P-Max operation per cell Addition of definitions of sidelink terminologies Correction on categories in supportedBandCombination Clarification on support of extended wait time Clarification on tdd-FDD-CA-PCellduplex Introduction of alternative new maximum transport block sizes for DL 64QAM and 256QAM in TM9/10 Correction on capability rsrq-OnAllSymbols Clarification on Pcell support
36.307	12.10.0	12.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Changes correspond to Rel-10(V11.14.0) were made. 3DL/3UL Inter-band CA for CA_39A-41C and CA_39C-41A, and 5DL/1UL CA combinations, were introduced. And also 2DL CA combinations were added.
36.321	12.8.0	12.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	Correction on transparent MAC PDU Correction on MAC header for SL-SCH Corrections for sidelink

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.323	12.5.0	12.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification	Corrections to Sidelink Update to Services expected from Lower Layers in DC
36.331	12.8.0	12.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction to UE messages to be sent only after security activation Clarification of MCG Introduction of MaxLayerMIMO in HandoverPreparationInformation Enabling multiple NS and P-Max operation per cell Clarification on FDD/TDD difference for UL CA IDC indication Correction to SystemTimeInfoCDMA2000 IE Correction on SCG release Clarification to SCG RLF timers and constants reconfiguration Correction to triggerQuantityCSI-RS Correction to NAICS field descriptions Correction of need code definition terminology highPriorityAccess for MMTEL voice, MMTEL video and SMS Correction to the support of Mobility State reporting Correction to ASN.1 field names for 4-layer TM3/4 Correction on measurement identity autonomous removal in dual connectivity Clarification on tdd-FDD-CA-PCelIDuplex Introduction of Alternative new maximum transport block sizes for DL 64QAM and 256QAM in TM9/10 Clarification on some general RRC issues Correction on capability rsrq-OnAllSymbols Addition of establishment cause for mobile-originating VoLTE calls and network indication in SIB2
36.355	12.5.0	12.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Correction to the definition of Need codes
36.508	12.8.0	12.7.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing	Modification related to Dual Connectivity. Other corrections.
36.509	12.2.0	12.1.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Special conformance testing functions for User Equipment (UE)	ProSe test loop modes Enhancements

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.521-1	12.8.0	12.7.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing	New TCs and modification to existence TCs for UE category 0. New TCs for UL 64QAM, SCE-L1. ..etc.
36.521-2	12.8.0	12.7.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)	Changes related to 36.521-1 changes
36.521-3	12.8.0	12.7.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	Changes related to 36.521-1 changes
36.523-1	12.8.0	12.7.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	Update test cases for UE Cat 0 Addition of new TCs for dual connectivity, SCE-L1, WLAN Offload, ..etc. Other corrections.
36.523-2	12.8.0	12.7.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	Changes related to 36.523-1 changes.
36.523-3	12.4.0	12.3.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	Addition of TCs for SSAC, rSRVCC, NIMTC, SIMTC, 2UL CA, ..etc. Other corrections.
37.571-1	12.5.0	12.4.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Uncertainties and Test Tolerances for RSTD Test Cases 10.3A_1 and 10.4A_1 Two new 3 DL CA RSTD Measurement Reporting Delay test cases Two new 3 DL CA RSTD Measurement Accuracy test cases Other corrections.
37.571-2	12.4.0	12.3.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	Correction to use of Modernized GPS with BDS

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
37.571-3	12.5.0	12.4.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	Updating applicability statements for ECID feICIC test cases 8.1.5 and 8.1.6 Applicabilities for two new 3 DL CA RSTD Measurement Reporting Delay test cases Addition of release RAT column to applicability tables 4-7 and 4-3 Applicabilities for two new 3 DL CA RSTD Measurement Accuracy test cases
37.571-4	12.3.0	12.2.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	Addition of GCF WI-166 EUTRA UE Positioning test case 7.3.4.2.7s, 7.3.4.4.7s Correction to POS capability check procedure Code improvements in Positioning test cases Add new verified and e-mail agreed TTCN test cases in the TC lists in 37.571-4 (prose), Annex A
37.571-5	12.4.0	12.3.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Values for two new 3 DL CA RSTD Measurement Accuracy test cases Values for two new 3 DL CA RSTD Measurement Reporting Delay test cases Corrections to A-BDS navigation files

(Annex 18)

3GPP ARIB Change History List of Standards (ARIB STD-T104 Ver. 3.30)

March 25 2016

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #70 Sitges

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.101	10.21.0	10.20.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Removal of 1.4MHz MBMS test, Correction to reference channel for CQI requirements, Corrections to applicability of CSI requirements for low UE categories, and Clarification of Pcell support in CA scenarios, were made. Missing RB allocation and OCNG pattern for Cat 1 UEs in Multiple PMI CSI Reference Symbol tests, were corrected.
36.133	10.21.0	10.20.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Correction of RSRQ value in RRM Serving Cell Test cases A.9.9.1 and A.9.9.2, Correction on measurement category for reporting criteria, Alignment of dB values for 2DL CA activation and deactivation test cases, Correction of definition of antenna connection in some RSTD tests, Updating of 2DL CA activation and deactivation of unknown SCell test cases A.8.16.19+A.8.16.20, Further correction of cell time offset in RSTD CA test cases, and Alignment of time when UE starts CSI reporting for activated SCell, were made. Missing implementation from CR 2642 to Table A.8.12.2.1-1, was corrected for only this version.
36.304	10.9.0	10.8.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Enabling multiple NS and P-Max operation per cell

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.306	10.15.0	10.14.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Introduction of UE capability for enabling multiple NS and P-Max operation per cell
36.307	10.17.0	10.16.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Introduction of 1447-1467MHz Band, Band 65, Band 66, Intra-band CA 5B, Intra-band CA 8B, B20 + B67 CA, and Addition of 3DL CA combinations, were made. The CA_1A-3A-8A BCS3 release independent feature in clause 85, and new CA sections to the specification were added to introduce the finished 4DL inter-band CA.
36.331	10.19.0	10.18.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction to UE messages to be sent only after security activation Introduction of MaxLayerMIMO in HandoverPreparationInformation Enabling multiple NS and P-Max operation per cell
37.571-1	10.8.0	10.7.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Removal of technical content in 37.571-1 v10.7.0 and substitution with pointer to the next Release
37.571-2	10.10.0	10.9.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	Removal of technical content in 37.571-2 v10.9.0 and substitution with pointer to the next Release
37.571-3	10.8.0	10.7.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	Removal of technical content in 37.571-3 v10.7.0 and substitution with pointer to the next Release
37.571-4	10.10.0	10.9.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	Removal of technical content in 37.571-4 v10.9.0 and substitution with pointer to the next Release
37.571-5	10.11.0	10.10.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Removal of technical content in 37.571-5 v10.10.0 and substitution with pointer to the next Release

2. Release 11

2.1 Added Standards

None

2.2 Revised Standards

3GPP TSG #70 Sitges

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.101	11.15.0	11.14.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Changes correspond to Rel-10(V10.21.0) were made. A-MPR correction for CA_NS_06 CA-7C non-contiguous RB allocation, Changing description of Note 3 of FRC for single layer spatial multiplexing, Correction to physical channel for CQI reporting in type A test case, and Editorial correction for Table 6.2.4-8 A-MPR for "NS_14", were made.
36.104	11.14.0	11.13.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Transmitter intermodulation requirement were clarified. Definition of f_offsetmax for BS operating in multiple bands or non-contiguous spectrum, and UEM requirement for MB-MSR, were corrected. And also editorial corrections were made.
36.133	11.15.0	11.14.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Changes correspond to Rel-10(V10.21.0) were made.
36.141	11.14.0	11.13.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Transmitter intermodulation requirement were clarified. Definition of f_offsetmax for BS operating in multiple bands or non-contiguous spectrum, and UEM requirement for MB-MSR, were corrected. And also editorial corrections were made.
36.300	11.14.0	11.13.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	IDC Overview Correction
36.304	11.7.0	11.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Enabling multiple NS and P-Max operation per cell
36.306	11.13.0	11.12.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Introductino of UE capability for enabling multiple NS and P-Max operation per cell

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.307	11.14.0	11.13.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Changes correspond to Rel-10(V10.17.0) were made. Release independent requirements for CA_42E, 4DL NC CA in Band 42, Dual uplink CA, 3DL/2UL inter-band CA combinations with self-interference issues, 3DL/2UL inter-band CA for CA_39A-41C and CA_39C-41A, 3DL/2UL inter-band CA_3A-7A-28A, CA_7A-7A BCS1, 2UL and 3DL mixed inter/intra cases without MSD, Intra-band non-contiguous CA in Band 41 for 4DL, and Intra-band non-contiguous CA in Band 5, were introduced.
36.331	11.14.0	11.13.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction to UE messages to be sent only after security activation Introduction of MaxLayerMIMO in HandoverPreparationInformation Enabling multiple NS and P-Max operation per cell Clarification on FDD/TDD difference for UL CA IDC indication Correction to SystemTimeInfoCDMA2000 IE
36.523-3	11.7.0	11.6.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	Removal of technical content in 36.523-3 v11.6.0 and substitution with pointer to the next Release
37.571-1	11.3.0	11.2.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Removal of technical content in 37.571-1 v11.2.0 and substitution with pointer to the next Release
37.571-2	11.1.0	11.0.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	Removal of technical content in 37.571-2 v11.0.0 and substitution with pointer to the next Release
37.571-3	11.1.0	11.0.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	Removal of technical content in 37.571-3 v11.0.0 and substitution with pointer to the next Release
37.571-4	11.1.0	11.0.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	Removal of technical content in 37.571-4 v11.0.0 and substitution with pointer to the next Release

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
37.571-5	11.1.0	11.0.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Removal of technical content in 37.571-5 v11.0.0 and substitution with pointer to the next Release

3. Release 12

3.1 Added Standards

None

3.2 Revised Standards

3GPP TSG #70 Sitges

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.101	12.10.0	12.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Changes correspond to Rel-11(V11.15.0) were made. ProSe direct discovery demodulation requirements, Applicable UE categories for 256QAM UE demodulation performance requirements, TDD-FDD CA/FDD CA and TDD TDD CA performance requirements, CSI minimum requirement for PUSCH 3-2, MIMO correlation matrices using cross polarized antennas, SNR definition for CSI test, CA_4A-4A-5A table reference, Uplink configuration for CA_18-28, Supported sub-block frequency arrangement for CA_41-41, Test configuration for combinations of inter-band/intra-band CA, CQI test 1A for TDD eIMTA, Resource allocation in FRC for Cat 0 UE demodulation tests, MSD levels for 2UL inter-band CA, and P _{cm} ax for CA to include delta_T_ProSe were corrected. Editorial correction for eIMTA CQI tests, Introduction of finalized demodulation performance requirements for D2D communication, Clarification of Simplified CA testing method, Clarification for UE performance tests for intra-band contiguous CA with minimum channel spacing on Band 41, Introduction of 2UL and 3DL interband cases with MSD, Removal square brackets and minor corrections for NAICS demodulation Test, Clarification on relative power tolerance for CA, Removal of DC channel bandwidth combination set table, Clarification on demodulation requirements of Dual Connectivity, Removal of (NOTE 4) from Table 5.6A.1-2a, Introduction of FDD/TDD ETU600 demodulation performance requirements, and Modification to A-MPR values on NS_05 requirements to achieve efficient spectral usage in Japan, were made. NS_04 OOB requirements and AMPR values were changed.

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.104	12.10.0	12.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Changes correspond to Rel-11(V11.14.0) were made.
36.133	12.10.0	12.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Changes correspond to Rel-11(V11.15.0) were made. E-UTRAN TDD-FDD CA event triggered reporting under deactivated SCell in Non-DRX with PCell in FDD/TDD, E-UTRAN TDD-FDD CA event triggered reporting on deactivated SCell with PCell interruption in non-DRX with PCell in FDD/TDD, RSRP/RSRQ for E-UTRAN TDD-FDD CA with PCell in FDD/TDD, Trstd values in 3DL RSTD Measurement Accuracy test cases, Cells in OTDOA assistance data in 3DL RSTD measurement reporting delay test cases, Definition of pTAG and psTAG, RSRQ measurement report mapping, E-UTRAN FDD/TDD activation and deactivation of known SCell in non-DRX, DL PCell in FDD/TDD CA activation and deactivation of known SCell in Non-DRX, and 3DL FDD/TDD CA activation and deactivation of known SCell in non-DRX, were corrected. Editorial cleanup for D2D RRM requirements, Removal of brackets in RSTD measurement accuracy and CSI-RSRP measurement, Clarification of UE reporting criteria requirements, Removal of square brackets for some CA requirements, Cleanup of 3DL CA RRM test cases, Introduction of OTDOA requirements in CA with different TDD configurations, Updating of 3DL CA activation and deactivation of unknown SCell Test cases A.8.16.41+A.8.16.42, Updating to RRM test case for E-UTRAN TDD-FDD 3DL CA activation and deactivation of unknown SCell in non-DRX with PCell in FDD/TDD, Adding the title of A.8.22, Clarification for Rel-12 cat 0 MTC requirements, and Modification of ProSe UE transmission timing accuracy in any Cell selection state, were made.
36.141	12.10.0	12.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Changes correspond to Rel-11(V11.14.0) were made.
36.211	12.8.0	12.7.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	Modify max TA for dual connectivity
36.212	12.7.0	12.6.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Correction on rank indication bit widths

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.213	12.8.0	12.7.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Clarification of PUCCH resource allocation related to EPDCCH SCells Clarification on the parameter notations for eIMTA Correction on aperiodic CSI transmission without UL-SCH according to table 7.2.1-1C Introduction of new maximum TBS for TM9/10 Clarification of PHICH resource assignment related to EPDCCH scheduled PUSCH Modify max TA for dual connectivity
36.300	12.8.0	12.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	IDC Overview Correction Corrections on sidelink related description
36.302	12.6.0	12.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	Corrections to Sidelink
36.304	12.7.0	12.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Enabling multiple NS and P-Max per cell
36.306	12.7.0	12.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Introduction of UE capability for enabling multiple NS and P-Max operation per cell Addition of definitions of sidelink terminologies Correction on categories in supportedBandCombination Clarification on support of extended wait time Clarification on tdd-FDD-CA-PCelIDuplex Introduction of alternative new maximum transport block sizes for DL 64QAM and 256QAM in TM9/10 Correction on capability rsrq-OnAllSymbols Clarification on Pcell support
36.307	12.10.0	12.9.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Changes correspond to Rel-10(V11.14.0) were made. 3DL/3UL Inter-band CA for CA_39A-41C and CA_39C-41A, and 5DL/1UL CA combinations, were introduced. And also 2DL CA combinations were added.
36.321	12.8.0	12.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	Correction on transparent MAC PDU Correction on MAC header for SL-SCH Corrections for sidelink

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.323	12.5.0	12.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification	Corrections to Sidelink Update to Services expected from Lower Layers in DC
36.331	12.8.0	12.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction to UE messages to be sent only after security activation Clarification of MCG Introduction of MaxLayerMIMO in HandoverPreparationInformation Enabling multiple NS and P-Max operation per cell Clarification on FDD/TDD difference for UL CA IDC indication Correction to SystemTimeInfoCDMA2000 IE Correction on SCG release Clarification to SCG RLF timers and constants reconfiguration Correction to triggerQuantityCSI-RS Correction to NAICS field descriptions Correction of need code definition terminology highPriorityAccess for MMTEL voice, MMTEL video and SMS Correction to the support of Mobility State reporting Correction to ASN.1 field names for 4-layer TM3/4 Correction on measurement identity autonomous removal in dual connectivity Clarification on tdd-FDD-CA-PCellDuplex Introduction of Alternative new maximum transport block sizes for DL 64QAM and 256QAM in TM9/10 Clarification on some general RRC issues Correction on capability rsrq-OnAllSymbols Addition of establishment cause for mobile-originating VoLTE calls and network indication in SIB2
36.355	12.5.0	12.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Correction to the definition of Need codes
36.508	12.8.0	12.7.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing	Modification related to Dual Connectivity. Other corrections.
36.509	12.2.0	12.1.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Special conformance testing functions for User Equipment (UE)	ProSe test loop modes Enhancements

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
36.521-1	12.8.0	12.7.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing	New TCs and modification to existence TCs for UE category 0. New TCs for UL 64QAM, SCE-L1. ..etc.
36.521-2	12.8.0	12.7.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)	Changes related to 36.521-1 changes
36.521-3	12.8.0	12.7.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	Changes related to 36.521-1 changes
36.523-1	12.8.0	12.7.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	Update test cases for UE Cat 0 Addition of new TCs for dual connectivity, SCE-L1, WLAN Offload, ..etc. Other corrections.
36.523-2	12.8.0	12.7.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	Changes related to 36.523-1 changes.
36.523-3	12.4.0	12.3.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	Addition of TCs for SSAC, rSRVCC, NIMTC, SIMTC, 2UL CA, ..etc. Other corrections.
37.571-1	12.5.0	12.4.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Uncertainties and Test Tolerances for RSTD Test Cases 10.3A_1 and 10.4A_1 Two new 3 DL CA RSTD Measurement Reporting Delay test cases Two new 3 DL CA RSTD Measurement Accuracy test cases Other corrections.
37.571-2	12.4.0	12.3.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	Correction to use of Modernized GPS with BDS

Revised Standard Number	Version at ARIB STD-T104 Ver.3.30	Version at ARIB STD-T104 Ver.3.20	3GP PWG	Title	Change Summary
37.571-3	12.5.0	12.4.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	Updating applicability statements for ECID feICIC test cases 8.1.5 and 8.1.6 Applicabilities for two new 3 DL CA RSTD Measurement Reporting Delay test cases Addition of release RAT column to applicability tables 4-7 and 4-3 Applicabilities for two new 3 DL CA RSTD Measurement Accuracy test cases
37.571-4	12.3.0	12.2.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	Addition of GCF WI-166 EUTRA UE Positioning test case 7.3.4.2.7s, 7.3.4.4.7s Correction to POS capability check procedure Code improvements in Positioning test cases Add new verified and e-mail agreed TTCN test cases in the TC lists in 37.571-4 (prose), Annex A
37.571-5	12.4.0	12.3.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Values for two new 3 DL CA RSTD Measurement Accuracy test cases Values for two new 3 DL CA RSTD Measurement Reporting Delay test cases Corrections to A-BDS navigation files

(Annex 19)

3GPP ARIB Change History List of Standards (ARIB STD-T104 Ver. 4.00)

July 6 2016

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #71 Goteborg

Revised Standard Number	Version at ARIB STD-T104 Ver.4.00	Version at ARIB STD-T104 Ver.3.30	3GPP WG	Title	Change Summary
36.101	10.22.0	10.21.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	NS_05 modification for PHS protection in Japan was made. Test parameters of 'number of PHICH group' is changed to Ng so as to keep alignment to the definition in TS36.211.
36.307	10.18.0	10.17.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	3DL combinations were introduced. 5DL/1UL CA combinations were introduced. Band 68 was introduced.

2. Release 11

2.1 Added Standards

None

2.2 Revised Standards

3GPP TSG #71 Goteborg

Revised Standard Number	Version at ARIB STD-T104 Ver.4.00	Version at ARIB STD-T104 Ver.3.30	3GPP WG	Title	Change Summary
36.101	11.16.0	11.15.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Corresponding change made in V.10.22.0 was introduced. Beamforming model correction on TM10 DPS UE tests was made. CQI reports in CoMP fading test was corrected. Correction to TDD CQI Reporting for feICIC was made. Correction to Type A CQI test parameters was made. Correction on UE category in Annex was made.
36.104	11.15.0	11.14.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	BS co-existence requirements were updated for Band 20 and Band 28 co-existence.
36.133	11.16.0	11.15.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Accuracy requirements for feICIC TDD RSRP OCNG was corrected.
36.141	11.15.0	11.14.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	BS co-existence requirements were updated for Band 20 and Band 28 co-existence.
36.212	11.7.0	11.6.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Correction to RI reporting for UE category with MIMO capability of 1 layer
36.307	11.15.0	11.14.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	In addition to the corresponding introduction of the new band and CA combinations done in version 10.18.0 (as Category B changes), 4DL interband CA combinations were introduced.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.00	Version at ARIB STD-T104 Ver.3.30	3GPP WG	Title	Change Summary
36.331	11.15.0	11.14.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction to In-Device Coexistence for UL CA change of victim system

3. Release 12

3.1 Added Standards

None

3.2 Revised Standards

3GPP TSG #71 Goteborg

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00	Version at ARIB STD-T104 Ver.3.30	3GPP WG	Title	Change Summary
36.101	12.11.0	12.10.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<p>Some of the corresponding changes made in V.11.16.0 was introduced.</p> <p>Brackets for Maximum input level for 256QAM were removed.</p> <p>Brackets for Measurement channels for MTC were removed.</p> <p>Dual Connectivity band combination of 5-17 was removed.</p> <p>Square brackets on the 40 radio frames of lead time for D2D ProSe communication were removed. Reference table number for DRX configurations was corrected.</p> <p>Fixed Reference Channel for SDR test was corrected.</p> <p>Reference for dual connectivity configurations in Table 8.1.2.2A-1 was corrected. DL category 11 and 12 in the existing column of Cat. 11 and 12 was added in order to avoid the ambiguity for 256QAM DC SDR test applicability.</p> <p>Notes in 2UL spurious emission table was corrected.</p> <p>UE category in Annex was corrected.</p> <p>Intra-band non-contiguous CA requirements were corrected.</p> <p>Correction for eIMTA CQI reporting tests was made.</p> <p>Beam steering rate for 4 Tx antenna was corrected.</p> <p>Correction of P_{cm} for Dual Connectivity was made.</p>

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00	Version at ARIB STD-T104 Ver.3.30	3GPP WG	Title	Change Summary
					<p>Alignment of Inter-band CA with two bands was made.</p> <p>syncOffsetIndicator parameter in D2D resource pool configuration was corrected.</p> <p>Square brackets for ETU600 tests and TDD-FDD CA 15+20MHz tests.were removed. Reference channel number in CA performance requirements for Intra-band non-contiguous carrier aggregation with timing offset was corrected.</p>
36.104	12.11.0	12.10.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	<p>Corresponding change made in V.11.15.0 was introduced.</p> <p>BS spurious emissions requirements for band 22 and 42 were corrected.</p>
36.133	12.11.0	12.10.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>Corresponding change made in V.11.16.0 were introduced.</p> <p>E-UTRAN TDD-FDD CA activation and deactivation of known SCell in non-DRX with PCell in FDD was corrected.</p> <p>E-UTRAN TDD-FDD CA activation and deactivation of unknown SCell requirements in non-DRX with PCell in FDD was corrected.</p> <p>OGNG parameters for 3DL CA Event Triggered Reporting on Deactivated SCell with PCell and SCell Interruptions, A.8.16.32+A.8.16.33 was corrected.</p> <p>Maximum UL transmission time difference requirements for Dual Connectivity was corrected.</p> <p>Test case IDs for UE transmit timing accuracy tests were corrected.</p> <p>SCE requirements and test cases were corrected.</p> <p>Antenna configuration principle was corrected.</p> <p>IncMon requirements were corrected for alignment purpose.</p> <p>syncOffsetIndicator parameter in D2D resource pool configuration was corrected.</p> <p>Reference for dual connectivity was corrected. Category 0 applicability note was moved to the applicability section and correcting the corresponding references in the requirements. A typo for the CQI periodicity is corrected, should be 1 ms instead of 2 ms.</p>

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00	Version at ARIB STD-T104 Ver.3.30	3GPP WG	Title	Change Summary
					Reference to 'test 1' was corrected as 'the test' since here is only one test. Number of control symbols in some RLM tests was corrected. Errors in Annex A Activation/Deactivation Test cases were corrected. Modification for MBSFN measurements was made. Correction to separate section for D2D Core and Performance requirement was made.
36.141	12.11.0	12.10.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Corresponding change made in V.11.15.0 was introduced. BS spurious emissions requirements for band 22 and 42 were corrected.
36.212	12.8.0	12.7.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Correction on rank indication bit widths
36.213	12.9.1	12.8.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Clarification on T_threshold in dual connectivity MCC update to show correct version of the spec in the headers of all subparts and get all of them aligned with coversheet
36.300	12.9.0	12.8.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Clarification on Split bearer Correction to maximum UL transmission timing reference in DC
36.306	12.8.0	12.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Correction on capability phy-TDD-ReConfig-FDD(TDD)-Pcell
36.307	12.11.0	12.10.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Corresponding introduction of the new band and CA combinations done in version 11.15.0 were made as Category B changes,
36.321	12.9.0	12.8.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	Correction to maximum UL Transmission timing difference in dual connectivity

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00	Version at ARIB STD-T104 Ver.3.30	3GPP WG	Title	Change Summary
36.331	12.9.0	12.8.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction on the RRC signalling configuration for 4Tx MIMO Clarification on applicability of longCodeState1XRTT Correction to SL-DiscConfig Correction to maximum UL timing difference for DC Correction to T321 for Category 0 UE Procedural clarification on PSCell change involving PSCell release Clarification on NAICS subset capability Clarification on the leftmost bit for the supportedCellGrouping Clarification on the value range of guaranteed power for the MeNB and SeNB Correction to In-Device Coexistence for UL CA change of victim system
36.508	12.9.0	12.8.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing	Addition of test frequencies, default power level, default message, Test UICC contents, ..etc. Other corrections.
36.509	12.3.0	12.2.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Special conformance testing functions for User Equipment (UE)	ProSe test loop modes Clarification\Updates
36.521-1	12.9.0	12.8.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing	Removal of technical content in 36.521-1 v12.8.0 and substitution with pointer to the next Release
36.521-3	12.9.0	12.8.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	Addition of new SCE-L1 RRM TCs, DC TCs, UE category 0 TCs, ..etc. Other corrections.

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00	Version at ARIB STD-T104 Ver.3.30	3GPP WG	Title	Change Summary
36.523-1	12.9.0	12.8.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	Adding of ProSe Direct Communication TCs, ProSe Direct Discovery TCs, SCE-L1 TCs, ..etc. Other corrections.
36.523-2	12.9.0	12.8.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	Changes related to 36.523-1 changes.
36.523-3	12.5.0	12.4.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	Addition of Rel-11 eDDA TCs, Rel-12 SSAC TCs, LTE Inter-RAT IMS Emergency Call TCs, ..etc. Other corrections.
37.571-1	12.6.0	12.5.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Add Cell values in RSTD/OTDOA table for 3DL RSTD. Addition of antenna diagram Figure for 3DL CA TCs. Other corrections.
37.571-2	12.5.0	12.4.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	Addition of extra call flow to test case 7.3.4.4
37.571-3	12.6.0	12.5.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	Releases for the new OTDOA tests 10.5 to 10.8 are missing Correct TC Title typo errors in Table 4-3
37.571-4	12.4.0	12.3.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	Correction to POS type definition in ATS_15wk38

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00	Version at ARIB STD-T104 Ver.3.30	3GPP WG	Title	Change Summary
37.571-5	12.5.0	12.4.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Correction of assistance data files for A-BDS and A-GALILEO.

4. Release 13

4.1 Added Standards

3GPP TSG #71 Goteborg

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
25.460	13.0.0		R3	UTRAN luant interface: General aspects and principles	Update to Rel-13 version
25.461	13.1.0		R3	UTRAN luant interface: Layer 1	Introduction of band 65 Introduction of band 66 Introduction of band 67 Introduction of band 45 Introduction of Band 68 Introduction of Band 46
25.462	13.0.0		R3	UTRAN luant interface: Signalling transport	Update to Rel-13 version
25.466	13.1.0		R3	UTRAN luant interface: Application part	Introduction of band 45 Extension of operating bands field Introduction of band 65 Introduction of band 66 Introduction of band 67 Introduction of Band 68 Introduction of Band 46
36.101	13.3.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Upgraded from previous Release version 12.7.0 as version 13.0.0 at RP#68 with the following change. - Introduction of dual uplink CA. - Introduction of new CA bandwidth classes for FeCA - Introduction of CA_3A-40C. - Introduction of CA_3A-40A.

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Introduction of intra-band CA_42D. - Introduction of non-contiguous Carrier Aggregation (CA) in Band 42 for 3DL. - Introduction of 4DL inter-band CA. - Introduction of additional 2DL inter-band CA. - Introduction of additional 3DL inter-band CA. <p>At RP#69, the following updates were made.</p> <ul style="list-style-type: none"> - Corresponding changes made in the version 12 specification. - UL DL pairing for CA of B39+B41+B41 and B39+B39+B41. - Some essential corrections. - UE co-existence requirements between Band 42 and Japanese bands. - Introduction of additional band combinations for 2DL inter-band CA. - Introduction of additional band combinations for 3DL inter-band CA. - TM9 performance with CRS assistance information. - Introduction of 4CC demodulation requirements for FDD and FDD-TDD CA. - Introduction of UL 64QAM. - Correction to dRib and REFSENS. - Introduction of dual uplink CA. - Addition on interband CA 2UL/3DL pairs without MSD. - Additional bandwidth combination set for LTE Advanced intra-band non-contiguous Carrier Aggregation in Band 4. - Introduction of finished 4DL inter-band CAs. - CR to add demodulation tests for new release 13 2CC

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<p>combinations.</p> <ul style="list-style-type: none"> - Corrections on CA reference sensitivity requirements. - Corrections in Table 5.6A.1-2, 7.3.1-1A and 7.3.1-1B.. - CR 36.101 BW combination for CA_8A_41A. - Removal of square brackets for LTE-CA_B41_B42_B42 - Adding CA_42D to the out of band blocking requirement exception. - Introduction of propagation conditions to handle 4 receivers in the UE. - Introduction of CA_7A-40A and CA_7A-40C. <p>At RP#70, the following updates were made.</p> <ul style="list-style-type: none"> - Corresponding changes made in the version 12 specification. - Introduction of Band 66. - Modification and correction of CA_3A-3A BCS1. - Table 6.2.4A-1 note 1 correction. - Introduction of 1447-1467MHz Band. - Introduction of Region 3 requirement in Band 65. - Introduction of additional band combinations for 3DL inter-band CA. - Introduction of RF requirements for LAA operation. - Introduction of eD2D RF core requirements. - Introduce TM4 performance requirements when CRS assistance information is provided. - Introduce TM10 performance requirements when CRS assistance information is provided for multiple-CSI-process capable UE. - Introduce TM10 performance requirements when CRS

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<p>assistance information is provided for one-CSI-process capable UE.</p> <ul style="list-style-type: none"> - Introduction of 3DL/2UL DC. - Requirements for PDCCH with 4Rx. - Introduction of additional band combinations for 2DL inter-band CA. - Correction on UL 64QAM measurment channels. - Correction of CA_8A-41C bandwidth combination set. - Correction of uplink configuration for CA_42D. - Requirements for PHICH with 4Rx. - Introducing B20 + B67 CA. - Requirements for ePDCCH with 4Rx. - Introduction of the Medium Correlation A model. - RF receiver requirements for UE(s) supporting four antenna ports. - Requirements for PDSCH with 4Rx. - Introduction of CA_5A-5A. - Introduction of 3DL/3UL Inter-band CA of CA_39A-41C and CA_39C-41A. - Introduction of CA_5B. - CR 36.101 BW combination for CA_8B. - Introduction of CA_7A-7A BCS1. - Introduction of B65 in Region 1. - Introduction of UE RF requiriements for CA_42E. - Addition of Class E into CA BW Class table.. - Introduction of intra-band non-contiguous CA in Band 41 for 4DL.

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Introduction of 2 UL and 3 DL interband cases with MSD. - Introduction of additional 2 UL and 3 DL interband cases with MSD. - Introduction of 5DL/1UL CA combinations. - CR on introduction of 5CC TDD FDD CA demodulation performance requirements. - CR on introduction of 5CC FDD/TDD CA demodulation performance requirements. - Introduction of 4DL NC CA in band42. - Delta TIB,c and Delta RIB,c for 1UL/4DL. - Introduction of finished 4DL inter-band CAs. - Correction to mandatory 2UL support for 3DL interband CA. - Clarification of Pcell support in CA scenarios. - Correction for eIMTA CQI tests. - Maintenance of eIMTA PDSCH demodulation test - Correction to finalize demodulation performance requirements for D2D Communication. - Correction of the 2UL CA co-existence table for CA_18A-28A. - Corrections for ProSe Direct Discovery demodulation requirements. - Addition of 2 UL and 3 DL mixed intra/inter band carrier aggregation combinations without MSD. - Correction of TDD-FDD CA performance requirements (Rel-13) - Introduction of dual uplink CA into 36.101 - Correction on FDD CA and TDD CA performance requirements. - Correction of MSD levels for 2UL inter-band CA. - Introduction of dual uplink CA.

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Add uplink CA configuration to CA_41A-41C and CA_41C-41A (as a revision to CR 3256). - Correction of reference to section 6.6.3.3.19 for NS_04 in Table 6.2.4-1. <p>At RP#71, the following updates were made.</p> <ul style="list-style-type: none"> - Corresponding changes made in V.12.11.0 was introduced. - Non-TM10 performance with CRS assistance information was introduced. - UE receiver requirements for MTC was introduced. - TM10 performance with CRS assistance information was introduced. - 5DL/1UL CA combinations were introduced. - Robustness test for CRS-IM capable UE was introduced. - 4DL inter-band CA's were introduced - Correlation Model for Medium Correlation A was corrected. - FRC for non-TM10 with CRS assistance information was introduced. - FRC for SDR test was corrected. - 4Rx demodulation performance requirements were corrected. - UE Demodulation Requirements for DL PDSCH rank 1 and 2 performance were introduced. - UE Demodulation Requirements for DL PDSCH rank 3 and 4 requirements were introduced. - UE Demodulation Requirements for DL Control channels for 4Rx were introduced. - Additional band combinations for 3DL inter-band CA were introduced. - Supported bandwidths for Band 66 were corrected.

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Editorial change on PHICH group and Ng was made. - Brackets for 3+40 REFSSENS was removed. - Uplink configuration for CA_66C UL CA was removed. - UL CA support table was corrected. - Corrections on BCS and EARFCN tables was made. - Channel bandwidth sets for three bands Dual Connectivity were removed. - Notes in 2UL spurious emission table was corrected. - Annex D for LAA was corrected. - Channel bandwidths for CA_B3_B41_B42 wasrevised. - Dual Connectivity set of DC_5-17 was removed. - Square brackets for ETU600 tests, TDD-FDD CA SDR tests were removed. Reference channel number in CA performance requirements for Intra-band non-contiguous carrier aggregation with timing offset was corrected. - Introduction of TX requirements for eMTC. - Corrections to UE RF receiver requirements for 4RX AP and support of CA. - Introduction of Band 68 for Arab region. - Maintenance of CA requirements. - Correction to UL 64 QAM measurement channels. - Corrections and bracket removals to B46 specifications. - Introduction of FRC for TM10 with CRS assistance information
36.104	13.3.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	<p>Upgraded from previous Release version 12.7.0 as version 13.0.0 at RP#68 with the following change.</p> <ul style="list-style-type: none"> - Introduction of CA_3A-40A. - Introduction of 4DL CA combinations.

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Introduction of 2DL CA combinations. - Introduction of 3DL CA combinations. <p>At RP#69, the following updates were made.</p> <ul style="list-style-type: none"> - Corresponding changes made in the version 12 specification. - Introduction of 4DL CA combinations. - Introduction of 3DL CA combinations. - Introduction of core requirements for support of 256QAM in wide area BS. <p>At RP#70, the following updates were made.</p> <ul style="list-style-type: none"> - Corresponding changes made in the version 12 specification. - Introduction of Band 66. - Introduction of 1447-1467MHz Band. - Introduction of LAA. - Introduction of 2DL CA combinations. - Introduction of CA_5B. - Introduction of intra-band CA_8B. - Introduction of intra-band NC CA_5A-5A. - Introduction of E-UTRA band 65. - Introduction of Band 67 and CA_20-67. - Introduction of 4DL CA combinations - Introduction of 3DL CA combinations <p>At RP#71, the following updates were made.</p> <ul style="list-style-type: none"> - Corresponding change made in V.12.11.0 was introduced. - Introduction of 4DL CA combinations. - Introduction of 5DL CA combinations.

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Introduction of 3DL CA combinations. - A reference to Note 3 was added in the EARFN table 5.7.3-1 for B46. The reference before table 6.6.2.1-5 was corrected. The frequency range for B46 in the minimum requirement tables for LA BS and MR BS was corrected to 5150-5925 MHz. - Introduction of Band 68.
36.111	13.0.0		R4	Location Measurement Unit (LMU) performance specification; Network based positioning systems in Evolved Universal Terrestrial Radio Access Network (E-UTRAN)	Upgraded from previous Release version 12.0.0 without technical change.
36.112	13.0.1		R4	Location Measurement Unit (LMU) conformance specification; Network based positioning systems in Evolved Universal Terrestrial Radio Access Network (E-UTRAN)	Upgraded from previous Release version 12.2.0 as version 13.0.0 without technical change. Correction of typo on the cover sheet was made as version 13.0.1.
36.113	13.1.1		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) and repeater ElectroMagnetic Compatibility (EMC)	<p>Upgraded from previous Release version 12.3.0 as version 13.0.0 at RP#70 with the following change.</p> <ul style="list-style-type: none"> - Introduction of Band 66. - Introduction of 1447-1467MHz Band. - Introduction of Band 65. - Introduction of Band 67. <p>At RP#71, the following updates were made.</p> <ul style="list-style-type: none"> - Introduction of Band 68 was made as Category B change. <p>Introduction of Band 46 was made as Category F correction change.</p>
36.124	13.1.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Electromagnetic compatibility (EMC) requirements for mobile terminals and ancillary equipment	<p>Upgraded from previous Release version 12.1.0 as version 13.0.0 at RP#70 with the following change.</p> <ul style="list-style-type: none"> - Introduction of Band 66. - Introduction of 1447-1467MHz Band. - Introduction of Band 65. - Introduction of Band 67. <p>At RP#71, the following updates were made.</p>

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Introduction of Band 68 was made as Category B change. Introduction of Band 46 was made as Category F correction change
36.133	13.3.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>Upgraded from previous Release version 12.7.0 as version 13.0.0 at RP#68 with the following change.</p> <ul style="list-style-type: none"> - Introducing RRM Requirements in Section 7 for 4 DL CA - Introduction of 4DL CA RRM requirements for “UE Measurements Procedures in RRC_CONNECTED State” - Updating of Carrier aggregation test cases for band 31 <p>At RP#69, the following updates were made.</p> <ul style="list-style-type: none"> - Corresponding changes made in the version 12 specification. - RRM Requirements for 3 DL/2UL Inter-band CA - Requirements for DC on ACK/NACK reporting for measurements using autonomous gaps <p>At RP#70, the following updates were made.</p> <ul style="list-style-type: none"> - Corresponding changes made in the version 12 specification. - Introduction of Band 65. - Removal of square brackets for some CA requirements. - Introduction of Band 66. - Introduction of Band 45. - Introduction of RRM requirements for 3 DL CC Dual connectivity. - Introduction of core RRM requirements for LAA. - Introduction of LAA measurement requirements. - Introduction of LAA measurement accuracy requirements and measurement report mapping. - Introduction of SCell activation/deactivation delay for PUCCH SCell. - Introduction of measurement performance requirements for UE

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<p>reporting SSTD between MeNB and SeNB for dual connectivity enhancements</p> <ul style="list-style-type: none"> - Introduction of maximum uplink timing difference for Dual Connectivity. - Introduction of requirements of interruption for 3 DL CC Dual connectivity. - Introduction of RS-SINR accuracy. - Introduction of RS-SINR measurement requirements. - Introduction of RS-SINR measurement accuracy requirements - Introduction of RS-SINR measurement report mapping. - Introduction of extended DRX requirements in RRC_CONNECTED state. - Introduction of clarification of band combination. - Introduction of RRM requirements for SSTD reporting for Dual Connectivity. - Introduction of beacon RSSI Reporting Requirements. - Introduction of r RRM requirement up to 3UL CA. - Introduction of Band 67. - Introduction of RRM requirements for 5DL CC CA. - Correction of editorial cleanup for D2D RRM requirements. - Correction of definition of antenna connection in some RSTD tests. - Introduction of RRM requirement up to 3UL CA. <p>At RP#71, the following updates were made.</p> <ul style="list-style-type: none"> - Corresponding change made in V.12.11.0 were introduced. - CGI reading of eMTC requirement was corrected. - RSSI measurement requirement was corrected.

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Measurement accuracy requirements for LAA were corrected. - Errors in Annex A Activation/Deactivation Test cases were corrected (as Cetory F change). - Measurement and measurement accuracy for LAA was corrected (as Cetory F change). - RS-SINR measurement accuracy requirements were corrected. - Interruptions related requirements with Carrier Aggregation were corrected. - Clarification on timing of interruption for PUCCH SCell activation/deactivation was made. - Activation and deactivation delay requirements for PUCCH SCell with four downlink SCells were corrected. - Maximum UL transmission time difference requirements for Dual Connectivity were corrected. - Interruption related requirements on RSTD in CA were corrected. - Intra-frequency measurement requirements for LAA were corrected. - Clarification of SSTD measurement requirements was made. - Reference configuration for Rel-13 MTC was introduced. - RRM requirements for eMTC in IDLE mode in section 4 was introduced. - eMTC positioning requirements were updated. - Measurement requirements for MTC UE under normal coverage was introduced. - Radio link monitoring requirements for MTC UE were introduced. - Measurement requirements for MTC UE under enhanced coverage were introduced. - Random access requirements for eMTC UEs were introduced.

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - OOC Discovery requirements for eD2D were introduced. - Inter-freq discovery and multicarrier eD2D requirements were introduced. - UE-NW relay requirements for eD2D were introduced. - Measurement accuracy requirements for MTC UE were introduced. - Correction to SSTD measurement accuracy and reporting range was made. - Measurement requirements in RRC CONNECTED state were updated. - RSSI Report Mapping Requirements were updated. - Correction of measurement performance on eD2D. - Introduction of Measurement requirements in RRC IDLE state. - Correction on LAA measurement conditions. - Correction of reporting criteria for RS-SINR. - Modification on the SCell activation delay requirement for deactivated SCell under Frame Structure 3.
36.141	13.3.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	<p>Upgraded from previous Release version 12.7.0 as version 13.0.0 at RP#68 with the following change.</p> <ul style="list-style-type: none"> - Introduction of CA_3A-40A. - Introduction of 4DL CA combinations. - Introduction of 3DL CA combinations. - Introduction of 2DL CA combinations. <p>At RP#69, the following updates were made.</p> <ul style="list-style-type: none"> - Corresponding changes made in the version 12 specification. - Introduction of 3DL CA combinations. - Introduction of 4DL CA combinations.

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Introduction of conformance test for support of 256QAM in wide area BS. - Introduction of CA_7A-40A and CA_7A-40C. <p>At RP#70, the following updates were made.</p> <ul style="list-style-type: none"> - Corresponding changes made in the version 12 specification. - Introduction of Band 65. - Introduction of 1447-1467MHz Band. - Introduction of Band 66. - Introduction of 2DL CA combinations. - Introduction of intra-band CA_5B. - Introduction of intra-band NC CA_5A-5A. - Introduction of intra-band CA_8B. - Introduction of Band 67 and CA_20-67. - Introduction of 4DL CA combinations. - Introduction of 3DL CA combinations. <p>At RP#71, the following updates were made.</p> <ul style="list-style-type: none"> - Corresponding change made in V.12.11.0 was introduced. - 3DL CA combinations were introduced. - 4DL CA combinations were introduced. - 5DL CA combinations were introduced. - Introduction of Band 68.
36.171	13.0.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for Support of Assisted Global Navigation Satellite System (A-GNSS)	Upgraded from previous Release version 12.0.0 without technical change.
36.201	13.1.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE physical layer; General description	Introduction of Rel-13 eCA Introduction of EB/FD-MIMO

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					Introduction of LAA Introduction of LC/EC MTC
36.211	13.1.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	Introduction of EB/FD-MIMO Introduction of Rel-13 eCA eD2D CR for 36.211 Introduction of LAA Alignment eD2D CR for 36.211 Clarification on PDSCH collision with PSS/SSS/PBCH Correction on support of CA with up to 32 CCs Correction on PUCCH format 4 and 5 Correction on DRS subframe in 36.211 Correction on EPDCCH start symbol in LAA Correction to MBSFN subframe configuration CR on CSI-RS configuration for more than eight antenna ports in 36.211 CR on mismatch between 36.211 and 36.331 Clarification on additional SC-FDMA symbols in UpPTS for SRS Correction on Precoding and definition of DMRS ports Introduction of LC/CE MTC
36.212	13.1.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	Introduction of Rel 13 feature of eCA Introduction of EB/FD-MIMO Introduction of Rel 13 feature of LAA Introduction of Rel 13 features for SC-PTM Introduction of Rel-13 features of eMTC in 36.212 CR on mismatch between 36.212 and 36.331

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					Clarification on Class B CSI report Correction to RI reporting for UE category with MIMO capability of 1 layer CR on CRI-RI payload restriction for non-eCA UE
36.213	13.1.1		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	eD2D CR for 36.213 Introduction of Rel 13 features for SC-PTM Introduction of LAA (PHY layer aspects) Introduction of LAA (eNB Channel Access Procedures) Introduction of Enhanced CA in Release 13 Introduction of EB/FD-MIMO MCC update to show correct version of the spec in the headers of all subparts and get all of them aligned with coversheet Alignment eD2D CR for 36.213 Clarification on PDSCH collision with PSS/SSS/PBCH Clarification on number of PRBs for PUCCH format 4 Clarification on code rate for periodic CSI transmission on PUCCH format 4 and 5 Clarification on Averaging of CSI Measurements in LAA Limit on number of periodic CSI reports Correction on Transmission Code Rate Determination CR on LAA defer and sensing duration Correction on aperiodic CSI only PUSCH without UL-SCH Correction on HARQ-ACK and periodic CSI transmission Correction on Simultaneous HARQ-ACK and P-CSI Transmission CR on MR support in TM9 Correction on Subsampling of Class A Codebook

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<p>CR on definition of LAA idle sensing for periods longer than one CCA slot</p> <p>Correction on total sensing and transmission time for Japan</p> <p>Correction on common DCI detection of LAA in 36.213</p> <p>CR on valid downlink subframe definition for TM9/10</p> <p>CR on eCCE of EPDCCH for partial subframe</p> <p>Correction on cross-carrier scheduling in LAA</p> <p>Correction on QCL type B for LAA</p> <p>Correction on Class B CSI reporting</p> <p>CR on CRI reporting for one CSI-RS ports (36.213)</p> <p>Correction to the condition of CRI updating restriction</p> <p>Correction to the additional UpPTS symbols for SRS</p> <p>Clarification on PUCCH mode 1-1 configuration</p> <p>Correction on EPDCCH assignment in LAA</p> <p>CR for LAA CW reset per AC in case of K attempts at CWmax</p> <p>Corrections to RI-inheritance</p> <p>CR on CSI-RS resource in 36.213</p> <p>CR on mismatch between 36.213 and 36.331</p> <p>Correction on CSI transmission for eCA in 36.213</p> <p>Clarification on joint reports of CRI</p> <p>Correction to RI reference CSI process</p> <p>Corrections to Class B CSI reporting on PUCCH</p> <p>Correction on PUCCH transmission and (E)PDCCH disabling in eCA</p> <p>CSI-RS in DwPTS</p>

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<p>Correction on shortened PUCCH format for Rel-13 CA</p> <p>Correction on HARQ-ACK bit concatenation for PUCCH format 4 and 5</p> <p>Corrections for LAA Energy Detection Threshold</p> <p>Correction on channel access procedure for DL LBT</p> <p>Correction on CWS adjustment in LAA</p> <p>Corrections for Type B Multi-channel access procedure for an LAA SCell</p> <p>CR on Class B CQI measurement correction</p> <p>Corrections for PDCCH and EPDCCH monitoring on an LAA SCell in 36.213</p> <p>Clarification on T_threshold in dual connectivity</p> <p>Introduction of further LTE Physical Layer Enhancements for MTC</p> <p>MCC update to show correct version of the spec in the headers of all subparts and get all of them aligned with coversheet</p>
36.214	13.1.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer; Measurements	<p>eD2D CR for 36.214</p> <p>Introduction of RS-SINR measurement for Multicarrier Load Distribution</p> <p>Introduction of LAA</p> <p>Introduction of SSTD for dual connectivity enhancement</p> <p>Introduction of WLAN RSSI measurements to support WLAN/LTE Radio Interworking</p> <p>Correction on RSSI definition of LAA in 36.214</p>
36.216	13.0.0		R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer for relaying operation	Update to Rel-13 version
36.300	13.3.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall	<p>Introduction of enhanced inter-eNB CoMP</p> <p>Introduction of DC enhancement</p>

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
				description; Stage 2	<p>Introduction of RS-SINR measurements</p> <p>Introduction of LTE-WLAN Radio Level Integration and Interworking Enhancement stage-2</p> <p>Introduction of SC-PTM</p> <p>Introduction of MCLD</p> <p>Introduction of low complexity UE and enhanced coverage features</p> <p>Introduction of eD2D</p> <p>Introduction of SC-PTM</p> <p>Introduction of PWS Failure Indication message</p> <p>Introduction of handover enhancement for Dual Connectivity</p> <p>Introduction of Dedicated Core Network (DECOR) feature</p> <p>Introducing extended DRX</p> <p>Introduction of Licensed-Assisted Access using LTE</p> <p>Introduction of Stage 2 text for LTE-WiFi integration for legacy WLAN</p> <p>Support of SIPTO@LN and LIPA for DC</p> <p>Adding CSG support to DC</p> <p>Adding Tunnel Information of BBAI in Dual Connectivity</p> <p>Enhanced overload procedure in RAN sharing</p> <p>Monitoring traffic volume per QoS group per PLMN</p> <p>eMBMS Alternative IP Multicast distribution address</p> <p>SON support for dynamic deployment changes</p> <p>Sidelink terminology alignment</p> <p>Corrections on sidelink related description in TS 36.300</p> <p>Removing SCG change restrictions regarding upon handover</p> <p>Addition of the information on the notification for planned</p>

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					reconfiguration IDC Overview Correction 36.300 CR for capturing B5C and PUCCH on SCell Clarification on SC-PTM Clarification on SC-PTM reception on non-Pcell Clarification related to SC-MCCH Change Notification Correction on SC-MCCH change notification Clarification on the synchronised MBSFN transmission Clarification on Split bearer Correction to maximum UL transmission timing reference in DC Correction on CSG and LIPA/SIPTO support to DC Introduction of mapping between Channel Access Priority Classes and QCI values Clarification on multiplexing of data in LAA Clarification on IDC support in LAA Paging occasion monitoring when eDRX is configured Stage-2 text for LWIP Tunnel Clarifications Stage-2 Correction for LWA Stage 2 CR on LTE-WLAN Radio Level QoS parameters handling during LWA bearer establishment/modification Xw Dynamic Configuration Clean up and corrections for eD2D Correction on overload enhancement Introduction of Paging Optimisation and Paging for Coverage Enhancement capable UEs

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					Configuration of the flow control type UE context retention at SCTP recovery Addition of X2 Removal Threshold to the X2 Removal Request message
36.302	13.1.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	Introduction of PUCCH on SCell in CA Introduction of SC-PTM Correction on CA enhancement The introduction of eMTC features
36.304	13.1.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Introduction of IDC Impact to Logged Measurements Extension of Frequency Priorities Introduction of ACDC Introduction of SC-PTM Introduction of load redistribution in RRC_IDLE Introducing eSL Introducing extended DRX The introduction of the Idle procedure for eMTC UE Introduction of WLAN RSSI measurements Correction on PO monitoring during paing window in eDRX Clarification of idle mode load distribution Miscellaneous corrections PTW terminology alignment Correction to E-UTRAN Inter-frequency Redistribution procedure_alt2
36.305	13.0.0		R2	Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Stage 2 functional specification of User Equipment (UE) positioning in E-UTRAN	Introduction of RAT-Independent positioning enhancements

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
36.306	13.1.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	<p>Introduction of DC enhancement</p> <p>Introduction of Licensed-Assisted Access using LTE</p> <p>Introduction of RS-SINR measurements</p> <p>Introduction of SC-PTM</p> <p>Introduction of Application specific Congestion control for Data Communication in LTE</p> <p>White-list of cells for EUTRA measurement reporting</p> <p>Introduction of CA enhancement</p> <p>Introducing extended DRX</p> <p>introduction</p> <p>Introduction of capability on PDSCH collision handling</p> <p>Additional Layer 1 capabilities for Rel-13 CA enhancements</p> <p>Introduction of LWIP UE capabilities</p> <p>Introducing LWA and RCLWI UE capabilities</p> <p>Introduction of eD2D Capability</p> <p>The introduction of UE capability concerning extended E-UTRA frequency priorities</p> <p>UE capabilities for LC and CE</p> <p>Corrections on SC-PTM</p> <p>Clarification on SC-PTM reception on non-Pcell</p> <p>Capture the UE capability for the extension of the MeasObjectId to 64</p> <p>Miscellaneous corrections to TS 36.306</p> <p>MDT enhancements support</p> <p>Leftover UE capabilities for LAA</p> <p>Minor corrections for CA enhancements</p>

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<p>Reference errors for inter-RAT capabilities</p> <p>Modification of network requested CA band combination retrieval for intra-band non-contiguous CA</p> <p>Correction on capability phy-TDD-ReConfig-FDD(TDD)-Pcell ANR in case of MFBI</p> <p>36.306 CR on TM10 CRS-IM UE capability report signalling</p>
36.307	13.3.0		R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	<p>Upgraded from previous Release version 12.7.0 as version 13.0.0 at RP#68 with the following change.</p> <ul style="list-style-type: none"> - Introduction of CA_3A-40C. - Introduction of CA_3A-40A. - Introduction of CA_42D. - Introduction of CA_3A-40A. - Introduction of dual uplink CA. - Introduction of CA_3A-40C. - Introduction of 3DL inter-band CA. - Introduction of non-contiguous Carrier Aggregation (CA) in Band 42 for 3DL. - Introduction of 4DL inter-band CA. - Introduction of 2DL inter-band CA. <p>At RP#69, the following updates were made.</p> <ul style="list-style-type: none"> - Introduction of 3DL combinations. - Introduction of finished 4DL inter-band CAs. - Introduction of dual uplink CA. <p>At RP#70, the following updates were made.</p> <ul style="list-style-type: none"> - Corresponding changes made in the version 12 specification. - Introduction of Band 65.

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Introduction of Band 66. - Introduction of 1447-1467MHz Band. - Introduction of 2DL combinations. - Introduction of 2 UL and 3 DL mixed inter/intra cases without MSD. - Introduction of 3DL/3UL Inter-band CA. - Introduction of intra-band CA_5B. - Introduction of intra-band CA_8B. - Introduction of 5DL/1UL CA combinations. - Introduction of intra-band NC CA_5A-5A. - Introduction of 4DL NC CA in band42. - Introduction of CA_42E. - Introduction of 3DL combinations. - Introduction of finished 4DL inter-band CAs. <p>At RP#71, the following updates were made.</p> <p>Necessary changes (putting void sections) corresponding to introduction of the new band and CA combinations done in version 12.11.0 were made as Category B changes,</p>
36.314	13.1.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Layer 2 - Measurements	<p>Introduction of data volume measurements in shared E-UTRAN</p> <p>New MDT measurement introduced by feMDT</p> <p>Correction to reporting of UL PDCP delay measurements for FeMDT</p>

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
36.321	13.1.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	<p>Introduction of Carrier Aggregation enhancements beyond 5 CCs</p> <p>Introduction of eD2D</p> <p>Introduction of LAA in MAC</p> <p>Introduction of SC-PTM in MAC</p> <p>Introduction of low complexity UE and enhanced coverage features</p> <p>Correction to power headroom reporting of carrier aggregation enhancement beyond 5 CCs</p> <p>Corrections for sidelink</p> <p>Correction to P_{max} and PH field in PHR MAC CE</p> <p>Maximum UL Transmission timing difference in dual connectivity</p> <p>Corrections on SC-PTM MAC specification</p>
36.322	13.1.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Link Control (RLC) protocol specification	<p>Introduction of extended RLC protocol formats for CA enhancement</p> <p>Introduction of SC-PTM in RLC</p> <p>Clarification on Polling for last data</p>
36.323	13.1.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification	<p>Introduction of UL split bearer in PDCP</p> <p>Introduction of enhanced CA in PDCP</p> <p>Introducing enhanced ProSe</p> <p>Introduction of LWA into PDCP specification</p> <p>Correction for KD-sess Identity</p>
36.331	13.1.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	<p>Introduction of Dual Connectivity enhancements</p> <p>Introduction of Licensed-Assisted Access using LTE</p> <p>Introduction of RS-SINR measurements using non critical extension</p> <p>Introducing EBF FD MIMO parameters</p> <p>Introduction of Application specific Congestion control for Data Communication in LTE</p>

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<p>Introducing CRS interference mitigation on SCell</p> <p>Introduction of SC-PTM</p> <p>Introduction of Rel-13 MDT enhancements</p> <p>Introduction of load redistribution in RRC_IDLE</p> <p>Introducing extended DRX</p> <p>Introduction of White-list of cells for EUTRA measurement reporting</p> <p>Introduction of Paging optimization</p> <p>Introducing eSL</p> <p>Extension of Frequency Priorities</p> <p>Clarification on MCCH acquisition for 1.4MHz MBSFN</p> <p>Removing SCG change restrictions regarding upon handover</p> <p>Capturing B5C and SCell on PUCCH</p> <p>Clarification on FGI bits setting for MCPTT</p> <p>Introduction of LTE-WLAN Aggregation</p> <p>Introduction of RAN controlled LTE-WLAN interworking</p> <p>Stage-3 text updates for bearer Identification within IPsec Tunnel and IPsec establishment parameters</p> <p>Introduction of LWIP UE capabilities</p> <p>Introduction of UE capability concerning extended E-UTRA frequency priorities</p> <p>Introduction of sf60 DRX cycle</p> <p>Introduction of the extension of measObjectId range</p> <p>Introduction of capability on PDSCH collision handling</p> <p>TM10 CRS-IM UE capability report signalling introduction</p> <p>Correction on the RRC signalling configuration for 4Tx MIMO</p>

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<p>Correction on applicability of longCodeState1XRTT</p> <p>Correction to maximum UL timing difference for DC</p> <p>Correction to T321 for Category 0 UE</p> <p>Procedural clarification on PSCell change involving PSCell release</p> <p>Clarification on NAICS subset capability</p> <p>Clarification on the leftmost bit for the supportedCellGrouping</p> <p>Clarification on the value range of guaranteed power for the MeNB and SeNB</p> <p>Correction to In-Device Coexistence for UL CA change of victim system</p> <p>eD2D changes resulting from review for ASN.1 freeze</p> <p>Miscellaneous changes resulting from review for ASN.1 freeze</p> <p>Corrections and missing agreement on the eCA</p> <p>corrections on RSSI measurement</p> <p>Corrections on SC-PTM</p> <p>Support of extended RLC AM SN for SCG</p> <p>Miscellaneous corrections for SC-PTM</p> <p>EBF/FD-MIMO changes related to remaining issues</p> <p>Further clarifications on Rel-13 MDT enhancements</p> <p>Capability for CA enhancement</p> <p>Some corrections on CA enhancement</p> <p>UE capabilities for LAA</p> <p>Minor corrections for CA enhancements</p> <p>Addition of low complexity UEs and coverage enhancement features</p> <p>eD2D Capability</p>

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
					<p>SC-PTM corrections following ASN.1 review</p> <p>Modification of network requested CA band combination retrieval for intra-band non-contiguous CA</p> <p>ANR in case of MFBI</p> <p>Miscellaneous corrections to TS 36.331 related to eDRX</p> <p>Guideline on handling of uplink spare values</p> <p>Clarification on initial RSSI measurement reporting</p> <p>The correction on the description of 5.5.4.1</p> <p>SC-PTM reception on non-Pcell</p> <p>MBMS interest indication by SC-PTM capable UE</p> <p>Additional Layer 1 capabilities for Rel-13 CA enhancements</p>
36.355	13.1.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	<p>Introduction of RAT-Independent positioning enhancements</p> <p>Correction to GLONASS IOD value range</p> <p>r13 Information Element correction</p> <p>WLAN AP Identifier correction</p> <p>LPP clean-up</p>
36.360	13.0.0		R2	Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Wireless LAN (WLAN); LTE-WLAN Aggregation Adaptation Protocol	New specification on LTE-WLAN Aggregation Adaptation Protocol (LWAAP)
36.361	13.0.0		R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE/WLAN Radio Level Integration Using IPsec Tunnel (LWIP) encapsulation; Protocol specification	New specification on LTE/WLAN Radio Level Integration Using IPsec Tunnel (LWIP) Encapsulation Protocol.
36.461	13.0.0		R3	Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Wireless LAN (WLAN); Xw layer 1	New Rel-13 version
36.462	13.0.0		R3	Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Wireless LAN (WLAN); Xw signalling transport	New Rel-13 version

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.00		3GPP WG	Title	Change Summary
36.463	13.0.0		R3	Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Wireless LAN (WLAN); Xw application protocol (XwAP)	New Rel-13 version
36.464	13.0.0		R3	Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Wireless LAN (WLAN); Xw data transport	New Rel-13 version
36.465	13.0.0		R3	Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Wireless LAN (WLAN); Xw interface user plane protocol	New Rel-13 version
36.521-1	13.1.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing	This document specifies the measurement procedures for the conformance test of the UE that contain transmitting characteristics, receiving characteristics and performance requirements as part of the 3G LTE.
36.521-2	13.1.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)	This document provides the ICS proforma for 3G E-UTRA UE, in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-1 and ISO/IEC 9646-7.
36.523-1	13.0.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	This document specifies the protocol conformance testing for the 3G UE. This is the first part of a multi-part test specification.
36.523-2	13.0.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	This document provides the ICS proforma for 3G UE, in compliance with the relevant EPS requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-1 and ISO/IEC 9646-7.
37.320	13.1.0		R2	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	Introduction of further Enhancements of MDT for E-UTRA Correction to reporting of UL PDCP delay measurements for FeMDT

(Annex 20)

3GPP ARIB Change History List of Standards (ARIB STD-T104 Ver. 4.10)

September 29 2016

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #72 Busan

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
36.307	10.19.0	10.18.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	<ul style="list-style-type: none">Individual clauses containing dedicated features are removed and the release information is captured in table format as simplification of the specification so as to keep readability of the specification and avoid unintended errors in the future. In addition, 4RX is included in the new structure.

2. Release 11

2.1 Added Standards

None

2.2 Revised Standards

3GPP TSG #72 Busan

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
36.101	11.17.0	11.16.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<ul style="list-style-type: none"> • Correction of demodulation performance requirements as maintenannce activity for the release 11 sepcification. • Editorial correction for TM4 MMSE-IRC PDSCH demodulation test
36.133	11.17.0	11.16.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<ul style="list-style-type: none"> • Adding a clarification on Band 29 which can be used only as SCC (secondary component carrier) for CA
36.307	11.16.0	11.15.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	<ul style="list-style-type: none"> • Individual clasues containing dedicated features are removed and the release information is captured in table format as simplification of the specification so as to keep readability of the specification and avoid unintended errors in the future. In addition, 4RX is included in the new structure.
36.331	11.16.0	11.15.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Clarification regarding IDC indication upon change of UL CA affecting GNSS

3. Release 12

3.1 Added Standards

None

3.2 Revised Standards

3GPP TSG #72 Busan

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
36.101	12.12.0	12.11.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<ul style="list-style-type: none"> • Editorial correction made in version 11.17.0. • ACS for CA Bandwidth Class D: Case 2 wanted signal power. • Correction of demodulation performance requirements. • Correction on B39 coexistence spurious emission requirements. • Square brackets on B39 single carrier spurious emission requirements for protecting B3. • CSI requirements for 2DL FDD-TDD for UE Cat 3. • Correction of wrong RMC description in overview table. • Correction on UE category for MTC. • Correction of TDD FDD CQI Reporting test • Correction of Frequency bands for UE category 0
36.133	12.12.0	12.11.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<ul style="list-style-type: none"> • Correction of correction for test cases in A.8.16.17x. • Correction of minimum ProSe SCH_RP condition on FDD_F. • Editorial Correction in RSRQ test case for CA in CRS based

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<p>discovery signal.</p> <ul style="list-style-type: none"> • Correction on E-UTRAN TDD-FDD CA activation and deactivation of known/unknown SCell in non-DRX with PCell in FDD. • Correction of E-UTRAN TDD-FDD CA activation and deactivation of known SCell in non-DRX with PCell in TDD.. • Correction of E-UTRAN TDD-FDD CA activation and deactivation of unknown SCell in non-DRX with PCell in TDD. • Corrections on PDSCH RMC for UE category 0. • Correction of UE transmit timing requirement. • Correction of physical channels undefined in RRM Test cases A.9.1.22, A.9.1.23. • Correction of as a clean-up of Dual Connectivity RRM Test cases. • Corrections to values for 3DL RSTD test cases. • Removal of duplicated parameter from 3DL RSTD reporting delay test cases. • Corrections of incorrect or redundant test parameters and references in A.8.16.12, A.8.16.21, A.8.16.22, A.8.16.30, A.9.1.15 and A.9.1.37. • Adding a clarification on Band 29 and 32 which can be used only as SCC (secondary component carrier) for CA. • Editral correction for title in section A.8 and A.9. • Correction of PCC and SCC assignment in 20MHz+10MHz test case A.9.1.24. • Correction of SCE event trigged reporting test cases for CSI-RS based discovery signal. • Correction of RLM requirement for PSCell in dual connectivity.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> • Correction of RSTD CA interruption on SCC.
36.141	12.12.0	12.11.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	<ul style="list-style-type: none"> • Corrections to sub-clause number of BS spurious emissions limits.
36.213	12.10.0	12.9.1	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Correction on RRC parameter for configuring new TBSs
36.300	12.10.0	12.9.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Addition of S-RSRP abbreviation definition
36.302	12.7.0	12.6.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	Corrections on the data modulation of Downlink-Shared Channel
36.304	12.8.0	12.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Corrections on conditions for sidelink discovery operation
36.306	12.9.0	12.8.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Clarification on maximum number of DL-SCH transport block bits for DL Category 15 and 16
36.307	12.12.0	12.11.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	<ul style="list-style-type: none"> • Individual clauses containing dedicated features are removed and the release information is captured in table format as simplification of the specification so as to keep readability of the specification and avoid unintended errors in the future. In addition, 4RX is included in the new structure. • Correction of RRM multiple uplink requirements and test cases.
36.322	12.4.0	12.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Link Control (RLC) protocol specification	Addition of sidelink in the overview model
36.323	12.6.0	12.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification	Data available for transmission due to PDCP data recovery Corrections on RoHC description

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
36.331	12.10.0	12.9.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	<p>Clarification on drb-identity change in full configuration</p> <p>Corrections for SL resource configuration during handover</p> <p>Addition of S-RSRP abbreviation</p> <p>Clarification regarding IDC indication upon change of UL CA affecting GNSS</p> <p>Correction on condition nonFullConfig in dual connectivity</p> <p>Clarification on the presence of ul-64QAM-r12 for DL-only bands</p>
36.508	12.10.0	12.9.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing	<ul style="list-style-type: none"> - Defining SIB combination for TDD-FDD CA - Addition of test frequencies - Add TLS default messages - Introduction of test frequencies for protocol testing of Dual Connectivity - Add IKEv2 default messages - Removing outdated Editor's Notes - New CA band combination CA_8A-40A – Updates of 6.2.3.2 Test Frequency - Introduction of Generic Test Procedure for optional UE initiated detaching <p>Other corrections.</p>
36.509	12.4.0	12.3.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Special conformance testing functions for User Equipment (UE)	<p>Handling of multi-PDNs-configured UEs</p> <p>Other corrections.</p>
36.521-3	12.10.0	12.9.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	<ul style="list-style-type: none"> - Adding new RLM test cases - Addition of test cases for SLSS initiation and cease - Introduction of FDD/TDD absolute and relative CSI-RSRP accuracies in CSI-RS based discovery signal <p>Other addition and corrections.</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
36.523-3	12.6.0	12.5.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	Addition of test cases for Rel-11, LTE-A UL CA and so on. Other corrections.
37.571-1	12.7.0	12.6.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Uncertainties and Test Tolerances for RSTD Test Cases Uncertainties and Test tolerances for 37.571-1 Test cases
37.571-3	12.7.0	12.6.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	Editorial correction of Positioing PICS Mnemonic
37.571-4	12.5.0	12.4.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	Correction to LTE/UTRA Positioning test cases

4. Release 13

4.1 Added Standards

3GPP TSG #71 Goteborg

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.10		3GPP WG	Title	New Document Summary
36.508	13.0.1		R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing	<ul style="list-style-type: none"> • Defining SIB combination for TDD-FDD CA • Addition of test frequencies for band 66 • Addition of test frequencies for intra-band non-contiguous Low WGap test points • Correction to generic RF procedures for Dual Connectivity • Clarifications to the D2D ProSe test environment for signalling tests • Update generic procedures 4.5A.22 • Update of 36508 USIM for D2D • Add TLS default messages • Update of 36508 adding Default ProSe messages D2D • Update of 36508 References for D2D • Update of 36508 SIB19 D2D • Update of 36508 SIB18 D2D • Correction to generic default messages for Dual Connectivity • Introduction of test frequencies for protocol testing of Dual Connectivity • Correction to generic procedures for protocol testing of Dual Connectivity • Add IKEv2 default messages

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.10		3GPP WG	Title	New Document Summary
					<ul style="list-style-type: none"> • Modification of reference message definitions for eIMTA • Removing outdated Editor's Notes • New CA band combination CA_8A-40A – Updates of 6.2.3.2 Test Frequency • Correction to Tracking area update request message (mobility from another RAT) • Updates to bitrate values for the dedicated EPS video bearer • Editorial correction to the test procedure of 6.4.3.10 • Updates to handle IMS registration in WLAN offloading procedures • Introduction of Generic Test Procedure for optional UE initiated detaching • [Common] Updates to WLAN offloading procedures to allow IMS PDN • Add test frequencies for CA_42D in 36.508 • Addition of RF test frequencies for CA_5B, CA_5A-5A & CA_3C-5A to Section 4.3.1 • Band 65 test frequencies for 36.508 clause 4.3 • Updates of 6.2.3.2 Test Frequency for CA_3A-41A for CA signalling test • Updates of CA Channel Bandwidth combination for CA signalling test in sub-clause 4.3.1 • Addition of signalling test frequencies for CA_5B, CA_5A-5A & CA_3C-5A to Section 6.2.3.2 • Update of Rel-13 CA test frequency CA_19A-28A and CA_21A-42C • Band 65 signaling test frequencies for 36.508 clause 6.2.3 • Introduction of default messages for testing of CAT-M1 UE and

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.10		3GPP WG	Title	New Document Summary
					<p>UE in enhanced coverage</p> <ul style="list-style-type: none"> • Addition of some SC-PTM related message definitions in TS36.508 • Updates to Common parameter in EUTRA (SIB1) and NAS Default Messages and informational elements contents to include Extended DRX parameters • Addition of LAA related message definitions in TS36.508 • restoring deleted Table 4.3.1.1.66A-3 of R5-163193
36.509	13.0.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Special conformance testing functions for User Equipment (UE)	<p>This document defines for UE in E-UTRA FDD or TDD mode those special functions and their activation/deactivation methods that are required in UE for conformance testing purposes.</p> <p>This document also describes the operation of these special functions for UEs supporting E-UTRA FDD or TDD mode, when operating in UTRA FDD and TDD mode, in GSM/GPRS mode, and in CDMA2000 mode.</p>
37.571-1	13.0.0		R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	<p>This document specifies the procedures for the conformance test of the measurement requirements for FDD or TDD mode of UTRA and FDD or TDD mode of E-UTRA for the UE that supports one or more of the defined positioning methods. These positioning methods are for UTRA: A-GPS, A-GNSS and for E-UTRA: A-GNSS, OTDOA, ECID.</p>

4.2 Revised Standards

3GPP TSG #72 Busan

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
-------------------------	-----------------------------------	-----------------------------------	---------	-------	----------------

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
36.101	13.4.0	13.3.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<ul style="list-style-type: none"> • Corresponding changes made in version 12.12.0. • Correction of Category NB1. • Introduction of PDSCH demodulation requirement for Cat-M1 UE. • Introduction of CQI test for Cat-M1 UE. • Correction of eMTC PBCH demodulation requirement for enhanced coverage. • Correction of eMTC M-PDCCH demodulation requirement for CE Mode A and CE Mode B. • Correction on 4Rx demodulation tests. • Finalization of 4Rx UE Demodulation Requirements. • Correction of UE 4Rx CSI requirements. • Correction of applicability rule, antenna connection and test method for 4Rx UEs. • Introduction of EB/FD-MIMO channel model using 2D XP antennas at eNB. • Introduction of EB/FD-MIMO Class A PMI test. • Introduction of EB/FD-MIMO Class B K=1 PMI test. • Correction of the introduction of the LTE DL Control Channels Interference Mitigation: PDCCH/PCFICH demodulation performance requirements. • Correction of the introduction of the LTE DL Control Channels Interference Mitigation: Interference models. • Correction of definitions for DL control channel IM. • Correction of PHICH performance requirements for DL control channel IM. • Correction of ePDCCH performance requirements for DL control channel IM. • Correction of FRC for enhanced EPDCCH performance

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<p>requirements.</p> <ul style="list-style-type: none"> • Corection of introducing enhanced control channels requirements under asynchronous network. • Corection of applicability rule for control channel enhancement requirements. • Corection of reference sensitivity for combinations of inter-band and NC intra-band CA. • Corection of addition of performance requirement for TDD-FDD DC. • Correction on UE category for MTC and eMTC. • Corrections to 9.6.1.3 and 9.6.1.4 TDD FDD CQI Reporting test. • Corection of notes for CA REFSENS Tables. • Editorial modification on uplink inter-band CA. • Correction of P_{max} for Prose. • Correcting fallback inconsistencies in CA of B41 and B42. • Introduction of 4Rx requirement for Band 1. • Corection of reference measurement channel for eMTC. • Introduction of 4Rx REFSENS for Band 41. • Rx requirement for the non-contiguous CA with more than two component carriers. • Correction on eMTC requirements. • Correction as a maintenance for CRS-IM. • Correction to UE Categories for 64 QAM Reference channels. • Correction to clean up CRS-IM related requirements. • Correction on eMTC In-band emissions. • Corrections for CA_28A-42A and CA_28A-42C requirements.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> • Corection of RMC for verification of RF receiver requirements for LAA. • Corrections of CA 8A-42A/C. • Corection of control channel requirements of 4 Rx UE. • Corection of Frequency bands for UE category 0 and UE category M1. • Corection of dTib,c and dRib,c for CA combinations including Band 21 and 42. • Corection of delta F_HD for B46 combinations. • Clarification on eMTC RX requirements. • Corection of uplink configuration for reference sensitivity for Band 45. • Correction as a maintenance for demodulation performance requirements. • Corection of on Band 7+38 blocking requirement. • Corection of TM9 tests with MBSFN subframes configured for PDSCH. • Correction to A-MPR for NS_26.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
36.104	13.4.0	13.3.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	<ul style="list-style-type: none"> • Corrections on definition of multi-band definition and blocking. • Correction on co-existence and co-location emission requirement for LAA. • Correction of Band 46 sub-bands indication. • Correction of Band 46 channel access procedures requirement. • Correction related to band 65. • Correction to BS spurious emissions for co-location with Band 46. • Introduction of NB-IoT feature introduction. • Introduction of Cat-M1 PRACH Performance Requirements. • Introduction of Cat-M1 PUCCH Performance Requirements. • Introduction of eMTC PUSCH performance requirements. • Introduction of Performance requirements for PUCCH format 4. • Introduction of PUCCH format 5 performance requirements. • Introduction of BS MMSE-IRC receiver – Definitions. • Introduction of BS MMSE-IRC receiver - Demodulation tests in synchronous interference scenario. • Introduction of BS MMSE-IRC receiver - FRC definitions. • Introduction of BS MMSE-IRC receiver - Interference model for synchronous and asynchronous scenarios. • Introduction of Performance requirements for BS MMSE-IRC receiver in asynchronous interference scenario. • Introduction of BS MMSE-IRC receiver - Demodulation tests in asynchronous interference scenario.
36.113	13.2.0	13.1.1	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) and repeater ElectroMagnetic Compatibility (EMC)	<ul style="list-style-type: none"> • Clarification in EMC environmental conditions references.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
36.133	13.4.0	13.3.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<ul style="list-style-type: none"> • Corresponding changes made in version 12.12.0. • Introduction of RRM requirements in Section 3 for NB-IoT. • Introduction of RRM requirements in Annex B for NB-IoT. • Correction of uplink transmit timing adjustments in HD-FDD operation. • Introduction of RRC_IDLE state requirements for NB-IOT. • Modification on RRC re-establishment requirement for NB-IoT. • Modification for random access requirement for NB-IoT. • Introduction of Intra-frequency Absolute NRSRP Accuracy for UE Category NB1 in Normal Mode. • Introduction of Intra-frequency Absolute NRSRP Accuracy for UE Category NB1 in Enhanced Mode. • Introduction of Intra-frequency Absolute NRSRQ Accuracy for UE Category NB1 in Normal Mode. • Introduction of Intra-frequency Absolute NRSRQ Accuracy for UE Category NB1 in Enhanced Mode. • Introduction of Inter-frequency Absolute NRSRP Accuracy for UE Category NB1 in Normal Mode. • Introduction of Inter-frequency Absolute NRSRP Accuracy for UE Category NB1 in Enhanced Mode. • Introduction of measurement requirement in RRC_CONNECTED state for NB-IoT. • Introduction of Radio Link Monitoring for NB-IoT. • Introduction of MPDCCH RMCs for Cat-M1 RRM Tests. • Introduction of: PDSCH RMCs for Cat-M1 RRM Tests. • Introduction of eMTC requirements with eDRX in RRC_CONNECTED. • Introduction of UE Timing Advance Adjustment Accuracy Test for

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<p>Cat-M1 UE in CEModeA,</p> <ul style="list-style-type: none"> • Introduction of Cat-M1 CEMode A RLM test cases: DRX FDD. • Introduction of Cat-M1 CEMode A RLM test cases: DRX HD-FDD. • Introduction of Cat-M1 CEMode A RLM test cases: DRX TDD. • Introduction of E-UTRAN Intra frequency case for Cat-M1 UE in normal coverage. • Introduction of E-UTRAN FDD-FDD intra-frequency event triggered reporting under fading propagation conditions for Cat-M1 UE in CEModeA. • Introduction of E-UTRAN HD-FDD intra-frequency event triggered reporting under fading propagation conditions for Cat-M1 UE in CEModeA. • Introduction of E-UTRAN TDD-TDD intra-frequency event triggered reporting under fading propagation conditions for Cat-M1 UE in CEModeA. • Introduction of RSRP Intra frequency test cases for Cat-M1 UE in CEModeA. • Introduction of PRACH configuration for eMTC. • Introduction of FD-FDD Radio Link Monitoring Test for Out-of-sync for Cat-M1 UE in CEModeA. • Introduction of FD-FDD Radio Link Monitoring Test for In-sync for Cat-M1 UE in CEModeA. • Introduction of HD-FDD Radio Link Monitoring Test for Out-of-sync for Cat-M1 UE in CEModeA. • Introduction of HD-FDD Radio Link Monitoring Test for In-sync for Cat-M1 UE in CEModeA. • Introduction of TDD Radio Link Monitoring Test for Out-of-sync for Cat-M1 UE in CEModeA.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> • Introduction of TDD Radio Link Monitoring Test for In-sync for Cat-M1 UE in CEModeA. • Introduction of Cat-M1 PRACH test cases for FDD in CEModeA. • Introduction of Cat-M1 PRACH test cases for HD-FDD in CEModeA. • Introduction of Cat-M1 PRACH test cases for TDD in CEModeA. • Introduction of Cat-M1 Intra-frequency handover test cases for CEModeA. • Introduction of RRC Re-establishment test for eMTC UEs in CEModeA. • Introduction of 2DL/2UL FDD CA activation and deactivation of known PUCCH SCell without valid TA in non-DRX.. • Introduction of SCell activation and deactivation of known PUCCH SCell in TDD CA without valid TA. • Introduction of 2DL/2UL TDD-FDD CA (TDD PCell) activation and deactivation of known PUCCH SCell without valid TA in non-DRX • Introduction of 2DL/2UL TDD-FDD CA (FDD PCell) activation and deactivation of known PUCCH SCell without valid TA in non-DRX. • Correction of minimum ProSe SCH_RP condition on FDD_F. • Correction of E-UTRAN TDD-FDD Addition and Release Delay of known PSCell in Synchronous DC with PCell in FDD. • Correction of E-UTRAN TDD-FDD Addition and Release Delay of known PSCell in Synchronous DC with PCell in TDD. • Introduction of Dual connectivity enhancements test case : SSTD accuracy. • Introduction of Dual connectivity enhancements test case : SSTD delay with DRX.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> • Introduction of Dual connectivity enhancements test case : SSTD delay in non DRX. • Introduction of activation and deactivation of known SCell for 3DL CC DC. • Introduction of additional test requirements for Maximum transmission timing difference for DC. • Introduction of testing principle for different combination of duplex modes DC. • Introduction of E-UTRAN FDD - FDD DC intra-frequency identification of a new CGI of E-UTRA cell using autonomous gaps in synchronous DC. • Introduction of E-UTRAN FDD - FDD DC intra-frequency identification of a new CGI of E-UTRA cell using autonomous gaps in asynchronous DC. • Introduction of E-UTRAN TDD - TDD DC intra-frequency identification of a new CGI of E-UTRA cell using autonomous gaps in synchronous DC. • Introduction of E-UTRAN FDD-FDD DC event triggered reporting under deactivated SCell with PCell and PSCell interruption in non-DRX in synchronous DC. • Introduction of E-UTRAN FDD-FDD DC event triggered reporting under deactivated SCell with PCell and PSCell interruption in non-DRX in asynchronous DC. • Introduction of E-UTRAN TDD-TDD DC event triggered reporting under deactivated SCell with PCell and PSCell interruption in non-DRX in synchronous DC. • Introduction of Antenna connection method for RLM and RRM tests with 4RX. • Introduction of measurement reference channel and OCNG with FS3. • Introduction of RSRP and RSRQ accuracy requirements for LAA.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> • Introduction of testing principle of Carrier Aggregation under operation with Frame 3 with Different Duplex Modes. • Introduction of CSI-RSRP measurement accuracy requirements. • Correction of Radio Link Monitoring Test for In-sync in DRX for PSCell. • Introduction of test cases for E-UTRAN FDD-TDD and TDD-FDD DC interruption at transitions between active and non-active during DRX in synchronous DC. • Introduction of New test cases: E-UTRAN TDD-FDD DC intra-frequency event triggered reporting with DRX in synchronous DC with PCell in FDD/PCell in TDD. • Correction of TDD-FDD DC Radio Link Monitoring Test for Out-of-sync/ • Introduction of New Test cases: E-UTRAN TDD-FDD DC inter-frequency event triggered reporting with DRX in synchronous DC with PCell in FDD/PCell in TDD • Correction of section number for 'The clause numbers of test case of "E-UTRAN FD-FDD Radio Link Monitoring Test for In-sync in DRX for UE Category 0" (corrected as A.7.3.29). • Correction of 3DL/3UL TDD CA - UE Transmit Timing Accuracy Tests for 2SCells. • Correction of Test Case on Random Acces for 3 DL/3UL TDD CA. • Editorial corrections in Rel-12 Cat-0 requirements. • Correction of Intra-frequency handover requirements for Cat-M1 UEs in CEModeA. • Correction of UE transmit timing Requirements for Cat-M1 UEs. • Removal of conditions for intra-frequency relative RSRQ measurement accuracy requirements under operation with frame structure 3.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> • Correction to Band 66 notes in E-UTRA band groups. • Introduction of New test cases: Event triggered reporting on deactivated SCells and interruption probability (0.5%) without DRX (FDD 4 DL CA and TDD 4 DL CA).. • Introduction of New test cases: Event triggered reporting on deactivated SCells and interruption probability (0.5%) without DRX (FDD 5 DL CA and TDD 5 DL CA). • Correction of typo in interruption requirements. • Editorial correction in RRM requirements. • Correction of Reporting criteria for LAA. • Correction of Channel occupancy measurement requirements. • Correction of Inter-frequency RSSI measurement requirements. • Editorial correction in LAA requirements • Correction of RS-SINR accuracy requirements with CA. • Correction of RS-SINR measurement requirements with CA. • Correction of 4 DL PCell in FDD Event triggered reporting on deactivated SCells in non-DRX # 3 requirements. • Correction of 4 DL PCell in TDD Event triggered reporting on deactivated SCells in non-DRX # 4 requirements. • Correction of 5 DL PCell in FDD Event triggered reporting on deactivated SCells in non-DRX # 1 requirements. • Correction of 5 DL PCell in TDD Event triggered reporting on deactivated SCells in non-DRX # 2 requirements. • Correction of 5 DL FDD CA Event Triggered Reporting with Deactivated SCells in Non-DRX requirements. • Correction of 5 DL TDD CA Event Triggered Reporting with Deactivated SCells in Non-DRX requirements. • Correction of 4 DL FDD CA Event Triggered Reporting with 3

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<p>deactivated SCells in Non-DRX requirements.</p> <ul style="list-style-type: none"> • Correction of 4 DL TDD CA Event Triggered Reporting with 3 deactivated SCells in Non-DRX requirements. • Correction of RSTD CA interruption on SCC. • Correction as a maintenance on radio link monitoring for MTC UE. • Correction as a maintenance on measurement requirements for MTC UE under normal coverage. • Correction as a maintenance on measurement requirements for MTC UE under CEModeB. • Correction of eMTC Radio Link Monitoring. • Correction of measurement accuracy requirements for MTC UE. • Correction of Timing requirements for eMTC. • Correction of Rx-Tx time difference reporting. • Correction as a clarification on LAA band. • Editorial corrections for LAA requirements. • Correction of Inter-frequency measurement requirements. • Editorial correction for title in section A.8 and A.9. • Correction of Test cases for E-UTRAN DC Inter-frequency identification of a new CGI of E-UTRA cell using autonomous gaps. • Correction as a modifications on LAA SCell activation delay requirements. • Correction of Absolute and relative RSRP accuracies in FDD 4DL CA# 3. • Correction of Absolute and relative RSRP accuracies in TDD 4DL CA# 4. • Correction of PCell in FDD: absolute and relative RSRP

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<p>accuracies in TDD-FDD 5 DL CA # 1.</p> <ul style="list-style-type: none"> • Correction of PCell in TDD: absolute and relative RSRP accuracies in TDD-FDD 5 DL CA # 2. • Correction of Absolute and relative RSRQ accuracies in 5 DL FDD CA # 7. • Correction of Absolute and relative RSRQ accuracies in 5 DL TDD CA # 8. • Correction of E-UTRAN-WLAN RSSI event triggered reporting in non-DRX. • Correction of TDD-FDD 4DL CA activation and deactivation of known SCell in non-DRX. • Correction of TDD-FDD 5DL CA activation and deactivation of known SCell in non-DRX. • Correction of TDD-FDD 4DL CA activation and deactivation of unknown SCell in non-DRX. • Correction of TDD-FDD 5DL CA activation and deactivation of unknown SCell in non-DRX. • Editorial corrections of an incorrect note for Band 32. • Correction as a modification on intra-frequency discovery signal measurement requirements in LAA. • Correction as a modification on CA requirements in LAA. • Correction of UE transmit timing requirement. • Correction of PCell in FDD: absolute and relative RSRP accuracies in FDD-TDD 4DL CA. • Correction of PCell in TDD: absolute and relative RSRP accuracies in TDD-FDD 4DL CA. • Correction of absolute and relative RSRP accuracies in FDD 5 DL CA. • Correction of absolute and relative RSRP accuracies in TDD 5

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					DL CA. <ul style="list-style-type: none"> • Correction of eMTC eDRX. • Correction of 4 DL CA PCell in FDD FDD-TDD RSRQ for E-UTRAN in Carrier Aggregation. • Correction of 4 DL CA PCell in TDD TDD-FDD RSRQ for E-UTRAN in Carrier Aggregation. • Correction of 5 DL PCell in FDD RSRQ for E-UTRAN in Carrier Aggregation. • Correction of 5 DL PCell in TDD RSRQ for E-UTRAN in Carrier Aggregation. • Correction of RRC re-establishment requirements for Cat-M1 UEs. • Introduction of UE transmit timing test for eMTC UEs in CEModeA. • Correction of Defining of ProSe periodicity for ProSe inter-frequency and CA operation. • Correction of Intra-frequency handover requirements for Cat-M1 UEs in CEModeB. • Correction of E-UTRAN 4DL CA activation and deactivation of know SCell in non-DRX. • Correction of E-UTRAN 5DL CA activation and deactivation of know SCell in non-DRX. • Correction of E-UTRAN 4DL CA activation and deactivation for unknown SCells without DRX. • Correction of E-UTRAN 5DL CA activation and deactivation of unknown SCell in non-DRX.
36.141	13.4.0	13.3.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	<ul style="list-style-type: none"> • Corrections on definition of multi-band definition and blocking. • Corrections to sub-clause number of BS spurious emissions limits.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> • Correction related to Band 65. • Introduction of Cat-M1 PRACH Performance Requirements. • Introduction of Cat-M1 PUCCH Performance Requirements. • Introduction of Cat-M1 PUSCH Performance Requirements. • Introduction of Conformance test for eCA new PUCCH format 4. • Introduction of PUCCH format 5 performance requirements. • Introduction of definition for BS IRC performance requirements. • Introduction of Connection diagrams for BS MMSE-IRC receiver. • Introduction of interference model for synchronous and asynchronous scenarios. • Introduction of BS MMSE-IRC receiver - Demodulation conformance tests in asynchronous interference scenario. • Introduction of new FRC tables for MMSE-IRC. • Introduction of BS-IRC conformance test. • Introduction of Band 46. • Introduction of LBT performance test for LAA.
36.201	13.2.0	13.1.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE physical layer; General description	Introduction of NB-IoT
36.211	13.2.0	13.1.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	CR on CSI-RS transmission in DwPTS Introduction of NB-IoT Collision between PSS/SSS/PBCH and MPDCCH/PDSCH for MTC DMRS initialization of CSS for MTC Missing words in PRACH starting subframe paragraph for MTC Correction to EPDCCH procedures for LAA FS 3 Clarification on PDSCH mapping to resource elements

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<p>CR on CSI-RS description in TS 36.211</p> <p>Corrections on the support of ending partial subframe in LAA</p> <p>Clarification of CSI-RS on extended CP</p> <p>Correction on description about UpPTS length for preamble format 4 for PRACH</p> <p>Correction to TS 36.211 for eMTC</p> <p>Narrow band hopping</p> <p>CR on MPDCCH format for Rmax=1 and 2/4 PRBs</p> <p>Correction on RE mapping in MBSFN subframe for BL/CE UEs in CEModeB</p> <p>Correction on the description about DMRS</p> <p>CR for TS36.211 related to 2+4 PRB set</p> <p>CR on UE assumptions on number of CRS ports in DRS</p> <p>Some corrections for eMTC</p> <p>Clarification of MPDCCH over empty CRS tones in PBCH repetition</p> <p>Scrambling sequence initialization</p> <p>On MPDCCH AL for 8 EREGs per ECCE in TS 36.211</p> <p>Overriding of valid-invalid subframes for R=1</p> <p>Scrambling Sequence for paging MPDCCH and PDSCH</p> <p>Scrambling sequence initialization for PDSCH</p>
36.212	13.2.0	13.1.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	<p>Introduction of Rel-13 feature of NB-IoT in 36.212</p> <p>Correction on aperiodic CSI reporting mode 1-0 and 1-1</p> <p>Correction to S1 and S2 definition and i2 bit width</p> <p>MCS field in DCI format 6-2 for paging for MTC</p> <p>Coding of higher layer parameter codebooksizeDetermination-r13</p> <p>CR on subframe configuration for LAA</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<p>Correction on the description of DMRS table</p> <p>Clarification on the applicability of DL procedures for LAA SCell</p> <p>Correction on DAI Presence in DCI formats for eCA</p> <p>Identify MPDCCH order in CE mode B in TS 36.212 (Solution 2)</p> <p>CR on missing CRI-only table (36.212)</p> <p>Correction on citations to a DAI bits table</p> <p>Frequency hopping flag definition in DCI formats for BL/CE UE</p> <p>Correction on the DCI payload size for eMTC in TS 36.212</p> <p>Channel interleaver correction for eMTC</p>
36.213	13.2.0	13.1.1	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	<p>Correction on SPS HARQ-ACK bit handling in case of dynamic codebook configuration of eCA in 36.213</p> <p>Correction to the UE's assumption on DMRS ports</p> <p>Correction on HARQ-ACK ordering in case of semi-static codebook configuration of eCA</p> <p>Correction on timing for secondary cell activation/deactivation for eCA in 36.213</p> <p>Correction on RRC parameter for configuring new TBSSs</p> <p>Correction to rank 5-8 FD-MIMO CSI feedback</p> <p>Correction on aperiodic CSI reporting mode 1-0 and 1-1</p> <p>Correction of paging PDSCH transmission for MTC UE</p> <p>Update RRC parameter names for MTC</p> <p>PUCCH repetition for Msg4 for MTC</p> <p>MPDCCH repetition for paging and random access for MTC</p> <p>MCS field in DCI format 6-2 for paging for MTC</p> <p>Coding of higher layer parameter codebooksizeDetermination-r13</p> <p>Corrections on Simultaneous HARQ-ACK and P-CSI in 36.213</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<p>Corrections SRS dropping in CA in 36.213</p> <p>Correction to the usage of undefined terminology "channel"</p> <p>Correction on channel access procedure after an additional defer duration for DL LBT</p> <p>Clarification for LAA CSI processing</p> <p>MCS Table for Initial Partial TTI in LAA</p> <p>Correction on the linkage between CSI-RS and CSI-IM for Class B</p> <p>Correction for HARQ-ACK Codebook Determination in eCA</p> <p>Clarification on "special subframe" for frame structure type 3 in 36.213</p> <p>Corrections on simultaneous transmission of HARQ-ACK and SR in 36.213</p> <p>MDPCCH candidate overflow monitoring correction for eMTC</p> <p>Correction to TS 36.213 for eMTC</p> <p>Correction on M-PDCCH case definition</p> <p>Correction on CSS for MPDCCH configured by temporary C-RNTI and Type0 MPDCCH CSS resource</p> <p>Correction on collision of dynamically scheduled data and semi-statically scheduled data for Rel-13 eMTC</p> <p>Correction on PDSCH transmission timing for Rel-13 eMTC</p> <p>On the collision between eMTC SIB and MPDCCH/PDSCH in TS 36.213</p> <p>On the collision between eMTC SIB and MPDCCH/PDSCH in TS 36.213</p> <p>Collision between PUCCH format 2 and PDSCH with repetitions</p> <p>Clarification of TM1/2/6 on MBSFN subframes</p> <p>Correction of fallback behavior for TM9</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<p>Correction on RV and MPDCCH starting position</p> <p>Collision between PSS/SSS/PBCH and PDSCH for MTC</p> <p>CR for 36.213 on multi-channel access procedure Type A2 in LAA</p> <p>CR for TS36.213 related to 2+4 PRB set</p> <p>CR on CSI-RS ID configuration for TM9 in TS 36.213</p> <p>Initial CCA Behaviour in the Channel Access Procedure</p> <p>CR on clarification for channel sensing</p> <p>CR for the contention window adjustment procedure in LAA downlink channel access</p> <p>eMTC MPDCCH corrections for 36.213</p> <p>Correction on search space to decode the PDCCH configured by the SC-N-RNTI</p> <p>Introduction of NB-IoT</p> <p>Starting OFDM symbol for SIB1-BR for BL/CE UE</p> <p>Collision between SIB1-BR and SI message for BL/CE UE</p> <p>MPDCCH search space for random access in connected mode for BL/CE UE</p> <p>Definition of number of MPDCCH repetitions for BL/CE UE</p> <p>PRB locations for Type0 MPDCCH search space for BL/CE UE</p> <p>CR on FD-MIMO codebooks (36.213)</p> <p>CR on CSI-Reporting-Type in TS 36.213</p> <p>Introduction of 60ms periodicity for wideband CQI/PMI reporting</p> <p>Introduction of 60ms periodicity for wideband CQI/PMI reporting</p> <p>On MPDCCH AL and search space for 8 EREGs per ECCE in TS 36.213</p> <p>CR on MPDCCH quasi co-location</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<p>Correction on UE assumption on DMRS ports</p> <p>A-CSI Reporting for TM6</p> <p>Corrections on CSI Reporting</p> <p>Correction on RV determination for PUSCH in TS 36.213</p> <p>Clarification on Msg3 PUSCH repetition level in TS 36.213</p> <p>Correction on SRS frequency location in TS 36.213</p> <p>Correction on PDSCH reception timing for eMTC</p> <p>Correcting configuration parameter for number of PRB-pairs</p> <p>Clarification on starting subframe for MPDCCH</p> <p>MCS for Random Access Response Grant</p> <p>Correction on UCI multiplexing on PUSCH</p> <p>Correction on RLM for PSCell in dual connectivity</p> <p>Correction on PDSCH transmission scheme assumed for TM9 CSI reference resource in TS 36.213</p> <p>CR on clarification for channel sensing</p> <p>CR on CWp adjustment</p> <p>Clarification of CSI measurements</p>
36.214	13.2.0	13.1.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer; Measurements	Introduction of NB-IoT

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
36.300	13.4.0	13.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	<p>Corrections to MTCe</p> <p>Measurement gap assisted intra-frequency measurement in case of narrowband operation</p> <p>Correction to eMTC message classes and logical channels</p> <p>Clarification on LWA</p> <p>Miscellaneous Stage-2 corrections for LWA</p> <p>Correction of RCLWI call flow</p> <p>Clarification on DC</p> <p>Stage 2 aspects of HARQ functionality for eMTC UEs</p> <p>Corrections for sidelink description</p> <p>Correction on conditions for Relay and Remote UE operation</p> <p>Correction on UL asynchronous HARQ</p> <p>Clarification on WLAN connection status reporting for RCLWI</p> <p>Correction on WT Association Confirmation</p> <p>Correction on WT initiated WT Modification procedure</p> <p>Correction on flow control</p> <p>Correction on DRS Duty Cycle</p> <p>Correction of Reroute NAS Request</p> <p>*New NB-IoT system and CloT CRs</p> <p>Introduction of NB-IoT</p> <p>Introduction Control Plane CloT EPS Optimization</p> <p>Introduction of the UE context resume function</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
36.302	13.2.0	13.1.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	<p>Corrections on the data modulation of Downlink-Shared Channel</p> <p>Correction for sidelink</p> <p>Corrections on sidelink related description</p> <p>SC-PTM reception on non-Pcell</p> <p>Improvements for the representation of eMTC features</p> <p>*New NB-IoT system and CIoT CRs</p> <p>Introduction of NB-IoT in 36.302</p>
36.304	13.2.0	13.1.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	<p>Correction for conditions of sidelink operation</p> <p>Corrections on nB extension</p> <p>Correction to eMTC message classes and logical channels</p> <p>Renaming UE_ID used for MCLD purposes</p> <p>Corrections on carrier frequency prioritization for PS sidelink discovery</p> <p>Correction to System Information change notifications in RRC_IDLE for MTCE</p> <p>Corrections for eMTC</p> <p>Clarification of UE behaviour immediately after T360 expiry</p> <p>*New NB-IoT system and CIoT CRs</p> <p>Introduction of NB-IoT in 36.304</p>
36.306	13.2.0	13.1.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	<p>Correction to WLAN measurement support for LWIP</p> <p>Introducing EBF/FD-MIMO capabilities</p> <p>Clarifications on LWA capability</p> <p>MBMS reception via MBSFN or SC-PTM</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<p>Corrections on capability linking for measurement object extension</p> <p>Capturing a new capability signalling format for Rel-13 CA enhancements</p> <p>Correction on the value of maximum channel bandwidth</p> <p>UE capabilities for eMTC</p> <p>UE Power Class in UE capability signaling</p> <p>Clarification on eD2D capability</p> <p>Clarification on maximum number of DL-SCH transport block bits for DL Category 15 and 16</p> <p>UE capability of an additional Rx and Tx requirement for a CA band combination</p> <p>Definition of a fallback band combination</p> <p>Miscellaneous corrections</p> <p>*New NB-IoT system and CIoT CRs</p> <p>Introduction of NB-IoT UE capabilities</p>
36.307	13.4.0	13.3.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	<ul style="list-style-type: none"> Individual clauses containing dedicated features are removed and the release information is captured in table format as simplification of the specification so as to keep readability of the specification and avoid unintended errors in the future. In addition, 4RX is included in the new structure. Correction of RRM multiple uplink requirements and test cases.
36.321	13.2.0	13.1.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	<p>Correction to MAC procedures for MTC</p> <p>Corrections to Logical Channel Prioritisation</p> <p>Corrections for sidelink logical channel prioritization</p> <p>HARQ RTT Timers in eMTC</p> <p>Asynchronous UL HARQ protocol operation</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<p>UL SPS and Sidelink discovery gap</p> <p>Correction of BCCH reception for LC-MTC</p> <p>Corrections on asynchronous UL HARQ operation</p> <p>Clarification on PDCCH sub-frame for SC-PTM</p> <p>Correction on preamble group selection and RA-RNTI value range</p> <p>Correction on DL HARQ retransmission and UL transmission repetitions within a bundle</p> <p>Correction on IR version for UL HARQ</p> <p>Correction on HARQ process selection for UL asynchronous HARQ</p> <p>Correction to eMTC message classes and logical channels</p> <p>Correction on RA CE-level ramp-up for CE mode A UEs</p> <p>Correction to random access procedure for eMTC</p> <p>PRACH preamble power for eMTC</p> <p>SPS support for eMTC UEs</p> <p>SR prohibit timer for eMTC UEs</p> <p>Starting CE level for PDCCH order and HO</p> <p>Clarification on RA-RNTI determination for PRACH in TDD</p> <p>Correction on the DRX operation for UL asynchronous HARQ</p> <p>Corrections on Support of CRI reporting in MAC</p> <p>Correction on the intended UE behaviour for DRX Timers</p> <p>*New NB-IoT system and CIoT CRs</p> <p>Functional extension for U-plane C-IoT optimisation</p> <p>Introduction of NB-IoT to 36.321</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
36.322	13.2.0	13.1.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Link Control (RLC) protocol specification	<p>Addition of sidelink in the overview model</p> <p>*New NB-IoT system and CIoT CRs</p> <p>Introduction of NB-IoT</p>
36.323	13.2.1	13.1.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification	<p>Clarification on LWA</p> <p>Data available for transmission due to PDCP data recovery</p> <p>Correction for sidelink</p> <p>Corrections on RoHC description</p> <p>Clarification on Control PDU for LWA</p> <p>Polling for LWA status report</p> <p>Missing changes from CR0160 (Clarification on LWA) added</p> <p>*New NB-IoT system and CIoT CRs</p> <p>Introduction of NB-IoT functionality to PDCP protocol</p> <p>Capture C-IoT optimizations for non-NB-IoT UEs</p>
36.331	13.2.0	13.1.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	<p>Clarification on drb-identity change in full configuration</p> <p>Support of CRS-Assistance signaling for the DL Control Channel IM</p> <p>UE capability of an additional Rx and Tx requirement for a CA band combination</p> <p>Clarification regarding IDC indication upon change of UL CA affecting GNSS</p> <p>Correction of IE name "systemInformationBlockType1Dedicated"</p> <p>Clarification on the presence of ul-64QAM-r12 for DL-only bands</p> <p>Inter-node signalling</p> <p>Clarification on SC-PTM</p> <p>Correction on the definition of sc-mcch-duration</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<p>System information acquisition for SC-PTM reception on non-Pcell</p> <p>Correction of periodic CSI reporting and clarification on p-C and CBSR signaling</p> <p>Correction of backhaul bandwidth description</p> <p>Correction to T302 and T308 conflict issue</p> <p>Clarification of timer description for MCLD</p> <p>Clarification to field description for the timer T360</p> <p>Clarification to ordering of Rel13 Frequency priority lists</p> <p>Skipping fallback "2DL + 1UL" CA in UE capability report in Rel 13</p> <p>Restricting Unattended Data Traffic</p> <p>Introducing EBF/FD-MIMO capabilities</p> <p>Correction to FD-MIMO field descriptions</p> <p>UE Power Class in UE capability signalling</p> <p>Correction to channel number range</p> <p>Correction on essential system information missing</p> <p>Clarification on the usage of threshold conditions for sidelink relay UE</p> <p>UL UE Categories support for 64 QAM</p> <p>Correction on FDD/TDD differentiation for Rel-13 capabilities</p> <p>Corrections on capability report for eCA</p> <p>Some eCA related corrections</p> <p>PUCCH SCell corrections</p> <p>Clarification on the handover from the MeNB to the SeNB</p> <p>Correction on keeping SCG upon inter eNB handover</p> <p>Correction on condition nonFullConfig in dual connectivity</p> <p>Corrections to RS-SINR configuration</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<p>Correction on SI update for eDRX</p> <p>Correction to UL SPS operation</p> <p>Valid subframes for FDD and TDD DL transmissions</p> <p>Small corrections of timer description for Sidelink</p> <p>Miscellaneous correction for sidelink</p> <p>Corrections for conditions of sidelink operation</p> <p>Correction on conditions for establishing RRC Connection for sidelink communication</p> <p>Corrections for sidelink communication transmission</p> <p>Small eSL related corrections</p> <p>Autonomous WLAN measurement ID removal</p> <p>Avoiding simultaneous configuration of LWA and DC for a UE</p> <p>Miscellaneous RRC corrections for LWA</p> <p>Avoiding conflict between rel13 LWA/LWIP and rel12 RALWI</p> <p>The granularity of LWAAP entity</p> <p>Clarification on WLAN measurement</p> <p>The handling of WLAN status monitoring</p> <p>WLAN measurements and user preference</p> <p>Introduction of LWIP counter</p> <p>Alignment of RCLWI configuration</p> <p>Correction to WLAN measurements</p> <p>Small corrections to LWIP</p> <p>Configuration of LWA and LWIP upon handover</p> <p>UE behaviours while configured with steeringCommandWLAN (release)</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					<p>Variable Handling for RCLWI</p> <p>Steering command during T350</p> <p>Other Corrections and clarification to LWA</p> <p>Correction on SI window combining for MTC</p> <p>Correction on configuration of PRACH and MPDCCH for RA procedure for BL UEs or UEs in CE</p> <p>Add the field description for mpdcch-NarrowbandsToMonitor-r13 ical channels</p> <p>Correction to eMTC message classes and log</p> <p>Feature Group Indicators and UE capabilities for eMTC</p> <p>Clarification of use of extended timer values for UEs that support CE mode B</p> <p>Further miscellaneous eMTC corrections</p> <p>Correction to Initial CE Level</p> <p>Clarification on EpcchSetConfig for eMTC</p> <p>Correction on frequency hopping signaling</p> <p>Correction on system information handling in eMTC</p> <p>Miscellaneous eMTC corrections</p> <p>NAS timer settings for eMTC</p> <p>Various corrections to MTCe related ASN.1 code and field descriptions</p> <p>Miscellaneous corrections to RRC</p> <p>Miscellaneous corrections resulting from REL-13 ASN.1 review</p> <p>*New NB-IoT system and CIoT CRs</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
					Introduction of NB-IoT in 36.331 Capture CIoT optimizations for non-NB-IoT UEs
36.361	13.1.0	13.0.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE/WLAN Radio Level Integration Using IPsec Tunnel (LWIP) encapsulation; Protocol specification	Corrections to LWIPEP specification
36.463	13.1.0	13.0.0	R3	Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Wireless LAN (WLAN); Xw application protocol (XwAP)	Addition of measurement configuration Correction on RESET procedure Correction on WT Initiated WT Modification Correction on WT configuration update Correction on Global eNB ID Correction to WT-Initiated WT Modification Xw-AP corrections Rapporteur updates to TS 36.463
36.464	13.1.0	13.0.0	R3	Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Wireless LAN (WLAN); Xw data transport	Rapporteur updates – miscellaneous corrections
36.465	13.1.0	13.0.0	R3	Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Wireless LAN (WLAN); Xw interface user plane protocol	TS 36.465 correction for LWA Correction to the description of the Xw UP protocol services and Xw-U Sequence Number Correction to the range of the Xw-U Sequence Number
36.521-1	13.2.0	13.1.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing	New test cases for UE category 0, category M1, 4DL CA, ..etc. New CA band combinations. Other corrections.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.10	Version at ARIB STD-T104 Ver.4.00	3GPP WG	Title	Change Summary
36.521-2	13.2.0	13.1.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)	Changes related to 36.521-1 changes.
36.523-1	13.1.0	13.0.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	New test cases for dual connectivity, eIMTA, SC-MCCH information acquisition, ..etc. Other corrections.
36.523-2	13.1.0	13.0.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	Changes related to 36.523-1 changes.

(Annex 21)

3GPP ARIB Change History List of Standards (ARIB STD-T104 Ver. 4.20)

December 9 2016

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #73 New Orleans

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
36.101	10.23.0	10.22.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Improving the single antenna port description in UL-MIMO clauses, and Correction of OCNG, were made.
36.133	10.22.0	10.21.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Correction to RSTD test cases for 1.4 MHz was made.
36.307	10.20.0	10.19.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Correction of references, and Correction of 4Rx features for release independent, were made.
36.521-3	10.5.0	10.4.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	Removal of technical content in 36.521-3 v10.4.0 and substitution with pointer to the next Release

2. Release 11

2.1 Added Standards

None

2.2 Revised Standards

3GPP TSG #73 New Orleans

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
36.101	11.18.0	11.17.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Improving the single antenna port description in UL-MIMO clauses, Correction of CA REFSENS harmonic formula, Updating of the test parameters of power level for 8.3.1.2 and 8.3.2.3, Updating of the power level for TM9 dual layer test, and Correction of OCNG, were made.
36.133	11.18.0	11.17.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Change correspond to Rel-10(V10.22.0) was made.
36.213	11.12.0	11.11.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Correction on storing soft channel bits for different UE categories
36.307	11.17.0	11.16.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Correction of references was made.

3. Release 12

3.1 Added Standards

None

3.2 Revised Standards

3GPP TSG #73 New Orleans

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
36.101	12.13.0	12.12.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Change correspond to Rel-11(V11.18.0) was made. Correction of UE DL category for 256QAM demodulation, Removal of square blackets for Cat-0 REFSSENS configuration, Correction of 2UL CA 5+17, Modification on E-UTRA prose out of band blocking requirements, Correction of OCNG, Correction of power parameter for demodulation tests, Correction on subframe pair definition for PCMAX of DC, Correction of CR implementation error, and Removal blacket for B3 and B39 UE co-existence, were made.
36.133	12.13.0	12.12.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Change correspond to Rel-11(V11.18.0) was made. Correction of duration of T3 in RRM 3DL Test cases, Correction of Rel-12 Cat-0 requirements, Removal of TBDs in HD-FDD RLM test case for Rel-12 Cat-0 UEs, Correction to of DL RMCs for Cell1 in A8.16.25, Modification on inter-frequency CSI-RS related test cases, Modification on CSI-RS related CA test cases, Correction on diccovery signal conditions for SCE, Correction of Band group for TDD SCE, Correction on accuracy test cases for CRS based measurement, Introduction of testing principle for DC test cases with different bandwidth combinations, and Correction to sameparameters in D2D RRM tests, were made.
36.213	12.11.0	12.10.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	Correction on storing soft channel bits for different UE categories in Rel-12

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
36.214	12.3.0	12.2.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer; Measurements	Correction to the Beacon RSSI definition
36.302	12.8.0	12.7.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	Introduction of MBSFN measurements
36.306	12.10.0	12.9.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Support of CAT 9/10 and CAT 13 Indication of the maxLayersMIMO
36.307	12.13.0	12.12.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Band 41 power class 2 was made release independent. And also Correction of references was made.
36.331	12.11.0	12.10.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Clarification to intra-band contiguous CA capabilities Indication of the maxLayersMIMO
36.508	12.11.0	12.10.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing	Removal of technical content in 36.508 v12.10.0 and substitution with pointer to the next Release
36.521-2	12.9.0	12.8.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)	Removal of technical content in 36.521-2 v12.8.0 and substitution with pointer to the next Release

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
36.521-3	12.11.0	12.10.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	<ul style="list-style-type: none"> - Add Test requirements for Test case 8.22.9, 8.22.10, 9.2.28, 9.2.29, 9.2.30, 9.2.31, 9.2.32 and 9.2.33 - Adding antenna connection diagram references to RRM DC RLM test cases - Introduce Cell configuration mapping for SCE RRM test cases - Adding CQI reporting periodicity to MTC test cases - Uncertainties and Test Tolerances for intra frequency absolute and relative CSI-RSRP accuracies in CRI-RS based discovery signal Other corrections.
36.523-1	12.10.0	12.9.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	Removal of technical content in 36.523-1 v12.9.0 and substitution with pointer to the next Release
36.523-2	12.10.0	12.9.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	Removal of technical content in 36.523-2 v12.9.0 and substitution with pointer to the next Release
36.523-3	12.7.0	12.6.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	<ul style="list-style-type: none"> - Addition of LTE-A Rel-12 LC-MTC test cases. - Addition of LTE-A Rel-12 DL-256 QAM test cases - Addition of Rel-12 LTE-A CA FDD-TDD test cases - Addition of Rel-11 eMDT test cases Addition of some other test cases and corrections.
37.571-1	12.8.0	12.7.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Removal of technical content in 37.571-1 v12.7.0 and substitution with pointer to the next Release

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
37.571-2	12.6.0	12.5.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	Add missing references to GPS and Galileo and A-GPS and A-Galileo
37.571-3	12.8.0	12.7.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	<ul style="list-style-type: none"> - Updates to the UE Rx – Tx Time Difference tests for Rel-12 onwards - Applicability of new A-GPS and A-Galileo RF test conditions missing for UE Based GNSS - Applicability of new A-GPS and A-Galileo signaling test conditions missing for UE Based GNSS
37.571-5	12.6.0	12.5.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	<ul style="list-style-type: none"> - Correction of BDS Almanac di values for geostationary satellites - Aligning GNSS and GPS UE reference position

4. Release 13

4.1 Added Standards

3GPP TSG #73 New Orleans

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.20		3GPP WG	Title	New Document Summary
36.521-3	13.0.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	Most of changes are related to Cat-M1 UE in CEModeA. Other corrections.
36.523-3	13.0.0		R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	- eDRX: Introduction of Test Model - eMTC: Introduction of Test Model - Rel-13 baseline upgrade for LTE Test Suites - Add new verified and e-mail agreed TTCN test cases in the TC lists in 36.523-3 (prose), Annex A
37.171	13.0.0		R4	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA); User Equipment (UE) performance requirements for RAT-Independent Positioning Enhancements	TS agreed in R4-164777, with the version number incremented to 1.0.0, the date and Table of Contents updated and the change history updated. Editorial changes from MCC were also included. TR approved by RAN plenary
37.571-2	13.0.0		R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	Addition of Indoor Positioning Protocol Conformance Testing (MBS)
37.571-3	13.0.0		R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	- Introduction of Indoor Positioning enhancements (MBS) (protocol) - Introduction of Indoor Positioning enhancements (MBS) (rf)
37.571-4	13.0.0		R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	Rel-13 baseline upgrade for POS Test Suite

Revised Standard Number	Version at ARIB STD-T104 Ver. 4.20		3GPP WG	Title	New Document Summary
37.571-5	13.0.0		R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Addition of Indoor Positioning Enhancements (MBS) (protocol) (12.6.0 -> 13.0.0)

4.2 Revised Standards

3GPP TSG #73 New Orleans

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
36.101	13.5.0	13.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	Change correspond to Rel-12(V12.13.0) was made. Correction of CA 42-42 sub-block CA configuration, Addition of UL configuration for CA 28A-42A and CA 28A-42C, Change of NB-IoT term into Category NB1, Removal of square brackets for REFSENS requirements for 4 RX AP, Removal of brackets from category NB1 specification, Correction on in-band emission requirements for cat M1 UE, Addition of Category M1 and NB1 to the overview table of UL reference measurement channels, Introduction of performance requirements for FD-MIMO Class A and Class B K=1 PMI test cases, Introduction of FRC for CRI test, Introduction of EB/FD-MIMO MR functionality test, Corrections for LAA, Clarification on EARFCN, Introduction of UL RMC for NB-IoT UE, Modification on E-UTRA prose out of band blocking requirement, Correction of power parameter for demodulation tests, Introduction of test requirements for new UE behaviour, Addition of reference sensitivity exception for CA 20A-38A and CA 7A-20A-38A, Addition of missing CA reference sensitivity exceptions, Editorial correction to category NB1 specifications, Editorial modification for NB-IoT, Corrections for NB-IoT UE, Introduction of downlink physical channel setup for NB-IoT UE demodulation requirements, Introduction of NPDCCH

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
					<p>demodulation requirements, Corrections to channel bandwidth for category NB1, Introduction of agrred value for UE CQI requirements for 4Rx, Corrections of UE requirements for 4Rx, Introduction of eD2D demodulation performance requirements, Introduction of eMTC M-PDCCH demodulation requirement for CE Mode B, Introduction of PDCCH test for LAA demodulation, Introduction of aperiodic CSI test for LAA, Introduction of EB/FD-MIMO PDSCH demodulation test, Introduction of EB/FD-MIMO CRI Test, Correction of test parameters with Class B alternative codebook for one CSI-RS resource configured, Updating of enhanced PDCCH/PCFICH performance requirements for DL control channel IM, Introduction of LAA PDSCH demodulation performance requirements, Introduction of TM2/TM9 PDSCH demodulation requirements for eMTC, Correction of eMTC PDSCH TM6 demodulation requirements, Correction of eMTC CQI definition test,</p> <p>Introduction of UE-selected subband CQI test for eMTC, Corrections of 3+41+42, Updating of guard band requirements for Band 46 MSD, Modification of enhanced PHICH performance requirements for DL control channel IM, Modification of enhanced ePDCCH performance requirements for DL control channel IM, Addition of applicability for 4Rx UEs, Updating of CA demodulation performance requirements, Introduction of new band combinations for eDC demodulation performance requirements, Introduction of reference channel for LAA demodulation performance requirements, Introduction of OOC D2D Discovery demodulation requirements, Corrections of RF RX requirements for 4 RX AP, Corrections on eMTC RX, Corrections for Rel-13 cat M1 UE, Rel-13 CA corrections, Corretion on operating bands for ProSe, Introduction of NPBCH Reference Measurement Channel for NB-IoT, Introduction of NPDSCH Demodulation requirements and FRC definition for NB-IoT, Introduction of signal model for LAA demodulation, Addition of SDR requirements for 4Rx, and Introduction of eMTC M-PDCCH demodulation requirement for CE Mode A, were made.</p>
36.104	13.5.0	13.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission	Correction of NB-IoT In-channel selectivity, Removal of brackets for BS IRC receiver, Updating of eMTC PUSCH performance requirements, Corrections to operating band unwanted emissions,

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
				and reception	Removal of brackets for NB-IoT Rx intermodulation requirements, Clarification on EARFCN, Corrections on NB-IoT BS unwanted emissions requirements, Correction on ACS for standalone NB-IoT BS, Correction on FRC for EUTRA with in-band NB-IoT, Updating of NB-IoT RB power dynamic range, Updating of eMTC PUCCH performance requirements, Introduction of LAA BS unwanted emission mask requirements, Correction of BS MMSE-IRC receiver requirements, Introduction of demodulation requirements for NPUSCH format 1, Introduction of demodulation requirements for NPUSCH format 2, Removal of the number of HARQ processes in eMTC BS PUSCH requirements, and Introduction of Korea regulatory requirements for PS-LTE BS(band 28), were made.
36.133	13.5.0	13.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	Change correspond to Rel-12(V12.13.0) was made. Definition of OCNG patterns for Cat-M1 RRM Tests, Correction of duration of T3 in RRM 4DL/5DL Test cases, Removal of square bracket for RLM antenna connection for 4 Rx capable UEs, Introduction of LAA (Channel occupancy test, LAA listen before talk model, and Average RSSI test), Introduction of RS-SINR measurement accuracy tests for FDD and TDD, Clarification of applicability of intra-frequency maximum measurement time requirements, Correction of known cell requirements, Introduction of channel occupancy measurement accuracy, Definition of reference NPRACH configuration for NB-IoT RRM test cases, Corrections on section 4.6 "Cell Selection and Re-selection Requirements for UE category NB1", Correction of E-CID RSRP measurement requirements for Cat-M1 UEs, Correction of Cat-M1 intra-frequency handover test cases for CEMode A, Correction of transmit timing accuracy tests for Cat-M1 UE in CEMode A, Definition of Cat-M1 PRACH test cases for FDD/HD-FDD/TDD in enhanced coverage, Introduction of new test cases for RS-SINR TDD-FDD/FDD-TDD inter-frequency measurement accuracy, Modification and correction for RS-SINR measurement accuracy requirements, Addition of test cases of FDD/TDD intra-frequency RSRP/RSRQ accuracy for SCell with FS3, Updating of Cat-M1 CEMode A RLM test cases: DRX FDD/HD-FDD/TDD, Modification on report mapping of Tadv measurement for TDD, Editing change in TS36.133, Introduction of test cases for LAA SCell activation and deactivation of known SCell

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
					<p>with PCell in non-DRX, Introduction of test cases for measurement and event triggered reporting on LAA deactivated SCell and PCell interruption, Correction of band 66 notes in E-UTRA band groups, Introduction of NPDCCH and NPDSCH RMCs for in-band operation UE category NB1 test cases, Introduction of E-UTRAN UE transmit timing accuracy tests for Cat-M1 UE in CEMode B, Introduction of RRC Re-establishment test for eMTC UEs in CEMode B, Introduction of Power headroom reporting requirements for NB-IoT, Introduction of FDD-FDD/TDD-TDD inter-frequency RS-SINR accuracy test, Addition of definition and abbreviation of frame structure 3, Editorial correction on LAA measurement requirements,</p> <p>Introduction of test requirement for intra-frequency event triggered reporting under fading propagation conditions in synchronous cells in DRX/non-DRX based on CRS under operation with frame structure 3, Addition of measurement condition to avoid infinite measurement, Correction on discovery signal conditions in LAA, Correction of Band group for TDD SCE test, Introduction of intra-frequency case for Cat-M1 UE in enhanced coverage, Introduction of FDD-FDD/FD-FDD/TDD-TDD intra-frequency event triggered reporting under fading propagation conditions for Cat-M1 UE in CE Mode B, Introduction of RSRP intra-frequency test cases for Cat-M1 UE in CEMode B, Correction of PRACH configuration reference, Maintenance of eMTC specifications, Introduction of minimum ACK/NACK requirement in CGI reading of eMTC, Correction on UE Cat-M1 measurement requirement, Editorial correction of NB-IoT RRC re-establishment, Modification of measurement requirement in RRC_CONNECTED, Correction of conditions on NSCH Es/lot of identified and of the neighbour cell, Introduction of OCNG pattern for NB-IoT standalone operation test cases, Introduction of test cases for HD-FDD Intra-frequency RRC Re-establishment under normal/enhanced coverage, Introduction of NPDCCH/NPDSCH RMCs for UE category NB1 test cases, Introduce OCNG pattern for UE category NB1 test cases, Introduction of inter-frequency NRSRQ measurement accuracy requirement, Modification on conditions for NB-IoT inter-frequency accuracy requirements, Introduction of OCNG patterns for NB-IoT, Introduction of eD2D RRM tests, Introduction of test cases for inter-frequency event triggered</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
					reporting for PCell, Introduction of test cases for intra-frequency absolute and relative CSI-RSRP accuracies for SCell in FS3, Introduction of timing advance adjustment accuracy test for NB-IoT UE in enhanced coverage, Introduction of HD-FDD radio link monitoring test for Out-of-sync for Cat-M1 UE in CEMode A, Correction on UE measurement capability for NB-IoT, Correction to radio link monitoring for NB-IoT, Corrections on FD-FDD/TDD radio link monitoring test for Out-of-sync for Cat-M1 UE in CEMode A, Corrections on FD-FDD/HD-FDD/TDD radio link monitoring test for In-sync for Cat-M1 UE in CEMode A, Updating of Rx - Tx time difference measurement report mapping table for TDD, and Correction of transmit timing for category M1, were made.
36.141	13.5.0	13.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	Correction of eMTC PUCCH conformance test, Removal of brackets for BS IRC receiver, Addition of test tolerances for eMTC BS demodulation performance requirements, Introduction of LAA BS unwanted emission mask requirements, Introduction of NPUSCH format 1 and FRC demodulation conformance test, Introduction of NPUSCH format 2 demodulation conformance test, Addition of test tolerances for NB-IoT BS demodulation performance requirements, Correction of CA CLR for Band 46, Introduction of Korea regulatory requirements for PS-LTE BS (Band 28), and Correction on LBT test procedure, were made.
36.211	13.3.0	13.2.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	Correction on DMRS for NB-IoT in TS 36.211 Correction on NPRACH in TS 36.211 Correction on SC-FDMA signal generation for NB-IoT in TS 36.211 Corrections to RRC parameter names for NB-IoT in TS 36.211 MPDCCH search-space with Temporary C-RNTI Correction on NPBCH in TS 36.211 Correction on UL collisions in TS 36.211 Correction on NPSS mapping in TS 36.211 Corrections on the presence of NRS for standalone and guard band operation mode in TS 36.211 Correction on the determination of EPDCCH starting position Corrections on NPDCCH scrambling in TS 36.211 Frequency hopping for SI and paging messages for BL/CE UE Scrambling of DL DMRS for BL/CE UE

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
					<p>Enable cross-subframe channel estimation for BL/CE UE</p> <p>Frequency hopping interval for MPDCCH during random access for BL/CE UE</p> <p>CR on the correction from SC-FDFMA to SC-FDMA</p> <p>Correction for PHICH resource reservation on the LAA cell in 36.211 for Rel-13 LAA</p> <p>Correction on MPDCCH transmission without repetition in special subframes</p> <p>Introduction of a reserved range of NPRACH sub-carriers for contention based access</p> <p>Clarification of valid subframe in eMTC</p> <p>Correction of NB-IoT antenna port mapping</p> <p>Clarification on PRACH system frame number</p> <p>PUCCH retuning with puncturing for BL/CE UE</p> <p>Phase difference between NRS and CRS</p> <p>Continuous uplink transmission in eMTC</p>
36.212	13.3.0	13.2.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	<p>Correction on BCH rate matching in TS 36.212</p> <p>Correction on bitwidth of CLASS A codebook</p> <p>Corrections on CRI bit width in 36.212</p> <p>Subband CQI report and TM6</p> <p>CR for clarification of DCI sizes for format 6-1A (TM6 and TM9) in TS 36.212</p> <p>Correction on SRS request field in DCI format 1A for Rel-13 LAA</p> <p>Introduction of 1.2Gbps and 1.6Gbps UE categories in Rel-13</p>
36.213	13.3.0	13.2.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	<p>Correction on random access procedure for NB-IoT on TS 36.213</p> <p>Correction on NPDCCH related procedure on TS 36.213</p> <p>Corrections to RRC parameter names for NB-IoT in TS 36.213</p> <p>Corrections on NPDSCH related procedure in TS 36.213</p> <p>Correction on FD-MIMO codebook in 36.213</p> <p>Correction on RRC parameters for SRS enhancement in 36.213</p> <p>Transport block size determination for Msg2</p> <p>Correction on NPUSCH related procedure on TS 36.213</p> <p>Correction on the reference of narrowband definition in TS 36.213</p> <p>Correction on the relationship between IMCS and ITBS for DCI format 6-1A in TS 36.213</p> <p>Correction on the scrambling initialization for SIB1-BR and SI for eMTC in TS 36.213</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
					<p>Corrections on NPDCCH search space for random access in connected mode in TS 36.213</p> <p>Correction on storing soft channel bits for different UE categories in Rel-13</p> <p>Correction on the citation of table indexes for mapping of ICRI to MCRI</p> <p>Corrections on Codebooks in 36.213</p> <p>Default max number of PUSCH repetitions for Msg3 for BL/CE UE</p> <p>PDSCH start subframe in TDD for BL/CE UE</p> <p>Repetition with aperiodic CSI for BL/CE UE</p> <p>Correction on "special subframe" for frame structure type 3 in 36.213 for Rel-13 LAA</p> <p>Clarification on HARQ-ACK transmission</p> <p>Correction for UL grant size in RAR</p> <p>MBSFN subframes and SIB2 decoding</p> <p>Overriding of invalid subframe for msg3 PUSCH when R=1</p> <p>On the mapping of TPC command field to power correction values in TS 36.213</p> <p>Correction on the MPDCCH scheduling Paging in special subframe in TS 36.213</p> <p>Clarification of valid subframe in eMTC</p> <p>Quasi-colocation of NB-IoT antenna ports</p> <p>PUCCH resource allocation</p> <p>RV version for PDSCH carrying paging</p> <p>Missing definition of higher layer parameter eutra-CRS-SequenceInfo</p> <p>PUSCH timing delay for NB-IoT</p> <p>RV Cycling for PUSCH and PDSCH</p> <p>Clarification of scheduling delay</p> <p>Clarification on MPDCCH monitoring on SFN rollover and search space overlap</p> <p>PUCCH transmission and invalid subframes</p> <p>SRS bit in DCI</p> <p>Clarification of NB-IoT DL subframe configuration</p> <p>Correction on FD-MIMO codebooks</p> <p>CR on LAA post transmission backoff</p> <p>CR to remove the incorrect implementation of LAA defer and</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
					sensing duration introduced by the unapproved CR R1-161166
36.214	13.3.0	13.2.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer; Measurements	Correction to the WLAN RSSI definition Correction on NRS port number mapping Correction on NRSRQ applicability
36.300	13.5.0	13.4.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	Clarification on HARQ Clarification on LWIP Small corrections to LWA Corrections to the coexistence of LWIP and DC, LWA, RCLWI, RAN assisted WLAN interworking Corrections to RCLWI procedure Corrections to WLAN measurement Corrections to WLAN connection status report for LWA Corrections to the coexistence of LWA, RCLWI and DC, LWIP, RAN assisted WLAN interworking Correction on WLAN authentication RCLWI traffic steering granularity Correction on WT initiated WT modification procedure Clarification on system information Introduction of EB/FD-MIMO Terminologies Correction on CSG support in Dual Connectivity Correction of UE Radio Capability Information Corrections to C-IoT optimisations in Stage-2 Keys storage on C-IoT optimizations for non-NB-IoT UE Corrections to NB-IoT description
36.302	13.3.0	13.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	Introduction of MBSFN measurements Introduction of LAA

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
					Introduction of RS-SINR measurement Miscellaneous corrections on DL reception types Corrections to NB-IoT downlink reception type combinations
36.304	13.3.0	13.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Highlighted the field <i>redistributionIndication</i> with italic font Clarification of UE redistribution target selection Correction to PH and PTW_Start calculation for eDRX paging Clarification for Idle mode UE behaviour on user plane CIoT EPS optimisation Corrections to NB-IoT
36.306	13.3.0	13.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Support of CAT 9/10 and CAT 13 Indication of the maxLayersMIMO Introduction of 1.2Gbps and 1.6Gbps UE categories in Rel-13 Introducing UE capability of Rel 13 CCH IM Introducing UE capability of CRS-IM for TM 1-9 Continuous uplink transmission in eMTC Supporting new UE Rx – Tx time difference mapping table
36.307	13.5.0	13.4.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Band 41 power class 2 was made release independent. And CSI tests list for 4Rx UEs, was added.
36.321	13.3.0	13.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	Corrections to Destination Indexing Clarification on DRX in SC-PTM Clarification on DRX operation for LAA cells Correction on MAC procedure and DRX related issues Correction to Sidelink Discovery Gap for Transmission Clarification on BCCH reception for eMTC

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
					Clarification on RA preamble groups for eMTC Repetition transmissions within a bundle in DL for MTC Clarification of the Random Access procedure for NB-IoT Clarification for onDurationTimer start for NB-IoT
36.323	13.3.1	13.2.1	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification	Addition of COUNT determination for the purpose of HRW setting Clarification on NMP in LWA status report Corrections to PDCP Status Reporting MCC cleanup and missing text from v13.2.1 added
36.331	13.3.0	13.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction to access barring checking for network sharing case Correction to LWIP and LWA Backward compatibility of CA band combination signalling Correction on measurement reporting for WLAN Correction on WLAN authentication Corrections to simultaneous configuration of LWA, RCLWI and LWIP Correction on WLAN connection management Small corrections regarding (WLAN) measurement reporting Clarifications on RCLWI Corrections to TS36.331 Issue on resume procedure Clarification to intra-band contiguous CA capabilities Supporting new UE Rx – Tx time difference mapping table Simplification of UE capability reporting procedure Corrections on system information acquisition for Sidelink discovery Correction on cell reslection procedure while T300 is running

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
					<p>Correction on full configuration</p> <p>Correction on SRB addition and modification</p> <p>Clarification on RRC processing delay for CIoT</p> <p>Alignment of procedure when handling up-CIoT-EPS-Optimisation</p> <p>Corrections to NB-IoT in 36.331</p> <p>Cleanup of the NB-IoT ASN.1</p> <p>Miscellaneous corrections to section 4 and 5 for NB-IoT</p> <p>Introduction of DelayTolerantAccess establishment cause in NB-IoT</p> <p>Correction on C-IoT optimizations for non-NB-IoT UE</p> <p>Measurement configuration during RRC resume in CIoT</p> <p>Maximum number of simultaneous UL PDCP delay measurements for FeMDT</p> <p>Clarification on DRX cycle used by the UE</p> <p>Invalidation of stored system information in connected mode</p> <p>Clarification on bit mapping of fdd-DownlinkOrTddSubframeBitmapLC and fdd-UplinkSubframeBitmapLC</p> <p>Clarification on timer handling for zero value</p> <p>Correction on UEPagingCoverageInformation</p> <p>DRB re-setup in Full Configuration</p> <p>Correction for eMTC parameter values</p> <p>CR on forwarding LAA measurement results for DC</p> <p>Clarification on associationTimer</p> <p>Clarification on PDCP-Config and statusFeedback for LWA</p> <p>Order of addition and removal of WLAN-Identifiers</p> <p>Multiple WLAN measurement objects on the same frequency</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
					<p>Correction about eMTC frequency hopping parameters</p> <p>Handling of tdd-Config-r10 for LAA Scell</p> <p>Introduction of 1.2Gbps and 1.6Gbps UE categories in Rel-13</p> <p>Extended T310 timer values for eMTC</p> <p>Introducing UE capability of Rel 13 CCH IM</p> <p>Introducing UE capability of CRS-IM for TM 1-9</p> <p>Continuous uplink transmission in eMTC</p> <p>Correction on PUSCH repetition numbers for CE Mode A</p> <p>Frequency hopping configuration for paging</p> <p>Reservation of RA resources in NB-IoT</p> <p>Extended PHR corrections</p> <p>Corrections for LWA/LWIP</p> <p>Correction on 12/16-port CSI-RS resource configuration for FD-MIMO</p> <p>Corrections in Rel-13 eMTC SI acquisition</p> <p>Correction of downlink gap applicability for NB-IoT</p> <p>Indication of the maxLayersMIMO</p> <p>nrs-Power signaling for NB-IoT non-anchor carrier</p>
36.355	13.2.0	13.1.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Correction of ECID positioning for TDD
36.361	13.2.0	13.1.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE/WLAN Radio Level Integration Using IPsec Tunnel (LWIP) encapsulation; Protocol specification	<p>Clarification on LWIPEP</p> <p>Correction on GRE header size</p>
36.464	13.2.0	13.1.0	R3	Evolved Universal Terrestrial Radio Access Network (E-UTRAN) and Wireless LAN (WLAN); Xw data transport	Correction of the LWA PDU type

Revised Standard Number	Version at ARIB STD-T104 Ver.4.20	Version at ARIB STD-T104 Ver.4.10	3GPP WG	Title	Change Summary
36.508	13.1.0	13.0.1	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing	- Changes related to NB-IoT. - Changes related to CA band combination. Some other changes and corrections.
36.509	13.1.0	13.0.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Special conformance testing functions for User Equipment (UE)	- Adding PDU definitions for UE TEST LOOP MODE F SCPTM PACKET COUNTER REQUEST/RESPONSE - Introduction of minimum loopback buffer size for Cat M1
36.521-1	13.3.0	13.2.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing	Changes related to category M1, category NB1, UL64QM, CA band combination, ..etc. Other corrections.
36.521-2	13.3.0	13.2.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS)	Changes related to 36.521-1 changes.
36.523-1	13.2.0	13.1.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	Changes related to category M1, category NB1, SC-PTM, ..etc. Other corrections.
36.523-2	13.2.0	13.1.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	Changes related to 36.523-1 changes
37.571-1	13.1.0	13.0.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Corrections.

(Annex 22)

3GPP ARIB Change History List of Standards (ARIB STD-T104 Ver.4.30)

March 24 2017

1. Release 10

1.1. Added Standards

None

1.2. Revised Standards

3GPP TSG #74 Vienna

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
36.101	10.24.1	10.23.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	The following essential corrections were made: <ul style="list-style-type: none">- Correction of spurious emissions requirements for Band 9 range and intra-band CA.- Correction of Versioning bit indicator for NS_04 A-MPR table.- Correction of RMCs and applicability of core RF requirements.
36.104	10.12.0	10.11.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	The corresponding change made in Ver. 9.14.0 was made.
36.307	10.21.0	10.20.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Descriptions for UE power class 2 was introduced.
36.331	10.20.0	10.19.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction of NOTE 3 in UE-EUTRA-Capability related to multiple CA-MIMO-ParametersDL/UL Clarification on prioritization of multiple Pmax values

2. Release 11

2.1 Added Standards

None

2.2 Revised Standards

3GPP TSG #74 Vienna

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
36.101	11.19.1	11.18.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	The following corrections were made: <ul style="list-style-type: none"> - Corresponding changes made in Ver. 10.24.0 were made. - Missing a beamforming model in chapter 9 TM9 receiver Type A tests was introduced. - Corrections to CA table reference and header.
36.104	11.16.0	11.15.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Correction to dynamic receiver range requirement was made as an essential correction. The correction is in line with the change made in ver. 10.12.0 (with additional change for Medium Range BS part).
36.306	11.14.0	11.13.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Clarification on UE category requirement
36.307	11.18.0	11.17.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	Addition of power class 2 and correction to UE category applicability were made.
36.331	11.17.0	11.16.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction of NOTE 3 in UE-EUTRA-Capability related to multiple CA-MIMO-ParametersDL/UL Clarification on prioritization of multiple Pmax values Clarification on timeInfoUTC in SIB16

3. Release 12

3.1 Added Standards

None

3.2 Revised Standards

3GPP TSG #74 Vienna

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
36.101	12.14.1	12.13.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<p>The following corrections were made:</p> <ul style="list-style-type: none"> - Corresponding changes made in Ver. 11.19.1 were made. - Introduction of MSD requirement for IMD5 on band3 of CA_3A-8A 2UL CA. - Beamforming model missing in chapter 9 TM9 receiver Type A tests for Rel-12. (Technically corresponds to the change made for Ver. 11.19.1) - Correction of Pb setting in power imbalance TCs. - Correction to cell mapping for periodic CQI reporting on multiple cells. - Correction to RMC for UE Category 1 in CSI tests (Rel-12) - Correction of UE to UE co-existence for B42 with 2ULs. - Clarification on UE MOP. - CR for updating applicability rule for UE cat 9 Ues and DL Cat. 13 UEs. - Delta RIB for SDL CA. - Corrections of CA Refsens exceptions in 7.3.1A. - Correction of Incorrect Number of EREGs per ECCE for special subframe mentioned for TC 8.7.4.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Fixing soft buffer management test for TDD-FDD CA. - Correction of optional Pcell indocation.
36.104	12.12.0	12.11.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	Corresponding change made in Ver. 11.16.0 was made.
36.133	12.14.0	12.13.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management	<p>The following corrections were made:</p> <ul style="list-style-type: none"> - Corrections on DC interruption test cases. - Correction on the test cases of RSTD Mesasurement. - Corrections on the test cases of UE measurement procedures and measurement performance requirements. - Correction on the test cases of autonomous gaps. - CSI-RS based measurement conditions. - Correction on SCE test cases. - Remove redundant requirement for Intra-frequency relative CSI-RSRP. - Correction to RRM tests on dual connectivity. - Corrections to 3DL CA Event triggered reporting Test cases A.8.16.29, A.8.16.30. - Correction to TCs A.7.1.7A and A.7.1.7B. - Corrections of PCC and SCC assignment in 20MHz+10MHz test cases A.8.20.2B and A.9.2.27. - Corrections on inter-frequency measurement test cases for IncMon. - Correct InformationBitPayload for Sub-Frame 1, 6 and Max T-put of TDD PDSCH RMC - Correction of PCFICH/PDCCH/PHICH Reference channel in UE Cat 0 new CGI RRM test cases.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
36.306	12.11.0	12.10.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Clarification on UE category requirement Miscellaneous corrections
36.307	12.14.0	12.13.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	The following addition of feature and corrections were made: <ul style="list-style-type: none"> - Addition of CA bandwidth Class F. - Addition of UE category 0 to release independence specification as a correction. - Correction to UE category applicability.
36.331	12.12.0	12.11.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	Correction of NOTE 3 in UE-EUTRA-Capability related to multiple CA-MIMO-ParametersDL/UL Clarification on prioritization of multiple Pmax values Clarification on timeInfoUTC in SIB16 Clarification on FDD&TDD diff for mbms-AsyncDC Clarification on reporting of the plmn-IdentityList Conrections on sidelink pre-configurations and default configurations Corrections on system information acquisition for Sidelink discovery

4. Release 13

4.1 Added Standards

None

4.2 Revised Standards

3GPP TSG #74 Vienna

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
36.101	13.6.1	13.5.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception	<p>The following corrections were made:</p> <ul style="list-style-type: none"> - Corresponding changes made in Ver. 12.13.0 were made. - Correction of NPBCH Fixed Reference Channel for NB-IoT. - Correction to Finalize UE-selected subband CQI test for eMTC. - Clarification on TX-RX frequency separation for Cat.NB1. - Correction on OCNG pattern. - Clarification on UE maximum output power. - Removing square brackets for 4Rx tests. - Correction to introduce missing requirements for eMTC/NB IoT UE. - Correction of IRC TM2/3/3 tests with 4Rx. - Correction of optional Pcell indication. - Correction of power control for category M1. - Correction of NPDCCH demodulation requirements. - Correction of UE cat M1 out of band blocking, Removal of Range 4. - Correction to improvement of REFSSENS requirement specification for band 46 CA combos. - Correction of eMTC PBCH demodulation requirement for enhanced coverage.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Correction of frequency error for eMTC - Correction of REFSENS RMC table for Cat-M1 UE. - Correction of PDCSH demodulation requirements for eMTC. - Updates to NPDSCH demodulation requirements for NB-IoT. - Correction to finalize CQI definition test for eMTC. - Correction of A-MPR for NB-IoT. - Correction of eMTC MPDCCH demodulation requirements. - Correction as clean up and clarification for LAA CSI requirements. - Clarification of note6 for 3DL/2UL CA. - Correction of MSD and exclusion region specification for 10MHz LAA channels. - Correction of Band 68 NS_26 A-MPR requirements. - Removing square brackets for Rel-13 FD-MIMO performance requirements. - Correction of 4-RX TM9 MU test. - Correction of fixing errors for 4Rx tests. - Correction of SDR CA tests with 4Rx for DL category 18 and 19. - Updates to burst transmission model for LAA performance requirements. - Corrections for bandwidth combination sets defined for inter-band DC. - Correction to NB-IoT ON/OFF power measurement period. - Correction of RMC for maximum input level in M1 UE. - Correction of NB-IoT aggregate power control. - Updates to the reference channel for LAA demodulation performance requirements. - Updates to LAA PDSCH demodulation performance requirements. - Correction of fixing editorial errors.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Correction of DeltaRIB for SDL and LAA CA. - Corrections of CA Refsens exceptions in 7.3.1A. - Corrections to CA table reference and header and CA REFSENS table. - Adding PDCCH performance requirements for LAA demodulation.
36.104	13.6.0	13.5.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception	<p>The following corrections were made:</p> <ul style="list-style-type: none"> - Corresponding change made in Ver. 12.11.0 was made. - Correction of demodulation requirements for NPRACH. - Correction of eMTC PRACH performance requirements. - Correction of Fixed Reference Channels for NPUSCH format 1. - Correction of Fixed Reference Channels for NB-IOT reference sensitivity and dynamic range. - Update of the Total Power Dynamic Range requirement for Band 46. - Correction of cleaning up Rel-13 eMTC PUSCH performance requirements. - Correction to interfering signal for Narrowband blocking requirement for NB-IOT. - Correction of spurious responses for NB-IoT BS receiver blocking requirements. - Correction of interfering signal bandwidth for NB-IoT BS receiver dynamic range requirements. - CR: Updates to demodulation requirements for NPUSCH format 1. - Updates to demodulation requirements for NPUSCH format 2.
36.113	13.3.0	13.2.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) and repeater ElectroMagnetic Compatibility (EMC)	NB-IoT requirements was introduced.
36.133	13.6.0	13.5.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio	The following corrections were made:

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
				resource management	<ul style="list-style-type: none"> - Corresponding changes made in Ver. 12.13.0 were made. - Introdouciton of RSRP accuracy test case for Band 31 for Cat-M1 UE. - Introdouciton of E-UTRAN HD-FDD Intra frequency handover for Cat-M1 UEs in CEModeB. - Introdouciton of UE Transmit Timing Accuracy Tests for NB-IoT UE. - Introdouciton of HD-FDD Radio Link Monitoring Test for Out-of-sync in DRX for UE category NB1 under enhanced coverage. - Introdouciton of E-UTRAN FDD-FDD Intra frequency handover for Cat-M1 UEs in CEModeB. - Introdouciton of E-UTRAN TDD-TDD Intra frequency handover for Cat-M1 UEs in CEModeB. - Introdouciton of HD-FDD Radio Link Monitoring Test for Out-of-sync in DRX for UE category NB1 under normal coverage. - Introdouciton of Intra-frequency cell reselection under normal coverage for NB-IOT. - Introdouciton of applicability rule for eMTC test cases in CEModeA and CEModeB. - Introdouciton of 5MHz Bandwidth OCNG for Cat-M1 UE. - Introdouciton of 5MHz Bandwidth MPDSCH Reference Channel for Cat-M1 UE. - Introdouciton of 5MHz Bandwidth MPDCCH Reference Channel for Cat-M1 UE. - Introdouciton of SI reading tests for eMTC UEs in CEModeB. - Correction of UE Tranmsit timing accuracy in CE mode B. - Corrections on NPDCCH transmission parameters. - Correction to the handover test case in CE mode A. - Correction of CGI reading of eMTC. - Correction of requirement on Redirection to non-amchor carrier.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Correction of handover of eMTC. - Correction of PTW length in cell reselection requirement for NB-IoT. - Correction of PHR requirement for NB-IoT. - Correction of TDD CEModeB measurement requirement. - Correction of NPDSCH RMC. - Correction of test parameter in RSRP Intra frequency case for Cat-M1 UE in CE mode B. - Correction of modification to Handover Delay in CE ModeA. - Correction of test parameter for RRC re-establishment. - Correction on test parameter in RSRP Intra frequency case for Cat-M1 UE in CE mode A. - Correction to RSRP bias in idle mode reselection requirement in enhanced coverage. - Correction of paging interruption for NB-IoT. - Correction of RRC re-establishment RRM requirement. - Introduce test requirements for E-UTRAN TDD - TDD Intra frequency handover for UE category 0 as an essential correction. - Introducing agreed measurement accuracy for UE Category NB1 as an essential correction. - Correction of Inter-frequency event triggered reporting. - Correction of 5 DL PCell in TDD RSRQ for E-UTRAN in Carrier Aggregation. - Correction of 4 DL CA PCell in FDD FDD-TDD RSRQ for E-UTRAN in Carrier Aggregation - Correction to WLAN measurement configuration. - Correction of Cat-M1 CEMode A RLM DRX test cases. - Correction of eMTC measurement conditions. - Correction to transmit timing accuracy test case in CE mode A.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Correction to RRC reestablishment test case in CE mode A. - Correction of cell re-selection test case for Cat-M1 in normal coverage - UE Timing Advance Adjustment Accuracy Test for Cat-M1 UE in CEModeB. - Correction of Cat-M1 descriptions. - Correction of NPDCCH RMC. - Correction to levels in LTE-WLAN RRM test. - Correction of modification of cell reselection test case. - Correction of requirements for RRC connection release with redirection in eMTC. - Correction to RRC re-establishment requirements in eMTC. - Modification to Handover Delay in CE ModeB. - Correction of eMTC maintenance. - Correction to UE Category M1 Handover Test cases A 5.1.13, A 5.1.14, A.5.1.15. - Correction of RRC re-establishment test case for Cat-M1 in CE Mode B. - Corrections on RLM test cases for Cat-M1 UE. - Correction of 4 DL CA PCell in TDD TDD-FDD RSRQ for E-UTRAN in Carrier Aggregation. - Corrections to Antenna connection for 4 Rx capable UEs. - Corrections on DC test cases for measurements with autonomous gaps. - Correction of finalization of RS-SINR measurement accuracy requirements. - Correction of eDRX maintenance. - Editorial correction on the measurement applicability in LAA R13 - Correction on the discovery signal measurements under FS3.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
					<ul style="list-style-type: none"> - Correction of RRC re-establishment delay for eMTC. - Correction of Requirements applicability for LAA. - Correction to Es/Noc, Es/Iot and RSRP values in Idle mode re-selection test in normal coverage. - Correction of RRC re-establishment RRM requirement. - Correction of RRC re-establishment test case for Cat-M1 in CE Mode A. - Corrections to rsrp-ThresholdsPrach and test requirement in Random Access Test in enhanced coverage. - Corrections on DC measurements test cases. - Modifications on SSTD measurement reporting. - Introducing agreed measurement period for NB IoT connected mode. - RLM in-sync test with DRX under normal coverage. - RLM in-sync test without DRX under normal coverage. - RLM in-sync test DRX under enhanced coverage. - RLM in-sync test without DRX under enhanced coverage. - NB-IoT measurement conditions. - Clarification to applicability of NRSRQ for UE category NB1.
36.141	13.6.0	13.5.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing	<p>The following corrections were made:</p> <ul style="list-style-type: none"> - Introduction of NB-IoT into 36.141 - Correction of Fixed Reference Channels for NPUSCH format 1. - Correction of eMTC PRACH conformance test. - Correction as a cleaning up Rel-13 eMTC PUSCH conformance test. - Updates to NPUSCH format 1 demodulation conformance test. - Updates to NPUSCH format 2 demodulation conformance test. - NPRACH performance requirements.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
36.211	13.4.0	13.3.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation	<p>Correction to DMRS for MPDCCH associated with P-RNTI</p> <p>Correction on MPDCCH transmission without repetition</p> <p>Correction of typos due to wrong implementation of CR0283 "Clarification of valid subframe in eMTC"</p> <p>Correction on NZP CSI-RS aggregation for Class A</p> <p>Clarification on NPRACH and NPUSCH collision</p> <p>Clarification on i_0 value</p> <p>Correction of PRACH starting subframes for eMTC</p> <p>Correction of NPRACH frequency hopping</p> <p>Mapping of MPDCCH and PDSCH</p> <p>Correction on NPDSCH Mapping to resource elements in 36.211</p> <p>UL gap applicability for CE Mode A</p> <p>CR on pseudo-random sequence generator for PUCCH format 4 and PUCCH format 5 and sequence group hopping for PUCCH format 4</p> <p>Clarification on vShift value for CRS</p> <p>Correction to OFDM baseband signal generation of NB-IoT</p>
36.212	13.4.0	13.3.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding	<p>Correction on DCI Format N1 in 36.212</p>
36.213	13.4.0	13.3.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures	<p>Correction on the determination of NPDCCH candidates</p> <p>Correction on downlink power allocation for SC-PTM</p> <p>Correction on PDCCH candidate configuration</p> <p>Correction on CWp adjustment on Type B1 multi-carrier access procedure for Rel-13 LAA</p> <p>Correction to PUCCH reporting mode 2-1</p> <p>Correction to PUCCH reporting mode 1-1</p> <p>Clarification on spectral efficiency</p> <p>Aperiodic CSI without MPDCCH frequency hopping</p> <p>Correction on equation for MPDCCH search space and starting subframe position</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
					<p>Clarification of number of repetitions of PUCCH</p> <p>Clarification on nrs-Power related description</p> <p>Correction on CSI reference resource definition in LAA</p> <p>Correction on CSI measurement in LAA</p> <p>Corrections on the description of carrier for NB-IoT in TS 36.213</p> <p>Corrections on the Table 16.6-2: Type 1- NPDCCH common search space candidates for NB-IoT in TS 36.213</p> <p>Control information inconsistent handling for NB-IoT in 36.213</p> <p>Rel-13 CR on MCOT limits for carriers on which eNB performs Type B LBT</p> <p>Correction on DL CWS adjustment for LAA</p> <p>CR on RV Cycling for PDSCH</p> <p>Correction on EPDCCH candidate configuration</p> <p>PDSCH transmission on special subframe for eMTC</p> <p>DCI for SPS</p> <p>Number of MPDCCH-PRB sets</p> <p>Correction on NPDCCH and NPDSCH start symbol</p>
36.214	13.4.0	13.3.0	R1	Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer; Measurements	Correction on SSTD definition
36.300	13.6.0	13.5.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2	<p>Clarification on DRX</p> <p>Clarification on CIoT</p> <p>Corrections to stage 2 description for eMTC and NB-IoT</p> <p>Adding missing description of Frame structure type 3 for LAA</p> <p>Timing reference for NB-IoT UEs in multi-carrier operation</p> <p>eDRX correction on MME sending Paging message to eNB</p> <p>Clarifications on LWA and LWIP</p> <p>Editorial correction for NB-IoT</p> <p>Correction for traffic steering granularity for RAN assisted WLAN interworking</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
					Definition of valid anchor and non-anchor carrier combinations Corrections to User Plane Clot optimisations Introduction of solution to solve CSFB setup delay problem Correction of eDRX Information
36.302	13.4.0	13.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer	Miscellaneous corrections Clarification on Reception Type for SC-PTM
36.304	13.4.0	13.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode	Editorial corrections Clarification on TeselectionEUTRA_CE
36.306	13.4.0	13.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities	Clarification on UE category requirement Miscellaneous corrections Clarification on UE power class 2 indication Correction on simultaneous transmission of PUCCH and PUSCH for B5C Definition of cch-InterfMitigation-MaxNumCCs Correction on channel bandwidth definition for NB-IoT Introduction of new UL UE category 15 for 225Mbps
36.307	13.6.0	13.5.0	R4	Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band	The following corrections were made: <ul style="list-style-type: none"> - Corresponding change made in Ver. 12.13.0 was made. - Introduction of new bands for NB-IoT. - Introduction of B46 DL 10 MHz release independent feature - Addition of UE category 0 and M1 to release independence specification as an essential correction.
36.321	13.4.0	13.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification	Correction to MAC RAR Clarification on NB-IoT Clarification on SC-PTM reception Clarification on HARQ feedback on PSCell and PUCCH SCell Further clarification for PDCCH order in NB-IoT Correction to when follow-on DRX actions are initiated in coverage

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
					<p>enhanced mode</p> <p>Correction on mac-ContentionResolutionTimer for eMTC and NB-IoT</p> <p>Correction on DRX for SPS in eMTC</p> <p>Correction on definition of HARQ RTT Timer</p> <p>Correction to TS36.321</p> <p>Correction to translation of timers specified in PDCCH periods</p> <p>Clarification of NPRACH resources for UE supporting multi-tone MSG3</p>
36.323	13.4.0	13.3.1	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification	<p>Corrections to handling of uplink split</p> <p>Correction of security handling upon connection suspension</p>
36.331	13.4.0	13.3.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification	<p>Correction of NOTE 3 in UE-EUTRA-Capability related to multiple CA-MIMO-ParametersDL/UL</p> <p>Clarification on prioritization of multiple Pmax values</p> <p>Clarification on timeInfoUTC in SIB16</p> <p>Clarification on FDD&TDD diff for mbms-AsyncDC</p> <p>Clarification on reporting of the plmn-IdentityList</p> <p>Corrections on sidelink pre-configurations and default configurations</p> <p>Introduction of new UL category in Rel-13</p> <p>Minor changes regarding UE category</p> <p>Clarification on UE power class 2 indication</p> <p>Clarification on AS-Config</p> <p>Clarification on valid value range of codebookConfigNx fields</p> <p>Correction on UE behavior in Paging procedure</p> <p>Data available for transmission</p> <p>Correction on Downlink power allocation for SC-PTM</p> <p>Clarification on Rel-13 CCH-IM UE capability</p> <p>Configuration of DMTC for neighbour and serving cells in LAA</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
					<p>carrier frequency</p> <p>Clarification on uplink carrier frequency</p> <p>Clarification regarding on CSI-RS resource configuration for FD-MIMO</p> <p>Correction on SSTD Measurement Reporting</p> <p>System information update for eDRX UEs</p> <p>Minor corrections for Rel-13 eD2D</p> <p>Corrections to WLAN status monitoring</p> <p>Clearing of measurements upon reporting WLAN unavailability</p> <p>Corrections to LWA release</p> <p>Correction to WLAN measurement configuration</p> <p>Clarifications on empty WLAN identifiers</p> <p>Clarifications on empty WLAN identifiers in Mobility Set for RCLWI</p> <p>Miscellaneous corrections to TS 36.331</p> <p>Clarification on fdd-DownlinkOrTddSubframeBitmapBR</p> <p>Correction to frequency hopping configuration</p> <p>Correction to non-anchor carrier configuration</p> <p>DMRS scrambling sequence initialization parameter for MPDCCH</p> <p>Acknowledgement delay of RRCConnectionRelease message for eMTC UEs</p> <p>RSRP threshold when only CE level 0 is used</p> <p>Correction on fdd-DownlinkOrTddSubframeBitmapBR</p> <p>Correction to presence of uplink frequency hopping interval parameter</p> <p>Correction to SC-PTM scheduling period start offset</p> <p>Correction of connection suspension related aspects</p> <p>Clarification on the RRC connection resume procedure</p> <p>Correction on field description of up/cp-CIoT-EPS-Optimisation</p> <p>Clarification on system information acquisition for NB-IoT</p>

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
					Clarification to the security mode command procedure for NB-IoT Corrections to NB-IoT SystemInformationBlockType2 handling Acknowledgement delay of RRCConnectionRelease message in NB-IoT Correction on channel bandwidth definition for NB-IoT Correction of default physical channel configuration for NB-IoT NB-IoT RRC Processing Delays Editorial correction for NB-IoT
36.355	13.3.0	13.2.0	R2	Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)	Clarification of WLAN RSSI value range
36.508	13.2.0	13.1.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common test environments for User Equipment (UE) conformance testing	Addition of CIoT procedures. Addition of new test frequencies. Other corrections.
36.509	13.2.0	13.1.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Special conformance testing functions for User Equipment (UE)	Addition UE Reset for MBS Introduction of Control Plane test loop with Layer 2 testing enhancements
36.521-3	13.1.0	13.0.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing	Addition of new Cat-M1 test cases, new RLM test cases and so on. Other corrections.
36.523-1	13.3.0	13.2.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	Addition of new NB-IoT test cases, eMTC test cases and so on. Other corrections.
36.523-2	13.3.0	13.2.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	Applicability for eMTC test cases, NB-IoT protocol test cases, ..etc. Other corrections.

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
36.523-3	13.1.0	13.0.0	R5	Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Test suites	Addition of some Rel-12 test cases.Addition of some Rel-12 test cases. Introduction of NB-IoT test Model and update eMTC, eDRX, SC-PTM Test Models. Introduction of NB-IoT test Model and update eMTC, eDRX, SC-PTM Test Models.Other corrections.
37.171	13.1.0	13.0.0	R4	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA); User Equipment (UE) performance requirements for RAT-Independent Positioning Enhancements	Removal of square brackets from MBS measurement accuracy requirements was made.
37.571-1	13.2.0	13.1.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification	Addition of test tolerances to the performance test specification for Indoor Positioning Enhancements (MBS) Other corrections.
37.571-2	13.1.0	13.0.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance	Add WLAN/BT/Sensor signaling sub-tests and references for Indoor Positioning Other corrections.
37.571-3	13.1.0	13.0.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)	Changes related to 37.571-2 changes.
37.571-4	13.1.0	13.0.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites	updated to deliver latest TTCN

Revised Standard Number	Version at ARIB STD-T104 Ver.4.30	Version at ARIB STD-T104 Ver.4.20	3GPP WG	Title	Change Summary
37.571-5	13.1.0	13.0.0	R5	Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data	Add WLAN signaling sub-test and references for Indoor Positioning Other corrections