

PARTIAL TEST REPORT

No.: 18-1-0097201T19a-C03

According to:
Title 47 CFR, Chapter I
FCC Regulations, Subchapter B
Part 22, Part 24, Part 27

ISED-Regulations RSS-132 Issue 3, RSS-133 Issue 6,
RSS-139 Issue 3, RSS-Gen Issue 5
RSS-130 Issue 2

for
Actia Nordic AB

103360002
Telematics Device

FCC-ID: 2AGKK103360002
ISED-ID: 20839-103360002

Laboratory Accreditation



accredited according to DIN EN ISO/IEC 17025:2018

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The listed attachments are an integral part of this report.			

1. Summary of test results

The test results apply exclusively to the test samples as presented in this Report. The CETECOM GmbH does not assume responsibility for any conclusions and generalizations taken in conjunction with other specimens or samples of the type of the item presented to tests. Also we refer on special conditions which the applicant should fulfil according §2.927 to §2.948, special focus regarding modification of the equipment and availability of sample equipment for market surveillance tests.

The Equipment under Test (in this report, hereinafter referred as EUT) supports radiofrequency technologies. Delta tests apply to check for conformance against valid standards due already approved cellular wireless module **Cinterion ALAS5V-US** with **FCC-ID: QIPALAS5V-US**. Due to no modifications on the LTE Part of the module only radiated tests have been performed. In addition power verification tests have been performed too. This test report shows results for LTE technology only. Other implemented wireless technologies were not considered within this test report.

Following tests have been performed to show compliance with applicable FCC Part 2, Part 22, Subpart H, Part 24, Subpart E (Broadband PCS) and FCC Part 27, Subpart C, of the FCC CFR Title 47 Rules, Edition 2018 and Canada RSS-132 Issue 3, RSS-133 Issue 6, RSS-139 Issue 3, RSS-130 Issue 2 and RSS-Gen Issue 5 standards.

1.1. TX mode, Test overview of FCC and Canada ISED (RSS) Standards

Test case in LTE 12 band	Reference Clause FCC	Reference Clause ISED	Remark	Result
AC-Power Lines Conducted Emissions	§15.207(a)	RSS-Gen, Issue 5:§8.8	NA	-
Conducted RF output power	§27.50(c)(10), §2.1046	RSS-130, Issue 2: §4.6.1/ §4.6.3	-	Passed
Radiated RF output power	§27.50(c)(10), §2.1046(a)	RSS-130, Issue 2: §4.6.1/ §4.6.3	-	Passed**
26dB Emission bandwidth	§2.202(a)	RSS-Gen, Issue 5:§6.7	NP	-
Occupied Channel Bandwidth 99%	§2.202(a)	RSS-130, Issue 1:§4.5 RSS-Gen, Issue 5:§6.7	NP	-
Radiated Band Edge	§27.53(g), §2.1053(a) §2.1057(a)	RSS-130, Issue 1:§4.7.1	-	Passed
Conducted RF Band Edge	§27.53(g), §2.1053(a) §2.1057(a)	RSS-130, Issue 1:§4.7.1	NP	-
Peak to Average ratio (PAPR)	§27.50(c)(10), §2.1046	RSS-130, Issue 2: §4.6.1	-	Passed
Radiated field strength emissions below 30 MHz	§15.205, §15.209	RSS-Gen: Issue 5: §8.9 Table 6	-	Passed
Spurious emissions at antenna terminals	§27.53(g), §2.1051, §2.1057(a)	RSS-130, Issue 2:§4.7.1	NP	-
Radiated spurious emissions	§27.53(g), §2.1053(a) §2.1057(1)	RSS-130, Issue 2:§4.7.1	-	Passed
Frequency stability, temperature variation	§27.54 §2.1055(a)(1)	RSS-130, Issue 2:§4.5	NP	-
Frequency stability, voltage variation	§27.54 §2.1055(a)(1)	RSS-130, Issue 2:§4.5	NP	-

Test case in LTE 2 band	Reference Clause FCC ☒	Reference Clause ISSED ☐	Remark	Result
AC-Power Lines Conducted Emissions	§15.207(a)	RSS-Gen, Issue 5:§8.8	NA	-
Conducted RF output power	§2.1046(a)	RSS-133:4.1/6.4 + SRSP-510:5.1.2	-	Passed
Radiated RF output power	§24.232(c), §2.1046(a)	RSS-133:6.4 + SRSP-510:5.1.2	-	Passed**
26dB Emission bandwidth	§24.238(b), §2.1049(h)	RSS-Gen, Issue 5:§6.6	NP	-
Occupied Channel Bandwidth 99%	§24.238(b), §2.1049(h)	RSS-Gen, Issue 5:§6.6	NP	-
Radiated Band Edge	§24.238(a)(b), §2.1053(a), §2.1057(a)	RSS-133, Issue 6: §6.5.1(i)(ii)	NP	-
Conducted RF Band Edge	§24.238(a)(b), §2.1051	RSS-133, Issue 6: §6.5.1(i)(ii)	NP	-
Peak to Average ratio (PAPR)	§2.1046(a)	RSS-133:4.1/6.4 + SRSP-510:5.1.2	-	Passed
Radiated field strength emissions below 30 MHz	§15.205, §15.209	RSS-Gen: Issue 5: §8.9 Table 6	NP	-
Spurious emissions at antenna terminals	§24.238(a)(b), §2.1051	RSS-133, Issue 6: §6.5.1(i)(ii)	NP	-
Radiated spurious emissions	§24.238(a)(b), §2.1053(a)	RSS-133, Issue 6: §6.5.1(i)(ii)	NP	-
Frequency stability, temperature variation	§24.235, §2.1055(a)(1)	RSS-133: 6.3	NP	-
Frequency stability, voltage variation	§24.235, §2.1055(a)(1)	RSS-133: 6.3	NP	-

Test case in LTE 4 band	Reference Clause FCC	Reference Clause ISSED	Remark	Result
AC-Power Lines Conducted Emissions	§15.207(a)	RSS-Gen, Issue 5:§8.8	NA	-
Conducted RF output power	§27.50(d)(4), §2.1046	RSS-139, Issue 3:§6.5	-	Passed
Radiated RF output power	§27.50(d)(4), §2.1046(a)	RSS-139, Issue 3: 6.5 + SRSP-513	-	Passed**
26dB Emission bandwidth	§27.53(h)(3), §2.202(a)	RSS-Gen, Issue 5:§6.6	NP	-
Occupied Channel Bandwidth 99%	§27.53(h)(3), §2.202(a)	RSS-Gen, Issue 5:§6.6	NP	-
Radiated Band Edge	§27.53(h), §2.1053(a) §2.1057(a)	RSS-139, Issue 3: 6.6 (i)(ii)	NP	-
Conducted RF Band Edge	§27.53(h), §2.1051	RSS-139, Issue 3: §6.6 (i)(ii)	NP	-
Peak to Average ratio (PAPR)	§27.50(d)(4), §2.1046	RSS-139, Issue 3:§6.5	-	Passed
Radiated field strength emissions below 30 MHz	§15.205, §15.209	RSS-Gen: Issue 5: §8.9 Table 6	NP	-
Spurious emissions at antenna terminals	§27.53(h), §2.1051	RSS-139, Issue 3: §6.6 (i)(ii)	NP	-
Radiated spurious emissions	§27.53(h), §2.1053(a)	RSS-139, Issue 3: §6.6 (i)(ii)	NP	-
Frequency stability, temperature variation	§27.54, §2.1055(a)(1)	RSS-139, Issue 3:§6.4	NP	-
Frequency stability, voltage variation	§27.54, §2.1055(a)(1)	RSS-139, Issue 3:§6.4	NP	-

Test case in LTE 5 band	Reference Clause FCC	Reference Clause ISCED	Remark	Result
AC-Power Lines Conducted Emissions	§15.207(a)	RSS-Gen, Issue 5:§8.8	NA	-
Conducted RF output power	§22.913(a)(5), §2.1046	RSS-132:5.4 + SRSP 503:5.1.3	-	Passed
Radiated RF output power	§22.913, §2.1046(a)	RSS-132: 5.4 + SRSP 503:5.1.3	-	Passed**
26dB Emission bandwidth	§22.917(b), §2.1049(h)	RSS-Gen, Issue 5:§6.6	NP	-
Occupied Channel Bandwidth 99%	§22.917(b), §2.1049(h)	RSS-Gen, Issue 5:§6.6	NP	-
Radiated Band Edge	§22.917(a)(b), §2.1053(a), §2.1057(a)	RSS-132, Issue 3: §5.5(i)(ii)	NP	-
Conducted RF Band Edge	§22.917(a)(b), §2.1051	RSS-132, Issue 3: §5.5(i)(ii)	NP	-
Peak to Average ratio (PAPR)	§22.913(a)(5), §2.1046	RSS-132:5.4 + SRSP 503:5.1.3	-	Passed
Radiated field strength emissions below 30 MHz	§15.205, §15.209	RSS-Gen: Issue 5: §8.9 Table 6	NP	-
Spurious emissions at antenna terminals	§22.917(a)(b), §2.1051	RSS-132, Issue 3: §5.5(i)(ii)	NP	-
Radiated spurious emissions	§22.917(a)(b), §2.1053(a)	RSS-132, Issue 3: §5.5(i)(ii)	NP	-
Frequency stability, temperature variation	§22.355, §2.1055(a)(1)	RSS-132: 5.3	NP	-
Frequency stability, voltage variation	§22.355, §2.1055(a)(1)	RSS-132: 5.3	NP	-

Test case in LTE66 band	Reference Clause FCC	Reference Clause ISCED	Remark	Result
AC-Power Lines Conducted Emissions	§15.207(a)	RSS-Gen, Issue 5: §8.8	NA	-
Conducted RF output power	§27.50(d), §2.1046(a)	RSS-139, Issue 3:§6.5++ SRSP-513	-	Passed
Radiated RF output power	§27.50(d)(4), §2.1046(a)	RSS-139, Issue 3: 6.5 + SRSP-513	-	Passed**
26dB Emission bandwidth	§27.53(h)(3)	RSS-Gen, Issue 5:§6.7	NP	-
Occupied Channel Bandwidth 99%	§2.1049(h) §2.202(a)	RSS-Gen, Issue 5: §6.7	NP	-
Radiated Band Edge	§27.53(g), §2.1053(a) §2.1057(a)	RSS-139, Issue 3: §6.6 (i)	NP	-
Conducted RF Band Edge	§27.53(g), §2.1051	RSS-139, Issue 3: §6.6 (i)	NP	-
Peak to Average ratio (PAPR)	§27.50(d)(4), §2.1046	RSS-139, Issue 3: §6.5	-	Passed
Radiated field strength emissions below 30 MHz	§15.205, §15.209	RSS-Gen: Issue 5: §8.9 Table 6	NP	-
Spurious emissions at antenna terminals	§27.53(h), §2.1051 §2.1057(a)(1)	RSS-139, Issue 3: §6.6 (i)(ii)	NP	-
Radiated spurious emissions	§27.53(h), §2.1053(a) §2.1057(a)(1)	RSS-139, Issue 3: §6.6 (i)(ii)	NP	-
Frequency stability, temperature variation	§27.54, §2.1055(a)(1)	RSS-139, Issue 3:§6.4	NP	-
Frequency stability, voltage variation	§27.54, §2.1055(a)(1)	RSS-139, Issue 3:§6.4	NP	-

Remarks:

PASSED	The EUT complies with the essential requirements in the standard.
FAILED	The EUT does not comply with the essential requirements in the standard.
NP	The test was not performed by the CETECOM Laboratory.
Passed**	Radiated RF output power has been calculated based upon Conducted Power Verification.

For conducted and NP tests please check Initial Module Test Reports,

FCC ID: **QIPALAS5V-US**

ISED ID: **7830A-ALAS5VUS**

1.2. Attestation:

I declare that all measurements were performed by me or under my supervision and that all measurements have been performed and are correct to my best knowledge and belief to Industry Canada standards. All requirements as shown in above table are met in accordance with enumerated standards.

The current version of the Test Report TR18-1-0097201T19a-C03 replaces the Test Report TR18-1-0097201T19a-C02 dated 2021-08-17. The replaced Test Report is herewith invalid.

.....
Dipl.-Ing. Ninovic Perez
Responsible for test section

.....
B.Sc. Al-Amin Hossain
Responsible for test report

2. Administrative Data

2.1. Identification of the testing laboratory

Company name:	CETECOM GmbH
Address:	Im Teelbruch 116 45219 Essen - Kettwig Germany
Responsible for testing laboratory:	Dipl.-Ing. Ninovic Perez

2.2. Test location

2.2.1. Test laboratory “CTC”

Company name:	see chapter 2.1. Identification of the testing laboratory
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2.3. Organizational items

Responsible for test and test report:	M.Sc. P. Marzotko
Project Leader:	Carsten Cleem
Receipt of EUT:	2019-11-27
Date(s) of test:	2019-11-25 to 2020-01-17
Date of report:	2021-07-16

Version of template:	13.02

2.4. Applicant's details

Applicant's name:	Actia Nordic AB
Address:	Hammarbacken 4A, 3tr 191 49 Sollentuna Sweden
Contact person:	Mr. Salah Alazawi

2.5. Manufacturer's details

Manufacturer's name:	please see Applicant's details.
Address:	please see Applicant's details.
Contact person:	please see Applicant's details.

3. Equipment under test (EUT)

3.1. SUMMARY OF RESULTS AND Technical data of main EUT declared by applicant

Module FCC ID	QIPALAS5V-US		
Module ISED	7830A-ALAS5VUS		
TX-frequency range (E-UTRA operating bands)	☒ LTE Band 2: 1850 - 1910 MHz (Uplink), 1930-1990 MHz (Downlink) ☒ LTE Band 4: 1710 - 1755 MHz (Uplink), 2110 - 2155 MHz (Downlink) ☒ LTE Band 5: 824 - 849 MHz (Uplink), 869-894 MHz (Downlink) ☒ LTE Band 12: 699 - 716 MHz (Uplink), 729 - 746 MHz (Downlink) ☒ LTE Band 66: 1710 - 1780 MHz (Uplink), 2110 - 2200 MHz (Downlink)		
Type of modulation	QPSK, 16-QAM		
Number of channels – Table 5.4.4-1 accord. 3GPP TS36.521-1 (See Note in 3GPP-Standard about channels not to be used depending on channel bandwidths)	☒ LTE Band 2: UARFCN range 18600 - 19199 ☒ LTE Band 4: UARFCN range 19950 - 20399 ☒ LTE Band 5: UARFCN range 20400 - 20649 ☒ LTE Band 12: UARFCN range 23010 – 23179 ☒ LTE Band 66: UARFCN range 131972 - 132671		
Emission designator(s)	Nominal Channel bandwidth	QPSK Modulation:	16-QAM Modulation
	1.4 MHz 3 MHz 5 MHz 10 MHz 15 MHz 20 MHz	See initial certification of the module FCC ID: QIPALAS5V-US ISED ID: 7830A-ALAS5VUS	
Antenna Type	☒ Integrated ☐ External, no RF- connector ☒ External, separate RF-connector (Fakra)		
Antenna Model	LTE Antenna 7680588		
Antenna Gain Tx *1)	☒ Values: Internal Antenna Gain (LTE Band 12) 699MHz-716: 0,2dBi External Antenna Gain (LTE Band 12) 699MHz-716: -3,9dBi For Antenna Gain and Path Loss data sheet please check the document” MPE Information Requirements NA_103360002_1.2 ”.		
MAX Average Output Power: Conducted LTE-Band 12	22,48 dBm (AV)		
EIRP LTE-Band 12 (Internal Antenna) LTE-Band 12 (External Antenna)	conducted output power + Internal Antenna gain – Internal loss conducted output power + External Antenna gain – Internal loss – Cable loss 22,48 dBm + 0,2 dBi – 0,6 dB= 22,08 dBm 22,48 dBm – 3,9 dBi – 0,59 dB – 1,18 dB = 16,81 dBm		
ERP LTE-Band 12 (Internal Antenna) LTE-Band 12 (External Antenna)	22,08 dBm – 2,15 = 19,93 dBm 16,81 dBm – 2,15 = 14,66 dBm		
Installed option	☒ GSM Band 850, 1900 (not tested within this report) ☒ UMTS Band 4 (not tested within this report)		
Power supply	☒ 13,8V DC power supply		
Special EMI components	--		
EUT sample type	☐ Production	☒ Pre-Production	☐ Engineering
FCC/ISED label attached	☒ yes	☐ no	

Remark: ^{*1)} :

- For Antenna Gain and Path Loss data sheet please check the document” **MPE Information Requirements NA_103360002_1.2**”.
- In this Chapter ERP/EIRP has been calculated with respect to Conducted Power verification, for more information please check chapter 5.1.4

3.2. EUT: Type, S/N etc. and short descriptions used in this test report

Short description*)	EUT	Type	S/N serial number	HW hardware status	SW software status
EUT A S20	103360002	Telematics Device	AN10335010 2B160	H1	1
EUT B S17	103360002	Telematics Device	AN10335010 2B163	H1	1

*) EUT short description is used to simplify the identification of the EUT in this test report.

3.3. Auxiliary Equipment (AE): Type, S/N etc. and short descriptions

AE short description *)	Auxiliary Equipment	Type	S/N serial number	HW hardware status	FW Firmware status
AE 1	Cellular Antenna	CALEARO LTE antenna	7680588	16MA800CP	N/A
AE 2	WLAN Antenna	CALEARO WiFi antenna	7750162	16MA439CP	N/A
AE 3	Bluetooth Antenna	--	--	N/A	N/A
AE 4	GNSS Antenna	CALEARO GNSS antenna	7750161	N/A	N/A
AE 5	Cable	Harness	--	--	--
AE 6	Cable	Ethernet + USB	--	--	--
AE 7	Cable(4 pcs)	FAKRA	--	--	--

*) AE short description is used to simplify the identification of the auxiliary equipment in this test report.

3.4. EUT set-ups

EUT set-up no. *)	Combination of EUT and AE	Remarks
set. 1	EUT B + AE 5	➤ se-tup-1 considered for Conducted testing
set. 2	EUT A + AE 1 + AE 2 + AE 3 + AE 4 + AE 5 + AE 6 + AE 7	➤ se-tup-2 considered for Radiated testing ➤ AE 3 is integrated in the Sample.

*) EUT set-up no. is used to simplify the identification of the EUT set-up in this test report.

3.5. EUT operating modes

EUT operating mode no. *)	Description of operating modes	Additional information
op. 1	LTE-Band 12 RMC Mode	A communication link is established between the mobile station (UE) and the test simulator. The transmitter is operated on its maximum rated output power class: 23dBm nominal. The input signal to the receiver is modulated with normal test modulation: QPSK and/or 16-QAM Modulation. The wanted RF input signal level to the receiver of the mobile station is set to a level to provide a stable communication link. NS_01 Network signaling value was used, no A-MPR was used therefore for this band.
op. 2	LTE-Band 2 RMC Mode	A communication link is established between the mobile station (UE) and the test simulator. The transmitter is operated on its maximum rated output power class: 23dBm nominal. The input signal to the receiver is modulated with normal test modulation: QPSK and/or 16-QAM Modulation. The wanted RF input signal level to the receiver of the mobile station is set to a level to provide a stable communication link. NS_01 Network signaling value was used, no A-MPR was used therefore for this band.
op. 3	LTE-Band 4 RMC Mode	A communication link is established between the mobile station (UE) and the test simulator. The transmitter is operated on its maximum rated output power class: 23dBm nominal. The input signal to the receiver is modulated with normal test modulation: QPSK and/or 16-QAM Modulation. The wanted RF input signal level to the receiver of the mobile station is set to a level to provide a stable communication link. NS_01 Network signaling value was used, no A-MPR was used therefore for this band.
op. 4	LTE-Band 5 RMC Mode	A communication link is established between the mobile station (UE) and the test simulator. The transmitter is operated on its maximum rated output power class: 23dBm nominal. The input signal to the receiver is modulated with normal test modulation: QPSK and/or 16-QAM Modulation. The wanted RF input signal level to the receiver of the mobile station is set to a level to provide a stable communication link. NS_01 Network signaling value was used, no A-MPR was used therefore for this band.
op. 5	LTE-Band 66 RMC Mode	A communication link is established between the mobile station (UE) and the test simulator. The transmitter is operated on its maximum rated output power class: 23dBm nominal. The input signal to the receiver is modulated with normal test modulation: QPSK and/or 16-QAM Modulation. The wanted RF input signal level to the receiver of the mobile station is set to a level to provide a stable communication link. NS_01 Network signaling value was used, no A-MPR was used therefore for this band.

*) EUT operating mode no. is used to simplify the test report.

3.6. Worst case selection

Worst Case Configuration based on Conducted Output Power has been taken from Initial Module Test Report, All those Worst Case Scenario of LTE Band 2, 4, 5, 12, 66 have been verified.

For worst Case Scenario and for more information please check module report,
Module Test Report FCC ID: QIPALAS5V-US
Module Test Report IC ID: 7830A-ALAS5VUS

LTE Band Configuration				CETECOM tested power, Modulation: QPSK					Certified module
LTE Band	Bandwidth in MHz	Channel	ARFCN-Frequency [MHz]	RB	Start RB	Peak Power at Antenna Port [dBm]	RMS Power at Antenna Port [dBm]	PAR Factor [dB]	RMS Power at Antenna Port [dBm]
2	15	19125	1902.50	1	0	25.75	21.92	3.83	23.28
4	20	20050	1720.00	1	0	25.84	21.76	4.08	23.21
5	3	20525	836.50	1	7	26.68	22.81	3.87	23.17
12	3	23165	714.50	8	0	26.34	21.31	5.00	23.69
66	20	132072	1720.00	1	0	25.88	21.70	4.18	23.32

Conclusion conducted power verification:

All Conducted Power verification results are below the Initial module Power Value.
Therefore Conducted Output Power has been Passed.

3.6.1. PAPR-results

According KDB 971168D01 v03r01 two method are allowed.

☐ Chapter 5.7.2 Sub clause 5.2.3.4 of ANSI C63.26-2015 CCDF-Method (0.1% probability)

☒ Chapter 5.7.3: Sub clause 5.2.6 of ANSI C63.26-2015 [PAPR (dB)= P_{PK} (dBm or dBW) – P_{Avg} (dBm or dBW)]

3.6.1.1. Conclusion

☒ PAPR <13dB – pass

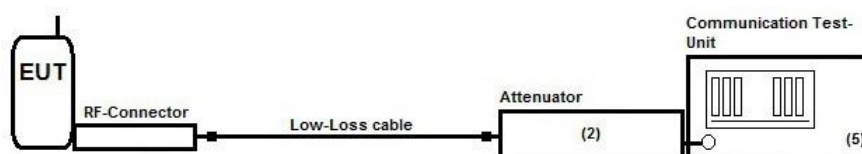
4. Description of test system set-up's

4.1. Test system set-up for conducted measurements on antenna port

Cellular Conducted RF-Setup 2 (Cel-2 Set-up)

Tests Specification: Conducted Carrier power, Frequency Error

Schematic: Following modified test set-up apply for tests performed inside the climatic chamber (frequency stability) or conducted RF-carrier power-measurement. The EUT RF-Signal is directly connected over suitable RF-connector over low-loss cable and an attenuator (2) to the cellular radio communication test-unit. (5)



Testing method: ANSI C63.26:2015, KDB 971168 D01 v03r01

Used Equipment	Passive Elements	Test Equipment	Remark:
	☒ 10 dB Attenuator (#DG3)	☒ CMW500	See List of equipment under each test case and chapter 8. for calibration info
	☒ Low loss RF-cables(0.3 to 0.5 dB)	☒ DC-Power Supply	

Measurement uncertainty See chapter Measurement Uncertainties (Cel-2)

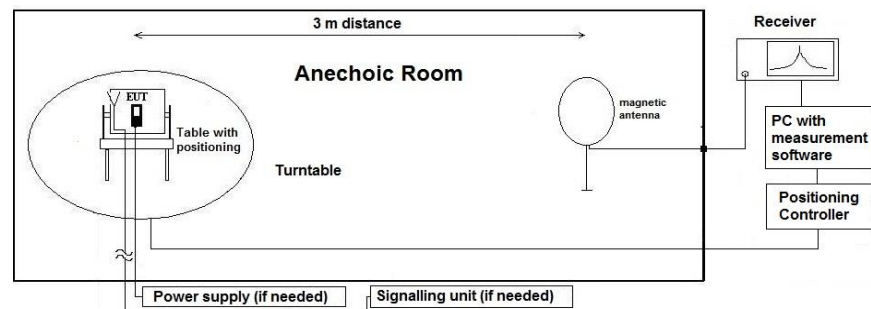
4.2. Test system set-up for radiated magnetic field measurements below 30 MHz

Specification: ANSI C63.4-2014 §5.3, §8.2.1, §8.3.1.1+§8.3.2.1 , ANSI C63.10-2013 chapter 6.4 (§6.4.4.2)

General Description: Evaluating the radiated field emissions are done first by an exploratory emission measurement and a final measurement for most critical frequencies determined.

The loop antenna was placed at 1 m height above ground plane and 3 m measurement distance from set-up for investigations. Because of reduced measurement distance, correction data were applied, as stated in chapter “General Limit - Radiated field strength emissions below 30 MHz“. The tests are performed in the semi anechoic room recognized by the regulatory commission.

Schematic:



Testing method:

Exploratory, preliminary measurement

The EUT and its associated accessories are placed on a non-conductive position manipulator (tipping device) of 0.8 m height which is placed on the turntable. By rotating the turntable (step 90°, range 0° to 360°) and the EUT itself either on 3-orthogonal axis (portable equipment) or 2-orthogonal axis (defined operational position of EUT), the emission spectrum was recorded. The loop antenna was moved at least to 2-perpendicular axes (antenna vector in direction of EUT and parallel to EUT) in order to maximize the emissions. The results are documented in a diagram. Critical frequencies (low margin to limit) are saved within a data reduction table for further investigations. If various operating modes are supported, further investigations are made to find the worst-case. Also the interconnection cables and equipment position were varied in order to maximize the emissions.

Final measurement on critical frequencies

Based on the exploratory measurements, the most critical frequencies are re-measured by maintaining the EUT's worst-case operation mode, cable position, etc.

First a frequency zoom around the critical frequency is done to locate the frequency more precisely. After this step, for all identified critical frequencies, the maximum peak was determined.

Following parameters were varied: the turntable angle continuously in the range 0 to 360 degree, the EUT itself either over 3-orthogonal axis (not defined usage position) or 2-orthogonal axis (defined usage position).

On the determined worst-case position, a final measurement with necessary bandwidth and detector according standard has been carried out.

Formula:

$$E_C = E_R + A_F + C_L + D_F - G_A$$

$$M = L_T - E_C$$

A_F = Antenna factor

C_L = Cable loss

D_F = Distance correction factor

E_C = Electrical field – corrected value

E_R = Receiver reading

G_A = Gain of pre-amplifier (if used)

L_T = Limit

M = Margin

All units are dB-units, positive margin means value is below limit.

Distance correction:

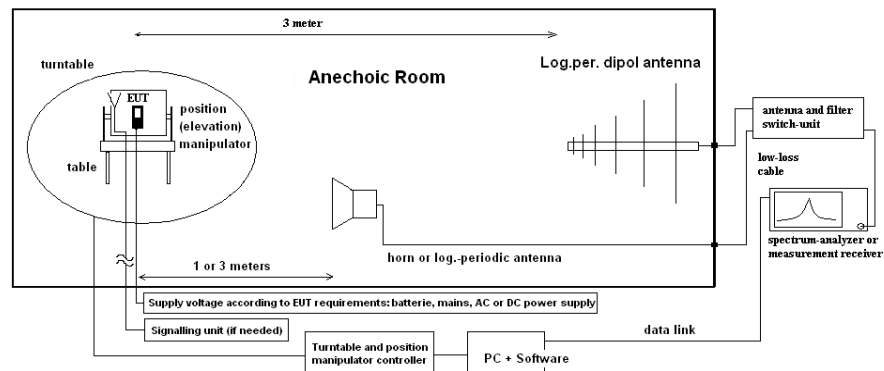
Reference for applied correction (extrapolating) factors due to reduced measurement distance:

ANSI C63.10:2013, §6.4.4.2 - Equations (2) + (3) + (4)

4.3. Test system set-up for radiated spurious emission measurements

Specification:	ANSI C63.4-2014 chapter 8.3, ANSI C63.10-2013 chapter 6.6.3.3 & 6.6.4, ANSI C63.26-2015, Chapter 4.6.3.3
General Description:	Evaluating the emissions have to be done first by an exploratory emissions measurement and a final measurement for most critical frequencies. The tests are performed in a CISPR 16-1-4:2010 compliant fully anechoic room (FAR) recognized by the regulatory commission. The measurement distance was set to 3 meter for frequencies up to 18 GHz and 2 meter above 18 GHz. A logarithmic periodic antenna is used for the frequency range 30 MHz to 1 GHz. Horn antennas are used for frequency range 1 GHz to 40 GHz. The EUT is aligned within 3 dB beam width of the measurement antenna with three orthogonal axis measurements on the EUT.

Schematic:



Testing method:

Exploratory, preliminary measurements

The EUT and its associated accessories are placed on a non-conductive position manipulator (tipping device) of 1.50 m height which is placed on the turntable. By rotating the turntable (range 0° to 360°, step 45°) and the EUT itself on 3-orthogonal axis (the emission spectrum and its characteristics was recorded with an EMI-receiver, broadband antenna and software.

The measurements are performed in horizontal and vertical polarization of the measurement antennas. The results are documented in a diagram. Critical frequencies (low margin to limit) are saved within a table for further investigations. If various operating modes are supported, further investigations are made to find the worst-case of them. Also the interconnection cables and equipment position were varied in order to maximize the emissions.

Final measurement on critical frequencies

Based on the exploratory measurements, the most critical frequencies are re-measured by maintaining the EUT's worst-case operation mode, cable position, etc.

First a frequency zoom around the critical frequency is done to locate the frequency more precisely. After this step, for all identified critical frequencies, the maximum peak was determined. Following parameters were varied: the turntable angle continuously in the range 0 to 360 degree, the EUT itself over 3-orthogonal axis and the height for EUT with large dimensions.

On the determined worst-case position, a final measurement with necessary bandwidth and detector according standard has been carried out. The readings on the spectrum analyzer are corrected with conversion value between field strength and E (I) RP, so the readings shown are equivalent to ERP/EIRP values. Critical measurements near the limit are re-measured with a substitution method accord. ANSI/TIA/EIA 603 C/D

Formula:

$$E_C = E_R + AF + C_L + D_F - G_A \quad (1)$$

$$E_{C(I)RP} = E_C - 95.2 \text{ dB}$$

$$M = L_T - E_{C(I)RP}$$

E_C = Electrical field – corrected value

E_R = Receiver reading

M = Margin

L_T = Limit

AF = Antenna factor

C_L = Cable loss

D_F = Distance correction factor (if used)

G_A = Gain of pre-amplifier (if used)

$E_{C(I)RP}$ = Electrical field corrected for E(I)RP

All units are dB-units, positive margin means value is below limit.

5. Measurements

5.1. RF-Parameter - RF Peak power output conducted and PAPR

5.1.1. Test location and equipment (for reference numbers please see chapter 'List of test equipment')

test location	☒ CETECOM Essen (Chapter. 2.2.1)	☐ Please see Chapter. 2.2.2			
test site	☐ 347 Radio.lab. 1	☒ Radio.lab. 2			
spectr. analys.	☐ 584 FSU	☐ 489 ESU 40	☐ 264 FSEK	☐ 620 ESU 26	
signaling	☐ 392 MT8820A	☐ 436 CMU	☐ 547 CMU	☒ 757 CMW	
otherwise	☐ 400 FTC40x15E	☐ 401 FTC40x15E	☐ 110 USB LWL	☐ 482 Filter Matrix	☐ 378 RadiSense
DC power	☒ 456 EA 3013A	☐ 463 HP3245A	☐ 459 EA 2032-50	☐ 268 EA- 3050	☐ 494 AG6632A
otherwise	☐ 331 HC 4055	☐ 248 6 dB Att.	☐ 529 Power div.	☐ - cable OTA20	☐ 611 E3632A
Power supply	☒ 13.8 V DC	☐ 060 120 V/ 60 Hz via PAS 5000			☐ 530 10 dB Att.

5.1.2. Requirements and limits

FCC	§2.1046 LTE Band 2: § 24.232(c) LTE Band 4/66: §27.50(d)(4) LTE Band 5: §22.913(a)(5) LTE Band 12/13: §27.50(c)(10) / §27.53(c)
ISED	RSS 133, issue-6(4.1)(6.4) RSS-132, Issue-3(5.4) RSS 139, issue-3(4.1)(6.5) RSS 130, issue-2(4.6.1)(4.6.3)
Limits	Check Chapter 5.1.4
ISED Limit	Check Chapter 5.1.4

5.1.3. Test condition and test set-up

Climatic conditions	Temperature: (22±3°C)	Rel. humidity: (40±20)%
Test system set-up	Please see chapter "Test system set-up for conducted measurements on antenna port"	
Measurement method	The measurements were performed with the integrated power measurement function of the „radio communication tester CMW500 from Rohde&Schwarz company. In this way spectrum-analyzers instrument limitations can be avoided or minimized. Instead, CMW manufacturers declared measurement error can be considered for this measurement. The attenuation (insertion loss) at the RF Inputs/Outputs of CMW were set according the path loss of the test set-up, determined in a step before starting the measurements. A suitable artificial antenna or RF-connector is provided by the applicant in order to perform the conducted measurements. Any data provided with the artificial antenna or connector, have been taken in account in order to correct the measurement data. (typical 0.3dB for attenuation of antenna connector) Peak and Average Values have been recorded for each channel and band. The Peak-to -Average-Ratio is determined by comparing the total peak power to total average power for each measurement.	
Mobile phone settings	A call was established with a suitable communication test unit (CMW500). UE is set TX mode, highest transmit power conditions (RMC-mode), power saving techniques have been disabled (MPR-techniques) Tests have been performed in different EUT bandwidth settings and various settings for allocated RBs. The measurements were made at the low, middle and high carrier frequencies of each of the supported operating band within the designated range within the allowed channel bandwidths. Choosing three TX-carrier frequencies of the mobile phone, should be sufficient to demonstrate compliance.	

5.1.4. Measurement results Radiated RF output power

ERP/EIRP: EUT External Antenna

LTE FDD Band 2																				
BW in MHz	Channel Nr.	ARFCN-Frequency (MHz)	Modulation	RB	Start RB	RMS Power at Antenna Port (dBm)	Maximum declared Antenna Gain(dBi)	Path loss to Antenna Connector	Path loss in Antenna Cable	EIRP in dBm	EIRP in Watt	ERP in dBm	ERP in Watt	FCC Limit(W), EIRP	FCC Limit (dBm); EIRP	ISED Limit(W), EIRP	ISED Limit (dBm), EIRP	Verdict		
1.4	18607	1850.70	QPSK	1	0	22.86	3.20	0.94	1.90	23.22	0.20989	21.07	0.12794	2.00	33.01	2.00	33.01	Passed		
				1	5	22.90	3.20	0.94	1.90	23.26	0.21184	21.11	0.12912	2.00	33.01	2.00	33.01	Passed		
				3	0	22.84	3.20	0.94	1.90	23.20	0.20893	21.05	0.12735	2.00	33.01	2.00	33.01	Passed		
				3	2	22.87	3.20	0.94	1.90	23.23	0.21038	21.08	0.12823	2.00	33.01	2.00	33.01	Passed		
			6	0	21.85	3.20	0.94	1.90	22.21	0.16634	20.06	0.10139	2.00	33.01	2.00	33.01	Passed			
			16QAM	1	0	22.03	3.20	0.94	1.90	22.39	0.17338	20.24	0.10568	2.00	33.01	2.00	33.01	Passed		
				1	5	21.98	3.20	0.94	1.90	22.34	0.17140	20.19	0.10447	2.00	33.01	2.00	33.01	Passed		
				3	0	21.84	3.20	0.94	1.90	22.20	0.16596	20.05	0.10116	2.00	33.01	2.00	33.01	Passed		
				3	2	21.94	3.20	0.94	1.90	22.30	0.16982	20.15	0.10351	2.00	33.01	2.00	33.01	Passed		
			6	0	20.95	3.20	0.94	1.90	21.31	0.13521	19.16	0.08241	2.00	33.01	2.00	33.01	Passed			
			18900	1880.00	QPSK	1	0	22.81	3.20	0.94	1.90	23.17	0.20749	21.02	0.12647	2.00	33.01	2.00	33.01	Passed
						1	5	22.80	3.20	0.94	1.90	23.16	0.20701	21.01	0.12618	2.00	33.01	2.00	33.01	Passed
	3	0				22.87	3.20	0.94	1.90	23.23	0.21038	21.08	0.12823	2.00	33.01	2.00	33.01	Passed		
	3	2				22.90	3.20	0.94	1.90	23.26	0.21184	21.11	0.12912	2.00	33.01	2.00	33.01	Passed		
	6	0			21.82	3.20	0.94	1.90	22.18	0.16520	20.03	0.10069	2.00	33.01	2.00	33.01	Passed			
	16QAM	1			0	22.07	3.20	0.94	1.90	22.43	0.17498	20.28	0.10666	2.00	33.01	2.00	33.01	Passed		
		1			5	22.02	3.20	0.94	1.90	22.38	0.17298	20.23	0.10544	2.00	33.01	2.00	33.01	Passed		
		3			0	21.82	3.20	0.94	1.90	22.18	0.16520	20.03	0.10069	2.00	33.01	2.00	33.01	Passed		
		3			2	21.90	3.20	0.94	1.90	22.26	0.16827	20.11	0.10257	2.00	33.01	2.00	33.01	Passed		
	6	0			20.95	3.20	0.94	1.90	21.31	0.13521	19.16	0.08241	2.00	33.01	2.00	33.01	Passed			
	19193	1909.30			QPSK	1	0	23.02	3.20	0.94	1.90	23.38	0.21777	21.23	0.13274	2.00	33.01	2.00	33.01	Passed
						1	5	23.05	3.20	0.94	1.90	23.41	0.21928	21.26	0.13366	2.00	33.01	2.00	33.01	Passed
			3	0		23.13	3.20	0.94	1.90	23.49	0.22336	21.34	0.13614	2.00	33.01	2.00	33.01	Passed		
			3	2		23.12	3.20	0.94	1.90	23.48	0.22284	21.33	0.13583	2.00	33.01	2.00	33.01	Passed		
			6	0	22.04	3.20	0.94	1.90	22.40	0.17378	20.25	0.10593	2.00	33.01	2.00	33.01	Passed			
			16QAM	1	0	22.07	3.20	0.94	1.90	22.43	0.17498	20.28	0.10666	2.00	33.01	2.00	33.01	Passed		
				1	5	22.02	3.20	0.94	1.90	22.38	0.17298	20.23	0.10544	2.00	33.01	2.00	33.01	Passed		
				3	0	22.01	3.20	0.94	1.90	22.37	0.17258	20.22	0.10520	2.00	33.01	2.00	33.01	Passed		
				3	2	22.05	3.20	0.94	1.90	22.41	0.17418	20.26	0.10617	2.00	33.01	2.00	33.01	Passed		
			6	0	21.17	3.20	0.94	1.90	21.53	0.14223	19.38	0.08670	2.00	33.01	2.00	33.01	Passed			
3			18615	1851.50	QPSK	1	0	22.89	3.20	0.94	1.90	23.25	0.21135	21.10	0.12882	2.00	33.01	2.00	33.01	Passed
						1	14	22.84	3.20	0.94	1.90	23.20	0.20893	21.05	0.12735	2.00	33.01	2.00	33.01	Passed
	8	0				21.95	3.20	0.94	1.90	22.31	0.17022	20.16	0.10375	2.00	33.01	2.00	33.01	Passed		
	8	7				21.92	3.20	0.94	1.90	22.28	0.16904	20.13	0.10304	2.00	33.01	2.00	33.01	Passed		
	15	0			21.91	3.20	0.94	1.90	22.27	0.16866	20.12	0.10280	2.00	33.01	2.00	33.01	Passed			
	1	0			22.13	3.20	0.94	1.90	22.49	0.17742	20.34	0.10814	2.00	33.01	2.00	33.01	Passed			
	16QAM	1			14	22.05	3.20	0.94	1.90	22.41	0.17418	20.26	0.10617	2.00	33.01	2.00	33.01	Passed		
		8			0	21.12	3.20	0.94	1.90	21.48	0.14060	19.33	0.08570	2.00	33.01	2.00	33.01	Passed		
		8			7	21.13	3.20	0.94	1.90	21.49	0.14093	19.34	0.08590	2.00	33.01	2.00	33.01	Passed		
		15			0	20.96	3.20	0.94	1.90	21.32	0.13552	19.17	0.08260	2.00	33.01	2.00	33.01	Passed		
	18900	1880.00			QPSK	1	0	22.93	3.20	0.94	1.90	23.29	0.21330	21.14	0.13002	2.00	33.01	2.00	33.01	Passed
						1	14	22.90	3.20	0.94	1.90	23.26	0.21184	21.11	0.12912	2.00	33.01	2.00	33.01	Passed
			8	0		21.95	3.20	0.94	1.90	22.31	0.17022	20.16	0.10375	2.00	33.01	2.00	33.01	Passed		
			8	7		21.94	3.20	0.94	1.90	22.30	0.16982	20.15	0.10351	2.00	33.01	2.00	33.01	Passed		
			15	0	21.95	3.20	0.94	1.90	22.31	0.17022	20.16	0.10375	2.00	33.01	2.00	33.01	Passed			
			1	0	22.13	3.20	0.94	1.90	22.49	0.17742	20.34	0.10814	2.00	33.01	2.00	33.01	Passed			
			16QAM	1	14	22.08	3.20	0.94	1.90	22.44	0.17539	20.29	0.10691	2.00	33.01	2.00	33.01	Passed		
				8	0	21.10	3.20	0.94	1.90	21.46	0.13996	19.31	0.08531	2.00	33.01	2.00	33.01	Passed		
				8	7	21.11	3.20	0.94	1.90	21.47	0.14028	19.32	0.08551	2.00	33.01	2.00	33.01	Passed		
				15	0	20.99	3.20	0.94	1.90	21.35	0.13646	19.20	0.08318	2.00	33.01	2.00	33.01	Passed		
			19185	1908.50	QPSK	1	0	23.10	3.20	0.94	1.90	23.46	0.22182	21.31	0.13521	2.00	33.01	2.00	33.01	Passed
						1	14	23.03	3.20	0.94	1.90	23.39	0.21827	21.24	0.13305	2.00	33.01	2.00	33.01	Passed
	8	0				22.11	3.20	0.94	1.90	22.47	0.17660	20.32	0.10765	2.00	33.01	2.00	33.01	Passed		
	8	7				22.15	3.20	0.94	1.90	22.51	0.17824	20.36	0.10864	2.00	33.01	2.00	33.01	Passed		
	15	0			22.11	3.20	0.94	1.90	22.47	0.17660	20.32	0.10765	2.00	33.01	2.00	33.01	Passed			
	16QAM	1			0	22.24	3.20	0.94	1.90	22.60	0.18197	20.45	0.11092	2.00	33.01	2.00	33.01	Passed		
		1			14	22.28	3.20	0.94	1.90	22.64	0.18365	20.49	0.11194	2.00	33.01	2.00	33.01	Passed		
		8			0	21.24	3.20	0.94	1.90	21.60	0.14454	19.45	0.08810	2.00	33.01	2.00	33.01	Passed		
		8			7	21.22	3.20	0.94	1.90	21.58	0.14388	19.43	0.08770	2.00	33.01	2.00	33.01	Passed		
	15	0			21.20	3.20	0.94	1.90	21.56	0.14322	19.41	0.08730	2.00	33.01	2.00	33.01	Passed			

5	18625	1852.50	QPSK	1	0	22.84	3.20	0.94	1.90	23.20	0.20893	21.05	0.12735	2.00	33.01	2.00	33.01	Passed
				1	24	22.81	3.20	0.94	1.90	23.17	0.20749	21.02	0.12647	2.00	33.01	2.00	33.01	Passed
				12	0	21.95	3.20	0.94	1.90	22.31	0.17022	20.16	0.10375	2.00	33.01	2.00	33.01	Passed
				12	11	21.89	3.20	0.94	1.90	22.25	0.16788	20.10	0.10233	2.00	33.01	2.00	33.01	Passed
			16QAM	25	0	21.90	3.20	0.94	1.90	22.26	0.16827	20.11	0.10257	2.00	33.01	2.00	33.01	Passed
				1	0	22.02	3.20	0.94	1.90	22.38	0.17298	20.23	0.10544	2.00	33.01	2.00	33.01	Passed
				1	24	21.98	3.20	0.94	1.90	22.34	0.17140	20.19	0.10447	2.00	33.01	2.00	33.01	Passed
				12	0	20.97	3.20	0.94	1.90	21.33	0.13583	19.18	0.08279	2.00	33.01	2.00	33.01	Passed
				12	11	20.97	3.20	0.94	1.90	21.33	0.13583	19.18	0.08279	2.00	33.01	2.00	33.01	Passed
				25	0	20.94	3.20	0.94	1.90	21.30	0.13490	19.15	0.08222	2.00	33.01	2.00	33.01	Passed
	18900	1880.00	QPSK	1	0	22.99	3.20	0.94	1.90	23.35	0.21627	21.20	0.13183	2.00	33.01	2.00	33.01	Passed
				1	24	22.93	3.20	0.94	1.90	23.29	0.21330	21.14	0.13002	2.00	33.01	2.00	33.01	Passed
				12	0	21.92	3.20	0.94	1.90	22.28	0.16904	20.13	0.10304	2.00	33.01	2.00	33.01	Passed
				12	11	21.92	3.20	0.94	1.90	22.28	0.16904	20.13	0.10304	2.00	33.01	2.00	33.01	Passed
			16QAM	25	0	21.95	3.20	0.94	1.90	22.31	0.17022	20.16	0.10375	2.00	33.01	2.00	33.01	Passed
				1	0	22.01	3.20	0.94	1.90	22.37	0.17258	20.22	0.10520	2.00	33.01	2.00	33.01	Passed
				1	24	21.95	3.20	0.94	1.90	22.31	0.17022	20.16	0.10375	2.00	33.01	2.00	33.01	Passed
				12	0	21.07	3.20	0.94	1.90	21.43	0.13900	19.28	0.08472	2.00	33.01	2.00	33.01	Passed
				12	11	21.09	3.20	0.94	1.90	21.45	0.13964	19.30	0.08511	2.00	33.01	2.00	33.01	Passed
				25	0	20.98	3.20	0.94	1.90	21.34	0.13614	19.19	0.08299	2.00	33.01	2.00	33.01	Passed
	19175	1907.50	QPSK	1	0	23.12	3.20	0.94	1.90	23.48	0.22284	21.33	0.13583	2.00	33.01	2.00	33.01	Passed
				1	24	23.05	3.20	0.94	1.90	23.41	0.21928	21.26	0.13366	2.00	33.01	2.00	33.01	Passed
				12	0	22.15	3.20	0.94	1.90	22.51	0.17824	20.36	0.10864	2.00	33.01	2.00	33.01	Passed
				12	11	22.15	3.20	0.94	1.90	22.51	0.17824	20.36	0.10864	2.00	33.01	2.00	33.01	Passed
			16QAM	25	0	22.13	3.20	0.94	1.90	22.49	0.17742	20.34	0.10814	2.00	33.01	2.00	33.01	Passed
				1	0	22.48	3.20	0.94	1.90	22.84	0.19231	20.69	0.11722	2.00	33.01	2.00	33.01	Passed
				1	24	22.52	3.20	0.94	1.90	22.88	0.19409	20.73	0.11830	2.00	33.01	2.00	33.01	Passed
				12	0	21.05	3.20	0.94	1.90	21.41	0.13836	19.26	0.08433	2.00	33.01	2.00	33.01	Passed
				12	11	21.03	3.20	0.94	1.90	21.39	0.13772	19.24	0.08395	2.00	33.01	2.00	33.01	Passed
				25	0	21.18	3.20	0.94	1.90	21.54	0.14256	19.39	0.08690	2.00	33.01	2.00	33.01	Passed
10	18650	1855.00	QPSK	1	0	23.16	3.20	0.94	1.90	23.52	0.22491	21.37	0.13709	2.00	33.01	2.00	33.01	Passed
				1	24	22.83	3.20	0.94	1.90	23.19	0.20845	21.04	0.12706	2.00	33.01	2.00	33.01	Passed
				1	49	23.11	3.20	0.94	1.90	23.47	0.22233	21.32	0.13552	2.00	33.01	2.00	33.01	Passed
				25	0	21.97	3.20	0.94	1.90	22.33	0.17100	20.18	0.10423	2.00	33.01	2.00	33.01	Passed
				25	24	21.98	3.20	0.94	1.90	22.34	0.17140	20.19	0.10447	2.00	33.01	2.00	33.01	Passed
			16QAM	50	0	21.98	3.20	0.94	1.90	22.34	0.17140	20.19	0.10447	2.00	33.01	2.00	33.01	Passed
				1	0	22.43	3.20	0.94	1.90	22.79	0.19011	20.64	0.11588	2.00	33.01	2.00	33.01	Passed
				1	24	22.07	3.20	0.94	1.90	22.43	0.17498	20.28	0.10666	2.00	33.01	2.00	33.01	Passed
				1	49	22.34	3.20	0.94	1.90	22.70	0.18621	20.55	0.11350	2.00	33.01	2.00	33.01	Passed
				25	0	21.08	3.20	0.94	1.90	21.44	0.13932	19.29	0.08492	2.00	33.01	2.00	33.01	Passed
				25	24	21.03	3.20	0.94	1.90	21.39	0.13772	19.24	0.08395	2.00	33.01	2.00	33.01	Passed
				50	0	21.00	3.20	0.94	1.90	21.36	0.13677	19.21	0.08337	2.00	33.01	2.00	33.01	Passed
	18900	1880.00	QPSK	1	0	23.19	3.20	0.94	1.90	23.55	0.22646	21.40	0.13804	2.00	33.01	2.00	33.01	Passed
				1	24	22.92	3.20	0.94	1.90	23.28	0.21281	21.13	0.12972	2.00	33.01	2.00	33.01	Passed
				1	49	23.13	3.20	0.94	1.90	23.49	0.22336	21.34	0.13614	2.00	33.01	2.00	33.01	Passed
				25	0	21.98	3.20	0.94	1.90	22.34	0.17140	20.19	0.10447	2.00	33.01	2.00	33.01	Passed
				25	24	21.98	3.20	0.94	1.90	22.34	0.17140	20.19	0.10447	2.00	33.01	2.00	33.01	Passed
			16QAM	50	0	22.04	3.20	0.94	1.90	22.40	0.17378	20.25	0.10593	2.00	33.01	2.00	33.01	Passed
				1	0	22.36	3.20	0.94	1.90	22.72	0.18707	20.57	0.11402	2.00	33.01	2.00	33.01	Passed
				1	24	22.06	3.20	0.94	1.90	22.42	0.17458	20.27	0.10641	2.00	33.01	2.00	33.01	Passed
				1	49	22.25	3.20	0.94	1.90	22.61	0.18239	20.46	0.11117	2.00	33.01	2.00	33.01	Passed
				25	0	21.06	3.20	0.94	1.90	21.42	0.13868	19.27	0.08453	2.00	33.01	2.00	33.01	Passed
				25	24	20.98	3.20	0.94	1.90	21.34	0.13614	19.19	0.08299	2.00	33.01	2.00	33.01	Passed
				50	0	20.98	3.20	0.94	1.90	21.34	0.13614	19.19	0.08299	2.00	33.01	2.00	33.01	Passed
	19150	1905.00	QPSK	1	0	23.19	3.20	0.94	1.90	23.55	0.22646	21.40	0.13804	2.00	33.01	2.00	33.01	Passed
				1	24	23.07	3.20	0.94	1.90	23.43	0.22029	21.28	0.13428	2.00	33.01	2.00	33.01	Passed
				1	49	23.15	3.20	0.94	1.90	23.51	0.22439	21.36	0.13677	2.00	33.01	2.00	33.01	Passed
				25	0	22.22	3.20	0.94	1.90	22.58	0.18113	20.43	0.11041	2.00	33.01	2.00	33.01	Passed
				25	24	22.21	3.20	0.94	1.90	22.57	0.18072	20.42	0.11015	2.00	33.01	2.00	33.01	Passed
			16QAM	50	0	22.20	3.20	0.94	1.90	22.56	0.18030	20.41	0.10990	2.00	33.01	2.00	33.01	Passed
				1	0	22.37	3.20	0.94	1.90	22.73	0.18750	20.58	0.11429	2.00	33.01	2.00	33.01	Passed
				1	24	22.24	3.20	0.94	1.90	22.60	0.18197	20.45	0.11092	2.00	33.01	2.00	33.01	Passed
				1	49	22.27	3.20	0.94	1.90	22.63	0.18323	20.48	0.11169	2.00	33.01	2.00	33.01	Passed
				25	0	21.32	3.20	0.94	1.90	21.68	0.14723	19.53	0.08974	2.00	33.01	2.00	33.01	Passed
				25	24	21.27	3.20	0.94	1.90	21.63	0.14555	19.48	0.08872	2.00	33.01	2.00	33.01	Passed
				50	0	21.17	3.20	0.94	1.90	21.53	0.14223	19.38	0.08670	2.00	33.01	2.00	33.01	Passed

15	18675	1857.50	QPSK	1	0	22.99	3.20	0.94	1.90	23.35	0.21627	21.20	0.13183	2.00	33.01	2.00	33.01	Passed
				1	37	22.86	3.20	0.94	1.90	23.22	0.20989	21.07	0.12794	2.00	33.01	2.00	33.01	Passed
				1	74	22.93	3.20	0.94	1.90	23.29	0.21330	21.14	0.13002	2.00	33.01	2.00	33.01	Passed
				36	0	22.00	3.20	0.94	1.90	22.36	0.17219	20.21	0.10495	2.00	33.01	2.00	33.01	Passed
				36	37	21.91	3.20	0.94	1.90	22.27	0.16866	20.12	0.10280	2.00	33.01	2.00	33.01	Passed
				75	0	21.95	3.20	0.94	1.90	22.31	0.17022	20.16	0.10375	2.00	33.01	2.00	33.01	Passed
			16QAM	1	0	22.33	3.20	0.94	1.90	22.69	0.18578	20.54	0.11324	2.00	33.01	2.00	33.01	Passed
				1	37	22.16	3.20	0.94	1.90	22.52	0.17865	20.37	0.10889	2.00	33.01	2.00	33.01	Passed
				1	74	22.22	3.20	0.94	1.90	22.58	0.18113	20.43	0.11041	2.00	33.01	2.00	33.01	Passed
				36	0	21.06	3.20	0.94	1.90	21.42	0.13868	19.27	0.08453	2.00	33.01	2.00	33.01	Passed
				36	37	21.02	3.20	0.94	1.90	21.38	0.13740	19.23	0.08375	2.00	33.01	2.00	33.01	Passed
				75	0	20.96	3.20	0.94	1.90	21.32	0.13552	19.17	0.08260	2.00	33.01	2.00	33.01	Passed
	18900	1880.00	QPSK	1	0	23.04	3.20	0.94	1.90	23.40	0.21878	21.25	0.13335	2.00	33.01	2.00	33.01	Passed
				1	37	22.89	3.20	0.94	1.90	23.25	0.21135	21.10	0.12882	2.00	33.01	2.00	33.01	Passed
				1	74	22.94	3.20	0.94	1.90	23.30	0.21380	21.15	0.13032	2.00	33.01	2.00	33.01	Passed
				36	0	22.02	3.20	0.94	1.90	22.38	0.17298	20.23	0.10544	2.00	33.01	2.00	33.01	Passed
				36	37	21.98	3.20	0.94	1.90	22.34	0.17140	20.19	0.10447	2.00	33.01	2.00	33.01	Passed
				75	0	21.95	3.20	0.94	1.90	22.31	0.17022	20.16	0.10375	2.00	33.01	2.00	33.01	Passed
			16QAM	1	0	22.28	3.20	0.94	1.90	22.64	0.18365	20.49	0.11194	2.00	33.01	2.00	33.01	Passed
				1	37	22.11	3.20	0.94	1.90	22.47	0.17660	20.32	0.10765	2.00	33.01	2.00	33.01	Passed
				1	74	22.20	3.20	0.94	1.90	22.56	0.18030	20.41	0.10990	2.00	33.01	2.00	33.01	Passed
				36	0	21.09	3.20	0.94	1.90	21.45	0.13964	19.30	0.08511	2.00	33.01	2.00	33.01	Passed
				36	37	20.97	3.20	0.94	1.90	21.33	0.13583	19.18	0.08279	2.00	33.01	2.00	33.01	Passed
				75	0	21.03	3.20	0.94	1.90	21.39	0.13772	19.24	0.08395	2.00	33.01	2.00	33.01	Passed
	19125	1902.50	QPSK	1	0	23.28	3.20	0.94	1.90	23.64	0.23121	21.49	0.14093	2.00	33.01	2.00	33.01	Passed
				1	37	23.15	3.20	0.94	1.90	23.51	0.22439	21.36	0.13677	2.00	33.01	2.00	33.01	Passed
				1	74	23.15	3.20	0.94	1.90	23.51	0.22439	21.36	0.13677	2.00	33.01	2.00	33.01	Passed
				36	0	22.24	3.20	0.94	1.90	22.60	0.18197	20.45	0.11092	2.00	33.01	2.00	33.01	Passed
				36	37	22.16	3.20	0.94	1.90	22.52	0.17865	20.37	0.10889	2.00	33.01	2.00	33.01	Passed
				75	0	22.21	3.20	0.94	1.90	22.57	0.18072	20.42	0.11015	2.00	33.01	2.00	33.01	Passed
			16QAM	1	0	22.20	3.20	0.94	1.90	22.56	0.18030	20.41	0.10990	2.00	33.01	2.00	33.01	Passed
				1	37	22.06	3.20	0.94	1.90	22.42	0.17458	20.27	0.10641	2.00	33.01	2.00	33.01	Passed
				1	74	22.11	3.20	0.94	1.90	22.47	0.17660	20.32	0.10765	2.00	33.01	2.00	33.01	Passed
				36	0	21.25	3.20	0.94	1.90	21.61	0.14488	19.46	0.08831	2.00	33.01	2.00	33.01	Passed
				36	37	21.23	3.20	0.94	1.90	21.59	0.14421	19.44	0.08790	2.00	33.01	2.00	33.01	Passed
				75	0	21.17	3.20	0.94	1.90	21.53	0.14223	19.38	0.08670	2.00	33.01	2.00	33.01	Passed
	18700	1860.00	QPSK	1	0	23.20	3.20	0.94	1.90	23.56	0.22699	21.41	0.13836	2.00	33.01	2.00	33.01	Passed
				1	49	22.89	3.20	0.94	1.90	23.25	0.21135	21.10	0.12882	2.00	33.01	2.00	33.01	Passed
				1	99	23.09	3.20	0.94	1.90	23.45	0.22131	21.30	0.13490	2.00	33.01	2.00	33.01	Passed
				50	0	22.02	3.20	0.94	1.90	22.38	0.17298	20.23	0.10544	2.00	33.01	2.00	33.01	Passed
				50	49	21.95	3.20	0.94	1.90	22.31	0.17022	20.16	0.10375	2.00	33.01	2.00	33.01	Passed
				100	0	22.02	3.20	0.94	1.90	22.38	0.17298	20.23	0.10544	2.00	33.01	2.00	33.01	Passed
			16QAM	1	0	22.26	3.20	0.94	1.90	22.62	0.18281	20.47	0.11143	2.00	33.01	2.00	33.01	Passed
				1	49	21.92	3.20	0.94	1.90	22.28	0.16904	20.13	0.10304	2.00	33.01	2.00	33.01	Passed
				1	99	22.15	3.20	0.94	1.90	22.51	0.17824	20.36	0.10864	2.00	33.01	2.00	33.01	Passed
				50	0	21.09	3.20	0.94	1.90	21.45	0.13964	19.30	0.08511	2.00	33.01	2.00	33.01	Passed
				50	49	21.02	3.20	0.94	1.90	21.38	0.13740	19.23	0.08375	2.00	33.01	2.00	33.01	Passed
				100	0	20.99	3.20	0.94	1.90	21.35	0.13646	19.20	0.08318	2.00	33.01	2.00	33.01	Passed
	18900	1880.00	QPSK	1	0	23.26	3.20	0.94	1.90	23.62	0.23014	21.47	0.14028	2.00	33.01	2.00	33.01	Passed
				1	49	22.95	3.20	0.94	1.90	23.31	0.21429	21.16	0.13062	2.00	33.01	2.00	33.01	Passed
				1	99	23.15	3.20	0.94	1.90	23.51	0.22439	21.36	0.13677	2.00	33.01	2.00	33.01	Passed
				50	0	22.03	3.20	0.94	1.90	22.39	0.17338	20.24	0.10568	2.00	33.01	2.00	33.01	Passed
				50	49	21.97	3.20	0.94	1.90	22.33	0.17100	20.18	0.10423	2.00	33.01	2.00	33.01	Passed
				100	0	22.01	3.20	0.94	1.90	22.37	0.17258	20.22	0.10520	2.00	33.01	2.00	33.01	Passed
			16QAM	1	0	22.64	3.20	0.94	1.90	23.00	0.19953	20.85	0.12162	2.00	33.01	2.00	33.01	Passed
				1	49	22.43	3.20	0.94	1.90	22.79	0.19011	20.64	0.11588	2.00	33.01	2.00	33.01	Passed
				1	99	22.58	3.20	0.94	1.90	22.94	0.19679	20.79	0.11995	2.00	33.01	2.00	33.01	Passed
				50	0	21.07	3.20	0.94	1.90	21.43	0.13900	19.28	0.08472	2.00	33.01	2.00	33.01	Passed
				50	49	21.00	3.20	0.94	1.90	21.36	0.13677	19.21	0.08337	2.00	33.01	2.00	33.01	Passed
				100	0	21.02	3.20	0.94	1.90	21.38	0.13740	19.23	0.08375	2.00	33.01	2.00	33.01	Passed
	19100	1900.00	QPSK	1	0	23.21	3.20	0.94	1.90	23.57	0.22751	21.42	0.13868	2.00	33.01	2.00	33.01	Passed
				1	49	23.03	3.20	0.94	1.90	23.39	0.21827	21.24	0.13305	2.00	33.01	2.00	33.01	Passed
				1	99	23.10	3.20	0.94	1.90	23.46	0.22182	21.31	0.13521	2.00	33.01	2.00	33.01	Passed
				50	0	22.29	3.20	0.94	1.90	22.65	0.18408	20.50	0.11220	2.00	33.01	2.00	33.01	Passed
				50	49	22.23	3.20	0.94	1.90	22.59	0.18155	20.44	0.11066	2.00	33.01	2.00	33.01	Passed
				100	0	22.28	3.20	0.94	1.90	22.64	0.18365	20.49	0.11194	2.00	33.01	2.00	33.01	Passed
			16QAM	1	0	22.85	3.20	0.94	1.90	23.21	0.20941	21.06	0.12764	2.00	33.01	2.00	33.01	Passed
				1	49	22.70	3.20	0.94	1.90	23.06	0.20230	20.91	0.12331	2.00	33.01	2.00	33.01	Passed
				1	99	22.86	3.20	0.94	1.90	23.22	0.20989	21.07	0.12794	2.00	33.01	2.00	33.01	Passed
				50	0	21.26	3.20	0.94	1.90	21.62	0.14521	19.47	0.08851	2.00	33.01	2.00	33.01	Passed
				50	49	21.19	3.20	0.94	1.90	21.55	0.14289	19.40	0.08710	2.00	33.01	2.00	33.01	Passed
				100	0	21.30	3.20	0.94	1.90	21.66	0.14655	19.51	0.08933	2.00	33.01	2.00	33.01	Passed
	EIRP= RMS Power at Antenna Port + Maximum declared Antenna Gain - Path loss to Antenna Connector - Path loss in Antenna Cable																	
	ERP = EIRP - 2.15																	

ERP/EIRP: EUT Internal Antenna

LTE FDD Band 2																		
BW in MHz	Channel Nr.	ARFCN-Frequency (MHz)	Modulation	RB	Start RB	RMS Power at Antenna Port (dBm)	Maximum declared Antenna Gain(dBi)	Path loss to Antenna Connector	Path loss in Antenna Cable	EIRP in dBm	EIRP in Watt	ERP in dBm	ERP in Watt	FCC Limit(W), EIRP	FCC Limit (dBm); EIRP	ISED Limit(W), EIRP	ISED Limit (dBm), EIRP	Verdict
1.4	18607	1850.70	QPSK	1	0	22.86	0.20	0.60	0.00	22.46	0.17620	20.31	0.10740	2.00	33.01	2.00	33.01	Passed
				1	5	22.90	0.20	0.60	0.00	22.50	0.17783	20.35	0.10839	2.00	33.01	2.00	33.01	Passed
				3	0	22.84	0.20	0.60	0.00	22.44	0.17539	20.29	0.10691	2.00	33.01	2.00	33.01	Passed
				3	2	22.87	0.20	0.60	0.00	22.47	0.17660	20.32	0.10765	2.00	33.01	2.00	33.01	Passed
				6	0	21.85	0.20	0.60	0.00	21.45	0.13964	19.30	0.08511	2.00	33.01	2.00	33.01	Passed
			16QAM	1	0	22.03	0.20	0.60	0.00	21.63	0.14555	19.48	0.08872	2.00	33.01	2.00	33.01	Passed
				1	5	21.98	0.20	0.60	0.00	21.58	0.14388	19.43	0.08770	2.00	33.01	2.00	33.01	Passed
				3	0	21.84	0.20	0.60	0.00	21.44	0.13932	19.29	0.08492	2.00	33.01	2.00	33.01	Passed
				3	2	21.94	0.20	0.60	0.00	21.54	0.14256	19.39	0.08690	2.00	33.01	2.00	33.01	Passed
				6	0	20.95	0.20	0.60	0.00	20.55	0.11350	18.40	0.06918	2.00	33.01	2.00	33.01	Passed
			QPSK	1	0	22.81	0.20	0.60	0.00	22.41	0.17418	20.26	0.10617	2.00	33.01	2.00	33.01	Passed
				1	5	22.80	0.20	0.60	0.00	22.40	0.17378	20.25	0.10593	2.00	33.01	2.00	33.01	Passed
				3	0	22.87	0.20	0.60	0.00	22.47	0.17660	20.32	0.10765	2.00	33.01	2.00	33.01	Passed
				3	2	22.90	0.20	0.60	0.00	22.50	0.17783	20.35	0.10839	2.00	33.01	2.00	33.01	Passed
				6	0	21.82	0.20	0.60	0.00	21.42	0.13868	19.27	0.08453	2.00	33.01	2.00	33.01	Passed
				1	0	22.07	0.20	0.60	0.00	21.67	0.14689	19.52	0.08954	2.00	33.01	2.00	33.01	Passed
				1	5	22.02	0.20	0.60	0.00	21.62	0.14521	19.47	0.08851	2.00	33.01	2.00	33.01	Passed
				3	0	21.82	0.20	0.60	0.00	21.42	0.13868	19.27	0.08453	2.00	33.01	2.00	33.01	Passed
				3	2	21.90	0.20	0.60	0.00	21.50	0.14125	19.35	0.08610	2.00	33.01	2.00	33.01	Passed
				6	0	20.95	0.20	0.60	0.00	20.55	0.11350	18.40	0.06918	2.00	33.01	2.00	33.01	Passed
	19193	1909.30	QPSK	1	0	23.02	0.20	0.60	0.00	22.62	0.18281	20.47	0.11143	2.00	33.01	2.00	33.01	Passed
				1	5	23.05	0.20	0.60	0.00	22.65	0.18408	20.50	0.11220	2.00	33.01	2.00	33.01	Passed
				3	0	23.13	0.20	0.60	0.00	22.73	0.18750	20.58	0.11429	2.00	33.01	2.00	33.01	Passed
				3	2	23.12	0.20	0.60	0.00	22.72	0.18707	20.57	0.11402	2.00	33.01	2.00	33.01	Passed
				6	0	22.04	0.20	0.60	0.00	21.64	0.14588	19.49	0.08892	2.00	33.01	2.00	33.01	Passed
			16QAM	1	0	22.07	0.20	0.60	0.00	21.67	0.14689	19.52	0.08954	2.00	33.01	2.00	33.01	Passed
				1	5	22.02	0.20	0.60	0.00	21.62	0.14521	19.47	0.08851	2.00	33.01	2.00	33.01	Passed
				3	0	22.01	0.20	0.60	0.00	21.61	0.14488	19.46	0.08831	2.00	33.01	2.00	33.01	Passed
				3	2	22.05	0.20	0.60	0.00	21.65	0.14622	19.50	0.08913	2.00	33.01	2.00	33.01	Passed
				6	0	21.17	0.20	0.60	0.00	20.77	0.11940	18.62	0.07278	2.00	33.01	2.00	33.01	Passed
	3	18615	QPSK	1	0	22.89	0.20	0.60	0.00	22.49	0.17742	20.34	0.10814	2.00	33.01	2.00	33.01	Passed
				1	14	22.84	0.20	0.60	0.00	22.44	0.17539	20.29	0.10691	2.00	33.01	2.00	33.01	Passed
				8	0	21.95	0.20	0.60	0.00	21.55	0.14289	19.40	0.08710	2.00	33.01	2.00	33.01	Passed
				8	7	21.92	0.20	0.60	0.00	21.52	0.14191	19.37	0.08650	2.00	33.01	2.00	33.01	Passed
				15	0	21.91	0.20	0.60	0.00	21.51	0.14158	19.36	0.08630	2.00	33.01	2.00	33.01	Passed
			16QAM	1	0	22.13	0.20	0.60	0.00	21.73	0.14894	19.58	0.09078	2.00	33.01	2.00	33.01	Passed
				1	14	22.05	0.20	0.60	0.00	21.65	0.14622	19.50	0.08913	2.00	33.01	2.00	33.01	Passed
				8	0	21.12	0.20	0.60	0.00	20.72	0.11803	18.57	0.07194	2.00	33.01	2.00	33.01	Passed
				8	7	21.13	0.20	0.60	0.00	20.73	0.11830	18.58	0.07211	2.00	33.01	2.00	33.01	Passed
				15	0	20.96	0.20	0.60	0.00	20.56	0.11376	18.41	0.06934	2.00	33.01	2.00	33.01	Passed
			QPSK	1	0	22.93	0.20	0.60	0.00	22.53	0.17906	20.38	0.10914	2.00	33.01	2.00	33.01	Passed
				1	14	22.90	0.20	0.60	0.00	22.50	0.17783	20.35	0.10839	2.00	33.01	2.00	33.01	Passed
				8	0	21.95	0.20	0.60	0.00	21.55	0.14289	19.40	0.08710	2.00	33.01	2.00	33.01	Passed
				8	7	21.94	0.20	0.60	0.00	21.54	0.14256	19.39	0.08690	2.00	33.01	2.00	33.01	Passed
				15	0	21.95	0.20	0.60	0.00	21.55	0.14289	19.40	0.08710	2.00	33.01	2.00	33.01	Passed
			16QAM	1	0	22.13	0.20	0.60	0.00	21.73	0.14894	19.58	0.09078	2.00	33.01	2.00	33.01	Passed
				1	14	22.08	0.20	0.60	0.00	21.68	0.14723	19.53	0.08974	2.00	33.01	2.00	33.01	Passed
				8	0	21.10	0.20	0.60	0.00	20.70	0.11749	18.55	0.07161	2.00	33.01	2.00	33.01	Passed
				8	7	21.11	0.20	0.60	0.00	20.71	0.11776	18.56	0.07178	2.00	33.01	2.00	33.01	Passed
				15	0	20.99	0.20	0.60	0.00	20.59	0.11455	18.44	0.06982	2.00	33.01	2.00	33.01	Passed
	19185	1908.50	QPSK	1	0	23.10	0.20	0.60	0.00	22.70	0.18621	20.55	0.11350	2.00	33.01	2.00	33.01	Passed
				1	14	23.03	0.20	0.60	0.00	22.63	0.18323	20.48	0.11169	2.00	33.01	2.00	33.01	Passed
				8	0	22.11	0.20	0.60	0.00	21.71	0.14825	19.56	0.09036	2.00	33.01	2.00	33.01	Passed
				8	7	22.15	0.20	0.60	0.00	21.75	0.14962	19.60	0.09120	2.00	33.01	2.00	33.01	Passed
				15	0	22.11	0.20	0.60	0.00	21.71	0.14825	19.56	0.09036	2.00	33.01	2.00	33.01	Passed
			16QAM	1	0	22.24	0.20	0.60	0.00	21.84	0.15276	19.69	0.09311	2.00	33.01	2.00	33.01	Passed
				1	14	22.28	0.20	0.60	0.00	21.88	0.15417	19.73	0.09397	2.00	33.01	2.00	33.01	Passed
				8	0	21.24	0.20	0.60	0.00	20.84	0.12134	18.69	0.07396	2.00	33.01	2.00	33.01	Passed
				8	7	21.22	0.20	0.60	0.00	20.82	0.12078	18.67	0.07362	2.00	33.01	2.00	33.01	Passed
				15	0	21.20	0.20	0.60	0.00	20.80	0.12023	18.65	0.07328	2.00	33.01	2.00	33.01	Passed

5	18625	1852.50	QPSK	1	0	22.84	0.20	0.60	0.00	22.44	0.17539	20.29	0.10691	2.00	33.01	2.00	33.01	Passed	
				1	24	22.81	0.20	0.60	0.00	22.41	0.17418	20.26	0.10617	2.00	33.01	2.00	33.01	Passed	
				12	0	21.95	0.20	0.60	0.00	21.55	0.14289	19.40	0.08710	2.00	33.01	2.00	33.01	Passed	
				12	11	21.89	0.20	0.60	0.00	21.49	0.14093	19.34	0.08590	2.00	33.01	2.00	33.01	Passed	
				25	0	21.90	0.20	0.60	0.00	21.50	0.14125	19.35	0.08610	2.00	33.01	2.00	33.01	Passed	
		16QAM	1	0	22.02	0.20	0.60	0.00	21.62	0.14521	19.47	0.08851	2.00	33.01	2.00	33.01	Passed		
			1	24	21.98	0.20	0.60	0.00	21.58	0.14388	19.43	0.08770	2.00	33.01	2.00	33.01	Passed		
			12	0	20.97	0.20	0.60	0.00	20.57	0.11402	18.42	0.06950	2.00	33.01	2.00	33.01	Passed		
			12	11	20.97	0.20	0.60	0.00	20.57	0.11402	18.42	0.06950	2.00	33.01	2.00	33.01	Passed		
			25	0	20.94	0.20	0.60	0.00	20.54	0.11324	18.39	0.06902	2.00	33.01	2.00	33.01	Passed		
	18900	1880.00	QPSK	1	0	22.99	0.20	0.60	0.00	22.59	0.18155	20.44	0.11066	2.00	33.01	2.00	33.01	Passed	
				1	24	22.93	0.20	0.60	0.00	22.53	0.17906	20.38	0.10914	2.00	33.01	2.00	33.01	Passed	
				12	0	21.92	0.20	0.60	0.00	21.52	0.14191	19.37	0.08650	2.00	33.01	2.00	33.01	Passed	
				12	11	21.92	0.20	0.60	0.00	21.52	0.14191	19.37	0.08650	2.00	33.01	2.00	33.01	Passed	
				25	0	21.95	0.20	0.60	0.00	21.55	0.14289	19.40	0.08710	2.00	33.01	2.00	33.01	Passed	
		16QAM	1	0	22.01	0.20	0.60	0.00	21.61	0.14488	19.46	0.08831	2.00	33.01	2.00	33.01	Passed		
1			24	21.95	0.20	0.60	0.00	21.55	0.14289	19.40	0.08710	2.00	33.01	2.00	33.01	Passed			
12			0	21.07	0.20	0.60	0.00	20.67	0.11668	18.52	0.07112	2.00	33.01	2.00	33.01	Passed			
12			11	21.09	0.20	0.60	0.00	20.69	0.11722	18.54	0.07145	2.00	33.01	2.00	33.01	Passed			
25			0	20.98	0.20	0.60	0.00	20.58	0.11429	18.43	0.06966	2.00	33.01	2.00	33.01	Passed			
19175	1907.50	QPSK	1	0	23.12	0.20	0.60	0.00	22.72	0.18707	20.57	0.11402	2.00	33.01	2.00	33.01	Passed		
			1	24	23.05	0.20	0.60	0.00	22.65	0.18408	20.50	0.11220	2.00	33.01	2.00	33.01	Passed		
			12	0	22.15	0.20	0.60	0.00	21.75	0.14962	19.60	0.09120	2.00	33.01	2.00	33.01	Passed		
			12	11	22.15	0.20	0.60	0.00	21.75	0.14962	19.60	0.09120	2.00	33.01	2.00	33.01	Passed		
			25	0	22.13	0.20	0.60	0.00	21.73	0.14894	19.58	0.09078	2.00	33.01	2.00	33.01	Passed		
	16QAM	1	0	22.48	0.20	0.60	0.00	22.08	0.16144	19.93	0.09840	2.00	33.01	2.00	33.01	Passed			
		1	24	22.52	0.20	0.60	0.00	22.12	0.16293	19.97	0.09931	2.00	33.01	2.00	33.01	Passed			
		12	0	21.05	0.20	0.60	0.00	20.65	0.11614	18.50	0.07079	2.00	33.01	2.00	33.01	Passed			
		12	11	21.03	0.20	0.60	0.00	20.63	0.11561	18.48	0.07047	2.00	33.01	2.00	33.01	Passed			
		25	0	21.18	0.20	0.60	0.00	20.78	0.11967	18.63	0.07295	2.00	33.01	2.00	33.01	Passed			
10	18650	1855.00	QPSK	1	0	23.16	0.20	0.60	0.00	22.76	0.18880	20.61	0.11508	2.00	33.01	2.00	33.01	Passed	
				1	24	22.83	0.20	0.60	0.00	22.43	0.17498	20.28	0.10666	2.00	33.01	2.00	33.01	Passed	
				1	49	23.11	0.20	0.60	0.00	22.71	0.18664	20.56	0.11376	2.00	33.01	2.00	33.01	Passed	
				25	0	21.97	0.20	0.60	0.00	21.57	0.14355	19.42	0.08750	2.00	33.01	2.00	33.01	Passed	
				25	24	21.98	0.20	0.60	0.00	21.58	0.14388	19.43	0.08770	2.00	33.01	2.00	33.01	Passed	
			16QAM	50	0	21.98	0.20	0.60	0.00	21.58	0.14388	19.43	0.08770	2.00	33.01	2.00	33.01	Passed	
				1	0	22.43	0.20	0.60	0.00	22.03	0.15959	19.88	0.09727	2.00	33.01	2.00	33.01	Passed	
				1	24	22.07	0.20	0.60	0.00	21.67	0.14689	19.52	0.08954	2.00	33.01	2.00	33.01	Passed	
				1	49	22.34	0.20	0.60	0.00	21.94	0.15631	19.79	0.09528	2.00	33.01	2.00	33.01	Passed	
				25	0	21.08	0.20	0.60	0.00	20.68	0.11695	18.53	0.07129	2.00	33.01	2.00	33.01	Passed	
		18900	1880.00	QPSK	25	24	21.03	0.20	0.60	0.00	20.63	0.11561	18.48	0.07047	2.00	33.01	2.00	33.01	Passed
					50	0	21.00	0.20	0.60	0.00	20.60	0.11482	18.45	0.06998	2.00	33.01	2.00	33.01	Passed
					1	0	23.19	0.20	0.60	0.00	22.79	0.19011	20.64	0.11588	2.00	33.01	2.00	33.01	Passed
					1	24	22.92	0.20	0.60	0.00	22.52	0.17865	20.37	0.10889	2.00	33.01	2.00	33.01	Passed
					1	49	23.13	0.20	0.60	0.00	22.73	0.18750	20.58	0.11429	2.00	33.01	2.00	33.01	Passed
				16QAM	25	0	21.98	0.20	0.60	0.00	21.58	0.14388	19.43	0.08770	2.00	33.01	2.00	33.01	Passed
					25	24	21.98	0.20	0.60	0.00	21.58	0.14388	19.43	0.08770	2.00	33.01	2.00	33.01	Passed
					50	0	22.04	0.20	0.60	0.00	21.64	0.14588	19.49	0.08892	2.00	33.01	2.00	33.01	Passed
					1	0	22.36	0.20	0.60	0.00	21.96	0.15704	19.81	0.09572	2.00	33.01	2.00	33.01	Passed
					1	24	22.06	0.20	0.60	0.00	21.66	0.14655	19.51	0.08933	2.00	33.01	2.00	33.01	Passed
	19150	1905.00	QPSK	1	49	22.25	0.20	0.60	0.00	21.85	0.15311	19.70	0.09333	2.00	33.01	2.00	33.01	Passed	
				25	0	21.06	0.20	0.60	0.00	20.66	0.11641	18.51	0.07096	2.00	33.01	2.00	33.01	Passed	
				25	24	20.98	0.20	0.60	0.00	20.58	0.11429	18.43	0.06966	2.00	33.01	2.00	33.01	Passed	
				50	0	20.98	0.20	0.60	0.00	20.58	0.11429	18.43	0.06966	2.00	33.01	2.00	33.01	Passed	
				1	0	23.19	0.20	0.60	0.00	22.79	0.19011	20.64	0.11588	2.00	33.01	2.00	33.01	Passed	
			16QAM	1	24	23.07	0.20	0.60	0.00	22.67	0.18493	20.52	0.11272	2.00	33.01	2.00	33.01	Passed	
				1	49	23.15	0.20	0.60	0.00	22.75	0.18836	20.60	0.11482	2.00	33.01	2.00	33.01	Passed	
				25	0	22.22	0.20	0.60	0.00	21.82	0.15205	19.67	0.09268	2.00	33.01	2.00	33.01	Passed	
				25	24	22.21	0.20	0.60	0.00	21.81	0.15171	19.66	0.09247	2.00	33.01	2.00	33.01	Passed	
				50	0	22.20	0.20	0.60	0.00	21.80	0.15136	19.65	0.09226	2.00	33.01	2.00	33.01	Passed	

ERP/EIRP: EUT External Antenna

LTE FDD Band 4																					
BW in MHz	Channel Nr.	ARFCN-Frequency (MHz)	Modulation	RB	Start RB	RMS Power at Antenna Port (dBm)	Maximum declared Antenna Gain(dBi)	Path loss to Antenna Connector	Path loss in Antenna Cable	EIRP in dBm	EIRP in Watt	ERP in dBm	ERP in Watt	FCC Limit(W), EIRP	FCC Limit (dBm); EIRP	ISED Limit(W), EIRP	ISED Limit (dBm), EIRP	Verdict			
1.4	19957	1710.70	QPSK	1	0	22.97	2.80	0.89	1.80	23.08	0.20324	20.93	0.12388	1.00	30.00	1.00	30.00	Passed			
				1	5	22.97	2.80	0.89	1.80	23.08	0.20324	20.93	0.12388	1.00	30.00	1.00	30.00	Passed			
				3	0	23.04	2.80	0.89	1.80	23.15	0.20654	21.00	0.12589	1.00	30.00	1.00	30.00	Passed			
				3	2	23.07	2.80	0.89	1.80	23.18	0.20797	21.03	0.12677	1.00	30.00	1.00	30.00	Passed			
				6	0	22.02	2.80	0.89	1.80	22.13	0.16331	19.98	0.09954	1.00	30.00	1.00	30.00	Passed			
				1	0	21.90	2.80	0.89	1.80	22.01	0.15885	19.86	0.09683	1.00	30.00	1.00	30.00	Passed			
			16QAM	1	5	21.90	2.80	0.89	1.80	22.01	0.15885	19.86	0.09683	1.00	30.00	1.00	30.00	Passed			
				3	0	21.91	2.80	0.89	1.80	22.02	0.15922	19.87	0.09705	1.00	30.00	1.00	30.00	Passed			
				3	2	21.97	2.80	0.89	1.80	22.08	0.16144	19.93	0.09840	1.00	30.00	1.00	30.00	Passed			
				6	0	21.05	2.80	0.89	1.80	21.16	0.13062	19.01	0.07962	1.00	30.00	1.00	30.00	Passed			
				1	0	22.85	2.80	0.89	1.80	22.96	0.19770	20.81	0.12050	1.00	30.00	1.00	30.00	Passed			
				1	5	22.89	2.80	0.89	1.80	23.00	0.19953	20.85	0.12162	1.00	30.00	1.00	30.00	Passed			
			20175	1732.50	QPSK	3	0	22.92	2.80	0.89	1.80	23.03	0.20091	20.88	0.12246	1.00	30.00	1.00	30.00	Passed	
						3	2	22.95	2.80	0.89	1.80	23.06	0.20230	20.91	0.12331	1.00	30.00	1.00	30.00	Passed	
						6	0	21.89	2.80	0.89	1.80	22.00	0.15849	19.85	0.09661	1.00	30.00	1.00	30.00	Passed	
						1	0	22.08	2.80	0.89	1.80	22.19	0.16558	20.04	0.10093	1.00	30.00	1.00	30.00	Passed	
						1	5	22.10	2.80	0.89	1.80	22.21	0.16634	20.06	0.10139	1.00	30.00	1.00	30.00	Passed	
						3	0	21.87	2.80	0.89	1.80	21.98	0.15776	19.83	0.09616	1.00	30.00	1.00	30.00	Passed	
	16QAM	3			2	21.92	2.80	0.89	1.80	22.03	0.15959	19.88	0.09727	1.00	30.00	1.00	30.00	Passed			
		6			0	20.91	2.80	0.89	1.80	21.02	0.12647	18.87	0.07709	1.00	30.00	1.00	30.00	Passed			
		1			0	22.85	2.80	0.89	1.80	22.96	0.19770	20.81	0.12050	1.00	30.00	1.00	30.00	Passed			
		1			5	22.83	2.80	0.89	1.80	22.94	0.19679	20.79	0.11995	1.00	30.00	1.00	30.00	Passed			
		3			0	22.89	2.80	0.89	1.80	23.00	0.19953	20.85	0.12162	1.00	30.00	1.00	30.00	Passed			
		3			2	22.96	2.80	0.89	1.80	23.07	0.20277	20.92	0.12359	1.00	30.00	1.00	30.00	Passed			
	20393	1754.30	QPSK	6	0	22.86	2.80	0.89	1.80	22.97	0.19815	20.82	0.12078	1.00	30.00	1.00	30.00	Passed			
				1	0	22.12	2.80	0.89	1.80	22.23	0.16711	20.08	0.10186	1.00	30.00	1.00	30.00	Passed			
				1	5	22.11	2.80	0.89	1.80	22.22	0.16672	20.07	0.10162	1.00	30.00	1.00	30.00	Passed			
				3	0	21.89	2.80	0.89	1.80	22.00	0.15849	19.85	0.09661	1.00	30.00	1.00	30.00	Passed			
				3	2	21.88	2.80	0.89	1.80	21.99	0.15812	19.84	0.09638	1.00	30.00	1.00	30.00	Passed			
				6	0	20.93	2.80	0.89	1.80	21.04	0.12706	18.89	0.07745	1.00	30.00	1.00	30.00	Passed			
			16QAM	1	0	23.08	2.80	0.89	1.80	23.19	0.20845	21.04	0.12706	1.00	30.00	1.00	30.00	Passed			
				1	14	23.03	2.80	0.89	1.80	23.14	0.20606	20.99	0.12560	1.00	30.00	1.00	30.00	Passed			
				8	0	22.09	2.80	0.89	1.80	22.20	0.16596	20.05	0.10116	1.00	30.00	1.00	30.00	Passed			
				8	7	22.04	2.80	0.89	1.80	22.15	0.16406	20.00	0.10000	1.00	30.00	1.00	30.00	Passed			
				15	0	22.05	2.80	0.89	1.80	22.16	0.16444	20.01	0.10023	1.00	30.00	1.00	30.00	Passed			
				1	0	22.25	2.80	0.89	1.80	22.36	0.17219	20.21	0.10495	1.00	30.00	1.00	30.00	Passed			
			3	19965	1711.50	QPSK	1	14	22.24	2.80	0.89	1.80	22.35	0.17179	20.20	0.10471	1.00	30.00	1.00	30.00	Passed
							8	0	21.26	2.80	0.89	1.80	21.37	0.13709	19.22	0.08356	1.00	30.00	1.00	30.00	Passed
							8	7	21.24	2.80	0.89	1.80	21.35	0.13646	19.20	0.08318	1.00	30.00	1.00	30.00	Passed
							15	0	21.13	2.80	0.89	1.80	21.24	0.13305	19.09	0.08110	1.00	30.00	1.00	30.00	Passed
							1	0	22.94	2.80	0.89	1.80	23.05	0.20184	20.90	0.12303	1.00	30.00	1.00	30.00	Passed
							1	14	22.93	2.80	0.89	1.80	23.04	0.20137	20.89	0.12274	1.00	30.00	1.00	30.00	Passed
	16QAM	8				0	21.94	2.80	0.89	1.80	22.05	0.16032	19.90	0.09772	1.00	30.00	1.00	30.00	Passed		
		8				7	21.95	2.80	0.89	1.80	22.06	0.16069	19.91	0.09795	1.00	30.00	1.00	30.00	Passed		
		15				0	21.96	2.80	0.89	1.80	22.07	0.16106	19.92	0.09817	1.00	30.00	1.00	30.00	Passed		
		1				0	22.16	2.80	0.89	1.80	22.27	0.16866	20.12	0.10280	1.00	30.00	1.00	30.00	Passed		
		1				14	22.15	2.80	0.89	1.80	22.26	0.16827	20.11	0.10257	1.00	30.00	1.00	30.00	Passed		
		8				0	21.10	2.80	0.89	1.80	21.21	0.13213	19.06	0.08054	1.00	30.00	1.00	30.00	Passed		
	20175	1732.50	QPSK	8	7	21.11	2.80	0.89	1.80	21.22	0.13243	19.07	0.08072	1.00	30.00	1.00	30.00	Passed			
				15	0	20.99	2.80	0.89	1.80	21.10	0.12882	18.95	0.07852	1.00	30.00	1.00	30.00	Passed			
				1	0	22.96	2.80	0.89	1.80	23.07	0.20277	20.92	0.12359	1.00	30.00	1.00	30.00	Passed			
				1	14	22.92	2.80	0.89	1.80	23.03	0.20091	20.88	0.12246	1.00	30.00	1.00	30.00	Passed			
				8	0	21.93	2.80	0.89	1.80	22.04	0.15996	19.89	0.09750	1.00	30.00	1.00	30.00	Passed			
				8	7	21.90	2.80	0.89	1.80	22.01	0.15885	19.86	0.09683	1.00	30.00	1.00	30.00	Passed			
			16QAM	15	0	21.97	2.80	0.89	1.80	22.08	0.16144	19.93	0.09840	1.00	30.00	1.00	30.00	Passed			
				1	0	22.22	2.80	0.89	1.80	22.33	0.17100	20.18	0.10423	1.00	30.00	1.00	30.00	Passed			
				1	14	22.18	2.80	0.89	1.80	22.29	0.16943	20.14	0.10328	1.00	30.00	1.00	30.00	Passed			
				8	0	21.01	2.80	0.89	1.80	21.12	0.12942	18.97	0.07889	1.00	30.00	1.00	30.00	Passed			
				8	7	21.06	2.80	0.89	1.80	21.17	0.13092	19.02	0.07980	1.00	30.00	1.00	30.00	Passed			
				15	0	20.96	2.80	0.89	1.80	21.07	0.12794	18.92	0.07798	1.00	30.00	1.00	30.00	Passed			
20385			1753.50	QPSK	1	14	22.92	2.80	0.89	1.80	23.03	0.20091	20.88	0.12246	1.00	30.00	1.00	30.00	Passed		
					8	0	21.93	2.80	0.89	1.80	22.04	0.15996	19.89	0.09750	1.00	30.00	1.00	30.00	Passed		
					8	7	21.90	2.80	0.89	1.80	22.01	0.15885	19.86	0.09683	1.00	30.00	1.00	30.00	Passed		
					15	0	21.97	2.80	0.89	1.80	22.08	0.16144	19.93	0.09840	1.00	30.00	1.00	30.00	Passed		
					1	0	22.22	2.80	0.89	1.80	22.33	0.17100	20.18	0.10423	1.00	30.00	1.00	30.00	Passed		
					1	14	22.18	2.80	0.89	1.80	22.29	0.16943	20.14	0.10328	1.00	30.00	1.00	30.00	Passed		
	16QAM	8		0	21.01	2.80	0.89	1.80	21.12	0.12942	18.97	0.07889	1.00	30.00	1.00	30.00	Passed				
		8		7	21.06	2.80	0.89	1.80	21.17	0.13092	19.02	0.07980	1.00	30.00	1.00	30.00	Passed				
		15		0	20.96	2.80	0.89	1.80	21.07	0.12794	18.92	0.07798	1.00	30.00	1.00	30.00	Passed				
		1		14	22.92	2.80	0.89	1.80	23.03	0.20091	20.88	0.12246	1.00	30.00	1.00	30.00	Passed				
		8		0	21.93	2.80	0.89	1.80	22.04	0.15996	19.89	0.09750	1.00	30.00	1.00	30.00	Passed				
		8		7	21.90	2.80	0.89	1.80	22.01	0.15885	19.86	0.09683	1.00	30.00	1.00	30.00	Passed				

5	19975	1712.50	QPSK	1	0	23.11	2.80	0.89	1.80	23.22	0.20989	21.07	0.12794	1.00	30.00	1.00	30.00	Passed
				1	24	23.14	2.80	0.89	1.80	23.25	0.21135	21.10	0.12882	1.00	30.00	1.00	30.00	Passed
				12	0	22.13	2.80	0.89	1.80	22.24	0.16749	20.09	0.10209	1.00	30.00	1.00	30.00	Passed
				12	11	22.08	2.80	0.89	1.80	22.19	0.16558	20.04	0.10093	1.00	30.00	1.00	30.00	Passed
			16QAM	25	0	22.07	2.80	0.89	1.80	22.18	0.16520	20.03	0.10069	1.00	30.00	1.00	30.00	Passed
				1	0	22.24	2.80	0.89	1.80	22.35	0.17179	20.20	0.10471	1.00	30.00	1.00	30.00	Passed
				1	24	22.27	2.80	0.89	1.80	22.38	0.17298	20.23	0.10544	1.00	30.00	1.00	30.00	Passed
				12	0	21.13	2.80	0.89	1.80	21.24	0.13305	19.09	0.08110	1.00	30.00	1.00	30.00	Passed
			QPSK	12	11	21.16	2.80	0.89	1.80	21.27	0.13397	19.12	0.08166	1.00	30.00	1.00	30.00	Passed
				25	0	21.09	2.80	0.89	1.80	21.20	0.13183	19.05	0.08035	1.00	30.00	1.00	30.00	Passed
				1	0	23.02	2.80	0.89	1.80	23.13	0.20559	20.98	0.12531	1.00	30.00	1.00	30.00	Passed
				1	24	22.98	2.80	0.89	1.80	23.09	0.20370	20.94	0.12417	1.00	30.00	1.00	30.00	Passed
10	20175	1732.50	QPSK	12	0	21.96	2.80	0.89	1.80	22.07	0.16106	19.92	0.09817	1.00	30.00	1.00	30.00	Passed
				12	11	21.93	2.80	0.89	1.80	22.04	0.15996	19.89	0.09750	1.00	30.00	1.00	30.00	Passed
				25	0	21.97	2.80	0.89	1.80	22.08	0.16144	19.93	0.09840	1.00	30.00	1.00	30.00	Passed
				1	0	22.08	2.80	0.89	1.80	22.19	0.16558	20.04	0.10093	1.00	30.00	1.00	30.00	Passed
			16QAM	1	24	22.03	2.80	0.89	1.80	22.14	0.16368	19.99	0.09977	1.00	30.00	1.00	30.00	Passed
				12	0	21.06	2.80	0.89	1.80	21.17	0.13092	19.02	0.07980	1.00	30.00	1.00	30.00	Passed
				12	11	21.05	2.80	0.89	1.80	21.16	0.13062	19.01	0.07962	1.00	30.00	1.00	30.00	Passed
				25	0	20.96	2.80	0.89	1.80	21.07	0.12794	18.92	0.07798	1.00	30.00	1.00	30.00	Passed
	20375	1752.50	QPSK	1	0	23.00	2.80	0.89	1.80	23.11	0.20464	20.96	0.12474	1.00	30.00	1.00	30.00	Passed
				1	24	23.00	2.80	0.89	1.80	23.11	0.20464	20.96	0.12474	1.00	30.00	1.00	30.00	Passed
				12	0	21.95	2.80	0.89	1.80	22.06	0.16069	19.91	0.09795	1.00	30.00	1.00	30.00	Passed
				12	11	21.95	2.80	0.89	1.80	22.06	0.16069	19.91	0.09795	1.00	30.00	1.00	30.00	Passed
			16QAM	25	0	21.99	2.80	0.89	1.80	22.10	0.16218	19.95	0.09886	1.00	30.00	1.00	30.00	Passed
				1	0	22.40	2.80	0.89	1.80	22.51	0.17824	20.36	0.10864	1.00	30.00	1.00	30.00	Passed
				1	24	22.42	2.80	0.89	1.80	22.53	0.17906	20.38	0.10914	1.00	30.00	1.00	30.00	Passed
				12	0	20.90	2.80	0.89	1.80	21.01	0.12618	18.86	0.07691	1.00	30.00	1.00	30.00	Passed
			QPSK	12	11	20.83	2.80	0.89	1.80	20.94	0.12417	18.79	0.07568	1.00	30.00	1.00	30.00	Passed
				25	0	20.97	2.80	0.89	1.80	21.08	0.12823	18.93	0.07816	1.00	30.00	1.00	30.00	Passed
	20000	1715.00	QPSK	1	0	23.11	2.80	0.89	1.80	23.22	0.20989	21.07	0.12794	1.00	30.00	1.00	30.00	Passed
				1	24	23.03	2.80	0.89	1.80	23.14	0.20606	20.99	0.12560	1.00	30.00	1.00	30.00	Passed
				1	49	23.05	2.80	0.89	1.80	23.16	0.20701	21.01	0.12618	1.00	30.00	1.00	30.00	Passed
				25	0	22.09	2.80	0.89	1.80	22.20	0.16596	20.05	0.10116	1.00	30.00	1.00	30.00	Passed
			16QAM	25	24	22.14	2.80	0.89	1.80	22.25	0.16788	20.10	0.10233	1.00	30.00	1.00	30.00	Passed
				50	0	22.08	2.80	0.89	1.80	22.19	0.16558	20.04	0.10093	1.00	30.00	1.00	30.00	Passed
				1	0	22.32	2.80	0.89	1.80	22.43	0.17498	20.28	0.10666	1.00	30.00	1.00	30.00	Passed
				1	24	22.14	2.80	0.89	1.80	22.25	0.16788	20.10	0.10233	1.00	30.00	1.00	30.00	Passed
			QPSK	1	49	22.24	2.80	0.89	1.80	22.35	0.17179	20.20	0.10471	1.00	30.00	1.00	30.00	Passed
				25	0	21.18	2.80	0.89	1.80	21.29	0.13459	19.14	0.08204	1.00	30.00	1.00	30.00	Passed
				25	24	21.17	2.80	0.89	1.80	21.28	0.13428	19.13	0.08185	1.00	30.00	1.00	30.00	Passed
				50	0	21.09	2.80	0.89	1.80	21.20	0.13183	19.05	0.08035	1.00	30.00	1.00	30.00	Passed
	20175	1732.50	QPSK	1	0	23.06	2.80	0.89	1.80	23.17	0.20749	21.02	0.12647	1.00	30.00	1.00	30.00	Passed
				1	24	22.90	2.80	0.89	1.80	23.01	0.19999	20.86	0.12190	1.00	30.00	1.00	30.00	Passed
				1	49	22.95	2.80	0.89	1.80	23.06	0.20230	20.91	0.12331	1.00	30.00	1.00	30.00	Passed
				25	0	21.97	2.80	0.89	1.80	22.08	0.16144	19.93	0.09840	1.00	30.00	1.00	30.00	Passed
			16QAM	25	24	22.00	2.80	0.89	1.80	22.11	0.16255	19.96	0.09908	1.00	30.00	1.00	30.00	Passed
				50	0	21.96	2.80	0.89	1.80	22.07	0.16106	19.92	0.09817	1.00	30.00	1.00	30.00	Passed
				1	0	22.27	2.80	0.89	1.80	22.38	0.17298	20.23	0.10544	1.00	30.00	1.00	30.00	Passed
				1	24	22.15	2.80	0.89	1.80	22.26	0.16827	20.11	0.10257	1.00	30.00	1.00	30.00	Passed
			QPSK	1	49	22.21	2.80	0.89	1.80	22.32	0.17061	20.17	0.10399	1.00	30.00	1.00	30.00	Passed
				25	0	21.05	2.80	0.89	1.80	21.16	0.13062	19.01	0.07962	1.00	30.00	1.00	30.00	Passed
				25	24	21.00	2.80	0.89	1.80	21.11	0.12912	18.96	0.07870	1.00	30.00	1.00	30.00	Passed
				50	0	20.97	2.80	0.89	1.80	21.08	0.12823	18.93	0.07816	1.00	30.00	1.00	30.00	Passed
10	20350	1750.00	QPSK	1	0	22.98	2.80	0.89	1.80	23.09	0.20370	20.94	0.12417	1.00	30.00	1.00	30.00	Passed
				1	24	22.91	2.80	0.89	1.80	23.02	0.20045	20.87	0.12218	1.00	30.00	1.00	30.00	Passed
				1	49	22.91	2.80	0.89	1.80	23.02	0.20045	20.87	0.12218	1.00	30.00	1.00	30.00	Passed
				25	0	21.94	2.80	0.89	1.80	22.05	0.16032	19.90	0.09772	1.00	30.00	1.00	30.00	Passed
			16QAM	25	24	21.96	2.80	0.89	1.80	22.07	0.16106	19.92	0.09817	1.00	30.00	1.00	30.00	Passed
				50	0	21.94	2.80	0.89	1.80	22.05	0.16032	19.90	0.09772	1.00	30.00	1.00	30.00	Passed
				1	0	22.22	2.80	0.89	1.80	22.33	0.17100	20.18	0.10423	1.00	30.00	1.00	30.00	Passed
				1	24	22.16	2.80	0.89	1.80	22.27	0.16866	20.12	0.10280	1.00	30.00	1.00	30.00	Passed
			QPSK	1	49	22.18	2.80	0.89	1.80	22.29	0.16943	20.14	0.10328	1.00	30.00	1.00	30.00	Passed
				25	0	21.05	2.80	0.89	1.80	21.16	0.13062	19.01	0.07962	1.00	30.00	1.00	30.00	Passed
				25	24	21.07	2.80	0.89	1.80	21.18	0.13122	19.03	0.07998	1.00	30.00	1.00	30.00	Passed
				50	0	20.98	2.80	0.89	1.80	21.09	0.12853	18.94	0.07834	1.00	30.00	1.00	30.00	Passed

15	20025	1717.50	QPSK	1	0	23.20	2.80	0.89	1.80	23.31	0.21429	21.16	0.13062	1.00	30.00	1.00	30.00	Passed
				1	37	23.03	2.80	0.89	1.80	23.14	0.20606	20.99	0.12560	1.00	30.00	1.00	30.00	Passed
				1	74	22.96	2.80	0.89	1.80	23.07	0.20277	20.92	0.12359	1.00	30.00	1.00	30.00	Passed
				36	0	22.13	2.80	0.89	1.80	22.24	0.16749	20.09	0.10209	1.00	30.00	1.00	30.00	Passed
				36	37	22.14	2.80	0.89	1.80	22.25	0.16788	20.10	0.10233	1.00	30.00	1.00	30.00	Passed
				75	0	22.12	2.80	0.89	1.80	22.23	0.16711	20.08	0.10186	1.00	30.00	1.00	30.00	Passed
			16QAM	1	0	22.39	2.80	0.89	1.80	22.50	0.17783	20.35	0.10839	1.00	30.00	1.00	30.00	Passed
				1	37	22.20	2.80	0.89	1.80	22.31	0.17022	20.16	0.10375	1.00	30.00	1.00	30.00	Passed
				1	74	22.16	2.80	0.89	1.80	22.27	0.16866	20.12	0.10280	1.00	30.00	1.00	30.00	Passed
				36	0	21.18	2.80	0.89	1.80	21.29	0.13459	19.14	0.08204	1.00	30.00	1.00	30.00	Passed
				36	37	21.18	2.80	0.89	1.80	21.29	0.13459	19.14	0.08204	1.00	30.00	1.00	30.00	Passed
				75	0	21.06	2.80	0.89	1.80	21.17	0.13092	19.02	0.07980	1.00	30.00	1.00	30.00	Passed
	20175	1732.50	QPSK	1	0	23.05	2.80	0.89	1.80	23.16	0.20701	21.01	0.12618	1.00	30.00	1.00	30.00	Passed
				1	37	22.91	2.80	0.89	1.80	23.02	0.20045	20.87	0.12218	1.00	30.00	1.00	30.00	Passed
				1	74	23.00	2.80	0.89	1.80	23.11	0.20464	20.96	0.12474	1.00	30.00	1.00	30.00	Passed
				36	0	22.04	2.80	0.89	1.80	22.15	0.16406	20.00	0.10000	1.00	30.00	1.00	30.00	Passed
				36	37	22.03	2.80	0.89	1.80	22.14	0.16368	19.99	0.09977	1.00	30.00	1.00	30.00	Passed
				75	0	21.99	2.80	0.89	1.80	22.10	0.16218	19.95	0.09886	1.00	30.00	1.00	30.00	Passed
			16QAM	1	0	22.31	2.80	0.89	1.80	22.42	0.17458	20.27	0.10641	1.00	30.00	1.00	30.00	Passed
				1	37	22.14	2.80	0.89	1.80	22.25	0.16788	20.10	0.10233	1.00	30.00	1.00	30.00	Passed
				1	74	22.24	2.80	0.89	1.80	22.35	0.17179	20.20	0.10471	1.00	30.00	1.00	30.00	Passed
				36	0	21.03	2.80	0.89	1.80	21.14	0.13002	18.99	0.07925	1.00	30.00	1.00	30.00	Passed
				36	37	20.97	2.80	0.89	1.80	21.08	0.12823	18.93	0.07816	1.00	30.00	1.00	30.00	Passed
				75	0	20.99	2.80	0.89	1.80	21.10	0.12882	18.95	0.07852	1.00	30.00	1.00	30.00	Passed
	20325	1747.50	QPSK	1	0	23.07	2.80	0.89	1.80	23.18	0.20797	21.03	0.12677	1.00	30.00	1.00	30.00	Passed
				1	37	22.93	2.80	0.89	1.80	23.04	0.20137	20.89	0.12274	1.00	30.00	1.00	30.00	Passed
				1	74	22.98	2.80	0.89	1.80	23.09	0.20370	20.94	0.12417	1.00	30.00	1.00	30.00	Passed
				36	0	22.00	2.80	0.89	1.80	22.11	0.16255	19.96	0.09908	1.00	30.00	1.00	30.00	Passed
				36	37	21.97	2.80	0.89	1.80	22.08	0.16144	19.93	0.09840	1.00	30.00	1.00	30.00	Passed
				75	0	21.98	2.80	0.89	1.80	22.09	0.16181	19.94	0.09863	1.00	30.00	1.00	30.00	Passed
			16QAM	1	0	22.06	2.80	0.89	1.80	22.17	0.16482	20.02	0.10046	1.00	30.00	1.00	30.00	Passed
				1	37	21.94	2.80	0.89	1.80	22.05	0.16032	19.90	0.09772	1.00	30.00	1.00	30.00	Passed
				1	74	22.01	2.80	0.89	1.80	22.12	0.16293	19.97	0.09931	1.00	30.00	1.00	30.00	Passed
				36	0	21.04	2.80	0.89	1.80	21.15	0.13032	19.00	0.07943	1.00	30.00	1.00	30.00	Passed
				36	37	21.00	2.80	0.89	1.80	21.11	0.12912	18.96	0.07870	1.00	30.00	1.00	30.00	Passed
				75	0	20.97	2.80	0.89	1.80	21.08	0.12823	18.93	0.07816	1.00	30.00	1.00	30.00	Passed
	20050	1720.00	QPSK	1	0	23.21	2.80	0.89	1.80	23.32	0.21478	21.17	0.13092	1.00	30.00	1.00	30.00	Passed
				1	49	23.06	2.80	0.89	1.80	23.17	0.20749	21.02	0.12647	1.00	30.00	1.00	30.00	Passed
				1	99	23.01	2.80	0.89	1.80	23.12	0.20512	20.97	0.12503	1.00	30.00	1.00	30.00	Passed
				50	0	22.18	2.80	0.89	1.80	22.29	0.16943	20.14	0.10328	1.00	30.00	1.00	30.00	Passed
				50	49	21.95	2.80	0.89	1.80	22.06	0.16069	19.91	0.09795	1.00	30.00	1.00	30.00	Passed
				100	0	22.10	2.80	0.89	1.80	22.21	0.16634	20.06	0.10139	1.00	30.00	1.00	30.00	Passed
			16QAM	1	0	22.31	2.80	0.89	1.80	22.42	0.17458	20.27	0.10641	1.00	30.00	1.00	30.00	Passed
				1	49	22.16	2.80	0.89	1.80	22.27	0.16866	20.12	0.10280	1.00	30.00	1.00	30.00	Passed
				1	99	22.12	2.80	0.89	1.80	22.23	0.16711	20.08	0.10186	1.00	30.00	1.00	30.00	Passed
				50	0	21.21	2.80	0.89	1.80	21.32	0.13552	19.17	0.08260	1.00	30.00	1.00	30.00	Passed
				50	49	21.00	2.80	0.89	1.80	21.11	0.12912	18.96	0.07870	1.00	30.00	1.00	30.00	Passed
				100	0	21.13	2.80	0.89	1.80	21.24	0.13305	19.09	0.08110	1.00	30.00	1.00	30.00	Passed
20	20175	1732.50	QPSK	1	0	23.14	2.80	0.89	1.80	23.25	0.21135	21.10	0.12882	1.00	30.00	1.00	30.00	Passed
				1	49	22.98	2.80	0.89	1.80	23.09	0.20370	20.94	0.12417	1.00	30.00	1.00	30.00	Passed
				1	99	23.08	2.80	0.89	1.80	23.19	0.20845	21.04	0.12706	1.00	30.00	1.00	30.00	Passed
				50	0	22.05	2.80	0.89	1.80	22.16	0.16444	20.01	0.10023	1.00	30.00	1.00	30.00	Passed
				50	49	22.00	2.80	0.89	1.80	22.11	0.16255	19.96	0.09908	1.00	30.00	1.00	30.00	Passed
				100	0	22.01	2.80	0.89	1.80	22.12	0.16293	19.97	0.09931	1.00	30.00	1.00	30.00	Passed
			16QAM	1	0	22.50	2.80	0.89	1.80	22.61	0.18239	20.46	0.11117	1.00	30.00	1.00	30.00	Passed
				1	49	22.36	2.80	0.89	1.80	22.47	0.17660	20.32	0.10765	1.00	30.00	1.00	30.00	Passed
				1	99	22.43	2.80	0.89	1.80	22.54	0.17947	20.39	0.10940	1.00	30.00	1.00	30.00	Passed
				50	0	21.02	2.80	0.89	1.80	21.13	0.12972	18.98	0.07907	1.00	30.00	1.00	30.00	Passed
				50	49	20.98	2.80	0.89	1.80	21.09	0.12853	18.94	0.07834	1.00	30.00	1.00	30.00	Passed
				100	0	21.06	2.80	0.89	1.80	21.17	0.13092	19.02	0.07980	1.00	30.00	1.00	30.00	Passed
20300	1745.00	QPSK	1	0	23.06	2.80	0.89	1.80	23.17	0.20749	21.02	0.12647	1.00	30.00	1.00	30.00	Passed	
			1	49	22.95	2.80	0.89	1.80	23.06	0.20230	20.91	0.12331	1.00	30.00	1.00	30.00	Passed	
			1	99	22.99	2.80	0.89	1.80	23.10	0.20417	20.95	0.12445	1.00	30.00	1.00	30.00	Passed	
			50	0	22.06	2.80	0.89	1.80	22.17	0.16482	20.02	0.10046	1.00	30.00	1.00	30.00	Passed	
			50	49	21.98	2.80	0.89	1.80	22.09	0.16181	19.94	0.09863	1.00	30.00	1.00	30.00	Passed	
			100	0	22.02	2.80	0.89	1.80	22.13	0.16331	19.98	0.09954	1.00	30.00	1.00	30.00	Passed	
		16QAM	1	0	22.62	2.80	0.89	1.80	22.73	0.18750	20.58	0.11429	1.00	30.00	1.00	30.00	Passed	
			1	49	22.45	2.80	0.89	1.80	22.56	0.18030	20.41	0.10990	1.00	30.00	1.00	30.00	Passed	
			1	99	22.54	2.80	0.89	1.80	22.65	0.18408	20.50	0.11220	1.00	30.00	1.00	30.00	Passed	
			50	0	20.98	2.80	0.89	1.80	21.09	0.12853	18.94	0.07834	1.00	30.00	1.00	30.00	Passed	
			50	49	20.95	2.80	0.89	1.80	21.06	0.12764	18.91	0.07780	1.00	30.00	1.00	30.00	Passed	
			100	0	21.08	2.80	0.89	1.80	21.19	0.13152	19.04	0.08017	1.00	30.00	1.00	30.00	Passed	
EIRP= RMS Power at Antenna Port + Maximum declared Antenna Gain - Path loss to Antenna Connector - Path loss in Antenna Cable																		
ERP = EIRP - 2.15																		

ERP/EIRP: EUT Internal Antenna

LTE FDD Band 4																		
BW in MHz	Channel Nr.	ARFCN-Frequency (MHz)	Modulation	RB	Start RB	RMS Power at Antenna Port (dBm)	Maximum declared Antenna Gain(dBi)	Path loss to Antenna Connector	Path loss in Antenna Cable	EIRP in dBm	EIRP in Watt	ERP in dBm	ERP in Watt	FCC Limit(W), EIRP	FCC Limit (dBm); EIRP	ISED Limit(W), EIRP	ISED Limit (dBm), EIRP	Verdict
1.4	19957	1710.70	QPSK	1	0	22.97	0.20	0.60	0.00	22.57	0.18072	20.42	0.11015	1.00	30.00	1.00	30.00	Passed
				1	5	22.97	0.20	0.60	0.00	22.57	0.18072	20.42	0.11015	1.00	30.00	1.00	30.00	Passed
				3	0	23.04	0.20	0.60	0.00	22.64	0.18365	20.49	0.11194	1.00	30.00	1.00	30.00	Passed
				3	2	23.07	0.20	0.60	0.00	22.67	0.18493	20.52	0.11272	1.00	30.00	1.00	30.00	Passed
				6	0	22.02	0.20	0.60	0.00	21.62	0.14521	19.47	0.08851	1.00	30.00	1.00	30.00	Passed
			16QAM	1	0	21.90	0.20	0.60	0.00	21.50	0.14125	19.35	0.08610	1.00	30.00	1.00	30.00	Passed
				1	5	21.90	0.20	0.60	0.00	21.50	0.14125	19.35	0.08610	1.00	30.00	1.00	30.00	Passed
				3	0	21.91	0.20	0.60	0.00	21.51	0.14158	19.36	0.08630	1.00	30.00	1.00	30.00	Passed
				3	2	21.97	0.20	0.60	0.00	21.57	0.14355	19.42	0.08750	1.00	30.00	1.00	30.00	Passed
				6	0	21.05	0.20	0.60	0.00	20.65	0.11614	18.50	0.07079	1.00	30.00	1.00	30.00	Passed
			QPSK	1	0	22.85	0.20	0.60	0.00	22.45	0.17579	20.30	0.10715	1.00	30.00	1.00	30.00	Passed
				1	5	22.89	0.20	0.60	0.00	22.49	0.17742	20.34	0.10814	1.00	30.00	1.00	30.00	Passed
				3	0	22.92	0.20	0.60	0.00	22.52	0.17865	20.37	0.10889	1.00	30.00	1.00	30.00	Passed
				3	2	22.95	0.20	0.60	0.00	22.55	0.17989	20.40	0.10965	1.00	30.00	1.00	30.00	Passed
				6	0	21.89	0.20	0.60	0.00	21.49	0.14093	19.34	0.08590	1.00	30.00	1.00	30.00	Passed
				1	0	22.08	0.20	0.60	0.00	21.68	0.14723	19.53	0.08974	1.00	30.00	1.00	30.00	Passed
				1	5	22.10	0.20	0.60	0.00	21.70	0.14791	19.55	0.09016	1.00	30.00	1.00	30.00	Passed
				3	0	21.87	0.20	0.60	0.00	21.47	0.14028	19.32	0.08551	1.00	30.00	1.00	30.00	Passed
				3	2	21.92	0.20	0.60	0.00	21.52	0.14191	19.37	0.08650	1.00	30.00	1.00	30.00	Passed
				6	0	20.91	0.20	0.60	0.00	20.51	0.11246	18.36	0.06855	1.00	30.00	1.00	30.00	Passed
	20393	1754.30	QPSK	1	0	22.85	0.20	0.60	0.00	22.45	0.17579	20.30	0.10715	1.00	30.00	1.00	30.00	Passed
				1	5	22.83	0.20	0.60	0.00	22.43	0.17498	20.28	0.10666	1.00	30.00	1.00	30.00	Passed
				3	0	22.89	0.20	0.60	0.00	22.49	0.17742	20.34	0.10814	1.00	30.00	1.00	30.00	Passed
				3	2	22.96	0.20	0.60	0.00	22.56	0.18030	20.41	0.10990	1.00	30.00	1.00	30.00	Passed
				6	0	22.86	0.20	0.60	0.00	22.46	0.17620	20.31	0.10740	1.00	30.00	1.00	30.00	Passed
			16QAM	1	0	22.12	0.20	0.60	0.00	21.72	0.14859	19.57	0.09057	1.00	30.00	1.00	30.00	Passed
				1	5	22.11	0.20	0.60	0.00	21.71	0.14825	19.56	0.09036	1.00	30.00	1.00	30.00	Passed
				3	0	21.89	0.20	0.60	0.00	21.49	0.14093	19.34	0.08590	1.00	30.00	1.00	30.00	Passed
				3	2	21.88	0.20	0.60	0.00	21.48	0.14060	19.33	0.08570	1.00	30.00	1.00	30.00	Passed
				6	0	20.93	0.20	0.60	0.00	20.53	0.11298	18.38	0.06887	1.00	30.00	1.00	30.00	Passed
	3	1711.50	QPSK	1	0	23.08	0.20	0.60	0.00	22.68	0.18535	20.53	0.11298	1.00	30.00	1.00	30.00	Passed
				1	14	23.03	0.20	0.60	0.00	22.63	0.18323	20.48	0.11169	1.00	30.00	1.00	30.00	Passed
				8	0	22.09	0.20	0.60	0.00	21.69	0.14757	19.54	0.08995	1.00	30.00	1.00	30.00	Passed
				8	7	22.04	0.20	0.60	0.00	21.64	0.14588	19.49	0.08892	1.00	30.00	1.00	30.00	Passed
				15	0	22.05	0.20	0.60	0.00	21.65	0.14622	19.50	0.08913	1.00	30.00	1.00	30.00	Passed
			16QAM	1	0	22.25	0.20	0.60	0.00	21.85	0.15311	19.70	0.09333	1.00	30.00	1.00	30.00	Passed
				1	14	22.24	0.20	0.60	0.00	21.84	0.15276	19.69	0.09311	1.00	30.00	1.00	30.00	Passed
				8	0	21.26	0.20	0.60	0.00	20.86	0.12190	18.71	0.07430	1.00	30.00	1.00	30.00	Passed
				8	7	21.24	0.20	0.60	0.00	20.84	0.12134	18.69	0.07396	1.00	30.00	1.00	30.00	Passed
				15	0	21.13	0.20	0.60	0.00	20.73	0.11830	18.58	0.07211	1.00	30.00	1.00	30.00	Passed
			QPSK	1	0	22.94	0.20	0.60	0.00	22.54	0.17947	20.39	0.10940	1.00	30.00	1.00	30.00	Passed
				1	14	22.93	0.20	0.60	0.00	22.53	0.17906	20.38	0.10914	1.00	30.00	1.00	30.00	Passed
				8	0	21.94	0.20	0.60	0.00	21.54	0.14256	19.39	0.08690	1.00	30.00	1.00	30.00	Passed
				8	7	21.95	0.20	0.60	0.00	21.55	0.14289	19.40	0.08710	1.00	30.00	1.00	30.00	Passed
				15	0	21.96	0.20	0.60	0.00	21.56	0.14322	19.41	0.08730	1.00	30.00	1.00	30.00	Passed
				1	0	22.16	0.20	0.60	0.00	21.76	0.14997	19.61	0.09141	1.00	30.00	1.00	30.00	Passed
				1	14	22.15	0.20	0.60	0.00	21.75	0.14962	19.60	0.09120	1.00	30.00	1.00	30.00	Passed
				8	0	21.10	0.20	0.60	0.00	20.70	0.11749	18.55	0.07161	1.00	30.00	1.00	30.00	Passed
				8	7	21.11	0.20	0.60	0.00	20.71	0.11776	18.56	0.07178	1.00	30.00	1.00	30.00	Passed
				15	0	20.99	0.20	0.60	0.00	20.59	0.11455	18.44	0.06982	1.00	30.00	1.00	30.00	Passed
	20385	1753.50	QPSK	1	0	22.96	0.20	0.60	0.00	22.56	0.18030	20.41	0.10990	1.00	30.00	1.00	30.00	Passed
				1	14	22.92	0.20	0.60	0.00	22.52	0.17865	20.37	0.10889	1.00	30.00	1.00	30.00	Passed
				8	0	21.93	0.20	0.60	0.00	21.53	0.14223	19.38	0.08670	1.00	30.00	1.00	30.00	Passed
				8	7	21.90	0.20	0.60	0.00	21.50	0.14125	19.35	0.08610	1.00	30.00	1.00	30.00	Passed
				15	0	21.97	0.20	0.60	0.00	21.57	0.14355	19.42	0.08750	1.00	30.00	1.00	30.00	Passed
			16QAM	1	0	22.22	0.20	0.60	0.00	21.82	0.15205	19.67	0.09268	1.00	30.00	1.00	30.00	Passed
				1	14	22.18	0.20	0.60	0.00	21.78	0.15066	19.63	0.09183	1.00	30.00	1.00	30.00	Passed
				8	0	21.01	0.20	0.60	0.00	20.61	0.11508	18.46	0.07015	1.00	30.00	1.00	30.00	Passed
				8	7	21.06	0.20	0.60	0.00	20.66	0.11641	18.51	0.07096	1.00	30.00	1.00	30.00	Passed
				15	0	20.96	0.20	0.60	0.00	20.56	0.11376	18.41	0.06934	1.00	30.00	1.00	30.00	Passed

5	19975	1712.50	QPSK	1	0	23.11	0.20	0.60	0.00	22.71	0.18664	20.56	0.11376	1.00	30.00	1.00	30.00	Passed
				1	24	23.14	0.20	0.60	0.00	22.74	0.18793	20.59	0.11455	1.00	30.00	1.00	30.00	Passed
				12	0	22.13	0.20	0.60	0.00	21.73	0.14894	19.58	0.09078	1.00	30.00	1.00	30.00	Passed
				12	11	22.08	0.20	0.60	0.00	21.68	0.14723	19.53	0.08974	1.00	30.00	1.00	30.00	Passed
			16QAM	25	0	22.07	0.20	0.60	0.00	21.67	0.14689	19.52	0.08954	1.00	30.00	1.00	30.00	Passed
				1	0	22.24	0.20	0.60	0.00	21.84	0.15276	19.69	0.09311	1.00	30.00	1.00	30.00	Passed
				1	24	22.27	0.20	0.60	0.00	21.87	0.15382	19.72	0.09376	1.00	30.00	1.00	30.00	Passed
				12	0	21.13	0.20	0.60	0.00	20.73	0.11830	18.58	0.07211	1.00	30.00	1.00	30.00	Passed
				12	11	21.16	0.20	0.60	0.00	20.76	0.11912	18.61	0.07261	1.00	30.00	1.00	30.00	Passed
				25	0	21.09	0.20	0.60	0.00	20.69	0.11722	18.54	0.07145	1.00	30.00	1.00	30.00	Passed
	20175	1732.50	QPSK	1	0	23.02	0.20	0.60	0.00	22.62	0.18281	20.47	0.11143	1.00	30.00	1.00	30.00	Passed
				1	24	22.98	0.20	0.60	0.00	22.58	0.18113	20.43	0.11041	1.00	30.00	1.00	30.00	Passed
				12	0	21.96	0.20	0.60	0.00	21.56	0.14322	19.41	0.08730	1.00	30.00	1.00	30.00	Passed
				12	11	21.93	0.20	0.60	0.00	21.53	0.14223	19.38	0.08670	1.00	30.00	1.00	30.00	Passed
			16QAM	25	0	21.97	0.20	0.60	0.00	21.57	0.14355	19.42	0.08750	1.00	30.00	1.00	30.00	Passed
				1	0	22.08	0.20	0.60	0.00	21.68	0.14723	19.53	0.08974	1.00	30.00	1.00	30.00	Passed
				1	24	22.03	0.20	0.60	0.00	21.63	0.14555	19.48	0.08872	1.00	30.00	1.00	30.00	Passed
				12	0	21.06	0.20	0.60	0.00	20.66	0.11641	18.51	0.07096	1.00	30.00	1.00	30.00	Passed
				12	11	21.05	0.20	0.60	0.00	20.65	0.11614	18.50	0.07079	1.00	30.00	1.00	30.00	Passed
				25	0	20.96	0.20	0.60	0.00	20.56	0.11376	18.41	0.06934	1.00	30.00	1.00	30.00	Passed
	20375	1752.50	QPSK	1	0	23.00	0.20	0.60	0.00	22.60	0.18197	20.45	0.11092	1.00	30.00	1.00	30.00	Passed
				1	24	23.00	0.20	0.60	0.00	22.60	0.18197	20.45	0.11092	1.00	30.00	1.00	30.00	Passed
				12	0	21.95	0.20	0.60	0.00	21.55	0.14289	19.40	0.08710	1.00	30.00	1.00	30.00	Passed
				12	11	21.95	0.20	0.60	0.00	21.55	0.14289	19.40	0.08710	1.00	30.00	1.00	30.00	Passed
			16QAM	25	0	21.99	0.20	0.60	0.00	21.59	0.14421	19.44	0.08790	1.00	30.00	1.00	30.00	Passed
				1	0	22.40	0.20	0.60	0.00	22.00	0.15849	19.85	0.09661	1.00	30.00	1.00	30.00	Passed
				1	24	22.42	0.20	0.60	0.00	22.02	0.15922	19.87	0.09705	1.00	30.00	1.00	30.00	Passed
				12	0	20.90	0.20	0.60	0.00	20.50	0.11220	18.35	0.06839	1.00	30.00	1.00	30.00	Passed
				12	11	20.83	0.20	0.60	0.00	20.43	0.11041	18.28	0.06730	1.00	30.00	1.00	30.00	Passed
				25	0	20.97	0.20	0.60	0.00	20.57	0.11402	18.42	0.06950	1.00	30.00	1.00	30.00	Passed
10	20000	1715.00	QPSK	1	0	23.11	0.20	0.60	0.00	22.71	0.18664	20.56	0.11376	1.00	30.00	1.00	30.00	Passed
				1	24	23.03	0.20	0.60	0.00	22.63	0.18323	20.48	0.11169	1.00	30.00	1.00	30.00	Passed
				1	49	23.05	0.20	0.60	0.00	22.65	0.18408	20.50	0.11220	1.00	30.00	1.00	30.00	Passed
				25	0	22.09	0.20	0.60	0.00	21.69	0.14757	19.54	0.08995	1.00	30.00	1.00	30.00	Passed
			16QAM	25	24	22.14	0.20	0.60	0.00	21.74	0.14928	19.59	0.09099	1.00	30.00	1.00	30.00	Passed
				50	0	22.08	0.20	0.60	0.00	21.68	0.14723	19.53	0.08974	1.00	30.00	1.00	30.00	Passed
				1	0	22.32	0.20	0.60	0.00	21.92	0.15560	19.77	0.09484	1.00	30.00	1.00	30.00	Passed
				1	24	22.14	0.20	0.60	0.00	21.74	0.14928	19.59	0.09099	1.00	30.00	1.00	30.00	Passed
				1	49	22.24	0.20	0.60	0.00	21.84	0.15276	19.69	0.09311	1.00	30.00	1.00	30.00	Passed
				25	0	21.18	0.20	0.60	0.00	20.78	0.11967	18.63	0.07295	1.00	30.00	1.00	30.00	Passed
				25	24	21.17	0.20	0.60	0.00	20.77	0.11940	18.62	0.07278	1.00	30.00	1.00	30.00	Passed
	20175	1732.50	QPSK	50	0	21.09	0.20	0.60	0.00	20.69	0.11722	18.54	0.07145	1.00	30.00	1.00	30.00	Passed
				1	0	23.06	0.20	0.60	0.00	22.66	0.18450	20.51	0.11246	1.00	30.00	1.00	30.00	Passed
				1	24	22.90	0.20	0.60	0.00	22.50	0.17783	20.35	0.10839	1.00	30.00	1.00	30.00	Passed
				1	49	22.95	0.20	0.60	0.00	22.55	0.17989	20.40	0.10965	1.00	30.00	1.00	30.00	Passed
			16QAM	25	0	21.97	0.20	0.60	0.00	21.57	0.14355	19.42	0.08750	1.00	30.00	1.00	30.00	Passed
				25	24	22.00	0.20	0.60	0.00	21.60	0.14454	19.45	0.08810	1.00	30.00	1.00	30.00	Passed
				50	0	21.96	0.20	0.60	0.00	21.56	0.14322	19.41	0.08730	1.00	30.00	1.00	30.00	Passed
				1	0	22.27	0.20	0.60	0.00	21.87	0.15382	19.72	0.09376	1.00	30.00	1.00	30.00	Passed
				1	24	22.15	0.20	0.60	0.00	21.75	0.14962	19.60	0.09120	1.00	30.00	1.00	30.00	Passed
				1	49	22.21	0.20	0.60	0.00	21.81	0.15171	19.66	0.09247	1.00	30.00	1.00	30.00	Passed
				25	0	21.05	0.20	0.60	0.00	20.65	0.11614	18.50	0.07079	1.00	30.00	1.00	30.00	Passed
	20350	1750.00	QPSK	25	24	21.00	0.20	0.60	0.00	20.60	0.11482	18.45	0.06998	1.00	30.00	1.00	30.00	Passed
				50	0	20.97	0.20	0.60	0.00	20.57	0.11402	18.42	0.06950	1.00	30.00	1.00	30.00	Passed
				1	0	22.98	0.20	0.60	0.00	22.58	0.18113	20.43	0.11041	1.00	30.00	1.00	30.00	Passed
				1	24	22.91	0.20	0.60	0.00	22.51	0.17824	20.36	0.10864	1.00	30.00	1.00	30.00	Passed
			16QAM	1	49	22.91	0.20	0.60	0.00	22.51	0.17824	20.36	0.10864	1.00	30.00	1.00	30.00	Passed
				25	0	21.94	0.20	0.60	0.00	21.54	0.14256	19.39	0.08690	1.00	30.00	1.00	30.00	Passed
				25	24	21.96	0.20	0.60	0.00	21.56	0.14322	19.41	0.08730	1.00	30.00	1.00	30.00	Passed
				50	0	21.94	0.20	0.60	0.00	21.54	0.14256	19.39	0.08690	1.00	30.00	1.00	30.00	Passed
				1	0	22.22	0.20	0.60	0.00	21.82	0.15205	19.67	0.09268	1.00	30.00	1.00	30.00	Passed
				1	24	22.16	0.20	0.60	0.00	21.76	0.14997	19.61	0.09141	1.00	30.00	1.00	30.00	Passed
				1	49	22.18	0.20	0.60	0.00	21.78	0.15066	19.63	0.09183	1.00	30.00	1.00	30.00	Passed
				25	0	21.05	0.20	0.60	0.00	20.65	0.11614	18.50	0.07079	1.00	30.00	1.00	30.00	Passed
				25	24	21.07	0.20	0.60	0.00	20.67	0.11668	18.52	0.07112	1.00	30.00	1.00	30.00	Passed
				50	0	20.98	0.20	0.60	0.00	20.58	0.11429	18.43	0.06966	1.00	30.00	1.00	30.00	Passed

15	20025	1717.50	QPSK	1	0	23.20	0.20	0.60	0.00	22.80	0.19055	20.65	0.11614	1.00	30.00	1.00	30.00	Passed
				1	37	23.03	0.20	0.60	0.00	22.63	0.18323	20.48	0.11169	1.00	30.00	1.00	30.00	Passed
				1	74	22.96	0.20	0.60	0.00	22.56	0.18030	20.41	0.10990	1.00	30.00	1.00	30.00	Passed
				36	0	22.13	0.20	0.60	0.00	21.73	0.14894	19.58	0.09078	1.00	30.00	1.00	30.00	Passed
				36	37	22.14	0.20	0.60	0.00	21.74	0.14928	19.59	0.09099	1.00	30.00	1.00	30.00	Passed
				75	0	22.12	0.20	0.60	0.00	21.72	0.14859	19.57	0.09057	1.00	30.00	1.00	30.00	Passed
			16QAM	1	0	22.39	0.20	0.60	0.00	21.99	0.15812	19.84	0.09638	1.00	30.00	1.00	30.00	Passed
				1	37	22.20	0.20	0.60	0.00	21.80	0.15136	19.65	0.09226	1.00	30.00	1.00	30.00	Passed
				1	74	22.16	0.20	0.60	0.00	21.76	0.14997	19.61	0.09141	1.00	30.00	1.00	30.00	Passed
				36	0	21.18	0.20	0.60	0.00	20.78	0.11967	18.63	0.07295	1.00	30.00	1.00	30.00	Passed
				36	37	21.18	0.20	0.60	0.00	20.78	0.11967	18.63	0.07295	1.00	30.00	1.00	30.00	Passed
				75	0	21.06	0.20	0.60	0.00	20.66	0.11641	18.51	0.07096	1.00	30.00	1.00	30.00	Passed
20175	1732.50	QPSK	1	0	23.05	0.20	0.60	0.00	22.65	0.18408	20.50	0.11220	1.00	30.00	1.00	30.00	Passed	
			1	37	22.91	0.20	0.60	0.00	22.51	0.17824	20.36	0.10864	1.00	30.00	1.00	30.00	Passed	
			1	74	23.00	0.20	0.60	0.00	22.60	0.18197	20.45	0.11092	1.00	30.00	1.00	30.00	Passed	
			36	0	22.04	0.20	0.60	0.00	21.64	0.14588	19.49	0.08892	1.00	30.00	1.00	30.00	Passed	
			36	37	22.03	0.20	0.60	0.00	21.63	0.14555	19.48	0.08872	1.00	30.00	1.00	30.00	Passed	
			75	0	21.99	0.20	0.60	0.00	21.59	0.14421	19.44	0.08790	1.00	30.00	1.00	30.00	Passed	
		16QAM	1	0	22.31	0.20	0.60	0.00	21.91	0.15524	19.76	0.09462	1.00	30.00	1.00	30.00	Passed	
			1	37	22.14	0.20	0.60	0.00	21.74	0.14928	19.59	0.09099	1.00	30.00	1.00	30.00	Passed	
			1	74	22.24	0.20	0.60	0.00	21.84	0.15276	19.69	0.09311	1.00	30.00	1.00	30.00	Passed	
			36	0	21.03	0.20	0.60	0.00	20.63	0.11561	18.48	0.07047	1.00	30.00	1.00	30.00	Passed	
			36	37	20.97	0.20	0.60	0.00	20.57	0.11402	18.42	0.06950	1.00	30.00	1.00	30.00	Passed	
			75	0	20.99	0.20	0.60	0.00	20.59	0.11455	18.44	0.06982	1.00	30.00	1.00	30.00	Passed	
20325	1747.50	QPSK	1	0	23.07	0.20	0.60	0.00	22.67	0.18493	20.52	0.11272	1.00	30.00	1.00	30.00	Passed	
			1	37	22.93	0.20	0.60	0.00	22.53	0.17906	20.38	0.10914	1.00	30.00	1.00	30.00	Passed	
			1	74	22.98	0.20	0.60	0.00	22.58	0.18113	20.43	0.11041	1.00	30.00	1.00	30.00	Passed	
			36	0	22.00	0.20	0.60	0.00	21.60	0.14454	19.45	0.08810	1.00	30.00	1.00	30.00	Passed	
			36	37	21.97	0.20	0.60	0.00	21.57	0.14355	19.42	0.08750	1.00	30.00	1.00	30.00	Passed	
			75	0	21.98	0.20	0.60	0.00	21.58	0.14388	19.43	0.08770	1.00	30.00	1.00	30.00	Passed	
		16QAM	1	0	22.06	0.20	0.60	0.00	21.66	0.14655	19.51	0.08933	1.00	30.00	1.00	30.00	Passed	
			1	37	21.94	0.20	0.60	0.00	21.54	0.14256	19.39	0.08690	1.00	30.00	1.00	30.00	Passed	
			1	74	22.01	0.20	0.60	0.00	21.61	0.14488	19.46	0.08831	1.00	30.00	1.00	30.00	Passed	
			36	0	21.04	0.20	0.60	0.00	20.64	0.11588	18.49	0.07063	1.00	30.00	1.00	30.00	Passed	
			36	37	21.00	0.20	0.60	0.00	20.60	0.11482	18.45	0.06998	1.00	30.00	1.00	30.00	Passed	
			75	0	20.97	0.20	0.60	0.00	20.57	0.11402	18.42	0.06950	1.00	30.00	1.00	30.00	Passed	
20050	1720.00	QPSK	1	0	23.21	0.20	0.60	0.00	22.81	0.19099	20.66	0.11641	1.00	30.00	1.00	30.00	Passed	
			1	49	23.06	0.20	0.60	0.00	22.66	0.18450	20.51	0.11246	1.00	30.00	1.00	30.00	Passed	
			1	99	23.01	0.20	0.60	0.00	22.61	0.18239	20.46	0.11117	1.00	30.00	1.00	30.00	Passed	
			50	0	22.18	0.20	0.60	0.00	21.78	0.15066	19.63	0.09183	1.00	30.00	1.00	30.00	Passed	
			50	49	21.95	0.20	0.60	0.00	21.55	0.14289	19.40	0.08710	1.00	30.00	1.00	30.00	Passed	
			100	0	22.10	0.20	0.60	0.00	21.70	0.14791	19.55	0.09016	1.00	30.00	1.00	30.00	Passed	
		16QAM	1	0	22.31	0.20	0.60	0.00	21.91	0.15524	19.76	0.09462	1.00	30.00	1.00	30.00	Passed	
			1	49	22.16	0.20	0.60	0.00	21.76	0.14997	19.61	0.09141	1.00	30.00	1.00	30.00	Passed	
			1	99	22.12	0.20	0.60	0.00	21.72	0.14859	19.57	0.09057	1.00	30.00	1.00	30.00	Passed	
			50	0	21.21	0.20	0.60	0.00	20.81	0.12050	18.66	0.07345	1.00	30.00	1.00	30.00	Passed	
			50	49	21.00	0.20	0.60	0.00	20.60	0.11482	18.45	0.06998	1.00	30.00	1.00	30.00	Passed	
			100	0	21.13	0.20	0.60	0.00	20.73	0.11830	18.58	0.07211	1.00	30.00	1.00	30.00	Passed	
20	20175	1732.50	QPSK	1	0	23.14	0.20	0.60	0.00	22.74	0.18793	20.59	0.11455	1.00	30.00	1.00	30.00	Passed
				1	49	22.98	0.20	0.60	0.00	22.58	0.18113	20.43	0.11041	1.00	30.00	1.00	30.00	Passed
				1	99	23.08	0.20	0.60	0.00	22.68	0.18535	20.53	0.11298	1.00	30.00	1.00	30.00	Passed
				50	0	22.05	0.20	0.60	0.00	21.65	0.14622	19.50	0.08913	1.00	30.00	1.00	30.00	Passed
				50	49	22.00	0.20	0.60	0.00	21.60	0.14454	19.45	0.08810	1.00	30.00	1.00	30.00	Passed
				100	0	22.01	0.20	0.60	0.00	21.61	0.14488	19.46	0.08831	1.00	30.00	1.00	30.00	Passed
			16QAM	1	0	22.50	0.20	0.60	0.00	22.10	0.16218	19.95	0.09886	1.00	30.00	1.00	30.00	Passed
				1	49	22.36	0.20	0.60	0.00	21.96	0.15704	19.81	0.09572	1.00	30.00	1.00	30.00	Passed
				1	99	22.43	0.20	0.60	0.00	22.03	0.15959	19.88	0.09727	1.00	30.00	1.00	30.00	Passed
				50	0	21.02	0.20	0.60	0.00	20.62	0.11535	18.47	0.07031	1.00	30.00	1.00	30.00	Passed
				50	49	20.98	0.20	0.60	0.00	20.58	0.11429	18.43	0.06966	1.00	30.00	1.00	30.00	Passed
				100	0	21.06	0.20	0.60	0.00	20.66	0.11641	18.51	0.07096	1.00	30.00	1.00	30.00	Passed
20300	1745.00	QPSK	1	0	23.06	0.20	0.60	0.00	22.66	0.18450	20.51	0.11246	1.00	30.00	1.00	30.00	Passed	
			1	49	22.95	0.20	0.60	0.00	22.55	0.17989	20.40	0.10965	1.00	30.00	1.00	30.00	Passed	
			1	99	22.99	0.20	0.60	0.00	22.59	0.18155	20.44	0.11066	1.00	30.00	1.00	30.00	Passed	
			50	0	22.06	0.20	0.60	0.00	21.66	0.14655	19.51	0.08933	1.00	30.00	1.00	30.00	Passed	
			50	49	21.98	0.20	0.60	0.00	21.58	0.14388	19.43	0.08770	1.00	30.00	1.00	30.00	Passed	
			100	0	22.02	0.20	0.60	0.00	21.62	0.14521	19.47	0.08851	1.00	30.00	1.00	30.00	Passed	
		16QAM	1	0	22.62	0.20	0.60	0.00	22.22	0.16672	20.07	0.10162	1.00	30.00	1.00	30.00	Passed	
			1	49	22.45	0.20	0.60	0.00	22.05	0.16032	19.90	0.09772	1.00	30.00	1.00	30.00	Passed	
			1	99	22.54	0.20	0.60	0.00	22.14	0.16368	19.99	0.09977	1.00	30.00	1.00	30.00	Passed	
			50	0	20.98	0.20	0.60	0.00	20.58	0.11429	18.43	0.06966	1.00	30.00	1.00	30.00	Passed	
			50	49	20.95	0.20	0.60	0.00	20.55	0.11350	18.40	0.06918	1.00	30.00	1.00	30.00	Passed	
			100	0	21.08	0.20	0.60	0.00	20.68	0.11695	18.53	0.07129	1.00	30.00	1.00	30.00	Passed	
EIRP= RMS Power at Antenna Port + Maximum declared Antenna Gain - Path loss to Antenna Connector - Path loss in Antenna Cable																		
ERP = EIRP - 2.15																		

ERP/EIRP: EUT External Antenna

LTE FDD Band 5																		
BW in MHz	Channel Nr.	ARFCN-Frequency (MHz)	Modulation	RB	Start RB	RMS Power at Antenna Port (dBm)	Maximum declared Antenna Gain(dBi)	Path loss to Antenna Connector	Path loss in Antenna Cable	EIRP in dBm	EIRP in Watt	ERP in dBm	ERP in Watt	FCC Limit(W), ERP	FCC Limit (dBm); ERP	ISED Limit(W), EIRP	ISED Limit (dBm), EIRP	Verdict
1.4	20407	824.70	QPSK	1	0	23.00	1.80	0.63	1.24	22.93	0.19634	20.78	0.11967	7.00	38.45	11.50	40.61	Passed
				1	2	23.05	1.80	0.63	1.24	22.98	0.19861	20.83	0.12106	7.00	38.45	11.50	40.61	Passed
				1	5	22.99	1.80	0.63	1.24	22.92	0.19588	20.77	0.11940	7.00	38.45	11.50	40.61	Passed
				3	0	23.03	1.80	0.63	1.24	22.96	0.19770	20.81	0.12050	7.00	38.45	11.50	40.61	Passed
				3	2	23.08	1.80	0.63	1.24	23.01	0.19999	20.86	0.12190	7.00	38.45	11.50	40.61	Passed
				6	0	22.00	1.80	0.63	1.24	21.93	0.15596	19.78	0.09506	7.00	38.45	11.50	40.61	Passed
			16QAM	1	0	21.96	1.80	0.63	1.24	21.89	0.15453	19.74	0.09419	7.00	38.45	11.50	40.61	Passed
				1	2	21.99	1.80	0.63	1.24	21.92	0.15560	19.77	0.09484	7.00	38.45	11.50	40.61	Passed
				1	5	21.97	1.80	0.63	1.24	21.90	0.15488	19.75	0.09441	7.00	38.45	11.50	40.61	Passed
				3	0	21.96	1.80	0.63	1.24	21.89	0.15453	19.74	0.09419	7.00	38.45	11.50	40.61	Passed
				3	2	22.00	1.80	0.63	1.24	21.93	0.15596	19.78	0.09506	7.00	38.45	11.50	40.61	Passed
				6	0	21.13	1.80	0.63	1.24	21.06	0.12764	18.91	0.07780	7.00	38.45	11.50	40.61	Passed
	20525	836.50	QPSK	1	0	23.01	1.80	0.63	1.24	22.94	0.19679	20.79	0.11995	7.00	38.45	11.50	40.61	Passed
				1	2	23.04	1.80	0.63	1.24	22.97	0.19815	20.82	0.12078	7.00	38.45	11.50	40.61	Passed
				1	5	22.99	1.80	0.63	1.24	22.92	0.19588	20.77	0.11940	7.00	38.45	11.50	40.61	Passed
				3	0	23.03	1.80	0.63	1.24	22.96	0.19770	20.81	0.12050	7.00	38.45	11.50	40.61	Passed
				3	2	23.07	1.80	0.63	1.24	23.00	0.19953	20.85	0.12162	7.00	38.45	11.50	40.61	Passed
				6	0	22.05	1.80	0.63	1.24	21.98	0.15776	19.83	0.09616	7.00	38.45	11.50	40.61	Passed
			16QAM	1	0	22.23	1.80	0.63	1.24	22.16	0.16444	20.01	0.10023	7.00	38.45	11.50	40.61	Passed
				1	2	22.31	1.80	0.63	1.24	22.24	0.16749	20.09	0.10209	7.00	38.45	11.50	40.61	Passed
				1	5	22.24	1.80	0.63	1.24	22.17	0.16482	20.02	0.10046	7.00	38.45	11.50	40.61	Passed
				3	0	22.00	1.80	0.63	1.24	21.93	0.15596	19.78	0.09506	7.00	38.45	11.50	40.61	Passed
				3	2	22.04	1.80	0.63	1.24	21.97	0.15740	19.82	0.09594	7.00	38.45	11.50	40.61	Passed
				6	0	21.08	1.80	0.63	1.24	21.01	0.12618	18.86	0.07691	7.00	38.45	11.50	40.61	Passed
	20643	848.30	QPSK	1	0	22.96	1.80	0.63	1.24	22.89	0.19454	20.74	0.11858	7.00	38.45	11.50	40.61	Passed
				1	2	21.98	1.80	0.63	1.24	21.91	0.15524	19.76	0.09462	7.00	38.45	11.50	40.61	Passed
				1	5	23.00	1.80	0.63	1.24	22.93	0.19634	20.78	0.11967	7.00	38.45	11.50	40.61	Passed
				3	0	22.95	1.80	0.63	1.24	22.88	0.19409	20.73	0.11830	7.00	38.45	11.50	40.61	Passed
				3	2	23.00	1.80	0.63	1.24	22.93	0.19634	20.78	0.11967	7.00	38.45	11.50	40.61	Passed
				6	0	21.98	1.80	0.63	1.24	21.91	0.15524	19.76	0.09462	7.00	38.45	11.50	40.61	Passed
			16QAM	1	0	22.21	1.80	0.63	1.24	22.14	0.16368	19.99	0.09977	7.00	38.45	11.50	40.61	Passed
				1	2	22.25	1.80	0.63	1.24	22.18	0.16520	20.03	0.10069	7.00	38.45	11.50	40.61	Passed
				1	5	22.15	1.80	0.63	1.24	22.08	0.16144	19.93	0.09840	7.00	38.45	11.50	40.61	Passed
				3	0	21.98	1.80	0.63	1.24	21.91	0.15524	19.76	0.09462	7.00	38.45	11.50	40.61	Passed
				3	2	22.02	1.80	0.63	1.24	21.95	0.15668	19.80	0.09550	7.00	38.45	11.50	40.61	Passed
				6	0	21.06	1.80	0.63	1.24	20.99	0.12560	18.84	0.07656	7.00	38.45	11.50	40.61	Passed
	20415	825.50	QPSK	1	0	23.04	1.80	0.63	1.24	22.97	0.19815	20.82	0.12078	7.00	38.45	11.50	40.61	Passed
				1	7	23.12	1.80	0.63	1.24	23.05	0.20184	20.90	0.12303	7.00	38.45	11.50	40.61	Passed
				1	14	23.00	1.80	0.63	1.24	22.93	0.19634	20.78	0.11967	7.00	38.45	11.50	40.61	Passed
				8	0	22.07	1.80	0.63	1.24	22.00	0.15849	19.85	0.09661	7.00	38.45	11.50	40.61	Passed
				8	7	22.11	1.80	0.63	1.24	22.04	0.15996	19.89	0.09750	7.00	38.45	11.50	40.61	Passed
				15	0	22.09	1.80	0.63	1.24	22.02	0.15922	19.87	0.09705	7.00	38.45	11.50	40.61	Passed
			16QAM	1	0	22.29	1.80	0.63	1.24	22.22	0.16672	20.07	0.10162	7.00	38.45	11.50	40.61	Passed
				1	7	22.38	1.80	0.63	1.24	22.31	0.17022	20.16	0.10375	7.00	38.45	11.50	40.61	Passed
				1	14	22.26	1.80	0.63	1.24	22.19	0.16558	20.04	0.10093	7.00	38.45	11.50	40.61	Passed
				8	0	21.27	1.80	0.63	1.24	21.20	0.13183	19.05	0.08035	7.00	38.45	11.50	40.61	Passed
				8	7	21.25	1.80	0.63	1.24	21.18	0.13122	19.03	0.07998	7.00	38.45	11.50	40.61	Passed
				15	0	21.13	1.80	0.63	1.24	21.06	0.12764	18.91	0.07780	7.00	38.45	11.50	40.61	Passed
20525	836.50	QPSK	1	0	23.10	1.80	0.63	1.24	23.03	0.20091	20.88	0.12246	7.00	38.45	11.50	40.61	Passed	
			1	7	23.17	1.80	0.63	1.24	23.10	0.20417	20.95	0.12445	7.00	38.45	11.50	40.61	Passed	
			1	14	23.04	1.80	0.63	1.24	22.97	0.19815	20.82	0.12078	7.00	38.45	11.50	40.61	Passed	
			8	0	22.08	1.80	0.63	1.24	22.01	0.15885	19.86	0.09683	7.00	38.45	11.50	40.61	Passed	
			8	7	22.07	1.80	0.63	1.24	22.00	0.15849	19.85	0.09661	7.00	38.45	11.50	40.61	Passed	
			15	0	22.09	1.80	0.63	1.24	22.02	0.15922	19.87	0.09705	7.00	38.45	11.50	40.61	Passed	
		16QAM	1	0	22.35	1.80	0.63	1.24	22.28	0.16904	20.13	0.10304	7.00	38.45	11.50	40.61	Passed	
			1	7	22.45	1.80	0.63	1.24	22.38	0.17298	20.23	0.10544	7.00	38.45	11.50	40.61	Passed	
			1	14	22.30	1.80	0.63	1.24	22.23	0.16711	20.08	0.10186	7.00	38.45	11.50	40.61	Passed	
			8	0	21.25	1.80	0.63	1.24	21.18	0.13122	19.03	0.07998	7.00	38.45	11.50	40.61	Passed	
			8	7	21.25	1.80	0.63	1.24	21.18	0.13122	19.03	0.07998	7.00	38.45	11.50	40.61	Passed	
			15	0	21.14	1.80	0.63	1.24	21.07	0.12794	18.92	0.07798	7.00	38.45	11.50	40.61	Passed	
20635	847.50	QPSK	1	0	23.09	1.80	0.63	1.24	23.02	0.20045	20.87	0.12218	7.00	38.45	11.50	40.61	Passed	
			1	7	23.17	1.80	0.63	1.24	23.10	0.20417	20.95	0.12445	7.00	38.45	11.50	40.61	Passed	
			1	14	23.02	1.80	0.63	1.24	22.95	0.19724	20.80	0.12023	7.00	38.45	11.50	40.61	Passed	
			8	0	22.06	1.80	0.63	1.24	21.99	0.15812	19.84	0.09638	7.00	38.45	11.50	40.61	Passed	
			8	7	22.04	1.80	0.63	1.24	21.97	0.15740	19.82	0.09594	7.00	38.45	11.50	40.61	Passed	
			15	0	22.06	1.80	0.63	1.24	21.99	0.15812	19.84	0.09638	7.00	38.45	11.50	40.61	Passed	
		16QAM	1	0	22.31	1.80	0.63	1.24	22.24	0.16749	20.09	0.10209	7.00	38.45	11.50	40.61	Passed	
			1	7	22.34	1.80	0.63	1.24	22.27	0.16866	20.12	0.10280	7.00	38.45	11.50	40.61	Passed	
			1	14	22.28	1.80	0.63	1.24	22.21	0.16634	20.06	0.10139	7.00	38.45	11.50	40.61	Passed	
			8	0	21.16	1.80	0.63	1.24	21.09	0.12853	18.94	0.07834	7.00	38.45	11.50	40.61	Passed	
			8	7	21.15	1.80	0.63	1.24	21.08	0.12823	18.93	0.07816	7.00	38.45	11.50	40.61	Passed	
			15	0	21.13	1.80	0.63	1.24	21.06	0.12764	18.91	0.07780	7.00	38.45	11.50	40.61	Passed	

5	20425	826.50	QPSK	1	0	23.07	1.80	0.63	1.24	23.00	0.19953	20.85	0.12162	7.00	38.45	11.50	40.61	Passed
				1	12	23.02	1.80	0.63	1.24	22.95	0.19724	20.80	0.12023	7.00	38.45	11.50	40.61	Passed
				1	24	23.06	1.80	0.63	1.24	22.99	0.19907	20.84	0.12134	7.00	38.45	11.50	40.61	Passed
				12	0	22.09	1.80	0.63	1.24	22.02	0.15922	19.87	0.09705	7.00	38.45	11.50	40.61	Passed
				12	11	22.08	1.80	0.63	1.24	22.01	0.15885	19.86	0.09683	7.00	38.45	11.50	40.61	Passed
			16QAM	25	0	22.07	1.80	0.63	1.24	22.00	0.15849	19.85	0.09661	7.00	38.45	11.50	40.61	Passed
				1	0	22.17	1.80	0.63	1.24	22.10	0.16218	19.95	0.09886	7.00	38.45	11.50	40.61	Passed
				1	12	22.16	1.80	0.63	1.24	22.09	0.16181	19.94	0.09863	7.00	38.45	11.50	40.61	Passed
				1	24	22.24	1.80	0.63	1.24	22.17	0.16482	20.02	0.10046	7.00	38.45	11.50	40.61	Passed
				12	0	21.16	1.80	0.63	1.24	21.09	0.12853	18.94	0.07834	7.00	38.45	11.50	40.61	Passed
				12	11	21.15	1.80	0.63	1.24	21.08	0.12823	18.93	0.07816	7.00	38.45	11.50	40.61	Passed
				25	0	21.08	1.80	0.63	1.24	21.01	0.12618	18.86	0.07691	7.00	38.45	11.50	40.61	Passed
20525	836.50	QPSK	1	0	23.17	1.80	0.63	1.24	23.10	0.20417	20.95	0.12445	7.00	38.45	11.50	40.61	Passed	
			1	12	23.11	1.80	0.63	1.24	23.04	0.20137	20.89	0.12274	7.00	38.45	11.50	40.61	Passed	
			1	24	23.08	1.80	0.63	1.24	23.01	0.19999	20.86	0.12190	7.00	38.45	11.50	40.61	Passed	
			12	0	22.12	1.80	0.63	1.24	22.05	0.16032	19.90	0.09772	7.00	38.45	11.50	40.61	Passed	
			12	11	22.12	1.80	0.63	1.24	22.05	0.16032	19.90	0.09772	7.00	38.45	11.50	40.61	Passed	
		16QAM	25	0	22.13	1.80	0.63	1.24	22.06	0.16069	19.91	0.09795	7.00	38.45	11.50	40.61	Passed	
			1	0	22.26	1.80	0.63	1.24	22.19	0.16558	20.04	0.10093	7.00	38.45	11.50	40.61	Passed	
			1	12	22.21	1.80	0.63	1.24	22.14	0.16368	19.99	0.09977	7.00	38.45	11.50	40.61	Passed	
			1	24	22.16	1.80	0.63	1.24	22.09	0.16181	19.94	0.09863	7.00	38.45	11.50	40.61	Passed	
			12	0	21.22	1.80	0.63	1.24	21.15	0.13032	19.00	0.07943	7.00	38.45	11.50	40.61	Passed	
			12	11	21.23	1.80	0.63	1.24	21.16	0.13062	19.01	0.07962	7.00	38.45	11.50	40.61	Passed	
			25	0	21.14	1.80	0.63	1.24	21.07	0.12794	18.92	0.07798	7.00	38.45	11.50	40.61	Passed	
20625	846.50	QPSK	1	0	23.10	1.80	0.63	1.24	23.03	0.20091	20.88	0.12246	7.00	38.45	11.50	40.61	Passed	
			1	12	23.07	1.80	0.63	1.24	23.00	0.19953	20.85	0.12162	7.00	38.45	11.50	40.61	Passed	
			1	24	23.05	1.80	0.63	1.24	22.98	0.19861	20.83	0.12106	7.00	38.45	11.50	40.61	Passed	
			12	0	22.11	1.80	0.63	1.24	22.04	0.15996	19.89	0.09750	7.00	38.45	11.50	40.61	Passed	
			12	11	22.11	1.80	0.63	1.24	22.04	0.15996	19.89	0.09750	7.00	38.45	11.50	40.61	Passed	
		16QAM	25	0	22.13	1.80	0.63	1.24	22.06	0.16069	19.91	0.09795	7.00	38.45	11.50	40.61	Passed	
			1	0	22.52	1.80	0.63	1.24	22.45	0.17579	20.30	0.10715	7.00	38.45	11.50	40.61	Passed	
			1	12	22.52	1.80	0.63	1.24	22.45	0.17579	20.30	0.10715	7.00	38.45	11.50	40.61	Passed	
			1	24	22.50	1.80	0.63	1.24	22.43	0.17498	20.28	0.10666	7.00	38.45	11.50	40.61	Passed	
			12	0	21.02	1.80	0.63	1.24	20.95	0.12445	18.80	0.07586	7.00	38.45	11.50	40.61	Passed	
			12	11	20.98	1.80	0.63	1.24	20.91	0.12331	18.76	0.07516	7.00	38.45	11.50	40.61	Passed	
			25	0	21.13	1.80	0.63	1.24	21.06	0.12764	18.91	0.07780	7.00	38.45	11.50	40.61	Passed	
10	20450	829.00	QPSK	1	0	23.06	1.80	0.63	1.24	22.99	0.19907	20.84	0.12134	7.00	38.45	11.50	40.61	Passed
				1	24	23.00	1.80	0.63	1.24	22.93	0.19634	20.78	0.11967	7.00	38.45	11.50	40.61	Passed
				1	49	23.07	1.80	0.63	1.24	23.00	0.19953	20.85	0.12162	7.00	38.45	11.50	40.61	Passed
				25	0	22.13	1.80	0.63	1.24	22.06	0.16069	19.91	0.09795	7.00	38.45	11.50	40.61	Passed
				25	24	22.15	1.80	0.63	1.24	22.08	0.16144	19.93	0.09840	7.00	38.45	11.50	40.61	Passed
			16QAM	50	0	22.07	1.80	0.63	1.24	22.00	0.15849	19.85	0.09661	7.00	38.45	11.50	40.61	Passed
				1	0	22.34	1.80	0.63	1.24	22.27	0.16866	20.12	0.10280	7.00	38.45	11.50	40.61	Passed
				1	24	22.23	1.80	0.63	1.24	22.16	0.16444	20.01	0.10023	7.00	38.45	11.50	40.61	Passed
				1	49	22.29	1.80	0.63	1.24	22.22	0.16672	20.07	0.10162	7.00	38.45	11.50	40.61	Passed
				25	0	21.16	1.80	0.63	1.24	21.09	0.12853	18.94	0.07834	7.00	38.45	11.50	40.61	Passed
				25	24	21.26	1.80	0.63	1.24	21.19	0.13152	19.04	0.08017	7.00	38.45	11.50	40.61	Passed
				50	0	21.09	1.80	0.63	1.24	21.02	0.12647	18.87	0.07709	7.00	38.45	11.50	40.61	Passed
	20525	836.50	QPSK	1	0	23.13	1.80	0.63	1.24	23.06	0.20230	20.91	0.12331	7.00	38.45	11.50	40.61	Passed
				1	24	23.08	1.80	0.63	1.24	23.01	0.19999	20.86	0.12190	7.00	38.45	11.50	40.61	Passed
				1	49	23.01	1.80	0.63	1.24	22.94	0.19679	20.79	0.11995	7.00	38.45	11.50	40.61	Passed
				25	0	22.16	1.80	0.63	1.24	22.09	0.16181	19.94	0.09863	7.00	38.45	11.50	40.61	Passed
				25	24	22.12	1.80	0.63	1.24	22.05	0.16032	19.90	0.09772	7.00	38.45	11.50	40.61	Passed
			16QAM	50	0	22.15	1.80	0.63	1.24	22.08	0.16144	19.93	0.09840	7.00	38.45	11.50	40.61	Passed
				1	0	22.39	1.80	0.63	1.24	22.32	0.17061	20.17	0.10399	7.00	38.45	11.50	40.61	Passed
				1	24	22.36	1.80	0.63	1.24	22.29	0.16943	20.14	0.10328	7.00	38.45	11.50	40.61	Passed
				1	49	22.28	1.80	0.63	1.24	22.21	0.16634	20.06	0.10139	7.00	38.45	11.50	40.61	Passed
				25	0	21.17	1.80	0.63	1.24	21.10	0.12882	18.95	0.07852	7.00	38.45	11.50	40.61	Passed
				25	24	21.12	1.80	0.63	1.24	21.05	0.12735	18.90	0.07762	7.00	38.45	11.50	40.61	Passed
				50	0	21.11	1.80	0.63	1.24	21.04	0.12706	18.89	0.07745	7.00	38.45	11.50	40.61	Passed
	20600	844.00	QPSK	1	0	23.05	1.80	0.63	1.24	22.98	0.19861	20.83	0.12106	7.00	38.45	11.50	40.61	Passed
				1	24	23.07	1.80	0.63	1.24	23.00	0.19953	20.85	0.12162	7.00	38.45	11.50	40.61	Passed
				1	49	23.02	1.80	0.63	1.24	22.95	0.19724	20.80	0.12023	7.00	38.45	11.50	40.61	Passed
				25	0	22.07	1.80	0.63	1.24	22.00	0.15849	19.85	0.09661	7.00	38.45	11.50	40.61	Passed
				25	24	22.15	1.80	0.63	1.24	22.08	0.16144	19.93	0.09840	7.00	38.45	11.50	40.61	Passed
			16QAM	50	0	22.15	1.80	0.63	1.24	22.08	0.16144	19.93	0.09840	7.00	38.45	11.50	40.61	Passed
				1	0	22.18	1.80	0.63	1.24	22.11	0.16255	19.96	0.09908	7.00	38.45	11.50	40.61	Passed
				1	24	22.26	1.80	0.63	1.24	22.19	0.16558	20.04	0.10093	7.00	38.45	11.50	40.61	Passed
1				49	22.29	1.80	0.63	1.24	22.22	0.16672	20.07	0.10162	7.00	38.45	11.50	40.61	Passed	
25				0	21.15	1.80	0.63	1.24	21.08	0.12823	18.93	0.07816	7.00	38.45	11.50	40.61	Passed	
25				24	21.19	1.80	0.63	1.24	21.12	0.12942	18.97	0.07889	7.00	38.45	11.50	40.61	Passed	
50				0	21.11	1.80	0.63	1.24	21.04	0.12706	18.89	0.07745	7.00	38.45	11.50	40.61	Passed	
EIRP= RMS Power at Antenna Port + Maximum declared Antenna Gain - Path loss to Antenna Connector - Path loss in Antenna Cable																		
ERP = EIRP - 2.15																		

ERP/EIRP: EUT Internal Antenna

LTE FDD Band 5																		
BW in MHz	Channel Nr.	ARFCN-Frequency (MHz)	Modulation	RB	Start RB	RMS Power at Antenna Port (dBm)	Maximum declared Antenna Gain(dBi)	Path loss to Antenna Connector	Path loss in Antenna Cable	EIRP in dBm	EIRP in Watt	ERP in dBm	ERP in Watt	FCC Limit(W), ERP	FCC Limit (dBm); ERP	ISED Limit(W), EIRP	ISED Limit (dBm), EIRP	Verdict
1.4	20407	824.70	QPSK	1	0	23.00	0.20	0.60	0.00	22.60	0.18197	20.45	0.11092	7.00	38.45	11.50	40.61	Passed
				1	2	23.05	0.20	0.60	0.00	22.65	0.18408	20.50	0.11220	7.00	38.45	11.50	40.61	Passed
				1	5	22.99	0.20	0.60	0.00	22.59	0.18155	20.44	0.11066	7.00	38.45	11.50	40.61	Passed
				3	0	23.03	0.20	0.60	0.00	22.63	0.18323	20.48	0.11169	7.00	38.45	11.50	40.61	Passed
				3	2	23.08	0.20	0.60	0.00	22.68	0.18535	20.53	0.11298	7.00	38.45	11.50	40.61	Passed
				6	0	22.00	0.20	0.60	0.00	21.60	0.14454	19.45	0.08810	7.00	38.45	11.50	40.61	Passed
			16QAM	1	0	21.96	0.20	0.60	0.00	21.56	0.14322	19.41	0.08730	7.00	38.45	11.50	40.61	Passed
				1	2	21.99	0.20	0.60	0.00	21.59	0.14421	19.44	0.08790	7.00	38.45	11.50	40.61	Passed
				1	5	21.97	0.20	0.60	0.00	21.57	0.14355	19.42	0.08750	7.00	38.45	11.50	40.61	Passed
				3	0	21.96	0.20	0.60	0.00	21.56	0.14322	19.41	0.08730	7.00	38.45	11.50	40.61	Passed
				3	2	22.00	0.20	0.60	0.00	21.60	0.14454	19.45	0.08810	7.00	38.45	11.50	40.61	Passed
				6	0	21.13	0.20	0.60	0.00	20.73	0.11830	18.58	0.07211	7.00	38.45	11.50	40.61	Passed
	20525	836.50	QPSK	1	0	23.01	0.20	0.60	0.00	22.61	0.18239	20.46	0.11117	7.00	38.45	11.50	40.61	Passed
				1	2	23.04	0.20	0.60	0.00	22.64	0.18365	20.49	0.11194	7.00	38.45	11.50	40.61	Passed
				1	5	22.99	0.20	0.60	0.00	22.59	0.18155	20.44	0.11066	7.00	38.45	11.50	40.61	Passed
				3	0	23.03	0.20	0.60	0.00	22.63	0.18323	20.48	0.11169	7.00	38.45	11.50	40.61	Passed
				3	2	23.07	0.20	0.60	0.00	22.67	0.18493	20.52	0.11272	7.00	38.45	11.50	40.61	Passed
				6	0	22.05	0.20	0.60	0.00	21.65	0.14622	19.50	0.08913	7.00	38.45	11.50	40.61	Passed
			16QAM	1	0	22.23	0.20	0.60	0.00	21.83	0.15241	19.68	0.09290	7.00	38.45	11.50	40.61	Passed
				1	2	22.31	0.20	0.60	0.00	21.91	0.15524	19.76	0.09462	7.00	38.45	11.50	40.61	Passed
				1	5	22.24	0.20	0.60	0.00	21.84	0.15276	19.69	0.09311	7.00	38.45	11.50	40.61	Passed
				3	0	22.00	0.20	0.60	0.00	21.60	0.14454	19.45	0.08810	7.00	38.45	11.50	40.61	Passed
				3	2	22.04	0.20	0.60	0.00	21.64	0.14588	19.49	0.08892	7.00	38.45	11.50	40.61	Passed
				6	0	21.08	0.20	0.60	0.00	20.68	0.11695	18.53	0.07129	7.00	38.45	11.50	40.61	Passed
	20643	848.30	QPSK	1	0	22.96	0.20	0.60	0.00	22.56	0.18030	20.41	0.10990	7.00	38.45	11.50	40.61	Passed
				1	2	21.98	0.20	0.60	0.00	21.58	0.14388	19.43	0.08770	7.00	38.45	11.50	40.61	Passed
				1	5	23.00	0.20	0.60	0.00	22.60	0.18197	20.45	0.11092	7.00	38.45	11.50	40.61	Passed
				3	0	22.95	0.20	0.60	0.00	22.55	0.17989	20.40	0.10965	7.00	38.45	11.50	40.61	Passed
				3	2	23.00	0.20	0.60	0.00	22.60	0.18197	20.45	0.11092	7.00	38.45	11.50	40.61	Passed
				6	0	21.98	0.20	0.60	0.00	21.58	0.14388	19.43	0.08770	7.00	38.45	11.50	40.61	Passed
			16QAM	1	0	22.21	0.20	0.60	0.00	21.81	0.15171	19.66	0.09247	7.00	38.45	11.50	40.61	Passed
				1	2	22.25	0.20	0.60	0.00	21.85	0.15311	19.70	0.09333	7.00	38.45	11.50	40.61	Passed
				1	5	22.15	0.20	0.60	0.00	21.75	0.14962	19.60	0.09120	7.00	38.45	11.50	40.61	Passed
				3	0	21.98	0.20	0.60	0.00	21.58	0.14388	19.43	0.08770	7.00	38.45	11.50	40.61	Passed
				3	2	22.02	0.20	0.60	0.00	21.62	0.14521	19.47	0.08851	7.00	38.45	11.50	40.61	Passed
				6	0	21.06	0.20	0.60	0.00	20.66	0.11641	18.51	0.07096	7.00	38.45	11.50	40.61	Passed
3	20415	825.50	QPSK	1	0	23.04	0.20	0.60	0.00	22.64	0.18365	20.49	0.11194	7.00	38.45	11.50	40.61	Passed
				1	7	23.12	0.20	0.60	0.00	22.72	0.18707	20.57	0.11402	7.00	38.45	11.50	40.61	Passed
				1	14	23.00	0.20	0.60	0.00	22.60	0.18197	20.45	0.11092	7.00	38.45	11.50	40.61	Passed
				8	0	22.07	0.20	0.60	0.00	21.67	0.14689	19.52	0.08954	7.00	38.45	11.50	40.61	Passed
				8	7	22.11	0.20	0.60	0.00	21.71	0.14825	19.56	0.09036	7.00	38.45	11.50	40.61	Passed
				15	0	22.09	0.20	0.60	0.00	21.69	0.14757	19.54	0.08995	7.00	38.45	11.50	40.61	Passed
			16QAM	1	0	22.29	0.20	0.60	0.00	21.89	0.15453	19.74	0.09419	7.00	38.45	11.50	40.61	Passed
				1	7	22.38	0.20	0.60	0.00	21.98	0.15776	19.83	0.09616	7.00	38.45	11.50	40.61	Passed
				1	14	22.26	0.20	0.60	0.00	21.86	0.15346	19.71	0.09354	7.00	38.45	11.50	40.61	Passed
				8	0	21.27	0.20	0.60	0.00	20.87	0.12218	18.72	0.07447	7.00	38.45	11.50	40.61	Passed
				8	7	21.25	0.20	0.60	0.00	20.85	0.12162	18.70	0.07413	7.00	38.45	11.50	40.61	Passed
				15	0	21.13	0.20	0.60	0.00	20.73	0.11830	18.58	0.07211	7.00	38.45	11.50	40.61	Passed
	20525	836.50	QPSK	1	0	23.10	0.20	0.60	0.00	22.70	0.18621	20.55	0.11350	7.00	38.45	11.50	40.61	Passed
				1	7	23.17	0.20	0.60	0.00	22.77	0.18923	20.62	0.11535	7.00	38.45	11.50	40.61	Passed
				1	14	23.04	0.20	0.60	0.00	22.64	0.18365	20.49	0.11194	7.00	38.45	11.50	40.61	Passed
				8	0	22.08	0.20	0.60	0.00	21.68	0.14723	19.53	0.08974	7.00	38.45	11.50	40.61	Passed
				8	7	22.07	0.20	0.60	0.00	21.67	0.14689	19.52	0.08954	7.00	38.45	11.50	40.61	Passed
				15	0	22.09	0.20	0.60	0.00	21.69	0.14757	19.54	0.08995	7.00	38.45	11.50	40.61	Passed
			16QAM	1	0	22.35	0.20	0.60	0.00	21.95	0.15668	19.80	0.09550	7.00	38.45	11.50	40.61	Passed
				1	7	22.45	0.20	0.60	0.00	22.05	0.16032	19.90	0.09772	7.00	38.45	11.50	40.61	Passed
				1	14	22.30	0.20	0.60	0.00	21.90	0.15488	19.75	0.09441	7.00	38.45	11.50	40.61	Passed
				8	0	21.25	0.20	0.60	0.00	20.85	0.12162	18.70	0.07413	7.00	38.45	11.50	40.61	Passed
				8	7	21.25	0.20	0.60	0.00	20.85	0.12162	18.70	0.07413	7.00	38.45	11.50	40.61	Passed
				15	0	21.14	0.20	0.60	0.00	20.74	0.11858	18.59	0.07228	7.00	38.45	11.50	40.61	Passed
	20635	847.50	QPSK	1	0	23.09	0.20	0.60	0.00	22.69	0.18578	20.54	0.11324	7.00	38.45	11.50	40.61	Passed
				1	7	23.17	0.20	0.60	0.00	22.77	0.18923	20.62	0.11535	7.00	38.45	11.50	40.61	Passed
				1	14	23.02	0.20	0.60	0.00	22.62	0.18281	20.47	0.11143	7.00	38.45	11.50	40.61	Passed
				8	0	22.06	0.20	0.60	0.00	21.66	0.14655	19.51	0.08933	7.00	38.45	11.50	40.61	Passed
				8	7	22.04	0.20	0.60	0.00	21.64	0.14588	19.49	0.08892	7.00	38.45	11.50	40.61	Passed
				15	0	22.06	0.20	0.60	0.00	21.66	0.14655	19.51	0.08933	7.00	38.45	11.50	40.61	Passed
16QAM			1	0	22.31	0.20	0.60	0.00	21.91	0.15524	19.76	0.09462	7.00	38.45	11.50	40.61	Passed	
			1	7	22.34	0.20	0.60	0.00	21.94	0.15631	19.79	0.09528	7.00	38.45	11.50	40.61	Passed	
			1	14	22.28	0.20	0.60	0.00	21.88	0.15417	19.73	0.09397	7.00	38.45	11.50	40.61	Passed	
			8	0	21.16	0.20	0.60	0.00	20.76	0.11912	18.61	0.07261	7.00	38.45	11.50	40.61	Passed	
			8	7	21.15	0.20	0.60	0.00	20.75	0.11885	18.60	0.07244	7.00	38.45	11.50	40.61	Passed	
			15	0	21.13	0.20	0.60	0.00	20.73	0.11830	18.58	0.07211	7.00	38.45	11.50	40.61	Passed	

5	20425	826.50	QPSK	1	0	23.07	0.20	0.60	0.00	22.67	0.18493	20.52	0.11272	7.00	38.45	11.50	40.61	Passed	
				1	12	23.02	0.20	0.60	0.00	22.62	0.18281	20.47	0.11143	7.00	38.45	11.50	40.61	Passed	
				1	24	23.06	0.20	0.60	0.00	22.66	0.18450	20.51	0.11246	7.00	38.45	11.50	40.61	Passed	
				12	0	22.09	0.20	0.60	0.00	21.69	0.14757	19.54	0.08995	7.00	38.45	11.50	40.61	Passed	
				12	11	22.08	0.20	0.60	0.00	21.68	0.14723	19.53	0.08974	7.00	38.45	11.50	40.61	Passed	
				25	0	22.07	0.20	0.60	0.00	21.67	0.14689	19.52	0.08954	7.00	38.45	11.50	40.61	Passed	
		16QAM	1	0	22.17	0.20	0.60	0.00	21.77	0.15031	19.62	0.09162	7.00	38.45	11.50	40.61	Passed		
			1	12	22.16	0.20	0.60	0.00	21.76	0.14997	19.61	0.09141	7.00	38.45	11.50	40.61	Passed		
			1	24	22.24	0.20	0.60	0.00	21.84	0.15276	19.69	0.09311	7.00	38.45	11.50	40.61	Passed		
			12	0	21.16	0.20	0.60	0.00	20.76	0.11912	18.61	0.07261	7.00	38.45	11.50	40.61	Passed		
			12	11	21.15	0.20	0.60	0.00	20.75	0.11885	18.60	0.07244	7.00	38.45	11.50	40.61	Passed		
			25	0	21.08	0.20	0.60	0.00	20.68	0.11695	18.53	0.07129	7.00	38.45	11.50	40.61	Passed		
	20525	836.50	QPSK	1	0	23.17	0.20	0.60	0.00	22.77	0.18923	20.62	0.11535	7.00	38.45	11.50	40.61	Passed	
				1	12	23.11	0.20	0.60	0.00	22.71	0.18664	20.56	0.11376	7.00	38.45	11.50	40.61	Passed	
				1	24	23.08	0.20	0.60	0.00	22.68	0.18535	20.53	0.11298	7.00	38.45	11.50	40.61	Passed	
				12	0	22.12	0.20	0.60	0.00	21.72	0.14859	19.57	0.09057	7.00	38.45	11.50	40.61	Passed	
				12	11	22.12	0.20	0.60	0.00	21.72	0.14859	19.57	0.09057	7.00	38.45	11.50	40.61	Passed	
				25	0	22.13	0.20	0.60	0.00	21.73	0.14894	19.58	0.09078	7.00	38.45	11.50	40.61	Passed	
		16QAM	1	0	22.26	0.20	0.60	0.00	21.86	0.15346	19.71	0.09354	7.00	38.45	11.50	40.61	Passed		
			1	12	22.21	0.20	0.60	0.00	21.81	0.15171	19.66	0.09247	7.00	38.45	11.50	40.61	Passed		
			1	24	22.16	0.20	0.60	0.00	21.76	0.14997	19.61	0.09141	7.00	38.45	11.50	40.61	Passed		
			12	0	21.22	0.20	0.60	0.00	20.82	0.12078	18.67	0.07362	7.00	38.45	11.50	40.61	Passed		
			12	11	21.23	0.20	0.60	0.00	20.83	0.12106	18.68	0.07379	7.00	38.45	11.50	40.61	Passed		
			25	0	21.14	0.20	0.60	0.00	20.74	0.11858	18.59	0.07228	7.00	38.45	11.50	40.61	Passed		
	20625	846.50	QPSK	1	0	23.10	0.20	0.60	0.00	22.70	0.18621	20.55	0.11350	7.00	38.45	11.50	40.61	Passed	
				1	12	23.07	0.20	0.60	0.00	22.67	0.18493	20.52	0.11272	7.00	38.45	11.50	40.61	Passed	
				1	24	23.05	0.20	0.60	0.00	22.65	0.18408	20.50	0.11220	7.00	38.45	11.50	40.61	Passed	
				12	0	22.11	0.20	0.60	0.00	21.71	0.14825	19.56	0.09036	7.00	38.45	11.50	40.61	Passed	
				12	11	22.11	0.20	0.60	0.00	21.71	0.14825	19.56	0.09036	7.00	38.45	11.50	40.61	Passed	
				25	0	22.13	0.20	0.60	0.00	21.73	0.14894	19.58	0.09078	7.00	38.45	11.50	40.61	Passed	
		16QAM	1	0	22.52	0.20	0.60	0.00	22.12	0.16293	19.97	0.09931	7.00	38.45	11.50	40.61	Passed		
			1	12	22.52	0.20	0.60	0.00	22.12	0.16293	19.97	0.09931	7.00	38.45	11.50	40.61	Passed		
			1	24	22.50	0.20	0.60	0.00	22.10	0.16218	19.95	0.09886	7.00	38.45	11.50	40.61	Passed		
			12	0	21.02	0.20	0.60	0.00	20.62	0.11535	18.47	0.07031	7.00	38.45	11.50	40.61	Passed		
			12	11	20.98	0.20	0.60	0.00	20.58	0.11429	18.43	0.06966	7.00	38.45	11.50	40.61	Passed		
			25	0	21.13	0.20	0.60	0.00	20.73	0.11830	18.58	0.07211	7.00	38.45	11.50	40.61	Passed		
	10	20450	829.00	QPSK	1	0	23.06	0.20	0.60	0.00	22.66	0.18450	20.51	0.11246	7.00	38.45	11.50	40.61	Passed
					1	24	23.00	0.20	0.60	0.00	22.60	0.18197	20.45	0.11092	7.00	38.45	11.50	40.61	Passed
					1	49	23.07	0.20	0.60	0.00	22.67	0.18493	20.52	0.11272	7.00	38.45	11.50	40.61	Passed
					25	0	22.13	0.20	0.60	0.00	21.73	0.14894	19.58	0.09078	7.00	38.45	11.50	40.61	Passed
					25	24	22.15	0.20	0.60	0.00	21.75	0.14962	19.60	0.09120	7.00	38.45	11.50	40.61	Passed
					50	0	22.07	0.20	0.60	0.00	21.67	0.14689	19.52	0.08954	7.00	38.45	11.50	40.61	Passed
				16QAM	1	0	22.34	0.20	0.60	0.00	21.94	0.15631	19.79	0.09528	7.00	38.45	11.50	40.61	Passed
					1	24	22.23	0.20	0.60	0.00	21.83	0.15241	19.68	0.09290	7.00	38.45	11.50	40.61	Passed
					1	49	22.29	0.20	0.60	0.00	21.89	0.15453	19.74	0.09419	7.00	38.45	11.50	40.61	Passed
					25	0	21.16	0.20	0.60	0.00	20.76	0.11912	18.61	0.07261	7.00	38.45	11.50	40.61	Passed
					25	24	21.26	0.20	0.60	0.00	20.86	0.12190	18.71	0.07430	7.00	38.45	11.50	40.61	Passed
					50	0	21.09	0.20	0.60	0.00	20.69	0.11722	18.54	0.07145	7.00	38.45	11.50	40.61	Passed
20525		836.50	QPSK	1	0	23.13	0.20	0.60	0.00	22.73	0.18750	20.58	0.11429	7.00	38.45	11.50	40.61	Passed	
				1	24	23.08	0.20	0.60	0.00	22.68	0.18535	20.53	0.11298	7.00	38.45	11.50	40.61	Passed	
				1	49	23.01	0.20	0.60	0.00	22.61	0.18239	20.46	0.11117	7.00	38.45	11.50	40.61	Passed	
				25	0	22.16	0.20	0.60	0.00	21.76	0.14997	19.61	0.09141	7.00	38.45	11.50	40.61	Passed	
				25	24	22.12	0.20	0.60	0.00	21.72	0.14859	19.57	0.09057	7.00	38.45	11.50	40.61	Passed	
				50	0	22.15	0.20	0.60	0.00	21.75	0.14962	19.60	0.09120	7.00	38.45	11.50	40.61	Passed	
			16QAM	1	0	22.39	0.20	0.60	0.00	21.99	0.15812	19.84	0.09638	7.00	38.45	11.50	40.61	Passed	
				1	24	22.36	0.20	0.60	0.00	21.96	0.15704	19.81	0.09572	7.00	38.45	11.50	40.61	Passed	
				1	49	22.28	0.20	0.60	0.00	21.88	0.15417	19.73	0.09397	7.00	38.45	11.50	40.61	Passed	
				25	0	21.17	0.20	0.60	0.00	20.77	0.11940	18.62	0.07278	7.00	38.45	11.50	40.61	Passed	
				25	24	21.12	0.20	0.60	0.00	20.72	0.11803	18.57	0.07194	7.00	38.45	11.50	40.61	Passed	
				50	0	21.11	0.20	0.60	0.00	20.71	0.11776	18.56	0.07178	7.00	38.45	11.50	40.61	Passed	
20600		844.00	QPSK	1	0	23.05	0.20	0.60	0.00	22.65	0.18408	20.50	0.11220	7.00	38.45	11.50	40.61	Passed	
				1	24	23.07	0.20	0.60	0.00	22.67	0.18493	20.52	0.11272	7.00	38.45	11.50	40.61	Passed	
				1	49	23.02	0.20	0.60	0.00	22.62	0.18281	20.47	0.11143	7.00	38.45	11.50	40.61	Passed	
				25	0	22.07	0.20	0.60	0.00	21.67	0.14689	19.52	0.08954	7.00	38.45	11.50	40.61	Passed	
				25	24	22.15	0.20	0.60	0.00	21.75	0.14962	19.60	0.09120	7.00	38.45	11.50	40.61	Passed	
				50	0	22.15	0.20	0.60	0.00	21.75	0.14962	19.60	0.09120	7.00	38.45	11.50	40.61	Passed	
			16QAM	1	0	22.18	0.20	0.60	0.00	21.78	0.15066	19.63	0.09183	7.00	38.45	11.50	40.61	Passed	
				1	24	22.26	0.20	0.60	0.00	21.86	0.15346	19.71	0.09354	7.00	38.45	11.50	40.61	Passed	
	1			49	22.29	0.20	0.60	0.00	21.89	0.15453	19.74	0.09419	7.00	38.45	11.50	40.61	Passed		
	25			0	21.15	0.20	0.60	0.00	20.75	0.11885	18.60	0.07244	7.00	38.45	11.50	40.61	Passed		
	25			24	21.19	0.20	0.60	0.00	20.79	0.11995	18.64	0.07311	7.00	38.45	11.50	40.61	Passed		
	50			0	21.11	0.20	0.60	0.00	20.71	0.11776	18.56	0.07178	7.00	38.45	11.50	40.61	Passed		
EIRP= RMS Power at Antenna Port + Maximum declared Antenna Gain - Path loss to Antenna Connector - Path loss in Antenna Cable																			
ERP = EIRP - 2.15																			

ERP/EIRP: EUT External Antenna

LTE FDD Band 12																		
BW in MHz	Channel Nr.	ARFCN-Frequency (MHz)	Modulation	RB	Start RB	RMS Power at Antenna Port (dBm)	Maximum declared Antenna Gain(dBi)	Path loss to Antenna Connector	Path loss in Antenna Cable	EIRP in dBm	EIRP in Watt	ERP in dBm	ERP in Watt	FCC Limit(W, ERP)	FCC Limit (dBm); ERP	ISED Limit(W, ERP)	ISED Limit (dBm), ERP	Verdict
1.4	23017	699.70	QPSK	1	0	23.01	-3.90	0.59	1.18	17.34	0.05420	15.19	0.03304	3.00	34.77	3.00	34.77	Passed
				1	5	23.00	-3.90	0.59	1.18	17.33	0.05408	15.18	0.03296	3.00	34.77	3.00	34.77	Passed
				3	0	23.06	-3.90	0.59	1.18	17.39	0.05483	15.24	0.03342	3.00	34.77	3.00	34.77	Passed
				3	2	23.08	-3.90	0.59	1.18	17.41	0.05508	15.26	0.03357	3.00	34.77	3.00	34.77	Passed
			16QAM	6	0	22.07	-3.90	0.59	1.18	16.40	0.04365	14.25	0.02661	3.00	34.77	3.00	34.77	Passed
				1	0	21.94	-3.90	0.59	1.18	16.27	0.04236	14.12	0.02582	3.00	34.77	3.00	34.77	Passed
				1	5	21.94	-3.90	0.59	1.18	16.27	0.04236	14.12	0.02582	3.00	34.77	3.00	34.77	Passed
				3	0	21.96	-3.90	0.59	1.18	16.29	0.04256	14.14	0.02594	3.00	34.77	3.00	34.77	Passed
				3	2	22.03	-3.90	0.59	1.18	16.36	0.04325	14.21	0.02636	3.00	34.77	3.00	34.77	Passed
				6	0	21.16	-3.90	0.59	1.18	15.49	0.03540	13.34	0.02158	3.00	34.77	3.00	34.77	Passed
	23095	707.50	QPSK	1	0	23.23	-3.90	0.59	1.18	17.56	0.05702	15.41	0.03475	3.00	34.77	3.00	34.77	Passed
				1	5	23.25	-3.90	0.59	1.18	17.58	0.05728	15.43	0.03491	3.00	34.77	3.00	34.77	Passed
				3	0	23.29	-3.90	0.59	1.18	17.62	0.05781	15.47	0.03524	3.00	34.77	3.00	34.77	Passed
				3	2	23.28	-3.90	0.59	1.18	17.61	0.05768	15.46	0.03516	3.00	34.77	3.00	34.77	Passed
			16QAM	6	0	22.24	-3.90	0.59	1.18	16.57	0.04539	14.42	0.02767	3.00	34.77	3.00	34.77	Passed
				1	0	22.46	-3.90	0.59	1.18	16.79	0.04775	14.64	0.02911	3.00	34.77	3.00	34.77	Passed
				1	5	22.48	-3.90	0.59	1.18	16.81	0.04797	14.66	0.02924	3.00	34.77	3.00	34.77	Passed
				3	0	22.32	-3.90	0.59	1.18	16.65	0.04624	14.50	0.02818	3.00	34.77	3.00	34.77	Passed
				3	2	22.28	-3.90	0.59	1.18	16.61	0.04581	14.46	0.02793	3.00	34.77	3.00	34.77	Passed
				6	0	21.35	-3.90	0.59	1.18	15.68	0.03698	13.53	0.02254	3.00	34.77	3.00	34.77	Passed
3	23173	715.30	QPSK	1	0	23.50	-3.90	0.59	1.18	17.83	0.06067	15.68	0.03698	3.00	34.77	3.00	34.77	Passed
				1	5	23.50	-3.90	0.59	1.18	17.83	0.06067	15.68	0.03698	3.00	34.77	3.00	34.77	Passed
				3	0	23.56	-3.90	0.59	1.18	17.89	0.06152	15.74	0.03750	3.00	34.77	3.00	34.77	Passed
				3	2	23.61	-3.90	0.59	1.18	17.94	0.06223	15.79	0.03793	3.00	34.77	3.00	34.77	Passed
			16QAM	6	0	22.51	-3.90	0.59	1.18	16.84	0.04831	14.69	0.02944	3.00	34.77	3.00	34.77	Passed
				1	0	22.75	-3.90	0.59	1.18	17.08	0.05105	14.93	0.03112	3.00	34.77	3.00	34.77	Passed
				1	5	22.71	-3.90	0.59	1.18	17.04	0.05058	14.89	0.03083	3.00	34.77	3.00	34.77	Passed
				3	0	22.55	-3.90	0.59	1.18	16.88	0.04875	14.73	0.02972	3.00	34.77	3.00	34.77	Passed
				3	2	22.54	-3.90	0.59	1.18	16.87	0.04864	14.72	0.02965	3.00	34.77	3.00	34.77	Passed
				6	0	21.66	-3.90	0.59	1.18	15.99	0.03972	13.84	0.02421	3.00	34.77	3.00	34.77	Passed
	23025	700.50	QPSK	1	0	23.09	-3.90	0.59	1.18	17.42	0.05521	15.27	0.03365	3.00	34.77	3.00	34.77	Passed
				1	14	23.19	-3.90	0.59	1.18	17.52	0.05649	15.37	0.03443	3.00	34.77	3.00	34.77	Passed
				8	0	22.14	-3.90	0.59	1.18	16.47	0.04436	14.32	0.02704	3.00	34.77	3.00	34.77	Passed
				8	7	22.25	-3.90	0.59	1.18	16.58	0.04550	14.43	0.02773	3.00	34.77	3.00	34.77	Passed
			16QAM	15	0	22.25	-3.90	0.59	1.18	16.58	0.04550	14.43	0.02773	3.00	34.77	3.00	34.77	Passed
				1	0	22.31	-3.90	0.59	1.18	16.64	0.04613	14.49	0.02812	3.00	34.77	3.00	34.77	Passed
				1	14	22.45	-3.90	0.59	1.18	16.78	0.04764	14.63	0.02904	3.00	34.77	3.00	34.77	Passed
				8	0	21.35	-3.90	0.59	1.18	15.68	0.03698	13.53	0.02254	3.00	34.77	3.00	34.77	Passed
				8	7	21.40	-3.90	0.59	1.18	15.73	0.03741	13.58	0.02280	3.00	34.77	3.00	34.77	Passed
				15	0	21.27	-3.90	0.59	1.18	15.60	0.03631	13.45	0.02213	3.00	34.77	3.00	34.77	Passed
	23095	707.50	QPSK	1	0	23.33	-3.90	0.59	1.18	17.66	0.05834	15.51	0.03556	3.00	34.77	3.00	34.77	Passed
				1	14	23.29	-3.90	0.59	1.18	17.62	0.05781	15.47	0.03524	3.00	34.77	3.00	34.77	Passed
				8	0	22.35	-3.90	0.59	1.18	16.68	0.04656	14.53	0.02838	3.00	34.77	3.00	34.77	Passed
				8	7	22.31	-3.90	0.59	1.18	16.64	0.04613	14.49	0.02812	3.00	34.77	3.00	34.77	Passed
			16QAM	15	0	22.35	-3.90	0.59	1.18	16.68	0.04656	14.53	0.02838	3.00	34.77	3.00	34.77	Passed
				1	0	22.61	-3.90	0.59	1.18	16.94	0.04943	14.79	0.03013	3.00	34.77	3.00	34.77	Passed
				1	14	22.55	-3.90	0.59	1.18	16.88	0.04875	14.73	0.02972	3.00	34.77	3.00	34.77	Passed
				8	0	21.50	-3.90	0.59	1.18	15.83	0.03828	13.68	0.02333	3.00	34.77	3.00	34.77	Passed
				8	7	21.51	-3.90	0.59	1.18	15.84	0.03837	13.69	0.02339	3.00	34.77	3.00	34.77	Passed
				15	0	21.38	-3.90	0.59	1.18	15.71	0.03724	13.56	0.02270	3.00	34.77	3.00	34.77	Passed
	23165	714.50	QPSK	1	0	23.51	-3.90	0.59	1.18	17.84	0.06081	15.69	0.03707	3.00	34.77	3.00	34.77	Passed
				1	14	23.51	-3.90	0.59	1.18	17.84	0.06081	15.69	0.03707	3.00	34.77	3.00	34.77	Passed
				8	0	23.69	-3.90	0.59	1.18	18.02	0.06339	15.87	0.03864	3.00	34.77	3.00	34.77	Passed
				8	7	22.62	-3.90	0.59	1.18	16.95	0.04955	14.80	0.03020	3.00	34.77	3.00	34.77	Passed
			16QAM	15	0	22.65	-3.90	0.59	1.18	16.98	0.04989	14.83	0.03041	3.00	34.77	3.00	34.77	Passed
				1	0	22.70	-3.90	0.59	1.18	17.03	0.05047	14.88	0.03076	3.00	34.77	3.00	34.77	Passed
				1	14	22.79	-3.90	0.59	1.18	17.12	0.05152	14.97	0.03141	3.00	34.77	3.00	34.77	Passed
				8	0	21.65	-3.90	0.59	1.18	15.98	0.03963	13.83	0.02415	3.00	34.77	3.00	34.77	Passed
				8	7	21.78	-3.90	0.59	1.18	16.11	0.04083	13.96	0.02489	3.00	34.77	3.00	34.77	Passed
				15	0	21.72	-3.90	0.59	1.18	16.05	0.04027	13.90	0.02455	3.00	34.77	3.00	34.77	Passed

5	23035	701.50	QPSK	1	0	23.10	-3.90	0.59	1.18	17.43	0.05534	15.28	0.03373	3.00	34.77	3.00	34.77	Passed
				1	24	23.27	-3.90	0.59	1.18	17.60	0.05754	15.45	0.03508	3.00	34.77	3.00	34.77	Passed
				12	0	22.16	-3.90	0.59	1.18	16.49	0.04457	14.34	0.02716	3.00	34.77	3.00	34.77	Passed
				12	11	22.25	-3.90	0.59	1.18	16.58	0.04550	14.43	0.02773	3.00	34.77	3.00	34.77	Passed
			16QAM	25	0	22.23	-3.90	0.59	1.18	16.56	0.04529	14.41	0.02761	3.00	34.77	3.00	34.77	Passed
				1	0	22.25	-3.90	0.59	1.18	16.58	0.04550	14.43	0.02773	3.00	34.77	3.00	34.77	Passed
				1	24	22.43	-3.90	0.59	1.18	16.76	0.04742	14.61	0.02891	3.00	34.77	3.00	34.77	Passed
				12	0	21.16	-3.90	0.59	1.18	15.49	0.03540	13.34	0.02158	3.00	34.77	3.00	34.77	Passed
				12	11	21.31	-3.90	0.59	1.18	15.64	0.03664	13.49	0.02234	3.00	34.77	3.00	34.77	Passed
				25	0	21.23	-3.90	0.59	1.18	15.56	0.03597	13.41	0.02193	3.00	34.77	3.00	34.77	Passed
23095	707.50	QPSK	1	0	23.32	-3.90	0.59	1.18	17.65	0.05821	15.50	0.03548	3.00	34.77	3.00	34.77	Passed	
			1	24	23.45	-3.90	0.59	1.18	17.78	0.05998	15.63	0.03656	3.00	34.77	3.00	34.77	Passed	
			12	0	22.33	-3.90	0.59	1.18	16.66	0.04634	14.51	0.02825	3.00	34.77	3.00	34.77	Passed	
			12	11	22.31	-3.90	0.59	1.18	16.64	0.04613	14.49	0.02812	3.00	34.77	3.00	34.77	Passed	
		16QAM	25	0	22.34	-3.90	0.59	1.18	16.67	0.04645	14.52	0.02831	3.00	34.77	3.00	34.77	Passed	
			1	0	22.39	-3.90	0.59	1.18	16.72	0.04699	14.57	0.02864	3.00	34.77	3.00	34.77	Passed	
			1	24	22.50	-3.90	0.59	1.18	16.83	0.04819	14.68	0.02938	3.00	34.77	3.00	34.77	Passed	
			12	0	21.50	-3.90	0.59	1.18	15.83	0.03828	13.68	0.02333	3.00	34.77	3.00	34.77	Passed	
			12	11	21.46	-3.90	0.59	1.18	15.79	0.03793	13.64	0.02312	3.00	34.77	3.00	34.77	Passed	
			25	0	21.38	-3.90	0.59	1.18	15.71	0.03724	13.56	0.02270	3.00	34.77	3.00	34.77	Passed	
23155	713.50	QPSK	1	0	23.44	-3.90	0.59	1.18	17.77	0.05984	15.62	0.03648	3.00	34.77	3.00	34.77	Passed	
			1	24	23.57	-3.90	0.59	1.18	17.90	0.06166	15.75	0.03758	3.00	34.77	3.00	34.77	Passed	
			12	0	22.60	-3.90	0.59	1.18	16.93	0.04932	14.78	0.03006	3.00	34.77	3.00	34.77	Passed	
			12	11	22.62	-3.90	0.59	1.18	16.95	0.04955	14.80	0.03020	3.00	34.77	3.00	34.77	Passed	
		16QAM	25	0	22.56	-3.90	0.59	1.18	16.89	0.04887	14.74	0.02979	3.00	34.77	3.00	34.77	Passed	
			1	0	22.90	-3.90	0.59	1.18	17.23	0.05284	15.08	0.03221	3.00	34.77	3.00	34.77	Passed	
			1	24	23.03	-3.90	0.59	1.18	17.36	0.05445	15.21	0.03319	3.00	34.77	3.00	34.77	Passed	
			12	0	21.50	-3.90	0.59	1.18	15.83	0.03828	13.68	0.02333	3.00	34.77	3.00	34.77	Passed	
			12	11	21.45	-3.90	0.59	1.18	15.78	0.03784	13.63	0.02307	3.00	34.77	3.00	34.77	Passed	
			25	0	21.58	-3.90	0.59	1.18	15.91	0.03899	13.76	0.02377	3.00	34.77	3.00	34.77	Passed	
23060	704.00	QPSK	1	0	23.09	-3.90	0.59	1.18	17.42	0.05521	15.27	0.03365	3.00	34.77	3.00	34.77	Passed	
			1	24	23.27	-3.90	0.59	1.18	17.60	0.05754	15.45	0.03508	3.00	34.77	3.00	34.77	Passed	
			1	49	23.27	-3.90	0.59	1.18	17.60	0.05754	15.45	0.03508	3.00	34.77	3.00	34.77	Passed	
			25	0	22.20	-3.90	0.59	1.18	16.53	0.04498	14.38	0.02742	3.00	34.77	3.00	34.77	Passed	
		16QAM	25	24	22.27	-3.90	0.59	1.18	16.60	0.04571	14.45	0.02786	3.00	34.77	3.00	34.77	Passed	
			50	0	22.29	-3.90	0.59	1.18	16.62	0.04592	14.47	0.02799	3.00	34.77	3.00	34.77	Passed	
			1	0	22.34	-3.90	0.59	1.18	16.67	0.04645	14.52	0.02831	3.00	34.77	3.00	34.77	Passed	
			1	24	22.52	-3.90	0.59	1.18	16.85	0.04842	14.70	0.02951	3.00	34.77	3.00	34.77	Passed	
			1	49	22.51	-3.90	0.59	1.18	16.84	0.04831	14.69	0.02944	3.00	34.77	3.00	34.77	Passed	
			25	0	21.35	-3.90	0.59	1.18	15.68	0.03698	13.53	0.02254	3.00	34.77	3.00	34.77	Passed	
23095	707.50	QPSK	25	24	21.33	-3.90	0.59	1.18	15.66	0.03681	13.51	0.02244	3.00	34.77	3.00	34.77	Passed	
			50	0	21.28	-3.90	0.59	1.18	15.61	0.03639	13.46	0.02218	3.00	34.77	3.00	34.77	Passed	
			1	0	23.22	-3.90	0.59	1.18	17.55	0.05689	15.40	0.03467	3.00	34.77	3.00	34.77	Passed	
			1	24	23.29	-3.90	0.59	1.18	17.62	0.05781	15.47	0.03524	3.00	34.77	3.00	34.77	Passed	
		16QAM	1	49	23.46	-3.90	0.59	1.18	17.79	0.06012	15.64	0.03664	3.00	34.77	3.00	34.77	Passed	
			25	0	22.29	-3.90	0.59	1.18	16.62	0.04592	14.47	0.02799	3.00	34.77	3.00	34.77	Passed	
			25	24	22.41	-3.90	0.59	1.18	16.74	0.04721	14.59	0.02877	3.00	34.77	3.00	34.77	Passed	
			50	0	22.36	-3.90	0.59	1.18	16.69	0.04667	14.54	0.02844	3.00	34.77	3.00	34.77	Passed	
			1	0	22.44	-3.90	0.59	1.18	16.77	0.04753	14.62	0.02897	3.00	34.77	3.00	34.77	Passed	
			1	24	22.59	-3.90	0.59	1.18	16.92	0.04920	14.77	0.02999	3.00	34.77	3.00	34.77	Passed	
23130	711.00	QPSK	1	49	22.72	-3.90	0.59	1.18	17.05	0.05070	14.90	0.03090	3.00	34.77	3.00	34.77	Passed	
			25	0	21.31	-3.90	0.59	1.18	15.64	0.03664	13.49	0.02234	3.00	34.77	3.00	34.77	Passed	
			25	24	21.50	-3.90	0.59	1.18	15.83	0.03828	13.68	0.02333	3.00	34.77	3.00	34.77	Passed	
			50	0	21.36	-3.90	0.59	1.18	15.69	0.03707	13.54	0.02259	3.00	34.77	3.00	34.77	Passed	
		16QAM	1	0	23.35	-3.90	0.59	1.18	17.68	0.05861	15.53	0.03573	3.00	34.77	3.00	34.77	Passed	
			1	24	23.39	-3.90	0.59	1.18	17.72	0.05916	15.57	0.03606	3.00	34.77	3.00	34.77	Passed	
			1	49	23.47	-3.90	0.59	1.18	17.80	0.06026	15.65	0.03673	3.00	34.77	3.00	34.77	Passed	
			25	0	22.30	-3.90	0.59	1.18	16.63	0.04603	14.48	0.02805	3.00	34.77	3.00	34.77	Passed	
			25	24	22.49	-3.90	0.59	1.18	16.82	0.04808	14.67	0.02931	3.00	34.77	3.00	34.77	Passed	
			50	0	22.43	-3.90	0.59	1.18	16.76	0.04742	14.61	0.02891	3.00	34.77	3.00	34.77	Passed	
EIRP= RMS Power at Antenna Port + Maximum declared Antenna Gain - Path loss to Antenna Connector - Path loss in Antenna Cable																		
ERP = EIRP - 2.15																		

ERP/EIRP: EUT Internal Antenna

LTE FDD Band 12																		
BW in MHz	Channel Nr.	ARFCN-Frequency (MHz)	Modulation	RB	Start RB	RMS Power at Antenna Port (dBm)	Maximum declared Antenna Gain(dBi)	Path loss to Antenna Connector	Path loss in Antenna Cable	EIRP in dBm	EIRP in Watt	ERP in dBm	ERP in Watt	FCC Limit(W), ERP	FCC Limit (dBm); ERP	ISED Limit(W), ERP	ISED Limit (dBm), ERP	Verdict
1.4	23017	699.70	QPSK	1	0	23.01	0.20	0.60	0.00	22.61	0.18239	20.46	0.11117	3.00	34.77	3.00	34.77	Passed
				1	5	23.00	0.20	0.60	0.00	22.60	0.18197	20.45	0.11092	3.00	34.77	3.00	34.77	Passed
				3	0	23.06	0.20	0.60	0.00	22.66	0.18450	20.51	0.11246	3.00	34.77	3.00	34.77	Passed
				3	2	23.08	0.20	0.60	0.00	22.68	0.18535	20.53	0.11298	3.00	34.77	3.00	34.77	Passed
			16QAM	6	0	22.07	0.20	0.60	0.00	21.67	0.14689	19.52	0.08954	3.00	34.77	3.00	34.77	Passed
				1	0	21.94	0.20	0.60	0.00	21.54	0.14256	19.39	0.08690	3.00	34.77	3.00	34.77	Passed
				1	5	21.94	0.20	0.60	0.00	21.54	0.14256	19.39	0.08690	3.00	34.77	3.00	34.77	Passed
				3	0	21.96	0.20	0.60	0.00	21.56	0.14322	19.41	0.08730	3.00	34.77	3.00	34.77	Passed
	23095	707.50	QPSK	3	2	22.03	0.20	0.60	0.00	21.63	0.14555	19.48	0.08872	3.00	34.77	3.00	34.77	Passed
				6	0	21.16	0.20	0.60	0.00	20.76	0.11912	18.61	0.07261	3.00	34.77	3.00	34.77	Passed
			16QAM	1	0	23.23	0.20	0.60	0.00	22.83	0.19187	20.68	0.11695	3.00	34.77	3.00	34.77	Passed
				1	5	23.25	0.20	0.60	0.00	22.85	0.19275	20.70	0.11749	3.00	34.77	3.00	34.77	Passed
				3	0	23.29	0.20	0.60	0.00	22.89	0.19454	20.74	0.11858	3.00	34.77	3.00	34.77	Passed
				3	2	23.28	0.20	0.60	0.00	22.88	0.19409	20.73	0.11830	3.00	34.77	3.00	34.77	Passed
			16QAM	6	0	22.24	0.20	0.60	0.00	21.84	0.15276	19.69	0.09311	3.00	34.77	3.00	34.77	Passed
				1	0	22.46	0.20	0.60	0.00	22.06	0.16069	19.91	0.09795	3.00	34.77	3.00	34.77	Passed
				1	5	22.48	0.20	0.60	0.00	22.08	0.16144	19.93	0.09840	3.00	34.77	3.00	34.77	Passed
				3	0	22.32	0.20	0.60	0.00	21.92	0.15560	19.77	0.09484	3.00	34.77	3.00	34.77	Passed
			QPSK	3	2	22.28	0.20	0.60	0.00	21.88	0.15417	19.73	0.09397	3.00	34.77	3.00	34.77	Passed
				6	0	21.35	0.20	0.60	0.00	20.95	0.12445	18.80	0.07586	3.00	34.77	3.00	34.77	Passed
			16QAM	1	0	23.50	0.20	0.60	0.00	23.10	0.20417	20.95	0.12445	3.00	34.77	3.00	34.77	Passed
				1	5	23.50	0.20	0.60	0.00	23.10	0.20417	20.95	0.12445	3.00	34.77	3.00	34.77	Passed
				3	0	23.56	0.20	0.60	0.00	23.16	0.20701	21.01	0.12618	3.00	34.77	3.00	34.77	Passed
				3	2	23.61	0.20	0.60	0.00	23.21	0.20941	21.06	0.12764	3.00	34.77	3.00	34.77	Passed
3	23025	700.50	QPSK	6	0	22.51	0.20	0.60	0.00	22.11	0.16255	19.96	0.09908	3.00	34.77	3.00	34.77	Passed
				1	0	22.75	0.20	0.60	0.00	22.35	0.17179	20.20	0.10471	3.00	34.77	3.00	34.77	Passed
			16QAM	1	5	22.71	0.20	0.60	0.00	22.31	0.17022	20.16	0.10375	3.00	34.77	3.00	34.77	Passed
				3	0	22.55	0.20	0.60	0.00	22.15	0.16406	20.00	0.10000	3.00	34.77	3.00	34.77	Passed
			QPSK	3	2	22.54	0.20	0.60	0.00	22.14	0.16368	19.99	0.09977	3.00	34.77	3.00	34.77	Passed
				6	0	21.66	0.20	0.60	0.00	21.26	0.13366	19.11	0.08147	3.00	34.77	3.00	34.77	Passed
	23095	707.50	QPSK	1	0	23.09	0.20	0.60	0.00	22.69	0.18578	20.54	0.11324	3.00	34.77	3.00	34.77	Passed
				1	14	23.19	0.20	0.60	0.00	22.79	0.19011	20.64	0.11588	3.00	34.77	3.00	34.77	Passed
				8	0	22.14	0.20	0.60	0.00	21.74	0.14928	19.59	0.09099	3.00	34.77	3.00	34.77	Passed
				8	7	22.25	0.20	0.60	0.00	21.85	0.15311	19.70	0.09333	3.00	34.77	3.00	34.77	Passed
			16QAM	15	0	22.25	0.20	0.60	0.00	21.85	0.15311	19.70	0.09333	3.00	34.77	3.00	34.77	Passed
				1	0	22.31	0.20	0.60	0.00	21.91	0.15524	19.76	0.09462	3.00	34.77	3.00	34.77	Passed
				1	14	22.45	0.20	0.60	0.00	22.05	0.16032	19.90	0.09772	3.00	34.77	3.00	34.77	Passed
				8	0	21.35	0.20	0.60	0.00	20.95	0.12445	18.80	0.07586	3.00	34.77	3.00	34.77	Passed
			QPSK	8	7	21.40	0.20	0.60	0.00	21.00	0.12589	18.85	0.07674	3.00	34.77	3.00	34.77	Passed
				15	0	21.27	0.20	0.60	0.00	20.87	0.12218	18.72	0.07447	3.00	34.77	3.00	34.77	Passed
			16QAM	1	0	23.33	0.20	0.60	0.00	22.93	0.19634	20.78	0.11967	3.00	34.77	3.00	34.77	Passed
				1	14	23.29	0.20	0.60	0.00	22.89	0.19454	20.74	0.11858	3.00	34.77	3.00	34.77	Passed
			QPSK	8	0	22.35	0.20	0.60	0.00	21.95	0.15668	19.80	0.09550	3.00	34.77	3.00	34.77	Passed
				8	7	22.31	0.20	0.60	0.00	21.91	0.15524	19.76	0.09462	3.00	34.77	3.00	34.77	Passed
			16QAM	15	0	22.35	0.20	0.60	0.00	21.95	0.15668	19.80	0.09550	3.00	34.77	3.00	34.77	Passed
	23165	714.50	QPSK	1	0	22.61	0.20	0.60	0.00	22.21	0.16634	20.06	0.10139	3.00	34.77	3.00	34.77	Passed
				1	14	22.55	0.20	0.60	0.00	22.15	0.16406	20.00	0.10000	3.00	34.77	3.00	34.77	Passed
				8	0	21.50	0.20	0.60	0.00	21.10	0.12882	18.95	0.07852	3.00	34.77	3.00	34.77	Passed
				8	7	21.51	0.20	0.60	0.00	21.11	0.12912	18.96	0.07870	3.00	34.77	3.00	34.77	Passed
			16QAM	15	0	21.38	0.20	0.60	0.00	20.98	0.12531	18.83	0.07638	3.00	34.77	3.00	34.77	Passed
				1	0	23.51	0.20	0.60	0.00	23.11	0.20464	20.96	0.12474	3.00	34.77	3.00	34.77	Passed
				1	14	23.51	0.20	0.60	0.00	23.11	0.20464	20.96	0.12474	3.00	34.77	3.00	34.77	Passed
				8	0	23.69	0.20	0.60	0.00	23.29	0.21330	21.14	0.13002	3.00	34.77	3.00	34.77	Passed
			QPSK	8	7	22.62	0.20	0.60	0.00	22.22	0.16672	20.07	0.10162	3.00	34.77	3.00	34.77	Passed
				15	0	22.65	0.20	0.60	0.00	22.25	0.16788	20.10	0.10233	3.00	34.77	3.00	34.77	Passed
			16QAM	1	0	22.70	0.20	0.60	0.00	22.30	0.16982	20.15	0.10351	3.00	34.77	3.00	34.77	Passed
				1	14	22.79	0.20	0.60	0.00	22.39	0.17338	20.24	0.10568	3.00	34.77	3.00	34.77	Passed
				8	0	21.65	0.20	0.60	0.00	21.25	0.13335	19.10	0.08128	3.00	34.77	3.00	34.77	Passed
				8	7	21.78	0.20	0.60	0.00	21.38	0.13740	19.23	0.08375	3.00	34.77	3.00	34.77	Passed
			QPSK	15	0	21.72	0.20	0.60	0.00	21.32	0.13552	19.17	0.08260	3.00	34.77	3.00	34.77	Passed

ERP/EIRP: EUT External Antenna

LTE FDD Band 66																		
BW in MHz	Channel Nr.	ARFCN-Frequency (MHz)	Modulation	RB	Start RB	RMS Power at Antenna Port (dBm)	Maximum declared Antenna Gain(dBi)	Path loss to Antenna Connector	Path loss in Antenna Cable	EIRP in dBm	EIRP in Watt	ERP in dBm	ERP in Watt	FCC Limit(W), EIRP	FCC Limit (dBm); EIRP	ISED Limit(W), EIRP	ISED Limit (dBm), EIRP	Verdict
1.4	131979	1710.70	QPSK	1	0	23.03	2.80	0.89	1.80	23.14	0.20606	20.99	0.12560	1.00	30.00	1.00	30.00	Passed
				1	5	23.04	2.80	0.89	1.80	23.15	0.20654	21.00	0.12589	1.00	30.00	1.00	30.00	Passed
				3	0	23.10	2.80	0.89	1.80	23.21	0.20941	21.06	0.12764	1.00	30.00	1.00	30.00	Passed
				3	2	23.11	2.80	0.89	1.80	23.22	0.20989	21.07	0.12794	1.00	30.00	1.00	30.00	Passed
			16QAM	6	0	22.07	2.80	0.89	1.80	22.18	0.16520	20.03	0.10069	1.00	30.00	1.00	30.00	Passed
				1	0	21.98	2.80	0.89	1.80	22.09	0.16181	19.94	0.09863	1.00	30.00	1.00	30.00	Passed
				1	5	21.97	2.80	0.89	1.80	22.08	0.16144	19.93	0.09840	1.00	30.00	1.00	30.00	Passed
				3	0	22.02	2.80	0.89	1.80	22.13	0.16331	19.98	0.09954	1.00	30.00	1.00	30.00	Passed
				3	2	22.05	2.80	0.89	1.80	22.16	0.16444	20.01	0.10023	1.00	30.00	1.00	30.00	Passed
			QPSK	6	0	21.12	2.80	0.89	1.80	21.23	0.13274	19.08	0.08091	1.00	30.00	1.00	30.00	Passed
				1	0	22.92	2.80	0.89	1.80	23.03	0.20091	20.88	0.12246	1.00	30.00	1.00	30.00	Passed
				1	5	22.93	2.80	0.89	1.80	23.04	0.20137	20.89	0.12274	1.00	30.00	1.00	30.00	Passed
				3	0	22.90	2.80	0.89	1.80	23.01	0.19999	20.86	0.12190	1.00	30.00	1.00	30.00	Passed
	132422	1755.00	QPSK	3	2	22.96	2.80	0.89	1.80	23.07	0.20277	20.92	0.12359	1.00	30.00	1.00	30.00	Passed
				6	0	21.92	2.80	0.89	1.80	22.03	0.15959	19.88	0.09727	1.00	30.00	1.00	30.00	Passed
				1	0	22.12	2.80	0.89	1.80	22.23	0.16711	20.08	0.10186	1.00	30.00	1.00	30.00	Passed
				1	5	22.14	2.80	0.89	1.80	22.25	0.16788	20.10	0.10233	1.00	30.00	1.00	30.00	Passed
			16QAM	3	0	21.94	2.80	0.89	1.80	22.05	0.16032	19.90	0.09772	1.00	30.00	1.00	30.00	Passed
				3	2	22.01	2.80	0.89	1.80	22.12	0.16293	19.97	0.09931	1.00	30.00	1.00	30.00	Passed
				6	0	21.01	2.80	0.89	1.80	21.12	0.12942	18.97	0.07889	1.00	30.00	1.00	30.00	Passed
			QPSK	1	0	22.92	2.80	0.89	1.80	23.03	0.20091	20.88	0.12246	1.00	30.00	1.00	30.00	Passed
				1	5	23.00	2.80	0.89	1.80	23.11	0.20464	20.96	0.12474	1.00	30.00	1.00	30.00	Passed
				3	0	23.00	2.80	0.89	1.80	23.11	0.20464	20.96	0.12474	1.00	30.00	1.00	30.00	Passed
				3	2	23.06	2.80	0.89	1.80	23.17	0.20749	21.02	0.12647	1.00	30.00	1.00	30.00	Passed
3	131987	1711.50	QPSK	6	0	21.93	2.80	0.89	1.80	22.04	0.15996	19.89	0.09750	1.00	30.00	1.00	30.00	Passed
				1	0	22.21	2.80	0.89	1.80	22.32	0.17061	20.17	0.10399	1.00	30.00	1.00	30.00	Passed
				1	5	22.15	2.80	0.89	1.80	22.26	0.16827	20.11	0.10257	1.00	30.00	1.00	30.00	Passed
				3	0	21.95	2.80	0.89	1.80	22.06	0.16069	19.91	0.09795	1.00	30.00	1.00	30.00	Passed
			16QAM	3	2	21.98	2.80	0.89	1.80	22.09	0.16181	19.94	0.09863	1.00	30.00	1.00	30.00	Passed
				6	0	21.10	2.80	0.89	1.80	21.21	0.13213	19.06	0.08054	1.00	30.00	1.00	30.00	Passed
				1	0	23.14	2.80	0.89	1.80	23.25	0.21135	21.10	0.12882	1.00	30.00	1.00	30.00	Passed
				1	14	23.10	2.80	0.89	1.80	23.21	0.20941	21.06	0.12764	1.00	30.00	1.00	30.00	Passed
			QPSK	8	0	22.16	2.80	0.89	1.80	22.27	0.16866	20.12	0.10280	1.00	30.00	1.00	30.00	Passed
				8	7	22.16	2.80	0.89	1.80	22.27	0.16866	20.12	0.10280	1.00	30.00	1.00	30.00	Passed
				15	0	22.12	2.80	0.89	1.80	22.23	0.16711	20.08	0.10186	1.00	30.00	1.00	30.00	Passed
				1	0	22.32	2.80	0.89	1.80	22.43	0.17498	20.28	0.10666	1.00	30.00	1.00	30.00	Passed
	132422	1755.00	QPSK	1	14	22.30	2.80	0.89	1.80	22.41	0.17418	20.26	0.10617	1.00	30.00	1.00	30.00	Passed
				8	0	21.34	2.80	0.89	1.80	21.45	0.13964	19.30	0.08511	1.00	30.00	1.00	30.00	Passed
				8	7	21.33	2.80	0.89	1.80	21.44	0.13932	19.29	0.08492	1.00	30.00	1.00	30.00	Passed
				15	0	21.19	2.80	0.89	1.80	21.30	0.13490	19.15	0.08222	1.00	30.00	1.00	30.00	Passed
			16QAM	1	0	23.02	2.80	0.89	1.80	23.13	0.20559	20.98	0.12531	1.00	30.00	1.00	30.00	Passed
				1	14	23.01	2.80	0.89	1.80	23.12	0.20512	20.97	0.12503	1.00	30.00	1.00	30.00	Passed
				8	0	22.02	2.80	0.89	1.80	22.13	0.16331	19.98	0.09954	1.00	30.00	1.00	30.00	Passed
				8	7	22.00	2.80	0.89	1.80	22.11	0.16255	19.96	0.09908	1.00	30.00	1.00	30.00	Passed
			QPSK	15	0	22.04	2.80	0.89	1.80	22.15	0.16406	20.00	0.10000	1.00	30.00	1.00	30.00	Passed
				1	0	22.28	2.80	0.89	1.80	22.39	0.17338	20.24	0.10568	1.00	30.00	1.00	30.00	Passed
				1	14	22.20	2.80	0.89	1.80	22.31	0.17022	20.16	0.10375	1.00	30.00	1.00	30.00	Passed
				8	0	21.15	2.80	0.89	1.80	21.26	0.13366	19.11	0.08147	1.00	30.00	1.00	30.00	Passed
	132657	1778.50	QPSK	8	7	21.14	2.80	0.89	1.80	21.25	0.13335	19.10	0.08128	1.00	30.00	1.00	30.00	Passed
				15	0	21.03	2.80	0.89	1.80	21.14	0.13002	18.99	0.07925	1.00	30.00	1.00	30.00	Passed
				1	0	23.01	2.80	0.89	1.80	23.12	0.20512	20.97	0.12503	1.00	30.00	1.00	30.00	Passed
				1	14	23.14	2.80	0.89	1.80	23.25	0.21135	21.10	0.12882	1.00	30.00	1.00	30.00	Passed
			16QAM	8	0	22.01	2.80	0.89	1.80	22.12	0.16293	19.97	0.09931	1.00	30.00	1.00	30.00	Passed
				8	7	22.02	2.80	0.89	1.80	22.13	0.16331	19.98	0.09954	1.00	30.00	1.00	30.00	Passed
				15	0	22.06	2.80	0.89	1.80	22.17	0.16482	20.02	0.10046	1.00	30.00	1.00	30.00	Passed
				1	0	22.27	2.80	0.89	1.80	22.38	0.17298	20.23	0.10544	1.00	30.00	1.00	30.00	Passed
			QPSK	1	14	22.24	2.80	0.89	1.80	22.35	0.17179	20.20	0.10471	1.00	30.00	1.00	30.00	Passed
				8	0	21.15	2.80	0.89	1.80	21.26	0.13366	19.11	0.08147	1.00	30.00	1.00	30.00	Passed
				8	7	21.15	2.80	0.89	1.80	21.26	0.13366	19.11	0.08147	1.00	30.00	1.00	30.00	Passed
				15	0	21.10	2.80	0.89	1.80	21.21	0.13213	19.06	0.08054	1.00	30.00	1.00	30.00	Passed

5	131997	1712.50	QPSK	1	0	23.16	2.80	0.89	1.80	23.27	0.21232	21.12	0.12942	1.00	30.00	1.00	30.00	Passed		
				1	24	23.17	2.80	0.89	1.80	23.28	0.21281	21.13	0.12972	1.00	30.00	1.00	30.00	Passed		
				12	0	22.19	2.80	0.89	1.80	22.30	0.16982	20.15	0.10351	1.00	30.00	1.00	30.00	Passed		
				12	11	22.16	2.80	0.89	1.80	22.27	0.16866	20.12	0.10280	1.00	30.00	1.00	30.00	Passed		
				25	0	22.15	2.80	0.89	1.80	22.26	0.16827	20.11	0.10257	1.00	30.00	1.00	30.00	Passed		
			16QAM	1	0	22.28	2.80	0.89	1.80	22.39	0.17338	20.24	0.10568	1.00	30.00	1.00	30.00	Passed		
				1	24	22.29	2.80	0.89	1.80	22.40	0.17378	20.25	0.10593	1.00	30.00	1.00	30.00	Passed		
				12	0	21.20	2.80	0.89	1.80	21.31	0.13521	19.16	0.08241	1.00	30.00	1.00	30.00	Passed		
				12	11	21.19	2.80	0.89	1.80	21.30	0.13490	19.15	0.08222	1.00	30.00	1.00	30.00	Passed		
				25	0	21.14	2.80	0.89	1.80	21.25	0.13335	19.10	0.08128	1.00	30.00	1.00	30.00	Passed		
	132422	1755.00	QPSK	1	0	23.10	2.80	0.89	1.80	23.21	0.20941	21.06	0.12764	1.00	30.00	1.00	30.00	Passed		
				1	24	23.07	2.80	0.89	1.80	23.18	0.20797	21.03	0.12677	1.00	30.00	1.00	30.00	Passed		
				12	0	22.02	2.80	0.89	1.80	22.13	0.16331	19.98	0.09954	1.00	30.00	1.00	30.00	Passed		
				12	11	22.02	2.80	0.89	1.80	22.13	0.16331	19.98	0.09954	1.00	30.00	1.00	30.00	Passed		
				25	0	22.00	2.80	0.89	1.80	22.11	0.16255	19.96	0.09908	1.00	30.00	1.00	30.00	Passed		
			16QAM	1	0	22.16	2.80	0.89	1.80	22.27	0.16866	20.12	0.10280	1.00	30.00	1.00	30.00	Passed		
				1	24	22.13	2.80	0.89	1.80	22.24	0.16749	20.09	0.10209	1.00	30.00	1.00	30.00	Passed		
				12	0	21.13	2.80	0.89	1.80	21.24	0.13305	19.09	0.08110	1.00	30.00	1.00	30.00	Passed		
				12	11	21.16	2.80	0.89	1.80	21.27	0.13397	19.12	0.08166	1.00	30.00	1.00	30.00	Passed		
				25	0	21.08	2.80	0.89	1.80	21.19	0.13152	19.04	0.08017	1.00	30.00	1.00	30.00	Passed		
	132647	1777.50	QPSK	1	0	23.06	2.80	0.89	1.80	23.17	0.20749	21.02	0.12647	1.00	30.00	1.00	30.00	Passed		
				1	24	23.03	2.80	0.89	1.80	23.14	0.20606	20.99	0.12560	1.00	30.00	1.00	30.00	Passed		
				12	0	22.04	2.80	0.89	1.80	22.15	0.16406	20.00	0.10000	1.00	30.00	1.00	30.00	Passed		
				12	11	22.08	2.80	0.89	1.80	22.19	0.16558	20.04	0.10093	1.00	30.00	1.00	30.00	Passed		
				25	0	22.03	2.80	0.89	1.80	22.14	0.16368	19.99	0.09977	1.00	30.00	1.00	30.00	Passed		
			16QAM	1	0	22.48	2.80	0.89	1.80	22.59	0.18155	20.44	0.11066	1.00	30.00	1.00	30.00	Passed		
				1	24	22.48	2.80	0.89	1.80	22.59	0.18155	20.44	0.11066	1.00	30.00	1.00	30.00	Passed		
				12	0	21.00	2.80	0.89	1.80	21.11	0.12912	18.96	0.07870	1.00	30.00	1.00	30.00	Passed		
				12	11	21.00	2.80	0.89	1.80	21.11	0.12912	18.96	0.07870	1.00	30.00	1.00	30.00	Passed		
				25	0	21.11	2.80	0.89	1.80	21.22	0.13243	19.07	0.08072	1.00	30.00	1.00	30.00	Passed		
10	132022	1715.00	QPSK	1	0	23.17	2.80	0.89	1.80	23.28	0.21281	21.13	0.12972	1.00	30.00	1.00	30.00	Passed		
				1	24	23.12	2.80	0.89	1.80	23.23	0.21038	21.08	0.12823	1.00	30.00	1.00	30.00	Passed		
				1	49	23.13	2.80	0.89	1.80	23.24	0.21086	21.09	0.12853	1.00	30.00	1.00	30.00	Passed		
				25	0	22.17	2.80	0.89	1.80	22.28	0.16904	20.13	0.10304	1.00	30.00	1.00	30.00	Passed		
				25	24	22.18	2.80	0.89	1.80	22.29	0.16943	20.14	0.10328	1.00	30.00	1.00	30.00	Passed		
			16QAM	50	0	22.16	2.80	0.89	1.80	22.27	0.16866	20.12	0.10280	1.00	30.00	1.00	30.00	Passed		
				1	0	22.37	2.80	0.89	1.80	22.48	0.17701	20.33	0.10789	1.00	30.00	1.00	30.00	Passed		
				1	24	22.28	2.80	0.89	1.80	22.39	0.17338	20.24	0.10568	1.00	30.00	1.00	30.00	Passed		
				1	49	22.27	2.80	0.89	1.80	22.38	0.17298	20.23	0.10544	1.00	30.00	1.00	30.00	Passed		
				25	0	21.27	2.80	0.89	1.80	21.38	0.13740	19.23	0.08375	1.00	30.00	1.00	30.00	Passed		
			132422	1755.00	QPSK	25	24	21.24	2.80	0.89	1.80	21.35	0.13646	19.20	0.08318	1.00	30.00	1.00	30.00	Passed
						50	0	21.18	2.80	0.89	1.80	21.29	0.13459	19.14	0.08204	1.00	30.00	1.00	30.00	Passed
						1	0	23.08	2.80	0.89	1.80	23.19	0.20845	21.04	0.12706	1.00	30.00	1.00	30.00	Passed
						1	24	23.00	2.80	0.89	1.80	23.11	0.20464	20.96	0.12474	1.00	30.00	1.00	30.00	Passed
						1	49	23.00	2.80	0.89	1.80	23.11	0.20464	20.96	0.12474	1.00	30.00	1.00	30.00	Passed
	16QAM	25			0	22.06	2.80	0.89	1.80	22.17	0.16482	20.02	0.10046	1.00	30.00	1.00	30.00	Passed		
		25			24	22.03	2.80	0.89	1.80	22.14	0.16368	19.99	0.09977	1.00	30.00	1.00	30.00	Passed		
		50			0	22.05	2.80	0.89	1.80	22.16	0.16444	20.01	0.10023	1.00	30.00	1.00	30.00	Passed		
		1			0	22.29	2.80	0.89	1.80	22.40	0.17378	20.25	0.10593	1.00	30.00	1.00	30.00	Passed		
		1			24	22.23	2.80	0.89	1.80	22.34	0.17140	20.19	0.10447	1.00	30.00	1.00	30.00	Passed		
	132622	1775.00			QPSK	1	49	22.25	2.80	0.89	1.80	22.36	0.17219	20.21	0.10495	1.00	30.00	1.00	30.00	Passed
						25	0	21.10	2.80	0.89	1.80	21.21	0.13213	19.06	0.08054	1.00	30.00	1.00	30.00	Passed
						25	24	21.05	2.80	0.89	1.80	21.16	0.13062	19.01	0.07962	1.00	30.00	1.00	30.00	Passed
						50	0	21.03	2.80	0.89	1.80	21.14	0.13002	18.99	0.07925	1.00	30.00	1.00	30.00	Passed
						1	0	23.12	2.80	0.89	1.80	23.23	0.21038	21.08	0.12823	1.00	30.00	1.00	30.00	Passed
			16QAM	1	24	23.04	2.80	0.89	1.80	23.15	0.20654	21.00	0.12589	1.00	30.00	1.00	30.00	Passed		
				1	49	23.07	2.80	0.89	1.80	23.18	0.20797	21.03	0.12677	1.00	30.00	1.00	30.00	Passed		
				25	0	22.08	2.80	0.89	1.80	22.19	0.16558	20.04	0.10093	1.00	30.00	1.00	30.00	Passed		
				25	24	22.08	2.80	0.89	1.80	22.19	0.16558	20.04	0.10093	1.00	30.00	1.00	30.00	Passed		
				50	0	22.12	2.80	0.89	1.80	22.23	0.16711	20.08	0.10186	1.00	30.00	1.00	30.00	Passed		
1				0	22.26	2.80	0.89	1.80	22.37	0.17258	20.22	0.10520	1.00	30.00	1.00	30.00	Passed			
1				24	22.23	2.80	0.89	1.80	22.34	0.17140	20.19	0.10447	1.00	30.00	1.00	30.00	Passed			
1				49	22.24	2.80	0.89	1.80	22.35	0.17179	20.20	0.10471	1.00	30.00	1.00	30.00	Passed			
25				0	21.17	2.80	0.89	1.80	21.28	0.13428	19.13	0.08185	1.00	30.00	1.00	30.00	Passed			
25				24	21.17	2.80	0.89	1.80	21.28	0.13428	19.13	0.08185	1.00	30.00	1.00	30.00	Passed			
50	0	21.06	2.80	0.89	1.80	21.17	0.13092	19.02	0.07980	1.00	30.00	1.00	30.00	Passed						

15	132047	1717.50	QPSK	1	0	23.23	0.20	0.60	0.00	22.83	0.19187	20.68	0.11695	1.00	30.00	1.00	30.00	Passed			
				1	37	23.07	0.20	0.60	0.00	22.67	0.18493	20.52	0.11272	1.00	30.00	1.00	30.00	Passed			
				1	74	23.14	0.20	0.60	0.00	22.74	0.18793	20.59	0.11455	1.00	30.00	1.00	30.00	Passed			
				36	0	22.22	0.20	0.60	0.00	21.82	0.15205	19.67	0.09268	1.00	30.00	1.00	30.00	Passed			
				36	37	22.21	0.20	0.60	0.00	21.81	0.15171	19.66	0.09247	1.00	30.00	1.00	30.00	Passed			
				75	0	22.22	0.20	0.60	0.00	21.82	0.15205	19.67	0.09268	1.00	30.00	1.00	30.00	Passed			
			16QAM	1	0	22.49	0.20	0.60	0.00	22.09	0.16181	19.94	0.09863	1.00	30.00	1.00	30.00	Passed			
				1	37	22.24	0.20	0.60	0.00	21.84	0.15276	19.69	0.09311	1.00	30.00	1.00	30.00	Passed			
				1	74	22.35	0.20	0.60	0.00	21.95	0.15668	19.80	0.09550	1.00	30.00	1.00	30.00	Passed			
				36	0	21.27	0.20	0.60	0.00	20.87	0.12218	18.72	0.07447	1.00	30.00	1.00	30.00	Passed			
				36	37	21.21	0.20	0.60	0.00	20.81	0.12050	18.66	0.07345	1.00	30.00	1.00	30.00	Passed			
15	132422	1755.00	QPSK	1	0	23.16	0.20	0.60	0.00	22.76	0.18880	20.61	0.11508	1.00	30.00	1.00	30.00	Passed			
				1	37	23.00	0.20	0.60	0.00	22.60	0.18197	20.45	0.11092	1.00	30.00	1.00	30.00	Passed			
				1	74	23.09	0.20	0.60	0.00	22.69	0.18578	20.54	0.11324	1.00	30.00	1.00	30.00	Passed			
				36	0	22.08	0.20	0.60	0.00	21.68	0.14723	19.53	0.08974	1.00	30.00	1.00	30.00	Passed			
				36	37	22.03	0.20	0.60	0.00	21.63	0.14555	19.48	0.08872	1.00	30.00	1.00	30.00	Passed			
				75	0	22.04	0.20	0.60	0.00	21.64	0.14588	19.49	0.08892	1.00	30.00	1.00	30.00	Passed			
			16QAM	1	0	22.43	0.20	0.60	0.00	22.03	0.15959	19.88	0.09727	1.00	30.00	1.00	30.00	Passed			
				1	37	22.21	0.20	0.60	0.00	21.81	0.15171	19.66	0.09247	1.00	30.00	1.00	30.00	Passed			
				1	74	22.31	0.20	0.60	0.00	21.91	0.15524	19.76	0.09462	1.00	30.00	1.00	30.00	Passed			
				36	0	21.14	0.20	0.60	0.00	20.74	0.11858	18.59	0.07228	1.00	30.00	1.00	30.00	Passed			
				36	37	21.10	0.20	0.60	0.00	20.70	0.11749	18.55	0.07161	1.00	30.00	1.00	30.00	Passed			
15	132597	1772.50	QPSK	1	0	23.21	0.20	0.60	0.00	22.81	0.19099	20.66	0.11641	1.00	30.00	1.00	30.00	Passed			
				1	37	23.02	0.20	0.60	0.00	22.62	0.18281	20.47	0.11143	1.00	30.00	1.00	30.00	Passed			
				1	74	23.09	0.20	0.60	0.00	22.69	0.18578	20.54	0.11324	1.00	30.00	1.00	30.00	Passed			
				36	0	22.12	0.20	0.60	0.00	21.72	0.14859	19.57	0.09057	1.00	30.00	1.00	30.00	Passed			
				36	37	22.05	0.20	0.60	0.00	21.65	0.14622	19.50	0.08913	1.00	30.00	1.00	30.00	Passed			
			16QAM	75	0	22.10	0.20	0.60	0.00	21.70	0.14791	19.55	0.09016	1.00	30.00	1.00	30.00	Passed			
				1	0	22.14	0.20	0.60	0.00	21.74	0.14928	19.59	0.09099	1.00	30.00	1.00	30.00	Passed			
				1	37	22.01	0.20	0.60	0.00	21.61	0.14488	19.46	0.08831	1.00	30.00	1.00	30.00	Passed			
				1	74	22.03	0.20	0.60	0.00	21.63	0.14555	19.48	0.08872	1.00	30.00	1.00	30.00	Passed			
				36	0	21.11	0.20	0.60	0.00	20.71	0.11776	18.56	0.07178	1.00	30.00	1.00	30.00	Passed			
20	132072	1720.00	QPSK	36	37	21.15	0.20	0.60	0.00	20.75	0.11885	18.60	0.07244	1.00	30.00	1.00	30.00	Passed			
				75	0	21.04	0.20	0.60	0.00	20.64	0.11588	18.49	0.07063	1.00	30.00	1.00	30.00	Passed			
				1	0	23.32	0.20	0.60	0.00	22.92	0.19588	20.77	0.11940	1.00	30.00	1.00	30.00	Passed			
				1	49	23.13	0.20	0.60	0.00	22.73	0.18750	20.58	0.11429	1.00	30.00	1.00	30.00	Passed			
				1	99	23.09	0.20	0.60	0.00	22.69	0.18578	20.54	0.11324	1.00	30.00	1.00	30.00	Passed			
			16QAM	50	0	22.27	0.20	0.60	0.00	21.87	0.15382	19.72	0.09376	1.00	30.00	1.00	30.00	Passed			
				50	49	22.22	0.20	0.60	0.00	21.82	0.15205	19.67	0.09268	1.00	30.00	1.00	30.00	Passed			
				100	0	22.23	0.20	0.60	0.00	21.83	0.15241	19.68	0.09290	1.00	30.00	1.00	30.00	Passed			
				1	0	22.35	0.20	0.60	0.00	21.95	0.15668	19.80	0.09550	1.00	30.00	1.00	30.00	Passed			
				1	49	22.21	0.20	0.60	0.00	21.81	0.15171	19.66	0.09247	1.00	30.00	1.00	30.00	Passed			
20	132422	1755.00	QPSK	1	99	22.17	0.20	0.60	0.00	21.77	0.15031	19.62	0.09162	1.00	30.00	1.00	30.00	Passed			
				50	0	21.25	0.20	0.60	0.00	20.85	0.12162	18.70	0.07413	1.00	30.00	1.00	30.00	Passed			
				50	49	21.19	0.20	0.60	0.00	20.79	0.11995	18.64	0.07311	1.00	30.00	1.00	30.00	Passed			
				100	0	21.24	0.20	0.60	0.00	20.84	0.12134	18.69	0.07396	1.00	30.00	1.00	30.00	Passed			
			16QAM	1	0	23.23	0.20	0.60	0.00	22.83	0.19187	20.68	0.11695	1.00	30.00	1.00	30.00	Passed			
				1	49	23.07	0.20	0.60	0.00	22.67	0.18493	20.52	0.11272	1.00	30.00	1.00	30.00	Passed			
				1	99	23.15	0.20	0.60	0.00	22.75	0.18836	20.60	0.11482	1.00	30.00	1.00	30.00	Passed			
				50	0	22.11	0.20	0.60	0.00	21.71	0.14825	19.56	0.09036	1.00	30.00	1.00	30.00	Passed			
				50	49	22.07	0.20	0.60	0.00	21.67	0.14689	19.52	0.08954	1.00	30.00	1.00	30.00	Passed			
20	132572	1770.00	QPSK	100	0	22.07	0.20	0.60	0.00	21.67	0.14689	19.52	0.08954	1.00	30.00	1.00	30.00	Passed			
				1	0	22.55	0.20	0.60	0.00	22.15	0.16406	20.00	0.10000	1.00	30.00	1.00	30.00	Passed			
				1	49	22.42	0.20	0.60	0.00	22.02	0.15922	19.87	0.09705	1.00	30.00	1.00	30.00	Passed			
				1	99	22.51	0.20	0.60	0.00	22.11	0.16255	19.96	0.09908	1.00	30.00	1.00	30.00	Passed			
				50	0	21.09	0.20	0.60	0.00	20.69	0.11722	18.54	0.07145	1.00	30.00	1.00	30.00	Passed			
			16QAM	50	49	21.07	0.20	0.60	0.00	20.67	0.11668	18.52	0.07112	1.00	30.00	1.00	30.00	Passed			
				100	0	21.11	0.20	0.60	0.00	20.71	0.11776	18.56	0.07178	1.00	30.00	1.00	30.00	Passed			
				1	0	23.13	0.20	0.60	0.00	22.73	0.18750	20.58	0.11429	1.00	30.00	1.00	30.00	Passed			
				1	49	22.99	0.20	0.60	0.00	22.59	0.18155	20.44	0.11066	1.00	30.00	1.00	30.00	Passed			
				1	99	23.05	0.20	0.60	0.00	22.65	0.18408	20.50	0.11220	1.00	30.00	1.00	30.00	Passed			
EIRP= RMS Power at Antenna Port + Maximum declared Antenna Gain - Path loss to Antenna Connector - Path loss in Antenna Cable																					
ERP = EIRP - 2.15																					

Remarks:

- Radiated RF output power has been calculated based upon Conducted Power Verification.
- Initial Module Conducted Power has been taken to calculate ERP and EIRP.
- For Antenna Gain and Path Loss data sheet please check the document” **MPE Information Requirements NA_103360002_1.2**”.
- For Initial Module Conducted Power, please check the module Report,
 - Module Test Report FCC ID: QIPALAS5V-US
 - Module Test Report IC ID: 7830A-ALAS5VUS

5.1.5. PAPR-results

According KDB 971168D01 v03r01 two method are allowed.

☐ Chapter 5.7.2 Sub clause 5.2.3.4 of ANSI C63.26-2015 CCDF-Method (0.1% probability)

☒ Chapter 5.7.3: Sub clause 5.2.6 of ANSI C63.26-2015 [PAPR (dB)= P_{PK} (dBm or dBW) – P_{Avg} (dBm or dBW)]

5.1.6. Measurement Results

LTE Band 12(Internal Antenna)

LTE Band 12	Set-up No	Op mode	Peak Power (dBm)	RMS Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	ERP (dBm)	Limit ERP (dBm)	Margin (dB)	Result
Power (dBm)	1	1	26.23	22.48	0,2 dB	22.08	19.93	34.7	14.77	passed
PAPR (dB)	1	1	3.75		--	--	--	13	9.25	passed

Remark: please see chapter 3.1 for EIRP and ERP Calculation.

LTE Band 12(External Antenna)

LTE Band 12	Set-up No	Op mode	Peak Power (dBm)	RMS Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	ERP (dBm)	Limit ERP (dBm)	Margin (dB)	Result
Power (dBm)	1	1	26.23	22.48	-3,9 dB	16.81	14.66	34.7	20.04	passed
PAPR (dB)	1	1	3.75		--	--	--	13	7.59	passed

Remark: please see chapter 3.1 for EIRP and ERP Calculation.

5.1.6.1. Conclusion

- ☒ Conducted RF output power – pass
- ☒ Radiated RF output power – pass
- ☒ PAPR <13dB – pass

5.2. General Limit - Radiated field strength emissions below 30 MHz

5.2.1. Test location and equipment

test location	☒ CETECOM Essen (Chapter. 2.2.1)	☐ Please see Chapter. 2.2.2	☐ Please see Chapter. 2.2.3
test site	☒ 441 EMI SAR	☐ 487 SAR NSA	☐ 347 Radio.lab.
receiver	☐ 377 ESCS30	☒ 001 ESS	☐
spectr. analys.	☐ 584 FSU	☐ 120 FSEM	☐ 264 FSEK
antenna	☐ 574 BTA-L	☐ 133 EMCO3115	☐ 302 BBHA9170
signaling	☐ 392 MT8820A	☐ 371 CBT32	☐ 547 CMU
otherwise	☐ 400 FTC40x15E	☐ 401 FTC40x15E	☐ 110 USB LWL
Power supply	☒ 456 EA 3013A	☐ 457 EA 3013A	☐ 459 EA 2032-50
DC voltage	☒ 13.8 V DC	☐ 060 120 V/ 60 Hz via PAS 5000	☐ 289 CBL 6141
			☒ 021 EMCO 6502
			☐ 477 GPS
			☐ 482 Filter Matrix
			☐ 378 RadiSense
			☐ 494 AG6632A
			☐ 498 NGPE 40

5.2.2. Requirements

FCC	§15.205, §15.209			
ISED	RSS-Gen: Issue 5: §8.9 Table 6			
ANSI	ANSI C63.4-2014 §5.3, §8.2.1, §8.3.1.1+§8.3.2.1			
Frequency [MHz]	Field strength limit		Distance [m]	Remarks
	[µV/m]	[dBµV/m]		
0.009 – 0.490	2400/f (kHz)	67.6 – 20Log(f) (kHz)	300	Correction factor used due to measurement distance of 3 m
0.490 – 1.705	24000/f (kHz)	87.6 – 20Log(f) (kHz)	30	Correction factor used due to measurement distance of 3 m
1.705 – 30	30	29.5	30	Correction factor used due to measurement distance of 3 m

5.2.3. Test condition and test set-up

Signal link to test system (if used):	☐ air link	☐ cable connection	☒ none
EUT-grounding	☒ none	☐ with power supply	☐ additional connection
Equipment set up	☒ table top	☐ floor standing	
Climatic conditions	Temperature: (22±3°C) Rel. humidity: (40±20)%		
EMI-Receiver or Analyzer Settings	Scan data	☒ 9 – 150 kHz RBW/VBW = 200 Hz Scan step = 80 Hz ☒ 150 kHz – 30 MHz RBW/VBW = 9 kHz Scan step = 4 kHz ☐ other:	
	Scan-Mode	☒ 6 dB EMI-Receiver Mode ☐ 3dB Spectrum analyser Mode	
	Detector	Peak (pre-measurement) and Quasi-PK/Average (final if applicable)	
	Mode: Sweep-Time	Repetitive-Scan, max-hold Coupled – calibrated display if continuous signal otherwise adapted to EUT's individual transmission duty-cycle	
General measurement procedures		Please see chapter "Test system set-up radiated magnetic field measurements below 30 MHz"	

5.2.4. Measurement Results

Table of measurement results:

Diagram No.	Carrier Channel		Frequency range	Set-up no.	OP-mode no.	Remark	Used detector			Result
	Band	No.					PK	AV	QP	
2.01	12	23155	9 kHz-30 MHz	2	1	EUT Laying position	☒	☐	☐	passed
2.02	12	23155	9 kHz-30 MHz	2	1	EUT Standing position	☒	☐	☐	passed
2.03	12	23155	9 kHz-30 MHz	1	1	EUT Laying position	☒	☐	☐	passed
2.04	12	23155	9 kHz-30 MHz	1	1	EUT Standing position	☒	☐	☐	passed

Remark 1: For measurements diagram, please see Annex A1(18-1-0097201T19a-A1)

5.2.5. Correction factors due to reduced meas. distance ($f < 30$ MHz)

The used correction factors when the measurement distance is reduced compared to regulatory measurement distance, are calculated according Extrapolation formulas valid for EUT's with maximum dimension of $0.625 \times \text{Lambda}$. Formula 2+3+4 as presented in ANSI C63.10, Chapter 6.4.4 are used for the calculations of proper extrapolation factors.

Frequency -Range	f [kHz/MHz]	Lambda [m]	Far-Field Point [m]	Distance Limit accord. 15.209 [m]	1st Condition (dmeas < D _{near-field})	2te Condition (Limit distance bigger d _{near-field})	Distance Correction accord. Formula
kHz	9,00E+03	33333,33	5305,17	300	fulfilled	not fulfilled	-80,00
	1,00E+04	30000,00	4774,65		fulfilled	not fulfilled	-80,00
	2,00E+04	15000,00	2387,33		fulfilled	not fulfilled	-80,00
	3,00E+04	10000,00	1591,55		fulfilled	not fulfilled	-80,00
	4,00E+04	7500,00	1193,66		fulfilled	not fulfilled	-80,00
	5,00E+04	6000,00	954,93		fulfilled	not fulfilled	-80,00
	6,00E+04	5000,00	795,78		fulfilled	not fulfilled	-80,00
	7,00E+04	4285,71	682,09		fulfilled	not fulfilled	-80,00
	8,00E+04	3750,00	596,83		fulfilled	not fulfilled	-80,00
	9,00E+04	3333,33	530,52		fulfilled	not fulfilled	-80,00
	1,00E+05	3000,00	477,47		fulfilled	not fulfilled	-80,00
	1,25E+05	2400,00	381,97		fulfilled	not fulfilled	-80,00
	2,00E+05	1500,00	238,73		fulfilled	not fulfilled	-78,02
	3,00E+05	1000,00	159,16		fulfilled	fulfilled	-74,49
	4,00E+05	750,00	119,37		fulfilled	fulfilled	-72,00
	4,90E+05	612,24	97,44		fulfilled	fulfilled	-70,23
	5,00E+05	600,00	95,49		fulfilled	not fulfilled	-40,00
	6,00E+05	500,00	79,58		fulfilled	not fulfilled	-40,00
	7,00E+05	428,57	68,21		fulfilled	not fulfilled	-40,00
	8,00E+05	375,00	59,68		fulfilled	not fulfilled	-40,00
	9,00E+05	333,33	53,05		fulfilled	not fulfilled	-40,00
MHz	1,00	300,00	47,75	30	fulfilled	not fulfilled	-40,00
	1,59	188,50	30,00		fulfilled	not fulfilled	-40,00
	2,00	150,00	23,87		fulfilled	fulfilled	-38,02
	3,00	100,00	15,92		fulfilled	fulfilled	-34,49
	4,00	75,00	11,94		fulfilled	fulfilled	-32,00
	5,00	60,00	9,55		fulfilled	fulfilled	-30,06
	6,00	50,00	7,96		fulfilled	fulfilled	-28,47
	7,00	42,86	6,82		fulfilled	fulfilled	-27,13
	8,00	37,50	5,97		fulfilled	fulfilled	-25,97
	9,00	33,33	5,31		fulfilled	fulfilled	-24,95
	10,00	30,00	4,77		fulfilled	fulfilled	-24,04
	10,60	28,30	4,50		fulfilled	fulfilled	-23,53
	11,00	27,27	4,34		fulfilled	fulfilled	-23,21
	12,00	25,00	3,98		fulfilled	fulfilled	-22,45
	13,56	22,12	3,52		fulfilled	fulfilled	-21,39
	15,00	20,00	3,18		fulfilled	fulfilled	-20,51
	15,92	18,85	3,00		fulfilled	fulfilled	-20,00
	17,00	17,65	2,81		not fulfilled	fulfilled	-20,00
	18,00	16,67	2,65		not fulfilled	fulfilled	-20,00
	20,00	15,00	2,39		not fulfilled	fulfilled	-20,00
	21,00	14,29	2,27		not fulfilled	fulfilled	-20,00
	23,00	13,04	2,08		not fulfilled	fulfilled	-20,00
	25,00	12,00	1,91		not fulfilled	fulfilled	-20,00
	27,00	11,11	1,77		not fulfilled	fulfilled	-20,00
	29,00	10,34	1,65		not fulfilled	fulfilled	-20,00
	30,00	10,00	1,59		not fulfilled	fulfilled	-20,00

5.3. RF-Parameter - Radiated out of Band RF emissions and Band Edge

5.3.1. Test location and equipment (for reference numbers please see chapter 'List of test equipment')

test location	☒ CETECOM Essen (Chapter. 2.2.1)	☐ Please see Chapter. 2.2.2	☐ Please see Chapter. 2.2.3
test site	☐ 441 EMI SAR ☐ 487 SAR NSA ☒ 443 FAR ☐ 347 Radio.lab.1 ☐ 347 Radio.lab.2		
receiver	☐ 377 ESCS30 ☐ 001 ESS ☐ 489 ESU 40 ☐ ESU 26		
spectr. analys.	☒ 584 FSU ☐ 120 FSEM ☐ 264 FSEK		
antenna	☒ 608 HL 562 ☒ 549 HL 025 ☐ 302 BBHA9170 ☐ 289 CBL 6141 ☐ 030 HFH-Z2 ☐ 477 GPS		
signaling	☐ 017 CMD 65 ☐ 323 CMD 55 ☐ 340 CMD 55		
signaling	☐ 392 MT8820A ☐ 546 CMU ☐ 547 CMU ☒ 757 CMW		
power supply	☒ 611 E3632A ☐ 457 EA 3013A ☐ 459 EA 2032-50 ☐ 268 EA- 3050 ☐ 494 AG6632A ☐ 498 NGPE 40		
otherwise	☐ 529 6dB divider ☐ 530 6dB Att. ☐ 110 USB LWL ☐ 482 Filter Matrix ☐ 431 Near field		
DC voltage	☒ 13.8 V DC	☐ 060 120 V/ 60 Hz via PAS 5000	

5.3.2. Requirements and limits

FCC	General: §2.1053(a) , §2.1057(a) ☒ LTE Band 12: Part 27: §27.53(g)
ISED	☒ FDD Band 12: RSS-130, Issue 2: 4.7.1
Limit	„the power of emissions shall be attenuated below the transmitter output power (p) by at least 43+10Log(P) dB“ -> Resulting limits for all power levels of the Mobile Phone: -13dBm

5.3.3. Test condition and test set-up

link to test system (if used):	☐ air link ☐ cable connection ☒ none
EUT-grounding	☒ none ☐ with power supply ☐ additional connection
Equipment set up	☒ table top ☐ floor standing
Climatic conditions	Temperature: (22±3°C) Rel. humidity: (40±20)%
Test system set-up	Please see chapter “Test system set-up for radiated spurious emission measurements up to 20 GHz”
Spectrum Analyzer Settings	Parameter: Scan Mode RBW VBW Sweep time Sweep mode Detector Spectrum analyzer mode 100 kHz 300 kHz Coupled (Auto) repetitive Peak
Measurement method	The spectrum was scanned from 9 kHz to the 10th harmonic of the highest frequency generated within the equipment. A PEAK detector was used except measurements near the Band-Edge where an AVERAGE detector applied when results are critical (low margin or limit exceed). Tests have been performed in various settings for the device regarding allocated resource blocks and channels in order to find worst-case configuration. Due to very big amount of possible combinations only certain combinations have been tested.
Mobile phone settings	A call was established on highest power transmit conditions in RMC mode. MPR was deactivated. The measurements were made at the low, middle or high carrier frequencies of worst case(found from RF power conducted measurements)of the supported operating band within the designated range within the allowed channel bandwidths. Choosing three TX-carrier frequencies of the mobile phone, should be sufficient to demonstrate compliance.

Spectrum-analyzer settings for LTE Band 12

	Start freq. MHz	Stop freq. MHz	R-BW kHz	V-BW kHz	Sweep time sec.	Att.	Detector
Sweep 1 (subrange 1)	30	1000	100	300	10	10	MaxH-PK
Sweep 1 (subrange 2)	1000	2800	100	300	15	0	MaxH-PK
Sweep 1 (subrange 3)	2800	9000	100	300	160	10	MaxH-PK
Sweep 2 (Band-Edge)	697	698	50	300	30	35	MaxH-PK
Sweep 3 (Band-Edge)	716	717	50	300	30	35	MaxH-PK

5.3.4. Spurious Results

The results are presented below in summary form only.

For more information please see the diagrams enclosed in annex 1. (18-1-0097201T19a-A1)

Dia-gram no.	Carrier Channel					Frequency range	Set – up no.	OP-mode no.	Remark	Used detector			Result
	Band	BW.	Mod	RB	CH					PK	AV	QP	
LTE B12 + EUT Internal Antenna													
8.01	12	5	QPSK	1	23155	30 MHz to 9 GHz	2	1	Carrier visible on diagram. Not relevant to results	☒	☐	☐	passed
8.02	12	5	QPSK	1	23155	30 MHz to 9 GHz	2	1	Carrier visible on diagram. Not relevant to results	☒	☐	☐	passed
LTE B12 + EUT External Antenna													
8.03	12	5	QPSK	1	23155	30 MHz to 9 GHz	1	1	Carrier visible on diagram. Not relevant to results	☒	☐	☐	passed
8.04	12	5	QPSK	1	23155	30 MHz to 9 GHz	1	1	Carrier visible on diagram. Not relevant to results	☒	☐	☐	passed

5.3.5. Band Edge Results

The results are presented below in summary form only.
For more information please see the diagrams enclosed in annex 1

Dia-gram no.	Carrier Channel				Frequency range	Set – up no.	OP-mode no.	Band Edge	Used detector		Result
	BW (MHz)	Mod	RB	CH					PK	RMS	
LTE B12 + EUT Internal Antenna											
9.1201a	5	QPSK	1_RB_Pos_low	23017	697MHz-698MHz	2	1	Low	☐	☒	passed
9.1201b	5	QPSK	1_RB_Pos_low	23017	697MHz-698MHz	2	1	Low	☐	☒	passed
9.1202a	5	QPSK	25	23017	697MHz-698MHz	2	1	Low	☐	☒	passed
9.1202b	5	QPSK	25	23017	697MHz-698MHz	2	1	Low	☐	☒	passed
9.1203a	5	QPSK	1_RB_Pos_high	23173	716MHz-717MHz	2	1	High	☐	☒	passed
9.1203b	5	QPSK	1_RB_Pos_high	23173	716MHz-717MHz	2	1	High	☐	☒	passed
9.1204a	5	QPSK	25	23173	716MHz-717MHz	2	1	High	☐	☒	passed
9.1204b	5	QPSK	25	23173	716MHz-717MHz	2	1	High	☐	☒	passed
LTE B12 + EUT External Antenna											
9.1205a	5	QPSK	1_RB_Pos_low	23017	697MHz-698MHz	1	1	Low	☐	☒	passed
9.1205b	5	QPSK	1_RB_Pos_low	23017	697MHz-698MHz	1	1	Low	☐	☒	passed
9.1206a	5	QPSK	25	23017	697MHz-698MHz	1	1	Low	☐	☒	passed
9.1206b	5	QPSK	25	23017	697MHz-698MHz	1	1	Low	☐	☒	passed
9.1207a	5	QPSK	1_RB_Pos_high	23173	716MHz-717MHz	1	1	High	☐	☒	passed
9.1207b	5	QPSK	1_RB_Pos_high	23173	716MHz-717MHz	1	1	High	☐	☒	passed
9.1208a	5	QPSK	25	23173	716MHz-717MHz	1	1	High	☐	☒	passed
9.1208b	5	QPSK	25	23173	716MHz-717MHz	1	1	High	☐	☒	passed

5.4. Measurement uncertainties

The reported uncertainties are calculated based on the standard uncertainty multiplied with the appropriate coverage factor **k**, such that a confidence level of approximately 95% is achieved.

For uncertainty determination, each component used in the concrete measurement set-up was taken in account and its contribution to the overall uncertainty according its statistical distribution calculated.

Following table shows expectable uncertainties for each measurement type performed.

RF-Measurement	Reference	Frequency range	Calculated uncertainty based on a confidence level of 95%							Remarks
Conducted emissions (U _{CISPR})	CISPR 16-2-1	9 kHz - 150 kHz 150 kHz - 30 MHz	4.0 dB 3.6 dB							-
Radiated emissions Enclosure	CISPR 16-2-3	30 MHz - 1 GHz 1 GHz - 18 GHz	4.2 dB 5.1 dB							E-Field
Disturbance power	CISPR 16-2-2	30 MHz - 300 MHz	-							-
Power Output radiated	-	30 MHz - 4 GHz	3.17 dB							Substitution method
Power Output conducted	-	Set-up No.	Cel-C1	Cel-C2	BT1	W1	W2	--	-	
		9 kHz - 12.75 GHz	N/A	0.60	0.7	0.25	N/A	--		
		12.75 - 26.5GHz	N/A	0.82	--	N/A	N/A	--		
Conducted emissions on RF-port	-	9 kHz - 2.8 GHz	0.70	N/A	0.70	N/A	0.69	--	N/A - not applicable	
		2.8 GHz - 12.75GHz	1.48	N/A	1.51	N/A	1.43	--		
		12.75 GHz - 18GHz	1.81	N/A	1.83	N/A	1.77	--		
		18 GHz - 26.5GHz	1.83	N/A	1.85	N/A	1.79	--		
Power density	-	1 – 2.8GHz	1.40 dB							--
Occupied bandwidth	-	9 kHz - 4 GHz	0.1272 ppm (Delta Marker)							Frequency error
			1.0 dB							Power
Emission bandwidth	-	9 kHz - 4 GHz	0.1272 ppm (Delta Marker)							Frequency error
	-		See above: 0.70 dB							Power
Frequency stability	-	9 kHz - 20 GHz	0.0636 ppm							-
Radiated emissions Enclosure	-	150 kHz - 30 MHz	5.0 dB							Magnetic field E-field Substitution
		30 MHz - 1 GHz	4.2 dB							
		1 GHz - 20 GHz	3.17 dB							

Table: measurement uncertainties, valid for conducted/radiated measurements

6. Abbreviations used in this report

The abbreviations	
ANSI	American National Standards Institute
AV , AVG, CAV	Average detector
EIRP	Equivalent isotropically radiated power, determined within a separate measurement
EGPRS	Enhanced General Packet Radio Service
EUT	Equipment Under Test
FCC	Federal Communications Commission, USA
IC	Industry Canada
n.a.	not applicable
Op-Mode	Operating mode of the equipment
PK	Peak
RBW	resolution bandwidth
RF	Radio frequency
RSS	Radio Standards Specification, Documents from Industry Canada
Rx	Receiver
TCH	Traffic channel
Tx	Transmitter
QP	Quasi peak detector
VBW	Video bandwidth
ERP	Effective radiated power

7. Accreditation details of CETECOM's laboratories and test sites

Ref.-No.	Accreditation Certificate	Valid for laboratory area or test site	Accreditation Body
-	D-PL-12047-01-01	All laboratories and test sites of CETECOM GmbH, Essen	DAkkS, Deutsche Akkreditierungsstelle GmbH
337 487 558 348 348	(MRA US-EU 0003)	Radiated Measurements 30 MHz to 1 GHz, 3 m / 10 m (OATS) Radiated Measurements 30 MHz to 1 GHz, 3 m (SAR) Radiated Measurements above 1 GHz, 3 m (FAR) Mains Ports Conducted Interference Measurements Telecommunication Ports Conducted Interference Measurem.	FCC, Federal Communications Commission Laboratory Division, USA
337 487 550 558	3462D-1 3462D-2 3462D-2 3462D-3	Radiated Measurements 30 MHz to 1 GHz, 3 m / 10 m (OATS) Radiated Measurements 30 MHz to 1 GHz, 3 m (SAR) Radiated Measurements 1 GHz to 6 GHz, 3 m (SAR) Radiated Measurements above 1 GHz, 3 m (FAR)	ISED, Industry Canada Certification and Engineering Bureau
487 550 348 348	R- 4452 G- 20013 C- 20009 T- 20006	Radiated Measurements 30 MHz to 1 GHz, 3 m (SAR) Radiated Measurements 1 GHz to 6 GHz, 3 m (SAR) Mains Ports Conducted Interference Measurements Telecommunication Ports Conducted Interference Measurem.	VCCI, Voluntary Control Council for Interference by Information Technology Equipment, Japan
OATS = Open Area Test Site, SAR = Semi Anechoic Room, FAR = Fully Anechoic Room			

8. Instruments and Ancillary

The “Ref.-No” in the left column of the following tables allows the clear identification of the laboratory equipment.

8.0.1. Test software and firmware of equipment

Ref.-No.	Equipment	Type	Serial-No.	Version of Firmware or Software during the test
012	Signal Generator (EMS-cond.)	SMY 01	839069/027	Firm.= V 2.02
013	Power Meter (EMS cond.)	NRVD	839111/003	Firm.= V 1.51
017	Digital Radiocommunication Tester	CMD 60 M	844365/014	Firmware = V 3.52 .22.01.99, DECT = D2.87 13.01.99
119	RT Harmonics Analyzer dig. Flickermeter	B10	G60547	Firm.= V 3.1DHG
261	Thermal Power Sensor	NRV-Z55	825083/0008	EPROM-Datum 02.12.04, SE EE 1 B
262	Power Meter	NRV-S	825770/0010	Firm.= 2.6
295	Racal Digital Radio Test Set	6103	1572	UNIT Firmware= 4.04, SW-Main=4.04, SW-BBP=1.04, SW-DSP=1.02, Hardboot=1.02, Softboot=2.02
298	Univ. Radio Communication Tester	CMU 200	832221/091	R&S Test Firmware =3.53 /3.54 (current Testsoftw. f. all band used
323	Digital Radiocommunication Tester	CMD 55	825878/0034	Firm.= 3.52 .22.01.99
335	CTC-EMS-Conducted	System EMS Conducted	-	EMC 32 V 8.52
340	Digital Radiocommunication Tester	CMD 55	849709/037	Firm.= 3.52 .22.01.99
366	Ultra Compact Simulator	UCS 500 M4	V0531100594	Firm. UCS 500=001925/3.06a02, rc=ISMIEC 4.10
371	Bluetooth Tester	CBT32	100153	CBT V5.30+ SW-Option K55, K57
377	EMI Test Receiver	ESCS 30	100160	Firm.= 2.30, OTP= 02.01, GRA= 02.36
378	Broadband RF Field Monitor	RadiSense III	03D00013SNO-08	Firm.= V.03D13
389	Digital Multimeter	Keithley 2000	0583926	Firm. = A13 (Mainboard) A02 (Display)
392	Radio Communication Tester	MT8820A	6K00000788	Firm.= 4.50 #005, IPL=4.01#001,OS=4.02#001, GSM=4.41#013, W-CDMA= 4.54#004, scenario=
436	Univ. Radio Communication Tester	CMU 200	103083	R&S Test Firmware Base=5.14, Mess-Software= GSM:5.14 WCDMA:5.14 (current Testsoftw. F. all band
441	CTC-SAR-EMI Cable Loss	System EMI field (SAR)	-	EMC 32 Version 8.52
442	CTC-SAR-EMS	System EMS field (SAR)	-	EMC 32 Version 8.40
443	CTC-FAR-EMI-RSE	System CTC-FAR-EMI-RSE	-	Spuri 7.2.5 or EMC 32 Ver. 9.15.00
444	CTC-FAR-EMS field	System-EMS-Field (FAR)	-	EMC 32 Version 9.15.00
460	Univ. Radio Communication Tester	CMU 200	108901	R&S Test Firmware Base=5.14, GSM=5.14 WCDMA=5.14 (current Testsoftw.,f. all band to be used,
489	EMI Test Receiver	ESU40	1000-30	Firmware=4.43 SP3, Bios=V5.1-16-3, Spec. =01.00
491	ESD Simulator dito	ESD dito	dito307022	V 2.30
524	Voltage Drop Simulator	VDS 200	0196-16	Software Nr: 000037 Version V4.20a01
526	Burst Generator	EFT 200 A	0496-06	Software Nr. 000034 Version V2.32
527	Micro Pulse Generator	MPG 200 B	0496-05	Software-Nr. 000030 Version V2.43
528	Load Dump Simulator	LD 200B	0496-06	Software-Nr. 000031 Version V2.35a01
546	Univ. Radio Communication Tester	CMU 200	106436	R&S Test Firmware Base=5.14, GSM=5.14 WCDMA=5.14 (current Testsoftw.,f. all band to be used
547	Univ. Radio Communication Tester	CMU 200	835390/014	R&S Test Firmware Base=V5.1403 (current Testsoftw., f. all band used, GSM = 5.14 WCDMA: = 5.14
584	Spectrum Analyzer	FSU 8	100248	2.82_SP3
597	Univ. Radio Communication Tester	CMU 200	100347	R&S Test Firmware Base=5.01, GSM=5.02 WCDMA= not installed, Mainboard= µP1=V.850
607	Signal Generator	SMR 20	832033/011	V1.25
620	EMI Test Receiver	ESU 26	100362	4.43_SP3
670	Univ. Radio Communication Tester	CMU 200	106833	µP1 =V8.50, Firmware = V.20
689	Vector Signal Generator	SMU200	100970	02.20.360.142
692	Bluetooth Tester	CBT 32	100236	CBT V 5.40, FW: V.2.41 (FPGA Digital, V. 3.09 FPGA RF)
699	Audio Analyzer	UPL16	833494/005	3.06

8.0.2. Single instruments and test systems

Ref.-No.	Equipment	Type	Serial-No.	Manufacturer	Interval of calibration	Remark	Cal due
005	AC - LISN (50 Ohm/50µH, test site 1)	ESH2-Z5	861741/005	Rohde & Schwarz	12 M	-	23.05.2020
007	Single-Line V-Network (50 Ohm/5µH)	ESH3-Z6	892563/002	Rohde & Schwarz	12 M	-	23.05.2020
009	Power Meter (EMS-radiated)	NRV	863056/017	Rohde & Schwarz	24 M	-	23.05.2021
016	Line Impedance Simulating Network	Op. 24-D	B6366	Spitzenberger+Spies	36 M	-	22.05.2022
020	Horn Antenna 18 GHz (Subst 1)	3115	9107-3699	EMCO	36/12 M	-	31.07.2021
021	Loop Antenna (H-Field)	6502	9206-2770	EMCO	36 M	-	30.05.2021
030	Loop Antenna (H-field)	HFH-Z2	879604/026	Rohde & Schwarz	36 M	-	30.04.2020
033	RF-current probe (100kHz-30MHz)	ESH2-Z1	879581/18	Rohde & Schwarz	24 M	-	23.05.2021
057	relay-switch-unit (EMS system)	RSU	494440/002	Rohde & Schwarz	pre-m	1 a	
060	power amplifier (DC-2kHz)	PAS 5000	B6363	Spitzenberger+Spies	-	3	
066	notch filter (WCDMA; FDD1)	WRCT 1900/2200-5/40-10EEK	5	Wainwright GmbH	12 M	1 g	16.11.2020
086	DC - power supply, 0 -10 A	LNG 50-10	-	Heinzinger Electronic	pre-m	2	
087	DC - power supply, 0 -5 A	EA-3013 S	-	Elektro Automatik	pre-m	2	
091	USB-LWL-Converter	OLS-1	007/2006	Ing. Büro Scheiba	-	4	
099	passive voltage probe	ESH2-Z3	299.7810.52	Rohde & Schwarz	36 M	-	30.05.2021
100	passive voltage probe	Probe TK 9416	without	Schwarzbeck	36 M	-	30.05.2021
110	USB-LWL-Converter	OLS-1	-	Ing. Büro Scheiba	-	4	
119	RT Harmonics Analyzer dig. Flickermeter	B10	G60547	BOCONSULT	36 M	-	22.05.2022
133	horn antenna 18 GHz (Meas 1)	3115	9012-3629	EMCO	36 M	1 c	10.03.2020
134	horn antenna 18 GHz (Subst 2)	3115	9005-3414	EMCO	36 M	-	10.03.2020
248	attenuator	SMA 6dB 2W	-	Radiall	pre-m	2	
249	attenuator	SMA 10dB 10W	-	Radiall	pre-m	2	
252	attenuator	N 6dB 12W	-	Radiall	pre-m	2	
256	attenuator	SMA 3dB 2W	-	Radiall	pre-m	2	
257	hybrid	4031C	04491	Narda	pre-m	2	
260	hybrid coupler	4032C	11342	Narda	pre-m	2	
261	Thermal Power Sensor	NRV-Z55	825083/0008	Rohde & Schwarz	24 M	-	30.05.2020
262	Power Meter	NRV-S	825770/0010	Rohde & Schwarz	24 M	-	30.05.2020
265	peak power sensor	NRV-Z33, Model 04	840414/009	Rohde & Schwarz	24 M	-	30.05.2020
266	Peak Power Sensor	NRV-Z31, Model 04	843383/016	Rohde & Schwarz	24 M	-	30.05.2020
267	notch filter GSM 850	WRCA 800/960-6EEK	9	Wainwright GmbH	pre-m	2	
270	termination	1418 N	BB6935	Weinschel	pre-m	2	
271	termination	1418 N	BE6384	Weinschel	pre-m	2	
272	attenuator (20 dB) 50 W	Model 47	BF6239	Weinschel	pre-m	2	
273	attenuator (10 dB) 100 W	Model 48	BF9229	Weinschel	pre-m	2	
274	attenuator (10 dB) 50 W	Model 47 (10 dB) 50 W	BG0321	Weinschel	pre-m	2	
275	DC-Block	Model 7003 (N)	C5129	Weinschel	pre-m	2	
276	DC-Block	Model 7006 (SMA)	C7061	Weinschel	pre-m	2	
279	power divider	1515 (SMA)	LH855	Weinschel	pre-m	2	
287	pre-amplifier 25MHz - 4GHz	AMF-2D-100M4G-35-10P	379418	Miteq	12 M	1 c	16.11.2020
291	high pass filter GSM 850/900	WHJ 2200-4EE	14	Wainwright GmbH	12 M	1 c	16.11.2020
298	Univ. Radio Communication Tester	CMU 200	832221/091	Rohde & Schwarz	pre-m	3	
300	AC LISN (50 Ohm/50µH, 1-phase)	ESH3-Z5	892 239/020	Rohde & Schwarz	12 M	-	22.05.2020
301	attenuator (20 dB) 50W, 18GHz	47-20-33	AW0272	Lucas Weinschel	pre-m	2	
302	horn antenna 40 GHz (Meas 1)	BBHA9170	155	Schwarzbeck	36 M	-	14.03.2020
303	horn antenna 40 GHz (Subst 1)	BBHA9170	156	Schwarzbeck	36 M	-	20.03.2020
331	Climatic Test Chamber -40/+180 Grad	HC 4055	43146	Heraeus Vötsch	24 M	-	10.01.2021
341	Digital Multimeter	Fluke 112	81650455	Fluke	24 M	-	30.05.2020
342	Digital Multimeter	Voltcraft M-4660A	IB 255466	Voltcraft	24 M	-	23.05.2021
347	laboratory site	radio lab.	-	-	-	5	
348	laboratory site	EMI conducted	-	-	-	5	
354	DC - Power Supply 40A	NGPE 40/40	448	Rohde & Schwarz	pre-m	2	
357	power sensor	NRV-Z1	861761/002	Rohde & Schwarz	24 M	-	21.05.2021
371	Bluetooth Tester	CBT32	100153	R&S	36 M	-	30.05.2020
373	Single-Line V-Network (50 Ohm/5µH)	ESH3-Z6	100535	Rohde & Schwarz	12 M	-	22.05.2020
377	EMI Test Receiver	ESCS 30	100160	Rohde & Schwarz	12 M	-	22.05.2020
389	Digital Multimeter	Keithley 2000	0583926	Keithley	pre-m	-	
392	Radio Communication Tester	MT8820A	6K00000788	Anritsu	12 M	-	01.07.2020
396	Thermo/Hygrometer	Thermo/Hygrometer	-	Conrad	24 M	-	09.01.2021
405	Thermo/Hygrometer	OPUS 10 THI	126.0604.0003.3.3.3.22	LUFFT Mess u. Regeltechnik GmbH	24 M	-	30.03.2020

Ref.-No.	Equipment	Type	Serial-No.	Manufacturer	Interval of calibration	Remark	Cal due
431	Model 7405	Near-Field Probe Set	9305-2457	EMCO	-	4	
436	Univ. Radio Communication Tester	CMU 200	103083	Rohde & Schwarz	12 M	-	25.05.2020
439	UltraLog-Antenna	HL 562	100248	Rohde & Schwarz	36 M	-	10.03.2020
441	CTC-SAR-EMI Cable Loss	System EMI field (SAR) Cable	-	CETECOM	12 M	5	05.06.2020
443	CTC-FAR-EMI-RSE	System CTC-FAR-EMI-RSE	-	ETS-Lindgren / CETECOM	12 M	5	16.11.2020
448	notch filter WCDMA_FDD II	WRCT 1850.0/2170.0-5/40-10SSK	5	Wainwright Instruments GmbH	12 M	1 c	16.11.2020
449	notch filter WCDMA FDD V	WRCT 824.0/894.0-5/40-8SSK	1	Wainwright	12 M	1 c	16.11.2020
454	Oscilloscope	HM 205-3	9210 P 29661	Hameg	-	4	
456	DC-Power supply 0-5 A	EA 3013 S	207810	Elektro Automatik	pre-m	2	
459	DC -Power supply 0-5 A , 0-32 V	EA-PS 2032-50	910722	Elektro Automatik	pre-m	2	
460	Univ. Radio Communication Tester	CMU 200	108901	Rohde & Schwarz	12 M	-	30.05.2020
463	Universal source	HP3245A	2831A03472	Agilent	-	4	
466	Digital Multimeter	Fluke 112	89210157	Fluke USA	24 M	-	30.05.2020
467	Digital Multimeter	Fluke 112	89680306	Fluke USA	36 M	-	30.05.2021
468	Digital Multimeter	Fluke 112	90090455	Fluke USA	36 M	-	30.04.2021
477	ReRadiating GPS-System	AS-47	-	Automotive Cons. Fink	-	3	
480	power meter (Fula)	NRVS	838392/031	Rohde & Schwarz	24 M	-	30.05.2021
482	filter matrix	Filter matrix SAR 1	-	CETECOM (Brl)	-	1 d	
484	pre-amplifier 2,5 - 18 GHz	AMF-5D-02501800-25-10P	1244554	Miteq	12 M	-	16.11.2020
487	System CTC NSA-Verification SAR-EMI	System EMI field (SAR) NSA	-	ETS Lindgren / CETECOM	24 M	-	16.04.2021
489	EMI Test Receiver	ESU40	1000-30	Rohde & Schwarz	12 M	-	30.06.2020
502	band reject filter	WRCG 1709/1786-1699/1796-	SN 9	Wainwright	pre-m	2	
503	band reject filter	WRCG 824/849-814/859-60/10SS	SN 5	Wainwright	pre-m	2	
512	notch filter GSM 850	WRCA 800/960-02/40-6EEK	SN 24	Wainwright	12 M	1 c	16.11.2020
517	relais switch matrix	HF Relais Box Keithley System	SE 04	Keithley	pre-m	2	
523	Digital Multimeter	L4411A	MY46000154	Agilent	24 M	-	23.05.2021
529	6 dB Broadband resistive power divider	Model 1515	LH 855	Weinschel	pre-m	2	
530	10 dB Broadband resistive power divider	R 416110000	LOT 9828	-	pre-m	2	
546	Univ. Radio Communication Tester	CMU 200	106436	R&S	12 M	-	05.08.2020
547	Univ. Radio Communication Tester	CMU 200	835390/014	Rohde & Schwarz	12 M	-	30.07.2020
549	Log.Per-Antenna	HL025	1000060	Rohde & Schwarz	36/12 M	-	31.07.2021
550	System CTC S-VSWR Verification SAR-EMI	System EMI Field SAR S-VSWR	-	ETS Lindgren/CETECOM	24 M	-	02.10.2021
552	high pass filter 2,8-18GHz	WHKX 2.8/18G-10SS	4	Wainwright	12 M	1 c	16.11.2020
557	System CTC-OTA-2	R&S TS8991	-	Rohde & Schwarz	12 M	5	24.01.2020
558	System CTC FAR S-VSWR	System CTC FAR S-VSWR	-	CTC	24 M	-	08.08.2020
574	Biconilog Hybrid Antenna	BTA-L	980026L	Frankonia	36/12 M	-	03.05.2022
584	Spectrum Analyzer	FSU 8	100248	Rohde & Schwarz	pre-m	-	
594	Wideband Radio Communication Tester	CMW 500	101757	Rohde & Schwarz	12 M	-	26.06.2020
597	Univ. Radio Communication Tester	CMU 200	100347	Rohde & Schwarz	pre-m	-	
600	power meter	NRVD (Reserve)	834501/018	Rohde & Schwarz	24 M	-	30.05.2021
602	peak power sensor	NRV-Z32 (Reserve)	835080	Rohde & Schwarz	24 M	-	
611	DC power supply	E3632A	KR 75305854	Agilent	pre-m	2	
612	DC power supply	E3632A	MY 40001321	Agilent	pre-m	2	
613	Attenuator	R416120000 20dB 10W	Lot. 9828	Radiall	pre-m	2	
616	Digitalmultimeter	Fluke 177	88900339	Fluke	24 M	-	30.05.2020
617	Power Splitter/Combiner	ZFSC-2-2-S+	S F987001108	Mini Circuits	-	2	
618	Power Splitter/Combiner	50PD-634	600994	JFW Industries USA	-	2	
619	Power Splitter/Combiner	50PD-634	600995	JFW Industries, USA	-	3	
620	EMI Test Receiver	ESU 26	100362	Rohde-Schwarz	12 M	-	30.05.2020
621	Step Attenuator 0-139 dB	RSP	100017	Rohde & Schwarz	pre-m	2	
625	Generic Test Load USB	Generic Test Load USB	-	CETECOM	-	2	
634	Spectrum Analyzer	FSM (HF-Unit)	826188/010	Rohde & Schwarz	pre-m	2	
637	High Speed HDMI with Ethernet 1m	HDMI cable with Ethernet 1m	-	KogiLink	-	2	
638	HDMI Kabel with Ethernet 1,5 m flach	HDMI cable with Ethernet 1,5m	-	Reichelt	-	2	
640	HDMI cable 2m rund	HDMI cable 2m rund	-	Reichelt	-	2	

Ref.-No.	Equipment	Type	Serial-No.	Manufacturer	Interval of calibration	Remark	Cal due
641	HDMI cable with Ethernet	Certified HDMI cable with	-	PureLink	-	2	
644	Amplifier	ZX60-2534M+	SN865701299	Mini-Circuits	-	-	
670	Univ. Radio Communication Tester	CMU 200	106833	Rohde & Schwarz	24 M	-	30.05.2020
671	DC-power supply 0-5 A	EA-3013S	-	Elektro Automatik	pre-m	2	
678	Power Meter	NRP	101638	Rohde&Schwarz	pre-m	-	
683	Spectrum Analyzer	FSU 26	200571	Rohde & Schwarz	12 M	-	30.05.2020
686	Field Analyzer	EHP-200A	160WX30702	Narda Safety Test Solutions	-	-	
687	Signal Generator	SMF 100A	102073	Rohde&Schwarz	12 M	-	30.05.2020
688	Pre Amp	JS-18004000-40-8P	1750117	Miteq	pre-m	-	
690	Spectrum Analyzer	FSU	100302/026	Rohde&Schwarz	24 M	-	30.05.2021
691	OSP120 Base Unit	OSP120	106833	Rohde & Schwarz	12 M	-	30.05.2020
692	Bluetooth Tester	CBT 32	100236	Rohde & Schwarz	36 M	-	29.05.2020
693	TS8997	CTC-Radio Lab 1_TS8997	-	Rohde&Schwarz	12 M	5	07.01.2020
697	Power Splitter	ZN4PD-642W-S+	165001445	Mini-Circuits	-	2	
701	CMW500 wide. Radio Comm.	CMW500	158150	Rohde & Schwarz	12 M	-	30.07.2020
703	INNCO Antennen Mast	MA 4010-KT080-XPET-ZSS3	MA4170-KT100-XPET-ZSS3	INNCO	pre-m	-	
704	INNCON Controller	CO 3000-4port	CO3000/933/384105 16/L	INNCO Systems GmBh	pre-m	-	
711	Harmonic Mixer 90 GHz - 140GHz	RPG FS-Z140	101004	RPG	36 M	-	22.02.2020
712	Harmonic Mixer 75 GHz - 110GHz	FS-Z110	101468	Rohde & Schwarz	36 M	-	22.02.2020
713	Harmonic Mixer, 50 GHz - 75GHz	FS-Z75	101022	Rohde & Schwarz	24 M	-	05.07.2021
714	Signal Analyzer 67GHz	FSW67	104023	Rohde & Schwarz	24 M	-	04.07.2021
715	Harmonic Mixer, 140 GHz - 220GHz	FS-Z220	101009	RPG Radiometer Physics	36 M	-	03.08.2020
716	Harmonic Mixer 220 GHz to 325 GHz	FS-Z325	101005	RPG Radiometer Physics	36 M	-	13.02.2020
727	SAR Probe	ES3DV3	3260	Speag	-	-	13.05.2020
747	Spectrum Analyzer	FSU 26	200152	Rohde & Schwarz	12 M	-	04.07.2020
748	Pickett-Potter Horn Antenna	FH-PP 4060	010001	Radiometer Physics	36 M	-	
750	Pickett-Potter Horn Antenna	FH-PP 220	010011	Radiometer Physics	36 M	-	
751	Digital Optical System	optoCAN-FD Transceiver	17-010416	mk-messtechnik GmbH	-	-	
752	Digital Optical System	optoCAN-FD Transceiver	17-010083	mk-messtechnik GmbH	-	-	
753	Digital Optical System	optoCAN-FD Transceiver	17-010084	mk-messtechnik GmbH	-	-	
754	Digital Optical System	optoCAN-FD Transceiver	17-010415	mk-messtechnik GmbH	-	-	
755	Digital Optical System	optoLAN-100-MAX Transceiver	17-010795	mk-messtechnik GmbH	-	-	
757	WIDEBAND RADIO COMMUNICATION	CMW500	163673	Rohde&Schwarz	12 M	-	30.05.2020
758	Signal Generator	SMU 200A	100754	Rohde & Schwarz	24 M	-	11.10.2020
781	Power Supply	PS 2042-10 B	2815450369	Elektro-Automatik GmbH & Co.KG	-	-	
782	Power Supply	PS 2042-10 B	2815450348	Elektro-Automatik GmbH & Co.KG	-	-	
783	Spectrum Analyzer	FSU 26	100414	Rohde & Schwarz	12 M	-	30.05.2020
784	Power Supply	NGSM 32/10	00196	Rohde & Schwarz	12 M	-	
785	RSP	RF Step Attenuator 0...139.9dB	860712/012	Rohde & Schwarz	12 M	-	
786	SAR Probe	ES3DV3	3340	Speag	36 M	-	14.02.2021
787	OSP	OSP B157WX	101264	Rohde & Schwarz	24 M	-	30.05.2020
788	Precision Omnidirectional Dipole	POD 618	6182558/Q	Seibersdorf Laboratories	36 M	-	30.06.2021
789	Precision Omnidirectional Dipole	POD 16	162496/Q	Seibersdorf Laboratories	36 M	-	30.06.2021
790	Horn Antenna	ASY-SGH-124-SMA	29F14182337	Antenna System Solutions	36 M	-	08.10.2021
791	Pickett-Potter Horn Antenna	FH-PP-325	10024	Radiometer Physics	36 M	-	
792	Pickett-Potter Horn Antenna	FH-PP 075	10006	Radiometer Physics	36 M	-	
793	Pickett-Potter Horn Antenna	FH-PP 140	10008	Radiometer Physics	36 M	-	
794	Pickett-Potter Horn Antenna	FH-PP 110	10014	Radiometer Physics	36 M	-	
795	SGH Antenna	SGH-26-WR10	1144	Antenal S.L.	36 M	-	
798	WR-22 Rectangular Gain Horn	SAR-2309-22-S2	13254-01	SAGE Millimeter, Inc.	36 M	-	
799	Transceiver	optoLAN-Gb	18-014746	mk messtechnik	pre-m	-	
801	Spectrum Analyzer	FSP 13	100960	Rohde & Schwarz	24 M	-	14.01.2021
802	Exposure Level Tester	ELT-400	O-0026	NARDA Safety Solutions	24 M	-	30.01.2021
803	Probe	ELT probe 3cm²	O-0026	Narda Safety Test Solution	24 M	-	30.01.2021
805	Thermo-Hygrometer	Web-Thermo-Hygrometer	02749814	W&T	24 M	-	
806	AC2600 Smart Wifi Router	Netgear Nighthawk x4S	5K5188590067B	Netgear	-	-	
807	Direct Coupler	Direct Coupler C-05020-10	511	ET Industries	-	-	
808	Diode Power Sensor	NRV-Z1	829894/001	Rohde & Schwarz	24 M	-	24.05.2021
809	Standard gain Horn Antenna	WR-159 Horn Antenna	-	Pasternack Enterprises Inc.	-	-	
810	Horn Antenna WR90	90-HA20	J202064946	TACTRON Elektronik	-	-	

Ref.-No.	Equipment	Type	Serial-No.	Manufacturer	Interval of calibration	Remark	Cal due
				GmbH &			
811	Waveguide to Coax Adapter	ADP-WC-WR90-SMA-F-F	J504072436	TACTRON elektronik GmbH &	-	-	
812	1-18 GHz Amplifier	ASG18B-4010	-	Wright Technologies, Inc.	pre-m	-	
813	Band Reject Filter	WRCJV10-5855-5875-5905-5925-	10	Wainwright Instruments GmbH	pre-m	-	
814	Band Reject Filter	WRCJV10-5855-5875-5905-5925-	11	Wainwright Instruments GmbH	pre-m	-	
816	GPIB-USB-HS	187965G-01L	16AE772	National Instruments	-	-	
817	GBIP-USB-HS	187965G-01L	16AC1EE	National Instruments	-	-	
818	GPIB-USB-HS	187965G-01L	16AE8D0	Natinal Instruments	-	-	
819	GPIB-USB-HS	187965G-01L	16AB93C	National Instruments	-	-	
820	GPIB-USB-HS	187965G-01L	16AE294	National Instruments	-	-	
821	GPIB-USB-HS	187965G-01L	16ACB9C	National Instruments	-	-	
822	GPIB-USB-HS	187965G-01L	16AE5B2	National Instruments	-	-	
823	Broadband Field Meter	NBM-550	H-0929	NARDA Safety Test Solutions	36 M	-	19.07.2022
824	E-Field Probe	EF 0691	H-0851	Narda Safety Test Solutions	36 M	-	06.08.2022
825	H-Field Probe	HF 3061	D-0805	NARDA Safety Test Solutions	36 M	-	06.08.2022
826	Electric and magnetic Field Analyzer	EHP-50F	510WY90125	NARDA Safety Test Solutions	36 M	-	01.10.2022
827	Transceiver	optoUSB-2.0	19-017001	mk-messtechnik GmbH	-	-	
828	Transceiver	optoUSB-2.0	19-017002	mk-messtechnik GmbH	-	-	
829	Battery Pack BP-84	Battery Pack BP-84	19-017271	mk-messtechnik GmbH	-	-	
830	SIGNAL ANALYZER	FSV3030	101247	Rohde&Schwarz	12 M	-	02.10.2020
250 38	Loop Antenna	HFH2-Z2	879824/13	Rohde&Schwarz	24 M	-	19.03.2020

8.0.3. Legend

Note / remarks		Calibrated during system calibration:
	1a	System CTC-SAR-EMS (Ref.-No. 442)
	1b	System-CTC-EMS-Conducted (Ref.-No. 335)
	1c	System CTC-FAR-EMI-RSE (Ref.-No. 443)
	1d	System CTC-SAR-EMI (Ref.-No. 441)
	1e	System CTC-OATS (EMI radiated) (Ref.-No. 337)
	1 f	System CTC-CTIA-OTA (Ref.-No. 420)
	1 g	System CTC-FAR-EMS (Ref.-No. 444)
	2	Calibration or equipment check immediately before measurement
	3	Regulatory maintained equipment for functional check or support purpose
	4	Ancillary equipment without calibration e.g. mechanical equipment or monitoring equipment
	5	Test System

Interval of calibration	12 M	12 month
	24 M	24 month
	36 M	36 month
	24/12 M	Calibration every 24 months, between this every 12 months internal validation
	36/12 M	Calibration every 36 months, between this every 12 months internal validation
	Pre-m	Check before starting the measurement
	-	Without calibration

9. Versions of test reports (change history)

Version	Applied changes	Date of release
--	Initial release	2020-04-08
C01	Added FCC ID and ISED ID below table Summary of test results	2021-07-16
C02	Added ERP and EIRP value for all Channels of LTE Band 12	2021-08-17
C03	Additional Conducted Power verification of Band 2, 4, 5 and 66 have been performed and all ERP/EIRP calculated	2021-08-30

End of Report