

# ETSI TS 136 521-1 V11.4.0 (2014-03)



**LTE;  
Evolved Universal Terrestrial Radio Access (E-UTRA);  
User Equipment (UE) conformance specification;  
Radio transmission and reception;  
Part 1: Conformance testing  
(3GPP TS 36.521-1 version 11.4.0 Release 11)**



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Reference

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Keywords

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## Foreword

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The cross reference between GSM, UMTS, 3GPP and ETSI identities can be found under  
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## Foreword

This Technical Specification has been produced by the 3<sup>rd</sup> Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
  - 1 presented to TSG for information;
  - 2 presented to TSG for approval;
  - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

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## Introduction

The present document is part 1 of a multi-parts TS:

3GPP TS 36.521-1: Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification Radio transmission and reception; Part 1: Conformance Testing.

3GPP TS 36.521-2 [11]: Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS).

3GPP TS 36.521-3 [12]: Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing.

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## 1 Scope

The present document specifies the measurement procedures for the conformance test of the user equipment (UE) that contain transmitting characteristics, receiving characteristics and performance requirements as part of the 3G Long Term Evolution (3G LTE). Conformance test for the support of RRM (Radio Resource Management) are specified in TS 36.521-3 [12].

The requirements are listed in different clauses only if the corresponding parameters deviate. More generally, tests are only applicable to those mobiles that are intended to support the appropriate functionality. To indicate the circumstances in which tests apply, this is noted in the "*definition and applicability*" part of the test.

For example only Release 8 and later UE declared to support LTE shall be tested for this functionality. In the event that for some tests different conditions apply for different releases, this is indicated within the text of the test itself.

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## 2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] to [16] (void)

[17] 3GPP TS 36.521-1 Release 12: "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification Radio transmission and reception; Part 1: Conformance Testing"

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## 3 Definitions, symbols and abbreviations

Void

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## 4 General

The requirements of the present document are provided in 3GPP TS 36.521-1 Release 12 [17].

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## 5 to 10 Void

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## Annex A to I: Void

## Annex J (informative): Change history

| Change history |  |            |    |     |  |       |       |
|----------------|--|------------|----|-----|--|-------|-------|
| Date           | TSG #                                  | TSG Doc.   | CR | Rev | Subject/Comment  | Old   | New   |
| 2007-08        | RAN5 #36                               | R5-072185  |    |     | Skeleton proposed for RAN5#36Athens  |       | 0.0.1 |
| 2007-08        | RAN5 #36                               | R5-072419  |    |     | Update the skeleton base on R4-071234_TR36.803.0.4.0.doc   | 0.0.1 | 0.0.2 |
| 2007-08        | RAN5 #36                               | R5-072424  |    |     | Update with editorial changes  | 0.0.2 | 0.0.3 |
| 2007-11        | RAN5 #37                               | R5-073043  |    |     | Update document with some info as following:<br>Section 5: Frequency band information<br>Section 6.2: Maximum output power<br>Section 6.5: Output RF spectrum emissions<br>Section 6.5.1: Occupied bandwidth<br>Section 6.5.2: Out of band emission<br>Section 6.5.3: Spurious emissions   | 0.0.3 | 0.0.4 |
| 2007-11        | RAN5 #37                               | R5-073360  |    |     | Editorial change to split MOP and UE Power classes   | 0.0.4 | 0.0.5 |
| 2008-03        | RAN5 #38                               | R5-080069  |    |     | Editorial changes to sync up with 36.101 v1.0.0 as much as feasible for the moment:<br>Update definitions, symbols and abbreviations<br>Update frequency bands, channel bandwidth, channel numbers information.<br>Restructure document to move 'frequency error' sub-section inside Transmit signal quality.<br>Add 'additional spectrum Emission Mask' sub-test (mask A,B,C) section to address the regulatory requirements that are not met with the general mask (OOB and spurious emission).<br>Add 'Additional ACLR requirements' to address additional requirements that the network might indicate to the UE via signalling for a specific deployment scenario (in terms of additional requirements for UTRA/ACLR2)<br>Restructure 'Spurious Emission' to indicate we need to have 3 test cases to address: 'E-UTRA Spurious Emission' requirements , 'Spurious Emission band UE co-existence' requirements, and 'Additional spurious emissions' requirements<br>Separate wide band and narrow band intermodulation in the intermodulation characteristics | 0.0.5 | 0.0.6 |
| 2008-03        | RAN5 #38                               | R5-080408  |    |     | LTE Reference Sensitivity test Text proposal   |       | 0.0.7 |
| 2008-03        | RAN5 #38                               | R5-080409  |    |     | LTE Maximum Rx input level test Text proposal  |       | 0.0.7 |
| 2008-03        | RAN5 #38                               | R5-080410  |    |     | LTE Adjacent Channel Selectivity test Text proposal  |       | 0.0.7 |
| 2008-03        | RAN5 #38                               | R5-080064  |    |     | LTE RF Receiver tests, General section Text proposal   |       | 0.0.7 |
| 2008-03        | RAN5 #38                               | R5-080412  |    |     | LTE RF: transmission modulation initial EVM test proposal  |       | 0.0.7 |
| 2008-03        | RAN5 Workshop-UE LTE Test (9-11 April) | R5w0800027 |    |     | Modify styles and formats of tables and others according to drafting rules.<br>Add some definitions and abbreviations<br>Modified section 6.2 structure to be aligned with 36.101 v8.1.0<br>Modify tables of requirements to remove 1.6 MHz and 3.2MHz channel bandwidth according to new requirements 36.101 v8.1.0   |       | 0.0.9 |
| 2008-03        | RAN5 Workshop-UE LTE Test (9-11 April) | R5w0800028 |    |     | Following TPs have been included:<br>R5w080013r1<br>R5w080014r1<br>R5w080008r2<br>R5w080009r2<br>R5w080040r1<br>R5w080015r1<br>R5w080016r1<br>R5w080017r1<br>R5w080018r2   | 0.0.9 | 0.1.0 |
| 2008-05        | RAN5#39                                | R5-081046  |    |     | 36-521-1 alignment of measurement state for test cases   | 0.1.0 | 0.1.1 |
| 2008-05        | RAN5#39                                | R5-081042  |    |     | Following approved TPs have been included:<br>R5-081040 36.521-1 after April LTE-RF workshop<br>R5-081415 36-521-1 alignment of measurement state for test cases – also the measurement state for each test cases has been updated according to R5-081404<br>R5-081416 Cover for LTE E-UTRAN RRC_IDLE State Mobility text proposal<br>R5-081417 Cover for LTE E-UTRAN RRC_CONNECTED State Mobility text proposal<br>R5-081404 LTE Rx Intermodulation test case text proposal   | 0.1.1 | 0.2.0 |

| Change history |             |           |    |     |  |       |       |
|----------------|-------------|-----------|----|-----|--|-------|-------|
| Date           | TSG #       | TSG Doc.  | CR | Rev | Subject/Comment  | Old   | New   |
|                |             |           |    |     | R5-081409 Annex structure for Measurement uncertainty & Test Tools<br>R5-081405 Text Proposal for TS36.521-1 TC7.6 Blocking Characteristics<br>R5-081406 Text Proposal for TS36.521-1 TC7.7 Spurious Response<br>R5-081403 Text Proposal for TS36.521-1 TC7.9 Spurious Emissions<br>R5-081410 Uncertainties and Test Tools for subset of UE tests<br>R5-081331 Clarification of diversity characteristics section for multiple UE antennas<br>R5-081335 36.521-1 update of nominal and additional channel bandwidths   |       |       |
| 2008-06        | RAN5 #39bis | R5-082029 |    |     | Following approved TPs have been included:<br>R5-082129: Restructure of TS 36.521-1 and RRM proposal (Split of RRM from 36.521-1 v0.2.0 in its own specification 36.521-3.)<br>R5-082166: Text Proposal for Annex C Downlink Physical Channels<br>R5-082130: Text Proposal for Chan bandwidths in TS 36.521-1<br>R5-082155: Text Proposal for LTE Tx Minimum Output Power<br>R5-082027: Text Proposal for Occupied bandwidth in TS 36.521-1<br>R5-082171: Text Proposal for LTE Adjacent Channel Leakage power Ratio<br>R5-082134: Text Proposal for LTE Tx Spurious Emissions<br>R5-082135: Text Proposal for LTE UE Maximum Output Power<br>R5-082136: Text Proposal for LTE Spectrum Emission Mask<br>R5-082138: UE Spurious Emissions Measurement uncertainty & Test Tolerances<br>R5-082169: LTE Spectrum Emission Mask test uncertainties and TTs<br>R5-082151: LTE UE Max Power and ACLR tests uncertainties and TTs<br>R5-082152: Text proposal for LTE Transmit OFF Power<br>R5-082153: LTE UE Max Rx Input and ACS test cases update<br>R5-082082: LTE Rx Intermodulation test case uncertainties and TTs<br>R5-082093: Text Proposal for TS36.521-1 TC7.6 Blocking Characteristics<br>R5-082154: Text Proposal for TS36.521-1 TC7.7 Spurious Response<br>R5-082167: OBW Measurement uncertainty & Test Tolerances<br>R5-082158: Cover for LTE Performance Requirement text proposal<br>R5-082159: Text Proposal for LTE Demodulation of PCFICH/PDCCH and PHICH<br>R5-082156: Text proposal for LTE Tx Minimum Output Power Uncertainty<br>R5-082157: Text proposal for LTE Tx Minimum Output Power Tolerance<br>R5-082164: Statistical testing of receiver characteristics<br>R5-082170: Cover for LTE Propagation Conditions Text Proposal<br>Editorial changes to align tables and figures numbering with R5-082025 | 0.2.0 | 0.3.0 |
| 2008-08        | RAN5 #40    | R5-083163 |    |     | Following approved TPs have been included:<br>R5-083804: LTE Demodulation Performance text proposal<br>R5-083159: LTE-RF Occupied bandwidth test case / measurement uncertainty and TT text proposal<br>R5-083160: Transmission OFF power: TP, measurement uncertainty and test tolerances proposal<br>R5-083805: Frequency Error test case / measurement uncertainty and TT test proposal<br>R5-083162: Propagation conditions correction text proposal<br>R5-083220:Text Proposal for LTE Tx Minimum Output Power<br>R5-083806: TP of section 8 for E-UTRAN TDD in 36.521-1<br>R5-083344: Test Tolerance and System uncertainty for OBW test   | 0.3.0 | 1.0.0 |

| Change history |             |           |      |     |  |       |       |
|----------------|-------------|-----------|------|-----|--|-------|-------|
| Date           | TSG #       | TSG Doc.  | CR   | Rev | Subject/Comment  | Old   | New   |
|                |             |           |      |     | R5-083848: Test Tolerance and System uncertainty for Reference sensitivity test<br>R5-083840: Test Tolerances for Spectrum Emission Mask<br>R5-083808: Reference Measurement Channel for LTE UE Receiver tests<br>R5-083350: Test Tolerance and System uncertainty for Blocking and Spurious response<br>R5-083366: Text Proposal for LTE Reporting of CQI/PMI<br>R5-083810: LTE PBCH Demodulation Performance Requirements<br>R5-083482: LTE-RF TP for Test Case 7.6 Blocking Characteristics<br>R5-083809: LTE-RF TP for Test Case 7.7 Spurious Response<br>R5-083484: LTE-RF TP for Test Case 7.9 Spurious Emissions<br>R5-083811: Annex E Global In-Channel TX-Test<br>R5-083163: TS 36.521-1 after RAN5#40  |       |       |
| 2008-10        | RAN5 #40Bis | R5-084072 |      |     | Following approved TPs have been included:<br>R5-084072 TS 36.521-1 after RAN5#40Bis<br>R5-084300 LTE-RF TP for Definitions Symbols and Abbreviations<br>R5-084304 LTE-RF-TP for general section<br>R5-084036 Test Tolerances for additional SEM<br>R5-084303 LTE-RF TP for Channel bandwidths and frequency range<br>R5-084305 LTE-RF TP for new Absolute Power Tolerance test case<br>R5-084067 LTE-RF TP for Transmission OFF test case<br>R5-084318 LTE-RF TP for Transmission Modulation test cases<br>R5-084069 LTE-RF Investigation of E-UTRA-TDD Frequency Error test case applicability<br>R5-084319 LTE-RF TP for Frequency Error test case<br>R5-084309 Text Proposal for LTE Tx Spurious Emissions<br>R5-084111 Text Proposal for LTE Adjacent Channel Leakage power Ratio<br>R5-084320 Text Proposal for LTE Additional Spectrum Emission Mask<br>R5-084310 Test Tolerances for additional spurious emission<br>R5-084311 Text Proposal for Occupied bandwidth<br>R5-084321 Text Proposal for LTE Spectrum Emission Mask<br>R5-084060 Modification to section 7.2 Diversity characteristics<br>R5-084312 References in 36.521-1 tests initial conditions<br>R5-084148 Update of Reference Measurement Channel for LTE UE Rx tests<br>R5-084167 LTE-RF TP for TC7.9 Spurious Emissions<br>R5-084075 LTE DL Reference Measurement Channel for PDSCH (FDD) text proposal<br>R5-084077 LTE Measurement of Performance Requirements text proposal<br>R5-084313 LTE Demodulation of PDSCH Test Requirements text proposal<br>R5-084147 Specification of DL propagation conditions for LTE UE tests<br>R5-084315 Text Proposal for LTE Demodulation of PCFICH/PDCCH<br>R5-084323 Text Proposal for Annex E Global In-Channel | 1.0.0 | 1.1.0 |
| 2008-12        | RAN#42      | RP-080863 |      |     | Approval of version 2.0.0 at RAN#42, then put to version 8.0.0.  | 2.0.0 | 8.0.0 |
| 2008-01        |             |           |      |     | Editorial corrections.   | 8.0.0 | 8.0.1 |
| 2009-03        | RAN#43      | R5-086011 | 0001 | -   | TP for In-band emissions   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43      | R5-086012 | 0002 | -   | TP for Spectrum flatness   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43      | R5-086013 | 0003 | -   | TP for IQ-component  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43      | R5-086064 | 0004 | -   | LTE-RF: UE max output power  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43      | R5-086093 | 0005 | -   | Clarification of measurement period in minimum output power test procedure   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43      | R5-086094 | 0006 | -   | Clarification of measurement period in transmit OFF power test procedure   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43      | R5-086120 | 0007 | -   | Update of Max.input level test   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43      | R5-086125 | 0008 | -   | Addition of UL Reference Measurement Channels in Annex A2  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43      | R5-086160 | 0009 | -   | correction for Maximum Power Reduction (MPR)   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43      | R5-086167 | 0010 | -   | LTE-RF: TDD applicability and CR for Blocking Characteristics and Spurious Response  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43      | R5-086168 | 0011 | -   | LTE-RF: TDD applicability and CR for Spurious Emissions  | 8.0.1 | 8.1.0 |

| Change history |        |           |      |         |  |       |       |
|----------------|--------|-----------|------|---------|--|-------|-------|
| Date           | TSG #  | TSG Doc.  | CR   | R<br>ev | Subject/Comment  | Old   | New   |
| 2009-03        | RAN#43 | R5-086239 | 0012 | -       | Update of Symbols  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-086401 | 0013 | -       | LTE-RF: TX-RX channel freq separation  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-086405 | 0014 | -       | Update of 6.7 Transmit intermodulation test  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-086406 | 0015 | -       | Update of initial conditions for Tx and Rx test cases  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-086408 | 0016 | -       | Update of Adjacent Channel Leakage power Ratio   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-086409 | 0017 | -       | Removal of [ ] from Clause 7 Receiver Characteristics  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-086413 | 0018 | -       | Updates to Demodulation of PCFICH/PDCCH test case  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-086414 | 0019 | -       | Text proposal for Reporting of Channel State Information   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-086415 | 0020 | -       | Correction of RS_EPRE powers for default DL signal levels  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-086416 | 0021 | -       | Update of DL Reference Measurement Channels in Annex A3  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-086417 | 0022 | -       | Update to Annex E  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-086425 | 0023 | -       | Update of General text in clause 6   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-086426 | 0024 | -       | Clarification of measurement bandwidth in spectrum emission mask test                                | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-086428 | 0025 | -       | Demodulation of TDD PHICH test requirements text proposal  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-086429 | 0026 | -       | Demodulation of TDD PCFICH/PDCCH test requirements text proposal                                     | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-090306 | 0027 | -       | New Annex H for Uplink Physical Channels   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-090308 | 0028 | -       | Text proposal for Reporting of Channel State Information   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-090403 | 0029 | -       | CR to 36.521-1: Update of Spurious Emissions test cases  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-090404 | 0030 | -       | CR to 36.521-1: Update of ACLR test case   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-090443 | 0031 | -       | LTE-RF: Correction to 36.521-1 Frequency error test case   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-090488 | 0032 | -       | LTE TDD applicability for Transmit intermodulation test case   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091002 | 0033 | -       | LTE Demodulation of PDSCH Test Requirements text proposal  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091004 | 0034 | -       | LTE-RF: CR for UE max power test case  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091007 | 0035 | -       | LTE-RF: TDD Applicability and CR for Spectrum Emission Mask and Additional Spectrum Emission Mask    | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091008 | 0036 | -       | LTE-RF Investigation of E-UTRA-TDD for Occupied bandwidth test case applicability                    | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091009 | 0037 | -       | LTE-RF: Investigation of E-UTRA-TDD for Adjacent Channel Leakage power Ratio test case applicability | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091011 | 0038 | -       | LTE-RF: TDD applicability and CR for Maximum Input Level   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091012 | 0039 | -       | LTE-RF: TDD applicability and CR for Adjacent Channel Selectivity (ACS)                              | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091017 | 0040 | -       | Removal of Rx Narrowband Intermod 7.8.2  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091019 | 0041 | -       | Relocation of 36.521-1 Annex C DL mapping  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091020 | 0042 | -       | Removal of "Out-of-synchronization handling of output power" heading                                 | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091023 | 0043 | -       | Test requirements of TDD PDSCH demodulation performance with user-specific reference symbols         | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091024 | 0044 | -       | CR to 36.521-1: Update of Annex F.3.2 Measurement of transmitter                                     | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091025 | 0045 | -       | CR to 36.521-1: Update of SEM and Additional SEM test cases  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091077 | 0046 | -       | CR to 36.521-1: Addition of test combinations for test cases with MPR application                    | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091082 | 0047 | -       | Spurious emission requirements on PHS band including the future plan in Japan                        | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091101 | 0048 | -       | LTE-RF: CR for MPR test case   | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091106 | 0049 | -       | Update of Reference sensitivity test in 7.3  | 8.0.1 | 8.1.0 |
| 2009-03        | RAN#43 | R5-091111 | 0050 | 1       | Update of initial conditions for Rx tests  | 8.0.1 | 8.1.0 |
| 2009-05        | RAN#44 | R5-092144 | 0051 | -       | LTE-RF: Resubmission of R5-086424 UE output power dynamics 36.521-1 v8.1.0 (re-submit no changes)    | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092146 | 0052 | -       | LTE-RF: CR for UE configured UE transmitted output power test case (re-submit no changes)            | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092147 | 0053 | -       | LTE-RF: CR for UE minimum output power test case (re-submit no change)                               | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092149 | 0054 | -       | LTE-RF: CR for Power Control Absolute power tolerance test case (re-submit no changes)               | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092150 | 0055 | -       | LTE-RF: CR for Power Control Relative power tolerance test case (re-submit no changes)               | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092151 | 0056 | -       | LTE-RF: New test case for Aggregate power control tolerance (re-submit no changes)                   | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092263 | 0057 | -       | Text proposal for Reporting of Channel State Information   | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092264 | 0058 | -       | Propagation conditions for CQI tests   | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092265 | 0059 | -       | Correction to Demodulation of PDCCH/PCFICH test cases  | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092273 | 0060 | -       | Mapping of downlink physical channels for TDD  | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092277 | 0061 | -       | Annex A RMC updates  | 8.1.0 | 8.2.0 |

| Change history |        |           |      |     |  |       |       |
|----------------|--------|-----------|------|-----|--|-------|-------|
| Date           | TSG #  | TSG Doc.  | CR   | Rev | Subject/Comment  | Old   | New   |
| 2009-05        | RAN#44 | R5-092369 | 0062 | -   | Update of A.3.4.3 for RMC with UE-specific RS  | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092372 | 0063 | -   | Maintenance on Initial configurations for Perf TCs   | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092436 | 0064 | -   | CR to 36.521-1: Update of ACLR test case   | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092442 | 0065 | -   | CR to 36.521-1: Update of Spurious Emissions test case   | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092467 | 0066 | -   | LTE-RF: Transmit OFF Power update  | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092473 | 0067 | -   | LTE_RF - Update on TC 7.7 Spurious Response (re-submit with no changes)                          | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092474 | 0068 | -   | LTE_RF - Update on TC 7.9 Spurious Emissions (re-submit with no changes)                         | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092527 | 0069 | -   | Update of TDD PDSCH test cases   | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092602 | 0070 | -   | LTE-RF: CR for Maximum Power Reduction test case (re-submit no changes)                          | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092603 | 0071 | -   | TP for Demodulation of TDD PDCCH/PCFICH  | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092605 | 0072 | -   | Mapping of uplink physical channels for FDD  | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092606 | 0073 | -   | Update of Annex C  | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092607 | 0074 | -   | CR to 36.521-1: Update of test parameters for Demodulation of PDSCH (FDD) tests                  | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092614 | 0075 | -   | Update of SEM test case  | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092642 | 0076 | -   | Update of transmit quality test cases  | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092643 | 0077 | -   | Text proposal for TDD part of CQI Reporting under Fading conditions                              | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092644 | 0078 | -   | Text proposal for TDD part of CQI Reporting under AWGN conditions                                | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092645 | 0079 | -   | LTE-RF: Update of Additional Spectrum Emission mask Test case with TDD Uplink Test configuration | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092649 | 0080 | -   | LTE-RF: CR for TDD DL RMC to be used in TX test cases  | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092653 | 0081 | -   | LTE-RF: CR for Additional Maximum Power Reduction test case                                      | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092661 | 0082 | -   | RMC update for PDCCH/PCFICH performance requirement  | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | RP-090444 | 1161 | -   | Test frequencies for Additional Spurious Emission test case                                      | 8.6.0 | 8.7.0 |
| 2009-05        | RAN#44 | R5-092366 | 0084 | -   | Update of 7.3.1  | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092440 | 0085 | -   | LTE-RF: CR for UE max output power test case   | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092472 | 0086 | -   | LTE_RF - Update on TC 7.6 Blocking Characteristics (re-submit with changes)                      | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092636 | 0087 | -   | CR to 36.521-1 Addition of frequencies for band 18 and band 19                                   | 8.1.0 | 8.2.0 |
| 2009-05        | RAN#44 | R5-092652 | 0088 | 2   | Improved stability of TC 7.8.5 Power Control in the DL fro F-DPCH to HSUPA TC 5.2D and 5.13.2B   | 8.1.0 | 8.2.0 |
| -              | -      | -         | -    | -   | Editorial corrections  | 8.2.0 | 8.2.1 |
| 2009-09        | RAN#45 | R5-094032 | 0089 | -   | Correction CR to 36.521-1: Update of Requirements for Demodulation of PDSCH (FDD) tests          | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094034 | 0090 | -   | Correction CR to 36.521-1: Update of General Requirements for Demodulation tests                 | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094214 | 0091 | -   | Update of In-band emissions  | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094215 | 0092 | -   | TDD Initial downlink channel setting   | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094216 | 0093 | -   | Correction to Annex B  | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094248 | 0094 | -   | CR to 36.521-1: Update to ACLR test case   | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094250 | 0095 | -   | CR to 36.521-1: Update to UE max output power test case  | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094281 | 0096 | -   | Mapping of uplink physical channels for TDD  | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094282 | 0097 | -   | LTE-RF: CR for notes in TDD DL RMC to be used in TX test cases                                   | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094283 | 0098 | -   | LTE-RF: message update to keep Tx power constant for some Rx test cases                          | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094313 | 0099 | -   | LTE-RF: CR to test case for Aggregate power control tolerance                                    | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094317 | 0100 | -   | LTE-RF: CR for UE minimum output power test case for TDD   | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094318 | 0101 | -   | LTE-RF: CR for Power Control Relative power tolerance test case                                  | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094319 | 0102 | -   | In band emission for non-allocated RB  | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094320 | 0103 | -   | LTE RF: correction for subclause 6.6.2.2.5 (A-SEM) supported band list                           | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094362 | 0104 | -   | Correction of RMCs (36.521 Annex A)  | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094363 | 0105 | -   | Usage of the Global In-Channels TX-Test across different Signal Quality tests.                   | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094365 | 0106 | -   | LTE TX: 1to2 RX antenna  | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094367 | 0107 | -   | Correction to 6.6.2.2 Additional Spectrum Emission Mask  | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094370 | 0108 | -   | Correction to 6.6.2.3 ACLR   | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094371 | 0109 | -   | Correction to 6.7 TX Intermodulation   | 8.2.1 | 8.3.0 |
| 2009-09        | RAN#45 | R5-094374 | 0110 | -   | Correction to 7.6.1 In-Band Blocking   | 8.2.1 | 8.3.0 |

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| Date           | TSG #  | TSG Doc.  | CR   | R<br>ev | Subject/Comment   | Old   | New   |  |
| 2009-09        | RAN#45 | R5-094375 | 0111 | -       | UE category (36.521 clause 8)   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094378 | 0112 | -       | Completion of Global in-Channel TX-Test (36.521 Annex E)  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094379 | 0113 | -       | Completion of Global in-Channel TX-Test with PRACH (36.521 Annex E)   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094380 | 0114 | -       | Completion of Statistical testing (36.521 Annex G)  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094385 | 0115 | -       | Correction to Annex D.2 Interference signals  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094439 | 0116 | -       | Update for ACS  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094661 | 0117 | -       | LTE RF - Core update on TC7.6.2 Out-of-band Blocking  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094663 | 0118 | -       | LTE RF - Symbols Update on UL transmission configurations   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094665 | 0119 | -       | LTE RF - Clarification for Test Configurations in General Section   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094668 | 0120 | -       | LTE RF - Applicability of 6.2.3 MPR   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094671 | 0121 | -       | LTE RF - Verification of UE Output Power in Out of Band Emission tests  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094684 | 0122 | -       | CR to 36.521-1: Update to UE max output power test case   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094686 | 0123 | -       | LTE-RF CR to 36.521-1: Update the E-UTRA channel numbers  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094687 | 0124 | -       | LTE-RF: CR for UE maximum power reduction(MPR) test case  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094699 | 0125 | -       | Update to SEM and spurious emissions TC   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094706 | 0126 | -       | Resubmission-Update to the Requirements for frequency-selective fading test   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094717 | 0127 | -       | Update of SEM   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094718 | 0128 | -       | Update of initial conditions with Annex references  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094721 | 0129 | -       | Update of 6.7 Tx Inter Mod  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094725 | 0130 | -       | Correction to E-UTRA channel numbers for Band 2   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094726 | 0131 | -       | Correction to Tx spurious emissions   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094757 | 0132 | -       | Update of TDD PHICH test cases  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094874 | 0133 | -       | Correction to Demodulation of PDCCH/PCFICH test cases   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094902 | 0134 | -       | Addition of 15 MHz and 20 MHz bandwidths and corresponding sensitivity requirements into band 38  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094903 | 0135 | -       | Correction CR to 36.521-1: Update of Transmitter tests network signalled parameter value  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094905 | 0136 | -       | Update of TDD PDSCH test cases  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094908 | 0137 | -       | LTE-RF: CR for Power Control Absolute power tolerance test case   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094909 | 0138 | -       | Update to Output Power dynamics test cases  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094913 | 0139 | -       | Clarification for downlink signal setting in RX tests   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094914 | 0140 | -       | UL RB allocation for receiver tests   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094915 | 0141 | -       | Update of TDD PCFICH/PDCCH test cases   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094921 | 0142 | -       | Correction to CQI performance test case   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094922 | 0143 | -       | Test description for CQI test cases under AWGN conditions   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094923 | 0144 | -       | Resubmission - Requirements for PMI reporting ( Single and Multiple PMI)  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094966 | 0145 | -       | CR to 36.521-1: Addition of A-MPR for band 19   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094976 | 0146 | -       | Without loop back: 6.2.2 UE maximum output power  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094977 | 0147 | -       | Without loop back: 6.3.2 Minimum output power   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094979 | 0148 | -       | LTE-RF: CR for UE configured UE transmitted output power test case  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094980 | 0149 | -       | CR to 36.521-1: Definition of Maximum Power state in TX/RX test cases   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094982 | 0150 | 1       | Correction of Tx general description  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094986 | 0151 | -       | Update of 6.6.1OBW  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094989 | 0152 | -       | Correction to 1PRB tests in Demodulation of PDSCH   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094995 | 0153 | -       | Correction CR to 36.521-1: Update of Requirements for Additional Maximum Power Reduction (A-MPR) test   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094996 | 0154 | -       | Correction to Demodulation of PHICH test cases  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-094997 | 0155 | -       | EVM TC update   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-095300 | 0156 | -       | LTE-RF: test description update   | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-095301 | 0157 | -       | Correction CR to 36.521-1: Addition of measurement uncertainty and test tolerances for A-MPR  | 8.2.1 | 8.3.0 |  |
| 2009-09        | RAN#45 | R5-095304 | 0158 | -       | Sorting out Demodulation of PDSCH for FDD   | 8.2.1 | 8.3.0 |  |
| 2009-09        | -      | -         | -    | -       | TOC update and Annexes' titles formatting   | 8.3.0 | 8.3.1 |  |
| 2009-12        | RAN#46 | R5-095515 | 0159 | -       | Correction CR to 36.521-1: Additional Spectrum Emission Mask test need to be updated to include the network signalled value "NS_07ö message contents exceptions | 8.3.1 | 8.4.0 |  |
| 2009-12        | RAN#46 | R5-095589 | 0160 | -       | Update for test period description in the general section   | 8.3.1 | 8.4.0 |  |
| 2009-12        | RAN#46 | R5-095657 | 0161 | -       | LTE-RF: CR for Power Control Absolute power tolerance test case   | 8.3.1 | 8.4.0 |  |
| 2009-12        | RAN#46 | R5-095661 | 0162 | -       | LTE-RF: CR for UE minimum output power test case  | 8.3.1 | 8.4.0 |  |

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| Date           | TSG #  | TSG Doc.  | CR   | R<br>ev | Subject/Comment   | Old   | New   |
| 2009-12        | RAN#46 | R5-095735 | 0163 | -       | Corrections to Annex A.4  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-095766 | 0164 | -       | LTE-RF: CR for In band emission for non-allocated RB  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-095790 | 0165 | -       | Completion of Statistical testing (36.521 Annex G)  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-095791 | 0166 | -       | Corrections to Annex E  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096058 | 0167 | -       | Removal of [ ] from 7.6.1, 7.8.1, and 7.5 of Annex F3.3   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096096 | 0168 | -       | Update on 8.2.1   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096105 | 0169 | -       | LTE RF: Symbols Update on Configured UE Transmitted Power   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096204 | 0170 | -       | LTE-RF: CR to Transmission signal quality   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096208 | 0171 | -       | LTE-RF: CR for Power Control Relative power tolerance test case   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096210 | 0172 | -       | LTE-RF: CR to ON/OFF Time mask test cases   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096211 | 0173 | -       | Measurement period for TX-Tests   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096213 | 0174 | -       | CR to 36.521-1: Update to Spurious Emissions test cases   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096214 | 0175 | -       | CR to 36.521-1: Update to ACLR test case  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096219 | 0176 | -       | LTE-RF: CR for UE configured UE transmitted output power test case  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096222 | 0177 | -       | Test description for CQI test cases under AWGN conditions   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096223 | 0178 | -       | LTE RF: Blocking Characteristics update   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096224 | 0179 | -       | LTE RF: Spurious Response Update  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096228 | 0180 | -       | LTE-RF: CR for MPR test case  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096229 | 0204 | 2       | CR to 36.521-1: Update to A-MPR test case   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096230 | 0181 | -       | LTE RF: Applicability of 6.2.4 A-MPR  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096231 | 0182 | -       | Correction to Demodulation of PHICH test cases  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096235 | 0183 | -       | Introduction of CQI reporting test with frequency-selective interference  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096239 | 0184 | -       | Update to the test procedure and message contents of TDD PMI reporting test cases                                 | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096240 | 0205 | -       | CR to 36.521-1: Update to Derivation of Test Requirements for A-MPR   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096241 | 0185 | -       | Measurement uncertainties and Test Tolerances for transmit quality test cases                                     | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096242 | 0186 | -       | Update for 36.521-1 Annex A   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096289 | 0187 | -       | CR on 36.521-1, 'Introduction of clause 8.2.1.1 test case uncertainties and Test Tolerances'                      | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096306 | 0188 | -       | Update to the test procedure of SEM test cases of 36.521-1  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096311 | 0189 | -       | Update of 6.6.1 OBW   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096312 | 0190 | -       | Correction to SEM   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096313 | 0191 | -       | Update of 6.7 Transmit intermodulation  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096315 | 0192 | -       | CR to 36.521-1: Update to UE max output power test case   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096316 | 0193 | -       | CR to 36.521-1: Update to Additional Spurious Emissions test case   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096317 | 0194 | -       | CR to TDD PHICH demodulation test cases   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096318 | 0195 | -       | Correction to FDD PMI reporting test cases  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096320 | 0196 | -       | Tx power range and core update for Receiver tests   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096322 | 0197 | -       | Update on 7.4, 7.5, and 7.8.1   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096323 | 0198 | -       | Introduction of RI reporting test   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096333 | 0199 | -       | Update to 6.5 Transmit signal quality test cases  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096334 | 0200 | -       | LTE-RF: CR for Aggregate power control tolerance test case  | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096335 | 0201 | -       | Correction CR to 36.521-1: Update for Demodulation of PDSCH (FDD) tests to correct CR merges results from RAN5#44 | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096336 | 0206 | 1       | Update TDD PDSCH test cases   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096338 | 0202 | -       | Number of used HARQ processes in DL Performance tests   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096342 | 0207 | 2       | Minimum test time for performance tests   | 8.3.1 | 8.4.0 |
| 2009-12        | RAN#46 | R5-096718 | 0203 | -       | LTE RF: A-SEM update and A-MPR verification   | 8.3.1 | 8.4.0 |
| 2010-03        | RAN#47 | R5-100353 | 0208 | -       | LTE-RF CR to 36.521-1:TIME MASK test case updated   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100354 | 0209 | -       | LTE-RF: CR for A-MPR notation in NS_07  | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100403 | 0210 | -       | LTE-RF: CR for Tx Intermodulation test case   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100404 | 0211 | -       | LTE-RF: CR for OBW measurement period alignment   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100408 | 0212 | -       | Reporting mode, Reporting Interval and Editorial corrections for demodulation                                     | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100456 | 0213 | -       | Misc update on MAC padding in Rx and performance sections   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100566 | 0214 | -       | Missing Test limits in 36.521-1 Annex G   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100567 | 0215 | -       | Wrong references from 36.521-1 clauses 8.4 and 8.5 into Annex G   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100569 | 0216 | -       | Typos in 36.521-1, Annex E  | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100571 | 0217 | -       | Minimum test time for performance tests   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100572 | 0218 | -       | Correction to 6.6.3.3 Additional spurious emissions   | 8.4.0 | 8.5.0 |

| Change history |        |           |      |     |  |       |       |
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| 2010-03        | RAN#47 | R5-100790 | 0219 | -   | DL-RMC-s for transmitter tests: Corrections  | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100800 | 0220 | -   | Update of Test environment for RF test   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100803 | 0221 | -   | Spectrum emission mask: Correction to uplink configuration                                   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100807 | 0222 | -   | Performance tests: Scheduling of retransmissions   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100810 | 0223 | -   | UL-RMC-s: Corrections and completion   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100814 | 0224 | -   | Corrections to Cl 5.4.2.1 of TS 36.521-1   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100815 | 0225 | -   | LTE-RF: CR for UE configured UE transmitted output power test case                           | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100816 | 0226 | -   | LTE-RF: CR for Power Control Relative power tolerance test case                              | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100822 | 0227 | -   | CR to 36.521-1: Update to Maximum output power   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100823 | 0228 | -   | CR to 36.521-1: Update to ACLR test case   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100825 | 0229 | -   | CR to 36.521-1: Update to Additional Tx spurious emissions test case                         | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100826 | 0230 | -   | RMC-s and OCNG patterns: Update according 36.101 8.8.0                                       | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100827 | 0231 | -   | Receiver and performance tests: Update use of OCNG according 36.101 8.8.0                    | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100828 | 0232 | -   | Update of PDSCH Demodulation Tests   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100831 | 0233 | -   | Introduction of clause 8.2.1.2, 8.2.1.3, 8.2.1.4 test case uncertainties and Test Tolerances | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100832 | 0234 | -   | Clarifications on DRS performance test case  | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100833 | 0235 | -   | Misc update on MAC padding in PDCCH, CSI test  | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100834 | 0236 | -   | Updates to the TDD portion of CQI reporting test cases under AWGN                            | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100838 | 0237 | -   | Editorial Correction to 8.2.1.3  | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100839 | 0238 | -   | Update on Annex C for 36.521-1   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100840 | 0239 | -   | Update on MAC padding in TDD PMI test case 9.4 of 36.521-1.                                  | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100841 | 0240 | -   | Correction to CQI test cases under AWGN conditions   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100842 | 0241 | -   | Correction to CQI test cases under fading conditions   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100843 | 0242 | -   | Correction to PMI reporting test cases   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100845 | 0243 | -   | CSI: Corrections to tests titles and RI clause structure                                     | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100848 | 0244 | -   | CR to 36.521-1: Update LTE RF test cases with test requirements for extended LTE1500MHz      | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100886 | 0245 | -   | Transmitter characteristics: UE Categories and other corrections                             | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100887 | 0246 | -   | CR to 36.521-1: Update to Tx spurious emissions and Spurious emission band UE co-existence   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100888 | 0247 | -   | Clarification on notes in Max Power  | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100889 | 0248 | -   | Maximum input level: Corrections w.r.t. UE categories  | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100891 | 0249 | -   | Correction to PDCCH demodulation test cases  | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100892 | 0250 | -   | Correction to PHICH demodulation test cases  | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100907 | 0251 | -   | Update of RI reporting test case   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | R5-100909 | 0252 | -   | Correction to set UL power in Rx TCs   | 8.4.0 | 8.5.0 |
| 2010-03        | RAN#47 | -         | -    | -   | Moved to v9.0.0 with no change   | 8.5.0 | 9.0.0 |
| 2010-06        | RAN#48 | R5-103102 | 0253 | -   | CR to 36.521-1: Update of EARFCN for band 21   | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103103 | 0254 | -   | CR to 36.521-1: Update of A-MPR test case with band 21                                       | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103104 | 0255 | -   | CR to 36.521-1: Update of Additional Spurious test case with band 21                         | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103106 | 0256 | -   | CR to 36.521-1: Update to ACLR test case   | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103108 | 0257 | -   | CR to 36.521-1: Update of Reference sensitivity level test case                              | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103226 | 0258 | -   | CR to 36.521-1: Update of UE RF requirements for LTE, Band 20                                | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103263 | 0259 | -   | LTE-RF: Updates of PDCCH demodulation test cases (FDD and TDD)                               | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103265 | 0260 | -   | LTE-RF:CR for TDD ACK/NACK feedback mode in CQI BLER test cases                              | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103288 | 0261 | -   | PDCCH Aggregation level for RF tests   | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103291 | 0262 | -   | Update and correction to UE maximum output power requirements                                | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103293 | 0263 | -   | Editorial correction in In-band blocking test  | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103296 | 0264 | -   | Correction to additional spectrum emission mask test configuration                           | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103300 | 0265 | -   | Corrections to Uplink RMC-s  | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103450 | 0266 | -   | LTE-RF: editorial CR for TC 7.6.2 and 7.7  | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103471 | 0267 | -   | Minimum test time for performance tests  | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103476 | 0268 | -   | EVM with exclusion period (annex)  | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103521 | 0269 | -   | CR on 36.521-1 for updating the "Reporting of Channel State Information"                     | 9.0.0 | 9.1.0 |

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| 2010-06        | RAN#48 | R5-103525 | 0270 | -   | CR on 36.521-1 for corrections in UE RF requirements   | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103598 | 0271 | -   | Correction to notes in Max Power   | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103602 | 0272 | -   | Clarification of measurement conditions for Rx spurious emission                                       | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103726 | 0273 | -   | CR to 36.521-1: Update of Spurious emission band UE co-existence test case                             | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103727 | 0274 | -   | LTE-RF: CR for Prach time mask test case   | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103728 | 0275 | -   | LTE-RF: CR for General ON/OFF time mask test case  | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103729 | 0276 | -   | LTE-RF: Update to spectrum flatness test case and relevant annexes                                     | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103730 | 0277 | -   | LTE-RF: CR for test case of In-band emissions  | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103731 | 0278 | -   | EVM with exclusion period (test)   | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103732 | 0279 | -   | CR to 36.521-1 on Correction to Demodulation Requirements for PDSCH                                    | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103733 | 0280 | -   | CR to 36.521-1: Update PDCCH DCI Formats for Open Loop and Closed Loop Spatial Multiplexing Test Cases | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103751 | 0281 | -   | Misc update in CSI tests   | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103752 | 0282 | -   | Correction of the statistical part in PMI and RI tests   | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103753 | 0283 | -   | LTE-RF: CR to downlink RMCs for TX characteristics   | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103754 | 0284 | -   | LTE-RF: Update of annex C  | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103756 | 0285 | -   | Measuring throughput ratios (Annex G)  | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103763 | 0286 | -   | LTE-RF: CR for Minimum output power test case  | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103764 | 0287 | -   | Performance, CSI reporting and uncertainties for UEs with multiple Rx antennas                         | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103771 | 0288 | -   | Introduction of clause 8.4.1 and 8.5.1 test case uncertainties and Test Tolerances                     | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103778 | 0291 | -   | Uplink power for receiver tests  | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103780 | 0292 | 1   | Addition of the exceptional message for In-band emissions  | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103781 | 0289 | -   | Correction to 6.5.2.1 EVM  | 9.0.0 | 9.1.0 |
| 2010-06        | RAN#48 | R5-103782 | 0290 | -   | Correction to CQI reporting  | 9.0.0 | 9.1.0 |
| 2010-09        | RAN#49 | R5-104090 | 0294 | -   | Corrections to Spectrum emission mask test regarding UE category                                       | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104091 | 0295 | -   | Missing note in Additional spurious emission test with NS_07   | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104095 | 0296 | -   | PDCCH Aggregation level for CSI tests  | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104096 | 0297 | -   | Default initial and connection Uplink power for RF tests   | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104212 | 0298 | -   | Limits on Uplink power for Receiver tests  | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104244 | 0299 | -   | Correction to Demodulation Requirements  | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104461 | 0300 | -   | CR to 36.521-1: Editorial Corrections for Closed Loop Spatial Multiplexing Test Cases                  | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104478 | 0301 | -   | Correction to Test requirements in 6.5.2.2   | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104482 | 0302 | -   | Correction to 8.2.1.1  | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104520 | 0303 | -   | 36521-1 General update of sections 00 to 08: missing Introduction references formatting                | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104583 | 0304 | -   | No necessity to apply - consecutive time slots for EVM   | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104584 | 0305 | -   | Correction to E.4.4 EVM equalizer spectrum flatness  | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104630 | 0306 | -   | Correction of table reference in In-band emissions test  | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104808 | 0307 | -   | CR to 36.521-1: Update to Additional Spectrum Emission Mask test case                                  | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104809 | 0308 | -   | CR to 36.521-1: Update to Spurious emission band UE co-existence test case                             | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104810 | 0309 | -   | LTE-RF: CR for Max Output Power  | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104811 | 0310 | -   | LTE-RF: CR for Freq Error  | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104812 | 0311 | -   | Introduction of exclusion period for PUCCH-EVM test in clause 6.5.3                                    | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104813 | 0312 | -   | Correction to Demodulation UE-Specific Reference Symbols   | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104814 | 0313 | -   | Uncertainties and Test Tolerances for CSI Test cases 9.2.1.1 and 9.2.1.2                               | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104815 | 0314 | -   | Uncertainties and Test Tolerances for CSI Test cases 9.2.2.1 and 9.2.2.2                               | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104816 | 0315 | -   | UE applicability for CSI test cases  | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104817 | 0316 | -   | Update of CQI reporting TCs under fading conditions  | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104818 | 0317 | -   | Update of Reporting of Precoding Matrix Indicator TCs  | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104819 | 0318 | -   | Correction of the statistical part 9.3.1.1.1 (CQI Reporting under fading conditions)                   | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104820 | 0319 | -   | Correction of the statistical part 9.3.3.1.1 (CQI Reporting under fading conditions)                   | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104821 | 0320 | -   | Correction of the statistical part 9.3.2.1.1 (CQI Reporting under fading conditions)                   | 9.1.0 | 9.2.0 |
| 2010-09        | RAN#49 | R5-104822 | 0321 | -   | Update and new RMC-s for CQI tests   | 9.1.0 | 9.2.0 |

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| 2010-09               | RAN#49       | R5-104823       | 0322      | -          | Correction of EVM calculation in annex   | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104824       | 0323      | -          | Introduction of exclusion period for PUCCH-EVM test in Annex E   | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104844       | 0324      | -          | Pcmax changes to Configured UE Transmitted Output Power  | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104845       | 0325      | -          | Clarification on the frequency range with net work signal in 6.6.3.2   | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104846       | 0326      | -          | Update of editor's notes   | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104847       | 0327      | -          | Removal of Extreme Conditions in 6.2.3   | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104850       | 0328      | -          | Corrections to Test procedure loop in CSI tests  | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104851       | 0329      | -          | Introduction of TDD CQI Reporting under fading conditions and frequency-selective interference test case                 | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104852       | 0330      | -          | Introduction of TDD RI Reporting test case   | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104853       | 0331      | -          | Update of CQI reporting TCs under AWGN conditions  | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104854       | 0332      | -          | Update of FDD RI Reporting TC  | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104857       | 0333      | -          | CR to 36.521-1 LTE UE Tx_RX test cases band 20   | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104861       | 0334      | -          | Corrections to Test requirements for MPR test  | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104863       | 0335      | -          | Clarification on notes in Max Power  | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104872       | 0336      | -          | Correction to 6.3.5.2  | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104873       | 0337      | -          | Numbering and alignment of TDD PHICH demod test cases  | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104874       | 0338      | -          | Correction to test numbering for exceptional messages in 8.2.x.x   | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104875       | 0339      | -          | Correction to 9.2.2  | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104876       | 0340      | -          | Correction to the test procedures of 9.3.x   | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104877       | 0341      | -          | Correction to 9.4.x  | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104878       | 0342      | -          | The new reference of connection diagram for 9.3.3  | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104879       | 0343      | -          | Correction to 6.3.4.1 and 6.3.5.1  | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-104888       | 0344      | -          | Update of Annex C.2 for AG level   | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-105055       | 0345      | -          | Introduction of a new RF test case (8.7) to verify downlink sustained data rate performance                              | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-105061       | 0347      | -          | CR to 36.521-1: Modification to Additional Maximum Power Reduction Test Case   | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-105062       | 0348      | -          | Modification to Additional Spectrum Emission Mask  | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-105063       | 0349      | -          | Modification to Additional Spurious Emissions  | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-105064       | 0350      | -          | Modification to Maximum Power Reduction  | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | R5-105065       | 0351      | -          | Modification to Adjacent Channel Leakage Power Ratio   | 9.1.0      | 9.2.0      |
| 2010-09               | RAN#49       | RP-100987       | 0352      | -          | Correction of status for RF performance test case  | 9.1.0      | 9.2.0      |
| 2010-12               | RAN#50       | R5-106073       | 0353      | -          | Corrections to receiver spurious emissions test  | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106074       | 0354      | -          | Update of downlink power for receiver tests  | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106076       | 0355      | -          | CQI: Side condition when CQI median equals min or max CQI-values   | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106077       | 0356      | -          | Update of the throughput-definition for multi-data stream transmission   | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106078       | 0357      | -          | Update of RF OCNG patterns   | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106092       | 0358      | -          | Correction of DCI format used in PDSCH performance test 8.2.1.4.2  | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106249       | 0359      | -          | CR to 36.521-1: Correction to Spurious emission band UE co-existence test case   | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106250       | 0360      | -          | CR to 36.521-1: Correction to Additional Tx spurious emissions test case   | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106374       | 0361      | -          | Correction of FDD CQI reporting test under AWGN - PUCCH 1-1  | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106394       | 0362      | -          | Correction of clause 9.3.1 and 9.3.3   | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106399       | 0363      | -          | "Correction of G.2.5 Pass fail decision rules"   | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106420       | 0364      | -          | Introduction of test uncertainties and tolerances for TDD PDSCH DRS test cases   | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106440       | 0365      | -          | Correction to unsigned numbers in Annex F.1.2  | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106443       | 0366      | -          | Correction to the exceptional messages in 9.4 Reporting of PMI TCs   | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106491       | 0367      | -          | CR to 36.521-1: Correction to Table Numbering Error in TDD PDSCH Closed Loop Single/Multi Layer Spatial Multiplexing 2x2 | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106512       | 0368      | -          | Transport format table clarification in CSI test cases   | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106801       | 0369      | -          | HARQ scheduling in TDD performance tests using special subframes   | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106803       | 0370      | -          | Correction to Fading Profiles in TCs 8.4 and 8.5   | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106816       | 0372      | -          | CR to 36.521-1: Modification to Spectrum Emissions Mask  | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106817       | 0373      | -          | Introduction of test uncertainties and tolerances for TDD PCFICH/PDCCH and PHICH test cases                              | 9.2.0      | 9.3.0      |
| 2010-12               | RAN#50       | R5-106818       | 0374      | -          | Update of TDD PDSCH CRS Demodulation test cases  | 9.2.0      | 9.3.0      |

| Change history |        |           |      |     |  |       |       |
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| 2010-12        | RAN#50 | R5-106821 | 0375 | -   | PUSCH-EVM with exclusion period  | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106822 | 0376 | -   | Maintenance of Band 20 for receiver tests  | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106823 | 0377 | -   | Completion of clause 9.3.1 and 9.3.2   | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106824 | 0378 | -   | Update of FDD RI Reporting TC  | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106825 | 0379 | -   | Correction to 9.2.2 CQI TCs  | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106826 | 0380 | -   | G.3.5 on PDCCH&PHICH Minimum Test Times  | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106827 | 0381 | -   | Completion of test time and $\frac{1}{T}$ - TT for clauses 9.3 to 9.5  | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106828 | 0382 | -   | EVM window length for PRACH  | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106842 | 0383 | -   | Modification of TC 8.3.2.1 - TDD PDSCH Single-layer SM Performance (UE-Specific Reference Symbols)                           | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106843 | 0384 | -   | Power control relative power tolerance: Missing band edge relaxation   | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106844 | 0385 | -   | SRS time mask test procedure update  | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106845 | 0386 | -   | Correction of TC General ON/OFF time mask  | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106846 | 0387 | -   | Update of TDD CQI reporting test under frequency selective interference conditions   | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106847 | 0388 | -   | Update of TDD RI reporting test  | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106848 | 0389 | -   | Iot setting in CQI test clarification  | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106850 | 0390 | -   | Correction of Test Uncertainties and Test Tolerances for Reference Sensitivity-Band 4  | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106855 | 0391 | -   | Correction to DL and UL RMC configurations in 6.5.1 Frequency Error  | 9.2.0 | 9.3.0 |
| 2010-12        | RAN#50 | R5-106858 | 0392 | -   | CR to 36.521-1: Update LTE RF test cases with test requirements for EUTRA TDD LTE band 41.                                   | 9.2.0 | 9.3.0 |
| 2011-03        | RAN#51 | R5-110138 | 0393 | -   | Spurious emission band co-existence test: Remaining old test requirement table   | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110139 | 0394 | -   | Transmit intermodulation test: Interferer offset for Band 20, Bandwidth 20 MHz   | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110141 | 0395 | -   | PMI Performance tests: Corrections to test settings  | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110143 | 0396 | -   | PDCCH Performance test: Correction to TDD DL RMC-s   | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110144 | 0397 | -   | OCNG for RF tests: Updates   | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110158 | 0398 | -   | CQI Performance tests: Clarification on subbands used in the test  | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110302 | 0399 | -   | LTE RF: PCFICH/PDCCH Transmit Diversity Performance  | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110349 | 0401 | -   | Correction of OFF power measurements in 6.3.4 ON/OFF time mask   | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110354 | 0402 | -   | Correction of Annex E (Global In-Channel TX-Test)  | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110506 | 0403 | -   | Addition of 3500 MHz TDD bands into chapter 5 of 36.521-1  | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110747 | 0404 | -   | Updates to section 8.7 DL sustained data rate test case  | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110850 | 0405 | -   | Sustained data rate: Definition of UL RMC-s  | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110860 | 0400 | -   | Update measurement period from test procedure of 6.2.2   | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110861 | 0428 | -   | A-MPR Test requirement update  | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110862 | 0437 | -   | Measuring throughput with different payload size.  | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110900 | 0406 | -   | Correction to SNR reference in FDD PCFICH/PDCCH Single Antenna Port Performance Test   | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110901 | 0407 | -   | CR to 36.521-1: Correction of Additional Maximum Power Reduction (A-MPR) test case   | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110915 | 0408 | -   | Uncertainties and Test Tolerances for CSI Test cases 9.3.1.1.x and 9.3.2.1.x   | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110916 | 0409 | -   | Uncertainties and Test Tolerances for CSI Test cases 9.3.3.1.x   | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110917 | 0410 | -   | Uncertainties and Test Tolerances for CSI Test cases 9.4.1.1.x and 9.4.2.1.x   | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110918 | 0411 | -   | Uncertainties and Test Tolerances for CSI Test cases 9.5.1.x   | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110919 | 0412 | -   | Editorial errors in CSI test cases 9.2.1.x Test procedure  | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110933 | 0413 | -   | Handling of different releases in RAN5 LTE RF specification  | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110938 | 0414 | -   | PRACH Time mask and EVM tests: TDD Special subframe configuration  | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110939 | 0415 | -   | Update on PRACH time mask for TDD  | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110940 | 0416 | -   | Correction of the connection diagram reference in the initial conditions for Transmitter Characteristics                     | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110941 | 0417 | -   | Update of the reference sensitivity requirement for the 1.4MHz and 3MHz bandwidths and note correction for Band 3 and Band 9 | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110942 | 0418 | -   | CR Removing brackets of band 41 reference sensitivity in 36.521-1  | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110949 | 0419 | -   | PDCCH and PHICH performance tests: Updates and corrections   | 9.3.0 | 9.4.0 |
| 2011-03        | RAN#51 | R5-110950 | 0420 | -   | Addition of CodeBookSubsetRestriction bitmap for Multi-Layer Spatial Multiplexing  | 9.3.0 | 9.4.0 |



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|                |        |           |      |     | of Band 3  |       |       |
| 2011-09        | RAN#53 | R5-113454 | 0479 | -   | Correction to test procedure in 6.5.1  | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-113455 | 0480 | -   | Correction to Minimum requirement in 6.6.2.2   | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-113456 | 0481 | -   | Correction to RMC for PDCCH/PCFICH performance requirements                                      | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-113458 | 0482 | -   | Correction to CSI TCs  | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-113541 | 0483 | -   | Introduction of Expanded 1900MHz Band (Band 25) into section 5 of 36.521-1                       | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-113596 | 0506 | -   | Abbreviation update and Editorial corrections in TS36.521-1                                      | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114000 | 0484 | -   | Correction in 6.3.5.2 Power Control Relative power tolerance                                     | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114001 | 0485 | -   | Correction in 6.3.4.2.2 SRS time mask  | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114002 | 0486 | -   | Addition of PDSCH TDD performance tests for Low UE categories                                    | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114003 | 0487 | -   | Additional FDD scenarios   | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114004 | 0488 | -   | Addition of RMC-s for PDSCH performance tests for low UE categories                              | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114032 | 0489 | -   | Introduction of Expanded 1900MHz Band (Band 25) into section 6 of 36.521-1                       | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114033 | 0490 | -   | Correction on TDD MBMS performance requirements for 64QAM mode                                   | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114034 | 0491 | -   | Correction on FDD MDMS performance requirements for 64QAM mode                                   | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114038 | 0492 | -   | RF TC 6.3.5.2: Consideration of band edge relaxation in test requirements                        | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114039 | 0493 | -   | Band 19 A-MPR refinement   | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114040 | 0494 | -   | Test system uncertainty and TT for 6.6.3.3 additional spurious emissions NS_07                   | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114041 | 0495 | -   | Correction to Additional Maximum Power Reduction   | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114042 | 0496 | -   | Correction to 6.3.4.2.1 PRACH time mask  | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114043 | 0497 | -   | Correction to Receiver Characteristics Minimum Requirements                                      | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114044 | 0498 | -   | Addition of PDSCH FDD performance tests for Low UE categories                                    | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114045 | 0499 | -   | Additional Rel-9 TDD scenarios   | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114046 | 0500 | -   | Update of CQI/PMI test cases   | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114047 | 0501 | -   | Update of RI test cases  | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114048 | 0502 | -   | Release dependent RMCs in PCFICH/PDCCH and PHICH tests   | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114049 | 0503 | -   | Addition of tests scenarios in Annex   | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114073 | 0504 | -   | Introduction of Expanded 1900MHz Band (Band 25) into section 7 of 36.521-1                       | 9.5.0 | 9.6.0 |
| 2011-09        | RAN#53 | R5-114091 | 0505 | -   | Correction to test cases 10.1 and 10.2   | 9.5.0 | 9.6.0 |
| 2011-12        | RAN#54 | R5-115112 | 0507 | -   | RF: Coverage of MPR and A-MPR requirements in emissions tests                                    | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115113 | 0508 | -   | RF: Update to names of some RMC-s used in different releases                                     | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115114 | 0509 | -   | RF TC 6.2.4, 6.6.2.2, 6.6.3.3: Corrections to A-MPR related tests                                | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115115 | 0510 | -   | RF TC-s 9: Corrections to UL allocation for some CQI tests                                       | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115116 | 0511 | -   | RF TC 6.3.5.2: Missing extreme conditions in test requirements                                   | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115117 | 0512 | -   | RF TC 6.2.3: Missing test requirements for band 25   | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115118 | 0513 | -   | RF TC 6.5.2.1: Redundant conflicting IE-s in message contents                                    | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115119 | 0514 | -   | RF TC 6.6.3.1: Correction of reference to the connection diagram                                 | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115324 | 0517 | -   | LTE RF: CSI test case update   | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115472 | 0518 | -   | Corrections to the dual-layer beamforming demodulation requirements                              | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115475 | 0519 | -   | Correction to Code Block Numbers   | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115800 | 0522 | -   | Delete note in PUSCH-EVM   | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115812 | 0526 | -   | RF: Corrections to tests with release dependent requirements                                     | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115815 | 0527 | -   | Test Frequency for Relative Power Tolerance  | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115821 | 0531 | -   | RF: General review of the reference measurement channels   | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115822 | 0532 | -   | Correction for codebook subset restriction in single-layer closed loop spatial multiplexing test | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115830 | 0533 | -   | Uncertainties and Test Tolerances for 3000MHz to 4200MHz, Tx Test cases                          | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115831 | 0534 | -   | Uncertainties and Test Tolerances for 3000MHz to 4200MHz, Rx Test cases                          | 9.6.0 | 9.7.0 |
| 2011-12        | RAN#54 | R5-115832 | 0535 | -   | Support for band 22, 42 and 43   | 9.6.0 | 9.7.0 |

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| 2011-12        | RAN#54 | R5-115837 | 0536 | -   | Update LTE RF test cases with test requirements for FDD LTE Band 23 in 36.521-1                                 | 9.6.0  | 9.7.0  |
| 2011-12        | RAN#54 | R5-115875 | 0537 | -   | Correction on FDD and TDD MBMS conformance requirements   | 9.6.0  | 9.7.0  |
| 2011-12        | RAN#54 | R5-115877 | 0538 | -   | Introduction of test system uncertainties and TT to new TCs in clauses 9.3.4 to 9.4.2.2.2                       | 9.6.0  | 9.7.0  |
| 2011-12        | RAN#54 | R5-115879 | 0539 | -   | Uncertainties and Test Tolerances for Sustained data rate test cases  | 9.6.0  | 9.7.0  |
| 2011-12        | RAN#54 | R5-115891 | 0540 | -   | Requirement change in UE spurious emissions for Band 7 and 38 co-existence (Rel-8 only)                         | 9.6.0  | 9.7.0  |
| 2011-12        | RAN#54 | R5-115162 | 0515 | -   | Definitions, symbols and abbreviations for CA RF  | 9.7.0  | 10.0.0 |
| 2011-12        | RAN#54 | R5-115565 | 0520 | -   | In-band blocking for CA (New)   | 9.7.0  | 10.0.0 |
| 2011-12        | RAN#54 | R5-115568 | 0521 | -   | Spurious Response for CA (New)  | 9.7.0  | 10.0.0 |
| 2011-12        | RAN#54 | R5-115801 | 0523 | -   | Out-of-Band blocking for CA (new)   | 9.7.0  | 10.0.0 |
| 2011-12        | RAN#54 | R5-115802 | 0524 | -   | Narrow band blocking for CA (new)   | 9.7.0  | 10.0.0 |
| 2011-12        | RAN#54 | R5-115803 | 0525 | -   | Addition of new RMCs for CA feature related Chapter8 test cases   | 9.7.0  | 10.0.0 |
| 2011-12        | RAN#54 | R5-115816 | 0528 | -   | General Section for CA RF   | 9.7.0  | 10.0.0 |
| 2011-12        | RAN#54 | R5-115817 | 0529 | -   | Frequency Band and Channel Assignments for CA RF  | 9.7.0  | 10.0.0 |
| 2011-12        | RAN#54 | R5-115818 | 0530 | -   | UE Maximum Output Power for intra-band contiguous CA (new)  | 9.7.0  | 10.0.0 |
| 2012-03        | RAN#55 | R5-120080 | 0587 | -   | Removal of technical content in 36.521-1 v9.7.0 and substitution with pointer to the next Release               | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120134 | 0541 | -   | RF: General clarification on the count of ACK / NACKs in throughput calculation in CQI tests                    | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120137 | 0542 | -   | RF: Corrections to message contents in some MIMO demodulation performance tests                                 | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120138 | 0543 | -   | RF: Updates to handling requirements and tests for different releases   | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120140 | 0544 | -   | RF: Coverage of MPR and A-MPR requirements in Tx emissions tests  | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120243 | 0545 | -   | Tx Test cases Uplink power limit window for 3000MHz to 4200MHz  | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120244 | 0546 | -   | Rx Test cases Uplink power limit window for 3000MHz to 4200MHz  | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120252 | 0547 | -   | Global in-channel TX-test, delete note  | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120288 | 0548 | -   | LTE RF - Update of abbreviations and addition of RBstart  | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120314 | 0549 | -   | Clarification for the starting point of RB in 6.3.5.2 Relative Power test                                       | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120338 | 0550 | -   | Correction to MCS value in Table A.4-3  | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120343 | 0551 | -   | Introduction of new maximum input level test case for CA  | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120351 | 0552 | -   | CA RF - Changes in aggregated CC configurations   | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120355 | 0553 | -   | CA RF - updates to 7.7A Spurious response for CA  | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120370 | 0554 | -   | Test Tolerance for 6.6.3.3 additional spurious emissions NS_07  | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120426 | 0555 | -   | Correction to Frequency Range for Spurious Emission Requirements  | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120521 | 0556 | -   | Introduction to Maximum Power Reduction for CA  | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120524 | 0557 | -   | Introduction to Maximum Power Reduction for CA in Annex   | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120526 | 0558 | -   | Introduction to Adjacent Channel Leakage power Ratio (ACLR) for CA in Annex                                     | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120801 | 0559 | -   | Correction of TC 6.5.2.1 Error Vector Magnitude (EVM) for Test requirement                                      | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120802 | 0560 | -   | Correction of TC 8.2.1.3.1 FDD PDSCH Open Loop Spatial Multiplexing 2x2 for 8.2.1.3.1.4.1 Initial conditions    | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120803 | 0561 | -   | Correction of TC8.2.1.3.2 FDD PDSCH Open Loop Spatial Multiplexing 4x2 for 8.2.1.3.2.4.1 Initial conditions     | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120804 | 0562 | -   | Correction of TC 8.2.2.3.1 TDD PDSCH Open Loop Spatial Multiplexing 2x2 for 8.2.2.3.1.4.1 Initial conditions    | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120805 | 0563 | -   | Correction of TC 8.2.2.3.2 TDD PDSCH Open Loop Spatial Multiplexing 4x2 for 8.2.2.3.2.4.1 Initial conditions    | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120816 | 0564 | -   | Addition of frequency band and channel assignments for UL MIMO  | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120825 | 0565 | -   | Introduction of Chapter8 Single antenna port and Open loop spatial Multiplexing test cases for CA capable UE's. | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120828 | 0566 | -   | LTE RF - UE Co-ex test point clarification for bands 7 and 38   | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120833 | 0567 | -   | Addition of receiver image section 7.10   | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120835 | 0568 | -   | Correction to Reporting of Rank Indicator (RI) FDD Test   | 10.0.0 | 10.1.0 |
| 2012-03        | RAN#55 | R5-120837 | 0569 | -   | Introduction to Adjacent Channel Leakage power Ratio (ACLR) for CA  | 10.0.0 | 10.1.0 |



| Change history |        |           |      |     |   |        |        |  |
|----------------|--------|-----------|------|-----|---|--------|--------|--|
| Date           | TSG #  | TSG Doc.  | CR   | Rev | Subject/Comment   | Old    | New    |  |
|                |        |           |      |     | 8.7.2   |        |        |  |
| 2012-06        | RAN#56 | R5-121939 | 0626 | -   | RF: Corrections to CSI tests  | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121944 | 0627 | -   | Addition of a new TC 6.3.3B   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121945 | 0628 | -   | Addition of a new TC 6.3.2B for Minimum Output Power for UL-MIMO  | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121946 | 0629 | -   | Addition of a new TC 6.3.4B   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121947 | 0630 | -   | Addition of a new TC 6.5.1B for Frequency Error for UL-MIMO   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121948 | 0631 | -   | Addition of a new TC 6.6.1B   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121949 | 0632 | -   | Addition of a new TC 6.7B   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121950 | 0633 | -   | Addition of a new TC for Configured transmitted power for UL-MIMO   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121951 | 0634 | -   | Addition of a new TC for Power Control Absolute Power Tolerance for UL-MIMO                                       | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121955 | 0635 | -   | SEM for CA  | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121956 | 0636 | -   | Addition of a new TC for Carrier leakage for UL-MIMO  | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121957 | 0637 | -   | Addition of a new TC for In-band emissions for non allocated RB for UL-MIMO                                       | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121958 | 0638 | -   | Addition of a new TC for EVM equalizer spectrum flatness for UL-MIMO  | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121959 | 0639 | -   | Addition of a new TC for Reference sensitivity level for UL-MIMO  | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121960 | 0640 | -   | Addition of a new TC for Maximum input level for UL-MIMO  | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121961 | 0641 | -   | Addition of a new TC for Adjacent Channel Selectivity (ACS) for UL-MIMO   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121962 | 0642 | -   | Addition of a new TC for In-band blocking for UL-MIMO   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121963 | 0643 | -   | Addition of a new TC for Narrow band blocking for UL-MIMO   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121964 | 0644 | -   | Addition of a new TC for Wide band Intermodulation for UL-MIMO  | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121983 | 0645 | -   | Introduction of Chapter8 Single antenna port and Open loop spatial Multiplexing TDD test cases for CA capable UEs | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121984 | 0646 | -   | EVM and Global In-Channel TX-Test for intra band CA   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121985 | 0647 | -   | RF: Corrections to applicability of some CA tests   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121986 | 0648 | -   | Addition of test description to Occupied bandwidth for CA   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121987 | 0649 | -   | Addition of test description to ACLR for CA   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121988 | 0650 | -   | Addition of test description to Transmitter Spurious emissions for CA   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121989 | 0651 | -   | Addition of test description to Reference sensitivity level for CA  | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121994 | 0652 | -   | Addition of Codebook Subset Restriction in 8.3.2.x  | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121995 | 0653 | -   | Update of 6.3.5.2   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121996 | 0654 | -   | TS 36.521-1: 9.4.1.2.1 and 9.4.1.2.2.1 test procedure correction  | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-121997 | 0655 | -   | TS 36.521-1: Minimum conformance requirements alignments for section 9  | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-122003 | 0656 | -   | Addition of a new TC for Out-of-band blocking for UL-MIMO   | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-122004 | 0657 | -   | Addition of a new TC for Spurious response for UL-MIMO  | 10.1.0 | 10.2.0 |  |
| 2012-06        | RAN#56 | R5-122006 | 0658 | -   | Addition of a new TC for Error Vector Magnitude for UL-MIMO   | 10.1.0 | 10.2.0 |  |
| 2012-09        | RAN#57 | R5-123136 | 0659 | -   | Correction of TC 6.3.5.2  | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123146 | 0660 | -   | Corrections to Transmitter Characteristics Requirements   | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123148 | 0661 | -   | Correction to SNR definition  | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123150 | 0662 | -   | RF: Several editorial corrections   | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123161 | 0663 | -   | RF: PDCCH Padding in Rx spurious emissions test   | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123179 | 0664 | -   | Introduction of eDL-MIMO to Propagation Conditions  | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123209 | 0665 | -   | RF: Alignment of RMC references in test procedure of CSI tests  | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123234 | 0666 | -   | LTE RF - Correction to 7.4 and 7.5 UL allocations   | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123239 | 0667 | -   | Addition of test description to CA Maximum input level test case  | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123267 | 0668 | -   | Correction to Occupied bandwidth for CA   | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123268 | 0669 | -   | Correction to Reference sensitivity level for CA  | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123324 | 0670 | -   | New Annex for: Statistical testing of receiver performance with throughput for CA                                 | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123330 | 0671 | -   | Correction to test parameters in 6.6.3.2  | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123332 | 0672 | -   | Update of section 8 uncertainties and Test Tolerances for Rel-9 Tests   | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123333 | 0673 | -   | Clarification of RB allocation for DRS demodulation tests   | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123334 | 0674 | -   | Correction to uplink reference measurement channel  | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123386 | 0675 | -   | Addition of a new TC for power control relative power tolerance for UL-MIMO                                       | 10.2.0 | 10.3.0 |  |
| 2012-09        | RAN#57 | R5-123387 | 0676 | -   | Addition of a new TC for aggregate power control tolerance for  | 10.2.0 | 10.3.0 |  |

| Change history |        |           |      |     |  |        |        |
|----------------|--------|-----------|------|-----|--|--------|--------|
| Date           | TSG #  | TSG Doc.  | CR   | Rev | Subject/Comment  | Old    | New    |
|                |        |           |      |     | UL-MIMO  |        |        |
| 2012-09        | RAN#57 | R5-123392 | 0677 | -   | Update carrier frequency and EARFCN  | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123394 | 0678 | -   | Update test case of UE maximum output power for UL-MIMO                                      | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123395 | 0679 | -   | Update test case of configured UE transmitted output power for UL-MIMO                       | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123397 | 0680 | -   | Update test case of power control absolute power tolerance for UL-MIMO                       | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123507 | 0681 | -   | Editorial corrections to blocking characteristics for CA                                     | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123510 | 0682 | -   | ACLR for UL-MIMO   | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123521 | 0683 | -   | TS 36.521-1: A-MPR and additional spurious corrections                                       | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123522 | 0684 | -   | TS 36.521-1: UL allocation clarification in PUSCH-EVM with exclusion period test             | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123523 | 0685 | -   | TS 36.521-1: Section 9 applicability revision (UE categories)                                | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123534 | 0687 | -   | TS 36.521-1: A-MPR Test tolerances update for NS_12, NS_13, NS_14, NS_15                     | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123547 | 0688 | -   | Correction to the content of reference table number for TC 7.8.1                             | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123783 | 0689 | -   | Corrections to EVM and global in channel test for Intra-Band CA                              | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123850 | 0690 | -   | Correction to ONOFF time mask for CA   | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123851 | 0691 | -   | Correction to Transmitter Spurious emissions for CA  | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123852 | 0692 | -   | New Annex for: Statistical testing of receiver characteristics with CA                       | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123853 | 0693 | -   | Introduction of eDL-MIMO to measurement of performance requirements                          | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123854 | 0694 | -   | Addition of a new TC for additional maximum power reduction (A-MPR) for UL-MIMO              | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123855 | 0695 | -   | Additional texts for Note2 in Spurious emission test   | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123857 | 0696 | -   | Additions to test requirements for Maximum Power Reduction for CA                            | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123859 | 0697 | -   | Addition of a new TC for time alignment between transmitter branches for UL-MIMO             | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123900 | 0698 | -   | Changes associated with PHS band operation change for LTE                                    | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123901 | 0699 | -   | TS 36.521-1: PDSCH RMC for Rel-9 PCFICH test cases   | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123902 | 0700 | -   | TS 36.521-1: Adding missing UL RMCs for test 9.4.1.2.2                                       | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123910 | 0701 | -   | MPR for UL-MIMO  | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123911 | 0702 | -   | SEM for UL-MIMO  | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123912 | 0703 | -   | ADDITIONAL SEM for UL-MIMO   | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123915 | 0704 | -   | RF: Update of Annex I  | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123917 | 0705 | -   | Correction of test procedure for 36.521-1 chapter 8 CA test cases                            | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123919 | 0706 | -   | TS 36.521-1: New test cases for CQI reporting under fading conditions - PUCCH 1-0            | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123932 | 0707 | -   | RF: Updates to transmission mode 8 test cases  | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123933 | 0708 | -   | RF: Several corrections to MBMS performance tests  | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123934 | 0709 | -   | Addition of RF Test case: 8.7.2.1_1 TDD sustained data rate performance (Rel-10 and forward) | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123943 | 0710 | -   | Introduction of FDD PMI Reporting - PUSCH 1-2 (Multiple PMI) for eDL-MIMO                    | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123944 | 0711 | -   | Introduction of TDD PMI Reporting - PUSCH 1-2 (Multiple PMI) for eDL-MIMO                    | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123945 | 0712 | -   | FDD RI Reporting for eDL-MIMO  | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123946 | 0713 | -   | TDD RI Reporting for eDL-MIMO  | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123947 | 0714 | -   | Introduction of eDL-MIMO to CSI Reference Measurement Channels                               | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123948 | 0715 | -   | Introduction of eDL-MIMO to structure of subclauses  | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123950 | 0716 | -   | RF-CA: Introduction of new specification structure for Tx tests for CA                       | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123951 | 0717 | -   | CA RF - TC 6.2.2A update   | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123952 | 0718 | -   | CA RF - Updates to Blocking Test Cases   | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123953 | 0719 | -   | CA RF - TC 7.7A Spurious Response update   | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123954 | 0720 | -   | New RF TC for 36.521-1 _ 6.3.5A.1 Power Control Absolute power tolerance for CA              | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123955 | 0721 | -   | New RF TC for 36.521-1 _ 6.3.5A.2 Power Control Relative power tolerance for CA              | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123956 | 0722 | -   | Correction to Transmit OFF power for CA  | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123957 | 0723 | -   | Adjusting test procedure and test requirements to new Annex G.3A                             | 10.2.0 | 10.3.0 |
| 2012-09        | RAN#57 | R5-123958 | 0724 | -   | Update of Test case 8.7.2.1A TDD sustained data rate performance for CA                      | 10.2.0 | 10.3.0 |



| Change history |        |           |      |     |   |        |        |  |
|----------------|--------|-----------|------|-----|---|--------|--------|--|
| Date           | TSG #  | TSG Doc.  | CR   | Rev | Subject/Comment   | Old    | New    |  |
| 2012-12        | RAN#58 | R5-125321 | 0766 | -   | Updates for TC6.6.1A: Occupied bandwidth for CA   | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125322 | 0767 | -   | Updates for TC6.6.2.3A: ACLR for CA   | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125323 | 0768 | -   | Updates for TC6.6.3.1A: Transmitter Spurious emissions for CA   | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125346 | 0769 | -   | TC 6.2.4A.1 A-MPR for CA updates  | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125351 | 0770 | -   | Correction to LTE Rx TCs UL allocation location   | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125365 | 0771 | -   | Uncertainties and Test Tolerances for Rel-9 CQI Reporting under fading conditions, PUCCH 1-0 Tests                            | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125374 | 0772 | -   | Clean up of Tx tests  | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125405 | 0773 | -   | Addition of 15MHz and 20MHz Bandwidths for Band 23  | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125407 | 0774 | -   | RF TC 6.6.3.2: Clarification and corrections  | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125417 | 0775 | -   | Additions to test description for TC 7.5A.1 Adjacent Channel Selectivity (ACS) for CA (intra-band contiguous DL CA and UL CA) | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125422 | 0776 | -   | Introduction to CA_1 & CA_40 TC 7.5A.2 Adjacent Channel Selectivity (ACS) for CA (intra-band contiguous DL CA without UL CA)  | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125443 | 0777 | -   | Corrections of RMC for receiver characteristics   | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125445 | 0778 | -   | Corrections of FRC subframe allocations for performance requirements  | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125450 | 0779 | -   | Introduction of TC 9.2.2.1_D FDD CQI Reporting under AWGN conditions - PUCCH 1-1 for eDL-MIMO                                 | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125451 | 0780 | -   | Introduction of TC 9.2.2.2_D TDD CQI Reporting under AWGN conditions - PUCCH 1-1 for eDL-MIMO                                 | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125452 | 0781 | -   | Introduction of TC 9.3.2.2.1_D FDD CQI Reporting under fading conditions - PUCCH 1-1 for eDL-MIMO                             | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125453 | 0782 | -   | Introduction of TC 9.3.2.2.2_D TDD CQI Reporting under fading conditions - PUCCH 1-1 for eDL-MIMO                             | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125454 | 0783 | -   | Additions of eDL-MIMO to Annex A  | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125455 | 0784 | -   | Additions of eDL-MIMO to Annex B Propagation Conditions for eDL-MIMO  | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125456 | 0785 | -   | Additions of eDL-MIMO to Annex F  | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125463 | 0786 | -   | Additions to TC 9.4.2.1.1_D FDD PMI Reporting - PUSCH 1-2 (Multiple PMI) for eDL-MIMO   | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125464 | 0787 | -   | Additions to TC 9.4.2.1.2_D TDD PMI Reporting - PUSCH 1-2 (Multiple PMI) for eDL-MIMO   | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125465 | 0788 | -   | Additions to TC 9.5.1.1_D FDD RI Reporting for eDL-MIMO   | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125466 | 0789 | -   | Additions to TC 9.5.1.2_D TDD RI Reporting for eDL-MIMO   | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125593 | 0790 | -   | RF TC 6.2.4: Minor correction to test points for NS_15  | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125594 | 0791 | -   | RF TC 6.2.4B: Minor correction to test points for NS_15   | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125610 | 0792 | -   | TS 36-521-1: MPR correction for band 26   | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125801 | 0793 | -   | Updates of 6.3.3A UE Transmit OFF power for CA  | 10.3.0 | 10.4.0 |  |
| 2012-12        | RAN#58 | R5-125802 | 0794 | -   | Update of Annex F in 36.521-1   | 10.3.0 | 10.4.0 |  |

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| 2012-12        | RAN#58 | R5-125803 | 0795 | -   | Updates for 6.3.4A ON/OFF time mask for CA  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125804 | 0796 | -   | Addition of Transmitter test case - Transmit intermodulation for CA   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125835 | 0797 | -   | Update of TC6.6.3B.1 for Transmitter Spurious emissions for UL-MIMO   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125851 | 0798 | -   | Introduction of TC 8.3.1.2.1_D FDD PDSCH Dual-layer Spatial Multiplexing for eDL-MIMO   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125852 | 0799 | -   | Introduction of TC 8.3.2.2.1_D TDD PDSCH Dual-layer Spatial Multiplexing for eDL-MIMO   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125853 | 0800 | -   | Additions to Annex G for eDL-MIMO   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125854 | 0801 | -   | Corrections to Annex H for eDL-MIMO   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125855 | 0802 | -   | Additions to TC 8.3.2.1.2_D TDD Single-Layer Spatial Multiplexing on antenna ports without a simultaneous transmission for eDL-MIMO | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125856 | 0803 | -   | Additions to TC 8.3.2.1.3_D TDD Single-Layer Spatial Multiplexing on antenna ports with a simultaneous transmission for eDL-MIMO    | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125857 | 0804 | -   | Introduction of Band 27 to TS 36.521-1  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125858 | 0805 | -   | Updates to TC 8.2.2.3.1_A.1 for CA  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125859 | 0806 | -   | Addition of new test case 8.2.1.4.2_A.1 for CA  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125860 | 0807 | -   | Addition of new test case 8.2.2.4.2_A.1 for CA  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125861 | 0808 | -   | Addition of sustained downlink data rate TC 8.7.1.1_A.1 for CA  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125862 | 0809 | -   | Addition of sustained downlink data rate TC 8.7.1.1_A.2 for CA  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125866 | 0810 | -   | Update of RF TC for 36.521-1_6.3.5A.2.1 Power Control Relative power tolerance for CA   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125867 | 0811 | -   | Update TC 6.6.3.2_1 Spurious emission band UE co-existence(Release 9 and forward)   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125868 | 0812 | -   | Correction to test applicability in 6.2.4 A-MPR test case   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125869 | 0813 | -   | Correction to test parameter in Perf 8.2.1 of 36.521-1  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125870 | 0814 | -   | Clarification of AG level for 8.7 sustained data rate test of 36.521-1  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125871 | 0815 | -   | Correction to SNR test points in test procedure   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125872 | 0816 | -   | Clarification of random precoding granularity   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125873 | 0817 | -   | Update of General sections for CA   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125874 | 0818 | -   | Introduction to CA_1-5 TC 7.5A.3 Adjacent Channel Selectivity (ACS) for CA (inter-band DL CA without UL CA)                         | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125875 | 0819 | -   | Addition of a new TC 6.3.5A.3.1 Aggregate power control tolerance for CA(intra-band contiguous DL CA and UL CA)                     | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125876 | 0820 | -   | Addition of a new TC 6.6.3.2A.1 Spurious emission band UE co-existence for CA(intra-band contiguous DL CA and UL CA)                | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125890 | 0821 | -   | Addition of Band 28 to 6.6.3.2 Spurious emission band UE co-existence   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125891 | 0822 | -   | Addition of Band 28 to 6.6.3.3 Additional spurious emissions  | 10.3.0 | 10.4.0 |

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| 2012-12        | RAN#58 | R5-125892 | 0823 | -   | UE output power definition for UL-MIMO   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125893 | 0824 | -   | Update TC 6.2.4B Additional maximum power reduction (A-MPR) for UL-MIMO  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125894 | 0825 | -   | Update TC 6.5.2B.1 Error vector magnitude (EVM) for UL-MIMO  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125895 | 0826 | -   | Update TC 6.2.5B Configured transmitted output power for UL-MIMO   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125896 | 0827 | -   | Update TC 7.3B Reference sensitivity level for UL-MIMO   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125897 | 0828 | -   | Update TC 7.4B Maximum input level for UL-MIMO   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125898 | 0829 | -   | Update TC 7.5B Adjacent Channel Selectivity (ACS) for UL-MIMO  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125899 | 0830 | -   | Update TC 7.6.1B In-band blocking for UL-MIMO  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125900 | 0831 | -   | Update TC 7.6.2B Out-of-band blocking for UL-MIMO  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125901 | 0832 | -   | Update TC 7.6.3B Narrow band blocking for UL-MIMO  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125902 | 0833 | -   | Update TC 7.7B Spurious response for UL-MIMO   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125903 | 0834 | -   | Update TC 7.8.1B Wide band intermodulation for UL-MIMO   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125906 | 0835 | -   | New RF TC for 36.521-1_8.2.1.2.3_Enhanced ICIC for LTE   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125907 | 0836 | -   | New RF TC for 36.521-1_8.4.1.2.3_Enhanced ICIC for LTE   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125908 | 0837 | -   | TDD CQI Reporting under AWGN conditions-PUCCH 1-0-Demod subframe overlaps with aggressor cell ABS (eICIC)  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125909 | 0838 | -   | TDD PHICH Transmit Diversity 2x2-Demod subframe overlaps with aggressor cell ABS (eICIC)   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125910 | 0839 | -   | TDD PDSCH Open Loop Spatial Multiplexing 2x2 Demod subframe overlaps with aggressor cell ABS (eICIC)   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125924 | 0841 | -   | CR to 8.2.1.1.1_A: Correction to an average throughput measurement   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125925 | 0842 | -   | CR to 8.2.1.3.1_A: Correction to an average throughput measurement   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125931 | 0844 | -   | Additions to test description TC 6.2.5A.1 and 6.2.5A.2 including CA_1A-19A and CA_1A-21A updates   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125932 | 0845 | -   | Updates for TC7.3A: Reference sensitivity level for CA including CA_41C, CA_1-19 and CA_1-21   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125934 | 0846 | -   | Update of RF TC for 36.521-1_6.3.5A.1.1 Power Control Absolute power tolerance for CA  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-125935 | 0847 | -   | Updates for TC6.5.1A: Frequency error for CA   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-126043 | 0849 | -   | Updates for 5.2A operating bands for CA_7, CA_38, CA_41, CA_1-18, CA_1-19, CA_1-21, CA_2-17, CA_3-5, CA_3-7, CA_3-8, CA_3-20, CA_4-12, CA_4-13, CA_4-17, CA_4-20     | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-126044 | 0850 | -   | Updates for 5.4.2A channel bandwidth for CA_7, CA_38, CA_41, CA_1-18, CA_1-19, CA_1-21, CA_2-17, CA_3-5, CA_3-7, CA_3-8, CA_3-20, CA_4-12, CA_4-13, CA_4-17, CA_4-20 | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-126063 | 0840 | -   | Update of Perf 8.7.1.1 and 8.7.2.1 of 36.521-1   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-126065 | 0843 | -   | Clarification of RB position in 9.4.1 and 9.4.2  | 10.3.0 | 10.4.0 |

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| 2012-12        | RAN#58 | R5-126066 | 0848 | -   | Update of minimum test time in Annex G.3.5  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124010 | 0851 | -   | RF CI 8.1.1: Update of the CA capability table  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124013 | 0852 | -   | RF CI 8.7.2.1A: Update of test structure according to the work plan   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124082 | 0853 | -   | Correction to TC 7.5.1 Adjacent Channel Selectivity (ACS)   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124116 | 0854 | -   | Addition to test description for SEM for CA   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124123 | 0855 | -   | Addition to minimum requirement for TC 6.5.2A.3.1 in-band emissions for non allocated RB for CA                     | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124125 | 0856 | -   | TC 6.2.2A.1 UE MOP for CA updates   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124126 | 0857 | -   | CR to Annex G.3A.5: Minimum number of samples for CA performance tests  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124131 | 0858 | -   | Additions to test case for TC 6.2.3A.1 Maximum Power Reduction (MPR) for CA (intra-band contiguous DL CA and UL CA) | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124133 | 0859 | -   | Introduction to TC 6.6.3.3A.1 Additional spurious emissions for CA (intra-band contiguous DL CA and UL CA)          | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124139 | 0860 | -   | TC 6.3.2A.1 Minimum Output Power for CA introduction  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124149 | 0861 | -   | RF TC 8.2.2.1.1_A: Adjusting test procedure and requirements to completed Annex G.3A                                | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124160 | 0862 | -   | TC 7.6.1A.x In-band blocking for CA introduction  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124163 | 0863 | -   | TC 7.6.2A.x Out-of-band blocking for CA introduction  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124164 | 0864 | -   | TC 7.6.3A.x Narrow-band blocking for CA introduction  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124165 | 0865 | -   | TC 7.7A.x Spurious response for CA introduction   | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124166 | 0866 | -   | Addition of Receiver test case - Wideband intermodulation for CA  | 10.3.0 | 10.4.0 |
| 2012-12        | RAN#58 | R5-124186 | 0867 | -   | RF: Addition of references to connection diagrams in CA tests   | 10.3.0 | 10.4.0 |
| 2013-03        | RAN#59 | R5-130092 | 0851 | -   | Updates of 6.6.3.3 - Addition of Low-channel Band 1 coexistence with PHS condition                                  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130105 | 0854 | -   | Update of TC6.6.3B.2 for Spurious emissions band UE co-existence for UL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130125 | 0856 | -   | Update of TC6.6.3B.3 for Additional spurious emissions for UL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130128 | 0857 | -   | Update TC 6.2.4B Additional Maximum Power Reduction (A-MPR) for UL-MIMO   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130129 | 0858 | -   | Update TC 6.3.5B.1 Power control absolute power tolerance for UL-MIMO   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130130 | 0859 | -   | Update TC 6.3.5B.2 Power Control Relative power tolerance for UL-MIMO   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130131 | 0860 | -   | Update TC 6.3.5B.3 Aggregate power control tolerance for UL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130132 | 0861 | -   | Update TC 6.5.2B.2 Carrier leakage for UL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130133 | 0862 | -   | Update TC 6.3.2B Minimum Output Power for UL-MIMO   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130134 | 0863 | -   | Update TC 6.6.1B Occupied bandwidth for UL-MIMO   | 10.4.0 | 10.5.0 |

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| 2013-03        | RAN#59 | R5-130135 | 0864 | -   | Update TC 6.7B Transmit intermodulation for UL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130176 | 0869 | -   | Introduction of new rel-10 Reporting of RI test cases into annexes   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130182 | 0870 | -   | CA RF: Correction to Annex I   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130183 | 0871 | -   | UL-MIMO RF: Correction to Annex I  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130184 | 0872 | -   | eICIC RF: Correction to Annex I  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130185 | 0873 | -   | eDL-MIMO RF: Correction to Annex I   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130188 | 0874 | -   | RF: Correction to TC 8.2.1.1.1 - Frequency range for partial allocation  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130245 | 0877 | -   | Additions to TC 6.6.2.3A.1 Adjacent Channel Leakage power Ratio for CA (intra-band contiguous DL CA and UL CA)                 | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130273 | 0880 | -   | Corrections to Annex A DL Reference Measurement and PMI Accuracy Measurements  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130285 | 0881 | -   | Correction to TC 8.3.2.1.3 TDD PDSCH Single-layer Spatial Multiplexing on antenna port 7 or 8 with a simultaneous transmission | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130288 | 0882 | -   | Addition to TC 9.2.2.2_D TDD CQI Reporting under AWGN conditions - PUCCH 1-1 for eDL-MIMO                                      | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130291 | 0883 | -   | Addition to TC 9.3.2.2.2_D TDD CQI Reporting under fading conditions " PUCCH 1-1 for eDL-MIMO                                  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130292 | 0884 | -   | Additions to TC 9.4.2.1.1_D FDD PMI Reporting - PUSCH 1-2 (Multiple PMI) for eDL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130293 | 0885 | -   | Additions to TC 9.4.2.1.2_D TDD PMI Reporting - PUSCH 1-2 (Multiple PMI) for eDL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130298 | 0886 | -   | CA RF: Correction to TC 7.6.1A   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130299 | 0887 | -   | Uncertainties and Test Tolerances for Test case 7.4A   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130308 | 0888 | -   | Corrections to test procedure of TC 6.2.2 UE Maximum Output Power  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130309 | 0889 | -   | Corrections to test purpose of TC 6.2.3 Maximum Power Reduction (MPR)  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130310 | 0890 | -   | Correction to test procedure of TC 6.7A.1 Transmit Intermodulation for CA  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130407 | 0894 | -   | Correction to test requirement of 6.2.4A   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130408 | 0895 | -   | Correction to test procedure in 6.3.5A.1   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130411 | 0896 | -   | Correction to test procedure in 6.6.2.3A   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130413 | 0897 | -   | Correction to 7.6.3A.3 test procedure  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130415 | 0898 | -   | Correction to 6.6.3.2A and 6.6.3.3A  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130416 | 0899 | -   | Correction to 6.6.3B.2 and 6.6.3B.3  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130419 | 0900 | -   | Correction to 9.3.4 UE-selected subband CQI  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130421 | 0901 | -   | Correction to wideband CQI-samples   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130427 | 0902 | -   | Update of minimum test time in Annex G.5.4   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130471 | 0905 | -   | Update of spurious emission test cases for introduction of Japanese Regulatory Requirements for LTE Band 8                     | 10.4.0 | 10.5.0 |

| Change history |        |           |      |     |   |        |        |
|----------------|--------|-----------|------|-----|---|--------|--------|
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| 2013-03        | RAN#59 | R5-130779 | 0875 | 1   | CA RF: Clarification on Cell ID   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130780 | 0903 | 1   | Correction to 941 and 942   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130801 | 0908 | -   | Additions of CA RF test cases to Annex F  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130804 | 0909 | -   | Correction to 6.6.3.2 and 6.6.3.3   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130806 | 0911 | -   | Update TC 6.6.3.2 Spurious emission band UE co-existence  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130808 | 0912 | -   | CA RF - SCC configuration references  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130809 | 0913 | -   | CA RF Rx - Update of blocking characteristics   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130811 | 0915 | -   | LTE RF - Correction to LTE Rx TCs UL allocation location  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130901 | 0916 | -   | Update of TC 8.7.2.1_A.1 TDD sustained data rate performance for CA (intra-band contiguous DL CA)                                       | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130902 | 0917 | -   | Editorial correction for ON/OFF time mask for CA  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130903 | 0918 | -   | Correction to Band 12 frequency for CA_4-12   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130908 | 0920 | -   | Additions of eDL-MIMO to Annex A.4 CQI Reference Measurement Channels   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130909 | 0921 | -   | Introduction of TC 8.3.1.1.1_D FDD Single-Layer Spatial Multiplexing on antenna ports without a simultaneous transmission for eDL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130910 | 0922 | -   | Introduction of FDD TC 8.3.1.1.2_D FDD Single-Layer Spatial Multiplexing on antenna ports with a simultaneous transmission for eDL-MIMO | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130911 | 0923 | -   | Additions to TC 8.3.1.2.1_D FDD PDSCH Dual-layer Spatial Multiplexing for eDL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130912 | 0924 | -   | Additions to TC 8.3.2.2.1_D TDD PDSCH Dual-layer Spatial Multiplexing for eDL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130913 | 0925 | -   | Additions to TC 8.3.2.1.2_D TDD Single-Layer Spatial Multiplexing on antenna ports without a simultaneous transmission for eDL-MIMO     | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130914 | 0926 | -   | Additions to TC 8.3.2.1.3_D TDD Single-Layer Spatial Multiplexing on antenna ports with a simultaneous transmission for eDL-MIMO        | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130924 | 0934 | -   | Update RF TC for 36.521-1_8.2.1.2.3_C FDD PDSCH Transmit div 2x2 Enhanced ICIC for LTE  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130925 | 0935 | -   | Update RF TC for 36.521-1_8.4.1.2.3_C FDD PCFICH PDCCH Transmit div 2x2 Enhanced ICIC for LTE   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130935 | 0937 | -   | SNR uncertainty   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130936 | 0938 | -   | Introduction of new rel-10 Reporting of RI test cases   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130937 | 0939 | -   | RF: Corrections to Annex H - Default uplink settings  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130938 | 0940 | -   | Update of TC 8.7.2.1_1 TDD sustained data rate performance (Rel-10 and forward)   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130939 | 0941 | -   | Clarification to Soft Channel Bit size used by SS and UE  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130940 | 0942 | -   | Correction to sustained data rate performance test  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130941 | 0943 | -   | Clean up on performance tests   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130944 | 0944 | -   | Update TC 6.3.5A.3.1 Aggregate power control tolerance for CA (intra-band contiguous DL CA and UL CA)                                   | 10.4.0 | 10.5.0 |

| Change history |        |           |      |     |  |        |        |
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| 2013-03        | RAN#59 | R5-130945 | 0945 | -   | Update TC 6.6.3.2A.1 Spurious emission band UE co-existence for CA (intra-band contiguous DL CA and UL CA)                     | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130946 | 0946 | -   | Additions to TC 6.2.5A.1 Configured UE transmitted Power for CA (intra-band contiguous DL CA and UL CA)                        | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130947 | 0947 | -   | Additions to TC 6.6.3.3A.1 Additional spurious emissions for CA (intra-band contiguous DL CA and UL CA)                        | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130948 | 0948 | -   | Additions to TC 7.5A.1 Adjacent Channel Selectivity (ACS) for CA (intra-band contiguous DL CA and UL CA)                       | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130949 | 0949 | -   | Additions to TC 7.5A.2 Adjacent Channel Selectivity (ACS) for CA (intra-band contiguous DL CA without UL CA)                   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130950 | 0950 | -   | Additions to TC 7.5A.3 Adjacent Channel Selectivity (ACS) for CA (inter-band contiguous DL CA without UL CA)                   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130951 | 0951 | -   | Correction to test point of Frequency Error for CA and addition of TC for intra-band contiguous DL CA without UL CA            | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130961 | 0955 | -   | Channel matrix impairments for eDL-MIMO CSI tests  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130965 | 0957 | -   | TC 9.4.1.1.1_D FDD Reporting of PMI - PUSCH 3-1 (Single PMI) for eDL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130966 | 0958 | -   | TC 9.4.1.1.2_D TDD Reporting of PMI -PUSCH 3-1 (Single PMI) for eDL-MIMO   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130967 | 0959 | -   | Additions of eDL-MIMO to Annex C Measurement of Performance Requirements   | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130968 | 0960 | -   | Additions of eDL-MIMO test cases to Annex F  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130969 | 0961 | -   | Additions to Annex G for eDL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130970 | 0962 | -   | Addition to TC 9.2.2.1_D FDD CQI Reporting under AWGN conditions - PUCCH 1-1 for eDL-MIMO                                      | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130971 | 0963 | -   | Addition to TC 9.3.2.2.1_D FDD CQI Reporting under fading conditions - PUCCH 1-1 for eDL-MIMO                                  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130972 | 0964 | -   | Additions to TC 9.5.1.1_D FDD RI Reporting for eDL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130973 | 0965 | -   | Additions to TC 9.5.1.2_D TDD RI Reporting for eDL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130978 | 0966 | -   | Correcting TS 36.521-1 to reflect changes in 36.101  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130979 | 0967 | -   | Correction of RF conformance Test case: 8.2.1.3.3  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130980 | 0968 | -   | Addition new TC 8.2.2.3.3 TDD PDSCH Open Loop Spatial Multiplexing 2x2-Demod subframe overlaps with aggressor cell ABS (eICIC) | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130994 | 0969 | -   | Corrections to 7.8.1A Wideband intermodulation for CA  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130998 | 0970 | -   | TC 9.3.1.2.1_D FDD CQI Reporting under fading conditions - PUSCH 3-1 for eDL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130999 | 0971 | -   | TC 9.3.1.2.2_D TDD CQI Reporting under fading conditions - PUSCH 3-1 for eDL-MIMO  | 10.4.0 | 10.5.0 |
| 2013-03        | RAN#59 | R5-130093 | 0852 | -   | Updates of 5.2A Operating bands for CA_11-18   | 10.5.0 | 11.0.0 |
| 2013-03        | RAN#59 | R5-130094 | 0853 | -   | Updates of 5.4.2A Channel bandwidth combination for CA_11-18   | 10.5.0 | 11.0.0 |
| 2013-03        | RAN#59 | R5-130124 | 0855 | -   | Additions to the inter-band relaxation term for CA 3A-8A in Table 6.2.5A.1.3-3   | 10.5.0 | 11.0.0 |
| 2013-03        | RAN#59 | R5-130140 | 0865 | -   | Update TC 7.3A.3 Reference sensitivity level for CA_3-7 and  | 10.5.0 | 11.0.0 |

| Change history |       |          |    |     |  |     |     |
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|                |       |          |    |     | CA_7-20 (inter-band DL CA without UL CA) |     |     |

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| Date           | TSG #  | TSG Doc.  | CR   | Rev | Subject/Comment  | Old    | New    |  |
| 2013-03        | RAN#59 | R5-130141 | 0866 | -   | Update TC 7.6.2A.1 Out-of-band blocking for CA_38 (intra-band contiguous DL CA and UL CA)                          | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130142 | 0867 | -   | Update TC 6.2.2A.1 UE Maximum Output Power for CA_38 (intra-band contiguous DL CA and UL CA)                       | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130144 | 0868 | -   | Update TC 6.2.4A.1 Additional Maximum Power Reduction (A-MPR) for CA_38 (intra-band contiguous DL CA and UL CA)    | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130239 | 0876 | -   | Updates of 6.2.5A - inter-band relaxation term for CA_1A-18A and CA_11A-18A  | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130257 | 0878 | -   | Addition of TDD operating band 44 in receiver characteristic test cases  | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130258 | 0879 | -   | Addition of TDD operating band 44 in transmitter characteristic test cases   | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130329 | 0891 | -   | Updates for 7.6.1A.1 in-band blocking for CA_7 and CA_41   | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130330 | 0892 | -   | Updates for 7.6.2A.1 Out-of-band blocking for CA_7 and CA_41   | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130348 | 0972 | -   | Correction to Spurious emission band UE co-existence and Additional spurious emissions for Band 28                 | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130349 | 0893 | -   | Addition of Band 28 to MPR and A-MPR   | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130769 | 0907 | -   | Updates of Refsens for inter-band CA test points for CA_1A-19A and CA_1A-21A                                       | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130783 | 0906 | -   | Update TC 6.2.3A.1 Maximum Power Reduction (MPR) for CA_38 (intra-band contiguous DL CA and UL CA)                 | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130805 | 0910 | -   | Update TC 7.3A.1 Reference sensitivity level for CA_38, CA_3-7 and CA_7-20 (intra-band contiguous DL CA and UL CA) | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130810 | 0914 | -   | CA_2-17 and CA_4-17 addition to 36.521-1 Rx characteristics  | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130905 | 0919 | -   | Addition of TDD operating band 44 in chapter 5   | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130915 | 0927 | -   | Addition of band 38 and band 41 in intra-band contiguous CA transmitter test cases                                 | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130916 | 0928 | -   | Update TC 7.6.1A.1 In-band blocking for CA_38 (intra-band contiguous DL CA and UL CA)                              | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130917 | 0929 | -   | Addition of Inter Band CA combo CA_2A-29A  | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130918 | 0930 | -   | Update of 6.2.5A Configured transmitted power for CA   | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130919 | 0931 | -   | CA_2-17 and CA_4-17 addition to 36.521-1 Tx characteristics  | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130920 | 0932 | -   | Adding transmit power relaxation value for inter-band CA configurations CA_4A-5A and CA_4A-13A                     | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130921 | 0933 | -   | Adding refsens relaxation value for inter-band CA configurations CA_4A-5A and CA_4A-13A                            | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130926 | 0936 | -   | Updates for 6.6.2.1A Spectrum emission mask for CA for CA_7 and CA_41  | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130956 | 0952 | -   | Updates for 7.3A.1 Reference sensitivity level for CA_7C   | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130957 | 0953 | -   | Updates for 6.2.2A UE Maximum Output Power for CA_7 and CA_41  | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130958 | 0954 | -   | Updates of 7.3A - Reference sensitivity level for CA_11A-18A   | 10.5.0 | 11.0.0 |  |
| 2013-03        | RAN#59 | R5-130964 | 0956 | -   | Adding Band 27 to TS 36.521-1  | 10.5.0 | 11.0.0 |  |

| <b>Change history</b> |              |                 |           |                 |  |            |            |
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| 2013-03               | RAN#59       | -               | -         | -               | Correction of missing small changes of R5-130806 in Table 6.6.3.2.3-1, 6.6.3.2.5-1, 6.6.3.2_1.3-1 and 6.6.3.2_1.5-1. | 11.0.0     | 11.0.1     |
| 2013-06               | RAN#60       | R5-131085       | 0973      | -               | Removal of technical content in 36.521-1 v10.5.0 and substitution with pointer to the next Release                   | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131147       | 0974      | -               | Updates to Chapter7 for Inter Band CA combo CA_2A-29A  | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131149       | 0975      | -               | New chap8 TDD TC 8.2.2.2.3_C for eICIC   | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131150       | 0976      | -               | New chap 8 TDD TC 8.4.2.2.3_C for eICIC  | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131153       | 0977      | -               | Introduction of new rel-11 Reporting of RI test cases  | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131154       | 0978      | -               | Introduction of new rel-11 Reporting of RI test cases into annexes   | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131156       | 0979      | -               | Correction to TC 8.4.1.1 test procedure  | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131158       | 0980      | -               | Introduction of Maximum Input Level test case for CA (inter-band DL CA without UL CA) into annexes                   | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131210       | 0981      | -               | Correction of test applicability for TC 8.2.1.1.1_1: TC 8.2.1.2.1_1 and TC 8.3.2.1.1_1 in 36.521-1                   | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131222       | 0982      | -               | Update of TC6.6.3B.1 for Transmitter Spurious emissions for UL-MIMO  | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131226       | 0983      | -               | Clarification to test procedure on applying timing offset between CCs for Chap8 inter-band CA test cases             | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131238       | 0984      | -               | Update TC 6.2.4A.1 Additional Maximum Power Reduction (A-MPR) for CA_38C (intra-band contiguous DL CA and UL CA)     | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131241       | 0985      | -               | Update TC 7.3A.1 Reference sensitivity level for CA_4A-12A (intra-band contiguous DL CA and UL CA)                   | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131242       | 0986      | -               | Update TC 7.3A.3 Reference sensitivity level for CA_4A-12A (inter-band DL CA without UL CA)                          | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131245       | 0987      | -               | Update TT of 6.3.5A.3.1 Aggregate power control tolerance for CA (intra-band contiguous DL CA and UL CA)             | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131289       | 0988      | -               | Uncertainties and Test Tolerances for CA spectrum emission mask  | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131358       | 0989      | -               | RF: Corrections to RMC-s for sustained data rate test  | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131379       | 0990      | -               | CA RF - Corrections to 6.2.4A.1 requirements   | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131381       | 0991      | -               | LTE RF - Editorial correction to 8.2.2.4.2_1   | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131415       | 0992      | -               | Updates for 6.6.1A Occupied bandwidth for CA_41C   | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131450       | 0993      | -               | Addition of band44 in MPR for UL-MIMO  | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131473       | 0994      | -               | References to wrong section in TS 36.508   | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131518       | 0995      | -               | Corrections to Common Test Parameters User-Specific  | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131519       | 0996      | -               | Corrections to Beamforming Model Parameters  | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131521       | 0997      | -               | Corrections to Reporting of Channel State Requirements   | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131522       | 0998      | -               | Corrections to Reporting of Precoding Matrix Indicator Requirements  | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131527       | 0999      | -               | Additions to Annex G for eDL-MIMO  | 11.0.1     | 11.1.0     |
| 2013-06               | RAN#60       | R5-131528       | 1000      | -               | Additions of eDL-MIMO test cases to Annex F  | 11.0.1     | 11.1.0     |

| Change history |        |           |      |     |  |        |        |  |
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| 2013-06        | RAN#60 | R5-131539 | 1001 | -   | LTE RF: Minor changes to test case 7.5A.3  | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131540 | 1002 | -   | LTE-RF: Clarification to 7.6.1A.3 test procedure   | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131541 | 1003 | -   | Corrections to TC 6.6.2.3A.1 Adjacent Channel Leakage power Ratio for CA (intra-band contiguous DL CA and UL CA) | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131545 | 1004 | -   | Additions to TC 9.2.3.1_D for FDD CQI reporting under AWGN conditions - PUCCH 1-1 for eDL-MIMO                   | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131546 | 1005 | -   | LTE-RF: Corrections to CA Open Loop Spatial Multiplexing Performance test cases                                  | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131553 | 1006 | -   | Additions to TC 9.2.3.2_D for TDD CQI reporting under AWGN conditions - PUCCH 1-1 for eDL-MIMO                   | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131555 | 1007 | -   | Additions to TC 9.3.1.2.2_D for TDD CQI reporting under fading conditions - PUSCH 3-1 for eDL-MIMO               | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131559 | 1008 | -   | Additions to TC 9.3.2.2.2_D for TDD CQI reporting under fading conditions - PUCCH 1-1 for eDL-MIMO               | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131561 | 1009 | -   | Update of 6.2.5A - Delta TIB for CA_11A-18A  | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131562 | 1010 | -   | Additions to TC 9.4.1.3.2_D for TDD reporting of PMI-PUSCH 3-1 (Single PMI) for eDL-MIMO                         | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131563 | 1011 | -   | Update of 7.3A - Delta RIB for CA_11A-18A  | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131567 | 1012 | -   | Additions to TC 9.4.2.3.2_D for TDD PMI reporting - PUSCH 1-2 (Multiple PMI) for eDL-MIMO                        | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131569 | 1013 | -   | Additions to TC 9.5.2.2_D for TDD RI reporting - PUCCH 1-1 for eDL-MIMO  | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131634 | 1014 | -   | Removal of Spurious emission UE co-existence test case 6.6.3.2_1 from annex F                                    | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131649 | 1015 | -   | Adding Band28 in some Receiver test cases in section 7   | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131677 | 1016 | -   | Correction to the contents of the chapter 5.   | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131711 | 1017 | -   | Corrections to test procedure of TC 7.5B Adjacent Channel Selectivity (ACS) for UL-MIMO                          | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131900 | 1018 | -   | RF: Correction of Imcs for CQI index 10 (15 RBs)   | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131901 | 1019 | -   | Corrections to Frequency non-selective scheduling mode   | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131902 | 1020 | -   | Correction to the missing title of Rel 9 close loop tests  | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131903 | 1021 | -   | Correction to the references of connection diagrams  | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131904 | 1022 | -   | Maintenance of Band 23 additional regulatory requirements  | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131905 | 1023 | -   | Realignment of A-MPR Configuration Tables for Band 27 in TS 36.521-1   | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131906 | 1024 | -   | Update on General section of Tx and Rx for Cell IDs  | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131907 | 1025 | -   | LTE RF: Initial conditions update for test 6.2.5A.2  | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131908 | 1026 | -   | CA RF: Alignment for inter-band Rx tests with DL tested only as S-Cell   | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131909 | 1027 | -   | 36.521-1: Inter-band CA operating bands update   | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131911 | 1028 | -   | Updates for 7.7A.1 Spurious response for CA  | 11.0.1 | 11.1.0 |  |
| 2013-06        | RAN#60 | R5-131915 | 1029 | -   | Additions to TC 9.3.1.2.1_D for FDD CQI reporting under fading conditions - PUSCH 3-1 for eDL-MIMO               | 11.0.1 | 11.1.0 |  |

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| 2013-06        | RAN#60 | R5-131916 | 1030 | -       | Additions to TC 9.3.2.2.1_D for FDD CQI reporting under fading conditions - PUCCH 1-1 for eDL-MIMO        | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131917 | 1031 | -       | Additions to TC 9.4.1.3.1_D for FDD reporting of PMI - PUSCH 3-1 (Single PMI) for eDL-MIMO                | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131918 | 1032 | -       | Additions to TC 9.4.2.3.1_D for FDD PMI reporting - PUSCH 1-2 (Multiple PMI) for eDL-MIMO                 | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131919 | 1033 | -       | Additions to TC 9.5.2.1_D for FDD RI reporting - PUCCH 1-1 for eDL-MIMO                                   | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131920 | 1034 | -       | Adding Band28 in some Transmitter test cases in section 6   | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131921 | 1035 | -       | New RF TC for 36.521-1_8.5.1.2.3_C.1_Enhanced ICIC for LTE  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131929 | 1036 | -       | Update TT of 6.2.2B_6.2.3B_6.2.4B and 6.2.5B for UL-MIMO  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131930 | 1037 | -       | Update TT of 6.3.2B_6.3.3B and 6.3.4B for UL-MIMO   | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131931 | 1038 | -       | Update TT of 6.3.5B.1_6.3.5B.2 and 6.3.5B.3 for UL-MIMO   | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131932 | 1039 | -       | Update TT of 6.5.1B_6.5.2B.1_6.5.2B.2_6.5.2B.3_6.5.2B.4 for UL-MIMO                                       | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131933 | 1040 | -       | Update TT of 6.6.1B Occupied bandwidth for UL-MIMO  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131934 | 1041 | -       | Update TT of 6.6.2.1B_6.6.2.2B and 6.6.2.3B for UL-MIMO   | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131935 | 1042 | -       | Update TT of 6.7B Transmit intermodulation for UL-MIMO  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131936 | 1043 | -       | Update TT of 6.8B Time alignment error for UL-MIMO  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131937 | 1044 | -       | Update TT of 7.3B Reference sensitivity level for UL-MIMO   | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131952 | 1045 | -       | Corrections to TC 6.2.5A.1 Configured UE transmitted Power for CA (intra-band contiguous DL CA and UL CA) | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131954 | 1046 | -       | Maintenance of Band 23 Spurious Emissions Requirements  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131955 | 1047 | -       | Corrections to Demodulation Requirements  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131956 | 1048 | -       | Updates to sustained data rate test case  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131957 | 1049 | -       | New RF TC for 36.521-1_9.2.1.3_C.1_Enhanced ICIC for LTE  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131958 | 1050 | -       | RF: Structure clean-up for chapter 9 (including eICIC and eDL-MIMO tests)                                 | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131959 | 1051 | -       | Update TT of 7.4B_7.5B_7.6.1B_7.6.2B_7.6.3B_7.7B and 7.8.1B for UL-MIMO                                   | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131960 | 1052 | -       | Update of TC6.6.3B.3 for Additional spurious emissions for UL-MIMO  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131961 | 1053 | -       | Update of TC6.6.3B.2 for Spurious emissions band UE co-existence for UL-MIMO                              | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131962 | 1054 | -       | Updates of 6.2.2.3 - maximum output power for UE that supports both Band 18 and 26                        | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131963 | 1055 | -       | Update of 6.2.4 Test points for A-MPR when NS_05 is signalled   | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131964 | 1056 | -       | Updates of 7.3.3 - Refsens for UE that supports both Band 18 and Band 26                                  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131969 | 1057 | -       | CA RF: Alignment for tests with PCC and SCC switching   | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131971 | 1059 | -       | Introduction of Maximum Input Level test case for CA (inter-  | 11.0.1 | 11.1.0 |

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|                |       |          |    |     | band DL CA without UL CA) |     |     |

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| 2013-06        | RAN#60 | R5-131972 | 1060 | -   | Addition of Maximum input level for inter-band CA and updates to test configuration for some Rx TCs                                     | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131973 | 1061 | -   | Updates to FDD sustained data rate test case for CA   | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131974 | 1062 | -   | Clarification on Time offset between cells  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131975 | 1063 | -   | Update TC 6.2.3A.1 Maximum Power Reduction (MPR) for CA (intra-band contiguous DL CA and UL CA)   | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131976 | 1064 | -   | Update of UE co-existence requirement for CA  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131977 | 1065 | -   | Update TC 6.2.5A.1 Configured UE transmitted Output Power for CA_3A-7A, CA_4A-12A and CA_7A-20A (intra-band contiguous DL CA and UL CA) | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131978 | 1066 | -   | Updates for 6.2.4A A-MPR for CA_41C   | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131979 | 1067 | -   | Updates for 7.5A.1 Adjacent Channel Selectivity (ACS) for CA_41C  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131980 | 1068 | -   | Updates for 7.6.1A.1 in-band blocking for CA_41C  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131981 | 1069 | -   | Updates for 7.6.2A.1 Out-of-band blocking for CA_41C  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131982 | 1070 | -   | Updates for 7.6.3A.1 Narrow band blocking for CA_41C  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131983 | 1071 | -   | Updates for 7.8.1A.1 Wideband intermodulation for CA_41C  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131985 | 1072 | -   | Update of CA refens test 7.3A for inter-band CA configurations CA_4A-5A and CA_4A-13A   | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131987 | 1073 | -   | Addition of band 44 in MPR  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-131990 | 1074 | -   | CA_1A-18A, CA_2A-17A, CA_3A-8A, CA_4A-5A, CA_4A-13A, CA_4A-17A, CA_11A-18A addition and corrections to Reference Sensitivity TC 7.3A    | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-132079 | 1058 | -   | Corrections to TC 6.6.3.3A.1 Additional spurious emissions for CA (intra-band contiguous DL CA and UL CA)                               | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-132080 | 1075 | -   | CA RF - Corrections to Blocking Characteristics in 7.6  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-132103 | 1076 | -   | Change Spurious emission UE co-existence test cases to align with release independence rule   | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-132105 | 1077 | -   | CA RF: Corrections to message contents with regard to transmission mode   | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-132110 | 1078 | -   | Updated test points test case 6.2.3 A-MPR for NS_15 band26  | 11.0.1 | 11.1.0 |
| 2013-06        | RAN#60 | R5-132113 | 1079 | -   | New test cases for LTE B14 public safety high power UE  | 11.0.1 | 11.1.0 |
| 2013-09        | RAN#61 | R5-133070 | 1080 | -   | Correction to test points in Additional Spurious Emissions Coexistence test case  | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133073 | 1081 | -   | LTE Type A performance requirements - Changes to clause 3   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133074 | 1082 | -   | LTE Type A performance requirements - Changes to clause 8.1.1   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133075 | 1083 | -   | LTE Type A performance requirements - Changes to Annex A  | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133076 | 1084 | -   | LTE Type A performance requirements - Introduction of Annex B.5   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133077 | 1085 | -   | LTE Type A performance requirements - Introduction of the new test case 9.3.5.1.1.  | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133232 | 1086 | -   | Corrections to CA TC 6.5.2A.3   | 11.1.0 | 11.2.0 |

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| 2013-09        | RAN#61 | R5-133247 | 1087 | -   | Addition of Band 31 to 36.521-1 General s05  | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133248 | 1088 | -   | Addition of Band 31 to 36.521-1 RX s07   | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133249 | 1089 | -   | Addition of Band 31 to 36.521-1 TX s06   | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133252 | 1090 | -   | RF: Minor correction to test points for spurious emissions UE co-existence                                       | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133258 | 1091 | -   | Update TC 7.3A.3 Reference sensitivity level for CA_5A-12A (inter-band DL CA without UL CA)                      | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133261 | 1092 | -   | Update the minimum requirements of TCs 7.6.3A.1, 7.7A.1 and 7.8.1A.1 for CA                                      | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133262 | 1093 | -   | Update TC 6.6.3B.2 of Spurious emission band UE co-existence for UL-MIMO   | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133263 | 1094 | -   | Update TCs 6.2.2B and 6.2.5B for UL-MIMO   | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133265 | 1095 | -   | RF: Addition of missing UL-RMC-s for Tx testing  | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133266 | 1096 | -   | Correction of TCs 7.3 and 7.3B Reference sensitivity level for Band 27   | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133268 | 1097 | -   | CA RF: Addition of new CQI tests for CA  | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133298 | 1098 | -   | Correction to Spurious emission band UE co-existence   | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133415 | 1099 | -   | Correction to the repeat steps in 7.6.1A, 7.6.3A and 7.8.1A  | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133418 | 1100 | -   | Correction to CA sustained data rate performance test  | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133423 | 1101 | -   | Correction to eICIC Performance test cases   | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133425 | 1102 | -   | Correction to UE category in Tx test cases   | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133426 | 1103 | -   | Correction to Spurious emission band UE co-existence   | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133431 | 1104 | -   | Correction to MBMS Performance test cases  | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133474 | 1105 | -   | Update TC of 8.7.2.1_A.1 TDD sustained data rate performance for CA (intra-band contiguous DL CA)                | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133517 | 1106 | -   | Adding the minimum channel spacing for intra-band non-contiguous CA  | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133522 | 1107 | -   | Corrections to Annex F for Maintenance of Band 23  | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133523 | 1108 | -   | Corrections to description for definition of MIMO Correlation Matrices using cross polarized antennas            | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133524 | 1109 | -   | Corrections to UE maximum output power for CA  | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133525 | 1110 | -   | Corrections to General Maintenance of Operating Bands and Channel Arrangements                                   | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133532 | 1111 | -   | Introduction of eICIC_enh_LTE to Annex C   | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133534 | 1112 | -   | Corrections to TC 6.6.2.3A.1 Adjacent Channel Leakage power Ratio for CA (intra-band contiguous DL CA and UL CA) | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133535 | 1113 | -   | Corrections to TC 7.5A.1 Adjacent Channel Selectivity (ACS) for CA (intra-band contiguous DL CA and UL CA)       | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133800 | 1114 | -   | Correction to test frequency in Additional Spurious Emissions test cases for NS_15                               | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133801 | 1115 | -   | Update applicability of test cases 9.4.2.2.1 and 9.4.2.2.2   | 11.1.0 | 11.2.0 |  |
| 2013-09        | RAN#61 | R5-133802 | 1116 | -   | Correction to applicability for TDD-TM8 test cases   | 11.1.0 | 11.2.0 |  |

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| 2013-09        | RAN#61 | R5-133803 | 1117 | -   | Editorial correction to 6.6.3.3 Additional spurious emissions  | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133804 | 1118 | -   | Correction the Minimum conformance requirements for test case 6.2.2B   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133805 | 1119 | -   | CA RF: Adding missing DL-RMC-s   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133806 | 1120 | -   | Update TC of 8.2.1.1 FDD PDSCH Single Antenna Port Performance (Cell-Specific Reference Symbols) for CA                    | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133807 | 1121 | -   | Update TC of 8.2.1.4 FDD PDSCH Closed Loop Spatial Multiplexing Performance (Cell-Specific Reference Symbols) for CA       | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133808 | 1122 | -   | Addition of new TC 8.2.1.4.2_A.2 for FDD PDSCH Closed Loop Multi Layer Spatial Multiplexing 4x2 for CA (inter band DL CA)  | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133811 | 1123 | -   | Update of CA TC 7.3A.1   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133812 | 1124 | -   | Update of CA TC 7.4A.1   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133819 | 1125 | -   | Correction of applicability for FDD RF TCs 9.3.4.1.1, 9.3.4.2.1 & 9.4.1.2.1and TDD RF TCs 9.3.4.1.2, 9.3.4.2.2 & 9.4.1.2.2 | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133823 | 1126 | -   | Introduction of eICIC_enh_LTE to Annex A to reference measurement channels for PDCCH/PCFICH                                | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133824 | 1127 | -   | Introduction of eICIC_enh_LTE to Annex A DL reference measurement channels   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133828 | 1128 | -   | Corrections to 6.2.4 A-MPR for Maintenance of Band 23  | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133829 | 1129 | -   | Corrections to Transmitter Characteristics Maintenance   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133830 | 1130 | -   | Alignment of test configuration tables (test frequencies) in Additional Spurious Emissions tests cases                     | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133831 | 1131 | -   | Corrections to Receiver Characteristics Maintenance  | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133832 | 1132 | -   | Corrections to 6.6.2.2 Additional Spectrum Emission Mask for Maintenance of Band 23  | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133833 | 1133 | -   | Updates to Chapter7 for Inter Band CA combo CA_4A-29A  | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133838 | 1134 | -   | Update Minimum Requirements of TCs 6.2.4 and 6.2.5   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133845 | 1135 | -   | Correction to Configured UE transmitted output power for CA  | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133846 | 1136 | -   | Corrections to TC 6.2.5A.2 Configured UE transmitted Power for CA (inter-band DL CA without UL CA)                         | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133847 | 1137 | -   | Updates to Wideband intermodulation for CA test cases  | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133850 | 1138 | -   | Correction to measurement target of CA Rx test cases   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133851 | 1139 | -   | Corrections to TC 7.5A.2 Adjacent Channel Selectivity (ACS) for CA (intra-band contiguous DL CA without UL CA)             | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133852 | 1140 | -   | Update TC of 8.7.1.1_A.1 FDD Sustained data rate performance for CA (intra band contiguous DL CA)                          | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133853 | 1141 | -   | Update TC of 8.7.1.1_A.2 FDD Sustained data rate performance for CA (inter band DL CA)                                     | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133854 | 1142 | -   | Updates of Annex for CA test cases   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133863 | 1143 | -   | Clarification on Bandwidth Combination Set for Carrier Aggregation Transmitter tests                                       | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133865 | 1144 | -   | Update TC 6.2.5A.1 Configured UE transmitted Output Power  | 11.1.0 | 11.2.0 |

| Change history |       |          |    |     |   |     |     |
|----------------|-------|----------|----|-----|---|-----|-----|
| Date           | TSG # | TSG Doc. | CR | Rev | Subject/Comment                                       | Old | New |
|                |       |          |    |     | for CA_5A-12A (intra-band contiguous DL CA and UL CA) |     |     |

| Change history |        |           |      |     |  |        |        |
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| Date           | TSG #  | TSG Doc.  | CR   | Rev | Subject/Comment  | Old    | New    |
| 2013-09        | RAN#61 | R5-133866 | 1145 | -   | Update the minimum requirements of TCs 7.5A.1, 7.6.1A.1 and 7.6.2A.1 for CA  | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133867 | 1146 | -   | Update TC 7.3A.1 Reference sensitivity level for CA (intra-band contiguous DL CA and UL CA)                                      | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133869 | 1147 | -   | Addition of Refsens for intra-band non-contiguous CA   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133870 | 1148 | -   | Update TC 7.3A.3 reference sensitivity level for CA_3-8 (inter-band DL CA without UL CA)   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133871 | 1149 | -   | Test cases and test system uncertainty for LTE B14 public safety highpower UE  | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133873 | 1150 | -   | Addition of new TC 8.3.1.1.3 for FDD PDSCH Single-layer Spatial Multiplexing on antenna ports 7 or 8 with TM9 Interference Model | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133874 | 1151 | -   | Addition of new TC 8.3.2.1.4 for TDD PDSCH Single-layer Spatial Multiplexing on antenna ports 7 or 8 with TM9 Interference Model | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133886 | 1152 | -   | eICIC RF: Addition of new RI tests and OCNG patterns for eICIC   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133887 | 1153 | -   | Update of CA TC 6.2.3A and TC 6.2.4A   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133888 | 1154 | -   | CA RF: Corrections to reference sensitivity requirements for CA  | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133889 | 1155 | -   | Correction to Test Requirement in 7.3A.3   | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133890 | 1156 | -   | Update TC of 8.2.1.3 FDD PDSCH Open Loop Spatial Multiplexing Performance (Cell-Specific Reference Symbols)for CA                | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133898 | 1157 | -   | Clarification on Bandwidth Combination Set for Carrier Aggregation Receiver tests  | 11.1.0 | 11.2.0 |
| 2013-09        | RAN#61 | R5-133899 | 1158 | -   | Addition of CA TC 6.6.2.2A   | 11.1.0 | 11.2.0 |
| 2013-12        | RAN#62 | R5-134130 | 1159 | -   | RF: Corrections to the notes in the band UE co-existence requirements table  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134131 | 1160 | -   | RF: Corrections to sustained data rate test case   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134132 | 1161 | -   | RF: Clean-up of uplink reference measurement channels  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134139 | 1162 | -   | eICIC RF: Corrections to PHICH demodulation test   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134161 | 1163 | -   | Corrections to Transmitter Requirements for Intra-bandNon-contiguous CA  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134169 | 1164 | -   | Introduction of I.2.6 Tests for feICIC (Further Enhanced Non CA- based ICIC for LTE)   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134170 | 1165 | -   | Introduction of TC 8.2.1.2.3_E.1 FDD PDSCH Transmit diversity 2x2 for feICIC (non-MBFSN ABS)                                     | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134171 | 1166 | -   | Introduction of TC 8.2.2.2.3_E.1 TDD PDSCH Transmit diversity 2x2 for feICIC (non-MBSFN ABS)                                     | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134172 | 1167 | -   | Introduction of TC 8.2.1.4.1_E.1 FDD PDSCH Closed Loop Single Layer Spatial Multiplexing 2x2 for feICIC (non-MBSFN ABS)          | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134173 | 1168 | -   | Introduction of TC 8.2.2.4.1_E.1 TDD PDSCH Closed Loop Single Layer Spatial Multiplexing 2x2 for feICIC (non-MBSFN ABS)          | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134174 | 1169 | -   | Introduction of TC 8.4.1.2.3_E.1 FDD PCFICH/PDCCH  | 11.2.0 | 11.3.0 |

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|                |       |          |    |     | Transmit Diversity 2x2 for felCIC (non-MBSFN ABS) |     |     |

| Change history |        |           |      |     |   |        |        |  |
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| Date           | TSG #  | TSG Doc.  | CR   | Rev | Subject/Comment   | Old    | New    |  |
| 2013-12        | RAN#62 | R5-134175 | 1170 | -   | Introduction of TC 8.4.1.2.3_E.2 FDD PCFICH/PDCCH Transmit Diversity 2x2 for feICIC (MBSFN ABS)                   | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134176 | 1171 | -   | Introduction of TC 8.4.2.2.3_E.1 TDD PCFICH/PDCCH Transmit Diversity 2x2 for feICIC (non-MBSFN ABS)               | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134177 | 1172 | -   | Introduction of TC 8.4.2.2.3_E.2 TDD PCFICH/PDCCH Transmit Diversity 2x2 for feICIC (MBSFN ABS)                   | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134178 | 1173 | -   | Introduction of Demodulation feICIC Test Cases to Annex F   | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134179 | 1174 | -   | Introduction of TC 9.2.1.5_E.1 FDD CQI Reporting under AWGN conditions - PUCCH 1-0 for feICIC (non-MBSFN ABS)     | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134180 | 1175 | -   | Introduction of TC 9.2.1.6_E.1 TDD CQI Reporting under AWGN conditions - PUCCH 1-0 for feICIC (non-MBSFN ABS)     | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134181 | 1176 | -   | Introduction of TC 9.3.1.3.1_E.1 FDD CQI Reporting under fading conditions - PUSCH 3-0 for feICIC (non-MBSFN ABS) | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134182 | 1177 | -   | Introduction of TC 9.3.1.3.2_E.1 TDD CQI Reporting under fading conditions - PUSCH 3-0 for feICIC (non-MBSFN ABS) | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134183 | 1178 | -   | Introduction of TC 9.5.4.1_E FDD RI Reporting - PUCCH 1-0 for feICIC (non-MBSFN ABS)                              | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134184 | 1179 | -   | Introduction of TC 9.5.4.2_E TDD RI Reporting - PUCCH 1-0 for feICIC (non-MBSFN ABS)                              | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134185 | 1180 | -   | Introduction of Reporting of Channel State Information feICIC Test Cases to Annex F                               | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134196 | 1181 | -   | Corrections to 7.5A.3 Adjacent Channel Selectivity (ACS) for CA (inter-band DL CA without UL CA)                  | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134199 | 1182 | -   | Corrections to MPR for intra-band non-contiguous CA   | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134234 | 1183 | -   | CA RF: Corrections to requirements for In-Band blocking for Inter-Band without UL-CA                              | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134247 | 1184 | -   | RF: Corrections to requirements for NS_11 (Band 23)   | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134250 | 1185 | -   | RF: Band edge relaxation for UE-s supporting Band 18 and Band 26  | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134289 | 1187 | -   | Correction to Maximum Power Reduction (MPR) for CA Test Procedure   | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134413 | 1189 | -   | Update TT of TC 8.2.1.4.2_A.2 FDD PDSCH Closed Loop Multi Layer 4x2 for CA  | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134414 | 1190 | -   | Correction of TC 6.2.4A Test Requirements for CA_38C  | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134421 | 1191 | -   | The addition of Beamforming model for EPDCCH localized transmission   | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134423 | 1192 | -   | The addition of Beamforming model for EPDCCH distributed transmission   | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134424 | 1193 | -   | The addition of Downlink physical setup for EPDCCH  | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134431 | 1194 | -   | LTE Type A performance requirements - Introduction of the new test case 8.2.1.2.4                                 | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134432 | 1195 | -   | LTE Type A performance requirements - adding TC 8.2.1.2.4 and 9.3.5.1.1 to Annex E and G                          | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134445 | 1196 | -   | TU and TT for 36.521-1 eICIC FDD PCFICH/PDCCH and PHICH demodulation tests  | 11.2.0 | 11.3.0 |  |
| 2013-12        | RAN#62 | R5-134477 | 1197 | -   | Correction to CA Sustained data rate tests  | 11.2.0 | 11.3.0 |  |

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| 2013-12        | RAN#62 | R5-134478 | 1198 | -   | Correction to CQI-ReportConfig-DEFAULT for CA performance tests   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134485 | 1199 | -   | Clarification of UL resource blocks for CA_4A-17A in 7.3A.3   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134488 | 1200 | -   | Correction to test requirement in 6.2.4   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134489 | 1201 | -   | Correction to test requirement in 6.6.3.2   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134490 | 1202 | -   | Additional exception message for SIB3 in MBMS performance test  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134800 | 1204 | -   | Introduction of UE TM3 Demodulation Performance under High Speed to Annex F   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134801 | 1205 | -   | Introduction of UE TM3 Demodulation Performance under High Speed  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134802 | 1206 | -   | Corrections to eDL-MIMO Channel State Information Test  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134805 | 1207 | -   | Update Minimum Requirements of TCs 6.6.3.2 and 6.6.3.2A Spurious emission band UE co-existence                            | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134806 | 1208 | -   | Change Spurious emission UE co-existence test case for LTE CA to align with release independence rule                     | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134807 | 1209 | -   | Clarification of applicability of additional relaxation RIB,c on Reference Sensitivity Test Cases                         | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134816 | 1215 | -   | Addition of new Test Case PUCCH 1-1 for Interference rejection  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134817 | 1216 | -   | Addition of interference rejection test cases TC 8.2.2.2.4 and TC 8.2.2.4.3   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134828 | 1217 | -   | Clarification of multi-cluster transmission terminology   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134829 | 1218 | -   | Corrections to Pmax   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134830 | 1219 | -   | Corrections to test descriptions reference tables for Transmitter Characteristics test cases                              | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134832 | 1220 | -   | Corrections to definition of 5+20 MHz for spectrum emission mask for CA in Annex F  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134857 | 1223 | -   | Update TC 6.2.4 A-MPR for NS_19   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134858 | 1224 | -   | Update TC 6.6.3.3 Additional Spurious Emissions for NS_19   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134859 | 1225 | -   | Simplification of test points in Additional Spurious Emissions Coexistence test case                                      | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134861 | 1227 | -   | Addition of Sustained data rate test(FDD) for category 6 and 7 UEs  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134865 | 1228 | -   | CA RF: Power alignment between uplink component carriers  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134866 | 1229 | -   | Completion of test case 6.7A Transmit intermodulation for CA  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134867 | 1230 | -   | Update Minimum Requirements of TCs 7.3 and 7.3.1A Reference sensitivity power level                                       | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134868 | 1231 | -   | Clean-up of CA Rx test cases  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134871 | 1232 | -   | Update Minimum Requirements and TT of TC 8.2.1.3.1_A  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134875 | 1233 | -   | Addition of Inter Band CA combo CA_3A-5A, CA_3A-20A   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134876 | 1234 | -   | Addition of Inter Band CA combo CA_4A-7A  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134878 | 1235 | -   | Correction and applicability clarification to multi-cluster allocations for UL CA TCs 6.2.3A, 6.2.4A, 6.6.2.1A, 6.6.2.2A, | 11.2.0 | 11.3.0 |

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|                |        |           |      |     | 6.6.2.3A and 6.6.3.3A  |        |        |
| 2013-12        | RAN#62 | R5-134879 | 1236 | -   | Clarification of CA Reference sensitivity level  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134880 | 1237 | -   | Correction to blocking requirements and use of delta RIB   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134881 | 1238 | -   | Addition of new TC 7.4A.4 Maximum input level for CA (intra band non-contiguous DL CA without UL CA)               | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134882 | 1239 | -   | Addition of new TC 7.5A.4 Adjacent Channel Selectivity (ACS) for CA(intra band non-contiguous DL CA without UL CA) | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134889 | 1244 | -   | Uncertainties and Test Tolerances for eICIC PDSCH demodulation tests   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134893 | 1247 | -   | Addition of applicabilities of LTE Type A performance requirements   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134894 | 1248 | -   | Test Procedure, uncerts and TT for Rx Test cases with intra-band contiguous UL CA                                  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134976 | 1251 | -   | Update TT of TC 8.2.1.4.2_A.1 FDD PDSCH Closed Loop Multi Layer 4x2 for CA   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134977 | 1252 | -   | Update of CA CSI tests   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134978 | 1253 | -   | Update of eICIC Performance test cases   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134985 | 1254 | -   | LTE Type A performance requirements - Changes to TC 9.3.5.1.1  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134987 | 1255 | -   | RF: Corrections to requirements for NS_15 (Band 26)  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134988 | 1256 | -   | Corrections to Band 23 NS_11 and NS_20 Test Points   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-134995 | 1259 | -   | Update on MPR and A-MPR test requirements  | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-135012 | 1261 | -   | Clarification in regard to 36.521-1 tests not included in 36.521-2 Applicability table                             | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-135031 | 1222 | -   | RF TC Update for 36.521-1_9.2.1.3_C1 eICIC   | 11.2.0 | 11.3.0 |
| 2013-12        | RAN#62 | R5-135046 | 1226 | -   | RF: Updates to the downlink reference measurement channels   | 11.2.0 | 11.3.0 |
| 2014-03        | RAN#63 | R5-140125 | 1263 | -   | Removal of technical content in 36.521-1 v11.3.0 and substitution with pointer to the next Release                 | 11.3.0 | 11.4.0 |

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## History

| <b>Document history</b> |              |             |
|-------------------------|--------------|-------------|
| V11.0.1                 | May 2013     | Publication |
| V11.1.0                 | July 2013    | Publication |
| V11.2.0                 | October 2013 | Publication |
| V11.4.0                 | March 2014   | Publication |
|                         |              |             |