FCC CFR47 PART 22H, 24E, 27,90S CERTIFICATION TEST REPORT

FCC ID: 2BQKJ-RP-TR206

Product:	GNSS Receiver
Trade Mark:	ROOTPILOT
Model No.:	RP-TR206
Family Model:	N/A
Report No.:	S25042802210002
Issue Date:	Jun. 18, 2025

Prepared for

IROOTECH TECHNOLOGY CO.,LTD

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Prepared by

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TEST RESULT CERTIFICATION

Applicant's name	:	IROOTECH TECHNOLOGY CO.,LTD
Address	:	Shugen building, Sanyi South China, Pazhou Street, Haizhu District, Guangzhou City, Guangdong Province, China
Manufacturer's Name	:	Shenzhen Navynav Technology Co., Ltd.
Address	:	Room 502, Han's Laser Technology Centre, Shennan Ave No.9988, Nanshan District, Shenzhen, Guangdong Province, China
Product name	:	GNSS Receiver
Model and/or type reference	:	RP-TR206
Trade Mark	:	ROOTPILOT
Family Model	:	N/A
Test Sample Number		S250428022011
Standards	:	FCC CFR 47 Part 22H, Part 24E, Part 27, Part 90S
Test procedure	:	ANSI C63.26:2015 ANSI/TIA-603-E-2016

This device described above has been tested by NTEK, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test .....

Date (s) of performance of tests..... May 06, 2025 ~ Jun. 18, 2025

Date of Issue..... Jun. 18, 2025

Test Result..... **Pass**

Prepared By	:	Allen Liu	Reviewed By	:	Aaron Cheng	Approved By	:	Alex Li
		(Project Engineer)			(Supervisor)			(Manager)

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1. GENERAL INFORMATION

1.1 PRODUCT DESCRIPTION

A major technical description of EUT is described as following:

Product Designation:	GNSS Receiver
Trade Mark	ROOTPILOT
Model Name	RP-TR206
Family Model	N/A
Model Difference	N/A
FCC ID:	2BQKJ-RP-TR206
Frequency Bands:	U.S. Bands: ☒LTE FDD Band 2, 4, 5, 7, 12, 13, 25, 26 TDD Band 41
Frequency Range:	LTE FDD Band 2 Uplink: 1850MHz-1910MHz, Downlink: 1930MHz-1990MHz; LTE FDD Band 4 Uplink: 1710MHz-1755MHz, Downlink: 2110MHz-2155MHz; LTE FDD Band 5 Uplink: 824MHz-849MHz, Downlink: 869MHz-894MHz; LTE-FDD Band 7 Uplink: 2500MHz-2570MHz, Downlink: 2620MHz-2690MHz; LTE FDD Band 12 Uplink: 699MHz-716MHz, Downlink: 729MHz-746MHz; LTE FDD Band 13 Uplink: 777MHz-787MHz, Downlink: 746MHz-756MHz; LTE FDD Band 25 Uplink: 1850MHz-1915MHz, Downlink: 1930MHz-1995MHz; LTE FDD Band 26A Uplink: 814MHz-824MHz, Downlink: 859MHz-869MHz; LTE FDD Band 26B Uplink: 824MHz-849MHz, Downlink: 869MHz-894MHz; LTE TDD Band 41 Uplink & Downlink: 2496MHz-2690MHz,
Type of Modulation:	QPSK/16QAM/64QAM(Only Downlink)
Power Class	Class 3
SIM Card:	SIM 1 and SIM 2 is a chipset unit and tested as a single chipset. The SIM 1 is chosen for test.
Antenna:	External Antenna
Antenna gain:	Band 2: -0.49 dBi, Band 4: -0.02 dBi, Band 5:0.59dBi, Band 7: 0.58 dBi, Band 12: 0.42 dBi, Band 13: 0.62 dBi, Band25:-0.49 dBi, Band 26:0.59 dBi, Band 41: 1.05 dBi
Adapter	N/A
Battery	N/A
Power supply	DC 24V
Extreme Vol. Limits:	DC 21.6V to DC 26.4V (Nominal DC 24V)（Note 1）

HW Version	N/A
FW Version	N/A
SW Version	N/A
** Note1: The High Voltage DC 26.4V and Low Voltage 21.6V was declared by manufacturer, The EUT couldn't be operate normally with higher or lower voltage.	

1.2 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID: 2BQKJ-RP-TR206** filing to comply with the FCC Part 22H&24E&27&90S

1.3 TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI/TIA-603-E-2016, FCC CFR 47 Part 2, Part 22, Part 24, Part 27, Part 90S,ANSI C63.26:2015.

1.4 TEST FACILITY

The test site used to collect the radiated data is located at:

ShenZhen NTEK Testing Technology Co., Ltd.

No. 24 Xinfa East Road, Xiangshan Community, Xinqiao Street, Baoan District, Shenzhen, Guangdong, People's Republic of China.

The test site is constructed and calibrated to meet the FCC requirements in documents ANSI C63.26:2015& ANSI C63.4: 2014.

FCC Registration No.:463705

IC Registration No.:9270A,

CNAS Registration No.:L5516

MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.5dB

1.5 SPECIAL ACCESSORIES

The battery and the charger, earphone supplied by the applicant were used as accessories and being tested with EUT intended for FCC grant together.

1.6 WORST-CASE CONFIGURATION AND MODE

The worst-case scenario for all measurements is based on the investigation results.

The device has LTE Bands of: Band 2/4/5/7/12/13/25/26/41

The RB Size was selected to measure for peak or average ERP and EIRP, which was based on the conducted power verification baseline data.

For the fundamental investigation of radiated emissions, the EUT is investigated for vertical and horizontal antenna orientations and X Y and Z orientations of the EUT alone. After the investigations the worst case was determined to be at X orientation for all LTE bands.

2. SYSTEM TEST CONFIGURATION

2.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT EXERCISE

The Transmitter was operated in the maximum output power mode through Communication Tester. The TX frequency was fixed which was for the purpose of the measurements.

2.3 CONFIGURATION OF EUT SYSTEM

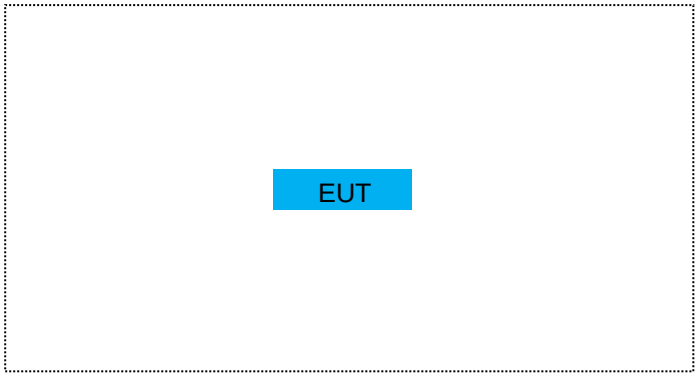
Table 2-1 Equipment Used in EUT System

Item	Equipment	Model No.	ID or Specification	Note
1	GNSS Receiver	RP-TR206	FCC ID: 2BQKJ-RP-TR206	EUT

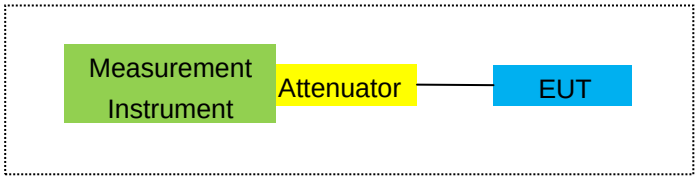
Note: All the accessories have been used during the test.
the following "EUT" in setup diagram means EUT system.

2.4 TEST SETUP

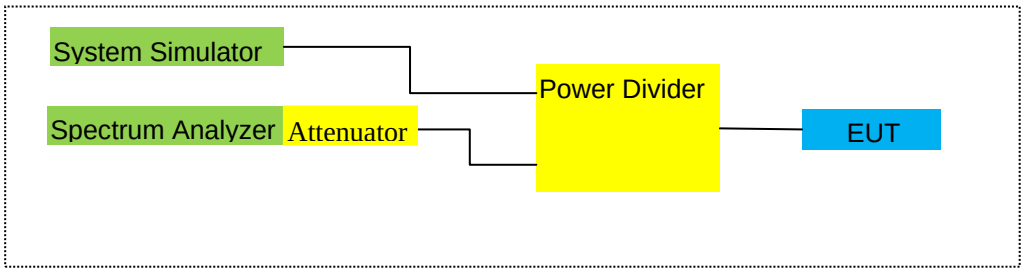
For Radiated Test Cases



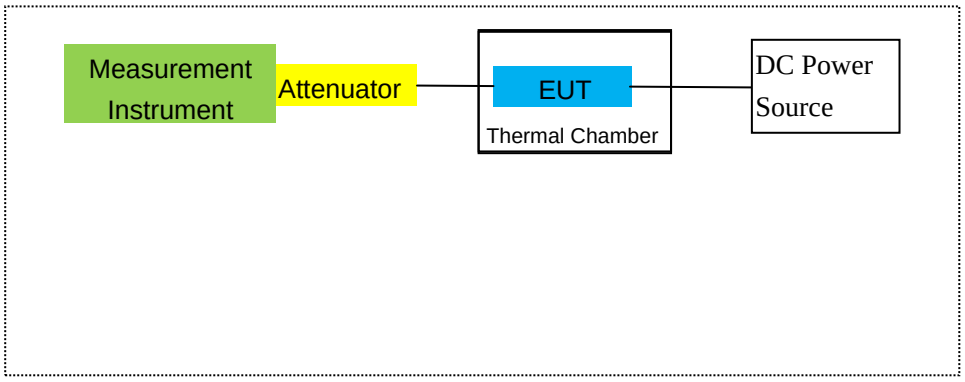
For Conducted Output Power



For Peak-to Average Ratio, Occupied Bandwidth, Conducted Band edge and Conducted Spurious Emission



For Frequency Stability



Note: EUT built-in battery-powered, the battery is fully-charged.

3.TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	MXA Signal Analyzer	Agilent	N9020A	MY49100060	2025.04.17	2026.04.16	1 year
2	Test Receiver	R&S	ESPI	101318	2025.04.17	2026.04.16	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2024.05.12 2025.05.11	2025.05.11 2026.05.10	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2024.04.26	2027.04.25	3 year
5	Broadband Horn Antenna	SCHWARZBECK	BBHA 9120 D	2816	2024.05.18	2027.05.17	3 year
6	Broadband Horn Antenna	SCHWARZBECK	BBHA 9120 D	2817	2024.05.18	2027.05.17	3 year
7	Amplifier	EM	EM-30180	060538	2025.04.17	2026.04.16	1 year
8	Active Loop Antenna	SCHWARZBECK	FMZB 1519 B	055	2024.05.17	2027.05.16	3 year
9	Power Meter	R&S	NRVS	100696	2025.04.17	2026.04.16	1 year
10	Power Sensor	R&S	URV5-Z4	0395.1619.05	2025.04.17	2026.04.16	1 year
11	Test Cable	N/A	R-01	N/A	2022.06.17 2025.06.16	2025.06.16 2026.06.15	3 year
12	Test Cable	N/A	R-02	N/A	2022.06.17 2025.06.16	2025.06.16 2026.06.15	3 year
13	Test Cable	N/A	R-03	N/A	2022.06.17 2025.06.16	2025.06.16 2026.06.15	3 year
14	Test Receiver	R&S	ESCI	101160	2025.04.17	2026.04.16	1 year
15	LISN	R&S	ENV216	101313	2025.04.17	2026.04.16	1 year
16	LISN	EMCO	3816/2	00042990	2025.04.17	2026.04.16	1 year
17	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2024.04.26	2027.04.25	3 year
18	Field strength probe	narda	EP601	711WX81278	2025.04.17	2026.04.16	1 year
19	Test Cable	N/A	C01	N/A	2023.05.06	2026.05.05	3 year
20	Test Cable	N/A	C02	N/A	2023.05.06	2026.05.05	3 year
21	Test Cable	N/A	C03	N/A	2023.05.06	2026.05.05	3 year

22	Spectrum Analyzer	Agilent	E4440A	MY41000130	2025.04.17	2026.04.16	1 year
23	EMI Test Receiver	R&S	ESCI	101160	2025.04.17	2026.04.16	1 year
24	Universal Radio Communication Tester	R&S	CMU200	105747	2025.04.17	2026.04.16	1 year
25	High and Low Temperature Box	WEISS	WT 20/40 EMC Simpac	5822611946 0030	2024.05.30	2027.05.29	3 year
26	DC Power Source	N/A	PS-6005D	2017040292 3	2024.04.25	2027.04.24	3 year
27	MXG Vector Signal Generator	Agilent	N5183B	MY57280984	2024.05.30 2025.05.06	2025.05.29 2026.05.05	1 year
28	Log-Periodic Antenna	SCHWARZBECK	VULB 9162	584	2024.05.25 2025.04.19	2025.05.24 2026.04.18	1 year
29	Log-Periodic Antenna	SCHWARZBECK	VULB 9162	586	2024.05.25 2025.04.24	2025.05.24 2026.05.23	1 year

Note: Each piece of equipment is scheduled for calibration once a year except the Test Cable& DC Power Source which is scheduled for calibration every 3 years

Measurement Software

Item	Manufacturer	Software Name	Software Version	Description
1	MWRFtest	MTS 8200	2.0	RF Conducted Test
2	Farad	EZ-EMC_RE	AIT-03A	RadiatedTest
3	raditeq	RadiMation	2023.1.3	RadiatedTest

4. OUTPUT POWER

4.1 OUTPUT POWER MEASUREMENT

LTE Measurement Procedure:

All LTE bands conducted power peak and average are obtained from the CMW500 telecommunication test set. The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3

Modulation	Channel bandwidth / Transmission bandwidth (RB)						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2

The allowed A-MPR values specified below in Table 6.2.4.-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of “NS_01”.3

Table 6.2.4-1: Additional Maximum Power Reduction (A-MPR)

Network Signalling value	Requirements (sub-clause)	E-UTRA Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01	6.6.2.1.1	Table 5.5-1	1.4, 3, 5, 10, 15, 20	Table 5.6-1	NA
NS_03	6.6.2.2.1	2, 4,10, 23, 25, 35, 36	3	>5	≤ 1
			5	>6	≤ 1
			10	>6	≤ 1
			15	>8	≤ 1
			20	>10	≤ 1
NS_04	6.6.2.2.2	41	5	>6	≤ 1
			10, 15, 20	See Table 6.2.4-4	
NS_05	6.6.3.3.1	1	10,15,20	≥ 50	≤ 1
NS_06	6.6.2.2.3	12, 13, 14, 17	1.4, 3, 5, 10	Table 5.6-1	n/a
NS_07	6.6.2.2.3 6.6.3.3.2	13	10	Table 6.2.4-2	Table 6.2.4-2
NS_08	6.6.3.3.3	19	10, 15	> 44	≤ 3
NS_09	6.6.3.3.4	21	10, 15	> 40	≤ 1
				> 55	≤ 2
NS_10		20	15, 20	Table 6.2.4-3	Table 6.2.4-3
NS_11	6.6.2.2.1	23[1]	1.4, 3, 5, 10	Table 6.2.4-5	Table 6.2.4-5
--					
NS_32	-	-	-	-	-

Note 1: Applies to the lower block of Band 23, i.e. a carrier placed in the 2000-2010 MHz region.

Test data reference attachment.

5. OCCUPIED BANDWIDTH

RULE PART(S)

FCC: §2.1049

LIMITS

For reporting purposes only

TEST PROCEDURE

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at the low, middle and high channel in each band. The -26dB bandwidth was also measured and recorded.

MODES TESTED

- Band 2/4/5/7/12/13/25/26/41

RESULTS

PASS

Test data reference attachment.

6. BANDEDGE AND EMISSION MASK

RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §24.238, §27.53, and §90.691
FCC: §22.359

LIMITS

FCC: §22.917, §24.238, §27.53
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

(m)(4) For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.Show citation box.
(c)(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations;

FCC: §90.691 Emission mask requirements for EA-based systems.
(a) Out-of-band emission requirement shall apply only to the “outer” channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:
(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10(f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.
(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

TEST PROCEDURE

The transmitter output was connected to a CMW500 Test Set and configured to operate at maximum power. The band edge emissions were measured at the required operating frequencies in each band on the Spectrum Analyzer.

For each band edge measurement:

Set the spectrum analyzer span to include the block edge frequency

Set a marker to point the corresponding band edge frequency in each test case.

Set resolution bandwidth to at least 1% of emission bandwidth.

MODES TESTED

Band 2/4/5/7/12/13/25/26/41

RESULTS

Test data reference attachment.

7. OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §24.238, §27.53 and §90.691

LIMITS

1. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.
2. The Band 7/41 emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 55 + 10 log (P) dB.

TEST PROCEDURE

The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

For each out of band emissions measurement:

-
- Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz.

MODES TESTED

- Band 2/4/5/7/12/13/25/26/41
-

7.1 MEASUREMENT METHOD

The test set up and general procedure is similar to conducted peak output power test. Only different for setting the measurement configuration of the measuring instrument of Spectrum Analyzer.

Test data reference attachment.

8. RADIATED MEASUREMENT

8.1. RADIATED POWER (ERP & EIRP)

RULE PART(S)

FCC: §2.1046, §22.913, §24.232, §27.50 and §90.635

LIMITS:

22.913(a) - The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.
24.232 (c) Mobile and portable stations are limited to 2 watts EIRP.
27.50 (c) (10) the following power and antenna height requirements apply to stations transmitting in the 698–746 MHz band, the portable stations (hand-held devices) are limited to 3 watts ERP.
27.50 (b)(10) Portable stations (hand-held devices) transmitting in the 746–757 MHz, 758–763 MHz, 776–793 MHz, and 805–806 MHz bands are limited to 3 watts ERP.
27.50 (d)(4) The following power and antenna height requirements apply to stations transmitting in the 1710–1755 MHz and 2110–2155 MHz bands: Fixed, mobile, and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP.
27.50 (h)(2) Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.
90.635(b) The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

TEST PROCEDURE

ANSI/TIA-603-E Clause 2.2.17
KDB 971168 v02r01 RF power output using broadband peak and average power meter method.
KDB 971168 D01 Power Meas License Digital Systems v02r01, “Measurement Guidance for Certification of Licensed Digital Transmitters”

MODES TESTED

- Band 2/4/5/7/12/13/25/26/41

RESULTS

Pass

8.2 LTE BAND 2

	Radiated Power (EIRP) for Band 2										
Mode	RB/RB SIZE	Frequency	Result						Limit(W)	Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP		
1.4MHz Band QPSK	1/#Mid	1850.7	-2.80	3.76	28.24	21.68	147.231	Horizontal	2	Pass
		1880	-2.61	3.91	28.22	21.70	147.911	Horizontal	2	Pass
		1909.3	-2.52	3.93	28.20	21.75	149.624	Horizontal	2	Pass
3.0MHz Band QPSK	1/#Mid	1851.5	-2.86	3.77	28.23	21.60	144.544	Horizontal	2	Pass
		1880	-2.71	3.91	28.24	21.62	145.211	Horizontal	2	Pass
		1908.5	-2.58	3.94	28.25	21.73	148.936	Horizontal	2	Pass
5.0MHz Band QPSK	1/#Mid	1852.5	-2.75	3.77	28.31	21.79	151.008	Horizontal	2	Pass
		1880	-2.37	3.91	28.22	21.94	156.315	Horizontal	2	Pass
		1907.5	-2.30	3.94	28.20	21.96	157.036	Horizontal	2	Pass
10.0MHz Band QPSK	1/#Mid	1855	-2.61	3.79	28.33	21.93	155.955	Horizontal	2	Pass
		1880	-2.31	3.95	28.22	21.96	157.036	Horizontal	2	Pass
		1905	-2.20	3.97	28.19	22.02	159.221	Horizontal	2	Pass
15.0MHz Band QPSK	1/#Mid	1857.5	-2.57	3.79	28.34	21.98	157.761	Horizontal	2	Pass
		1880	-2.36	3.95	28.22	21.91	155.239	Horizontal	2	Pass
		1902.5	-2.22	3.97	28.18	21.99	158.125	Horizontal	2	Pass
20.0MHz Band QPSK	1/#Mid	1860	-2.56	3.81	28.35	21.98	157.761	Horizontal	2	Pass
		1880	-2.23	3.96	28.22	**22.03**	159.588	Horizontal	2	Pass
		1900	-2.17	4.00	28.16	21.99	158.125	Horizontal	2	Pass
1.4MHz Band QPSK	1/#Mid	1850.7	-3.97	3.76	28.24	20.51	112.460	Vertical	2	Pass
		1880	-3.43	3.91	28.22	20.88	122.462	Vertical	2	Pass
		1909.3	-3.63	3.93	28.20	20.64	115.878	Vertical	2	Pass
3.0MHz Band QPSK	1/#Mid	1851.5	-3.15	3.77	28.23	21.31	135.207	Vertical	2	Pass
		1880	-3.21	3.91	28.24	21.12	129.420	Vertical	2	Pass
		1908.5	-3.69	3.94	28.25	20.62	115.345	Vertical	2	Pass
5.0MHz Band QPSK	1/#Mid	1852.5	-3.93	3.77	28.31	20.61	115.080	Vertical	2	Pass
		1880	-3.39	3.91	28.22	20.92	123.595	Vertical	2	Pass
		1907.5	-3.34	3.94	28.20	20.92	123.595	Vertical	2	Pass
10.0MHz Band QPSK	1/#Mid	1855	-4.09	3.79	28.33	20.45	110.917	Vertical	2	Pass
		1880	-3.13	3.95	28.22	21.14	130.017	Vertical	2	Pass
		1905	-2.97	3.97	28.19	21.25	133.352	Vertical	2	Pass

15.0MHz Band QPSK	1/#Mid	1857.5	-3.83	3.79	28.34	20.72	118.032	Vertical	2	Pass
		1880	-3.77	3.95	28.22	20.50	112.202	Vertical	2	Pass
		1902.5	-3.73	3.97	28.18	20.48	111.686	Vertical	2	Pass
20.0MHz Band QPSK	1/#Mid	1860	-3.17	3.81	28.35	21.37	137.088	Vertical	2	Pass
		1880	-3.69	3.96	28.22	20.57	114.025	Vertical	2	Pass
		1900	-3.58	4.00	28.16	20.58	114.288	Vertical	2	Pass

	Radiated Power (EIRP) for Band 2									
Mode	RB/RB SIZE	Frequency	Result						Limit(W)	Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP		
1.4MHz Band 16 QAM	1/#Mid	1850.7	-3.92	3.76	28.24	20.56	113.763	Horizontal	2	Pass
		1880	-3.39	3.91	28.22	20.92	123.595	Horizontal	2	Pass
		1909.3	-3.32	3.93	28.20	20.95	124.451	Horizontal	2	Pass
3.0MHz Band 16 QAM	1/#Mid	1851.5	-3.42	3.77	28.23	21.04	127.057	Horizontal	2	Pass
		1880	-3.50	3.91	28.24	20.83	121.060	Horizontal	2	Pass
		1908.5	-3.71	3.94	28.25	20.60	114.815	Horizontal	2	Pass
5.0MHz Band 16 QAM	1/#Mid	1852.5	-3.36	3.77	28.31	21.18	131.220	Horizontal	2	Pass
		1880	-3.27	3.91	28.22	21.04	127.057	Horizontal	2	Pass
		1907.5	-2.95	3.94	28.20	21.31	135.207	Horizontal	2	Pass
10.0MHz Band 16 QAM	1/#Mid	1855	-3.41	3.79	28.33	21.13	129.718	Horizontal	2	Pass
		1880	-3.40	3.95	28.22	20.87	122.180	Horizontal	2	Pass
		1905	-2.87	3.97	28.19	21.35	136.458	Horizontal	2	Pass
15.0MHz Band 16 QAM	1/#Mid	1857.5	-3.39	3.79	28.34	21.16	130.617	Horizontal	2	Pass
		1880	-3.18	3.95	28.22	21.09	128.529	Horizontal	2	Pass
		1902.5	-3.14	3.97	28.18	21.07	127.938	Horizontal	2	Pass
20.0MHz Band 16 QAM	1/#Mid	1860	-3.28	3.81	28.35	21.26	133.660	Horizontal	2	Pass
		1880	-2.98	3.96	28.22	21.28	134.276	Horizontal	2	Pass
		1900	-2.80	4.00	28.16	**21.36**	136.773	Horizontal	2	Pass
1.4MHz Band 16 QAM	1/#Mid	1850.7	-4.49	3.76	28.24	19.99	99.770	Vertical	2	Pass
		1880	-4.41	3.91	28.22	19.90	97.724	Vertical	2	Pass
		1909.3	-4.20	3.93	28.20	20.07	101.625	Vertical	2	Pass
3.0MHz Band 16 QAM	1/#Mid	1851.5	-4.33	3.77	28.23	20.13	103.039	Vertical	2	Pass
		1880	-4.04	3.91	28.24	20.29	106.905	Vertical	2	Pass
		1908.5	-4.66	3.94	28.25	19.65	92.257	Vertical	2	Pass
5.0MHz Band 16 QAM	1/#Mid	1852.5	-4.27	3.77	28.31	20.27	106.414	Vertical	2	Pass
		1880	-4.09	3.91	28.22	20.22	105.196	Vertical	2	Pass
		1907.5	-4.64	3.94	28.20	19.62	91.622	Vertical	2	Pass
10.0MHz Band 16 QAM	1/#Mid	1855	-4.67	3.79	28.33	19.87	97.051	Vertical	2	Pass
		1880	-4.54	3.95	28.22	19.73	93.972	Vertical	2	Pass
		1905	-4.54	3.97	28.19	19.68	92.897	Vertical	2	Pass
15.0MHz Band 16	1/#Mid	1857.5	-5.03	3.79	28.34	19.52	89.536	Vertical	2	Pass
		1880	-4.66	3.95	28.22	19.61	91.411	Vertical	2	Pass

QAM		1902.5	-4.61	3.97	28.18	19.60	91.201	Vertical	2	Pass
20.0MHz	1/#Mid	1860	-4.58	3.81	28.35	19.96	99.083	Vertical	2	Pass
Band 16		1880	-4.53	3.96	28.22	19.73	93.972	Vertical	2	Pass
QAM		1900	-4.21	4.00	28.16	19.95	98.855	Vertical	2	Pass

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Antenna Gain(dB)+ SG Level (dBm)- Cable Loss(dBm)

Factor Gain(dB)=Antenna Gain(dB) + Amplifier Factor (dB)

8.3 LTE BAND 4

	Radiated Power (EIRP) for Band 4									
Mode	RB/RB SIZE	Frequency	Result						Limit(W)	Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP		
1.4MHz Band QPSK	1/#Mid	1710.7	-2.71	3.12	27.58	21.75	149.624	Horizontal	1	Pass
		1732.5	-2.70	3.27	27.61	21.64	145.881	Horizontal	1	Pass
		1754.3	-2.68	3.29	27.63	21.66	146.555	Horizontal	1	Pass
3.0MHz Band QPSK	1/#Mid	1711.5	-2.88	3.13	27.61	21.60	144.544	Horizontal	1	Pass
		1732.5	-2.80	3.27	27.61	21.54	142.561	Horizontal	1	Pass
		1753.5	-2.72	3.30	27.62	21.60	144.544	Horizontal	1	Pass
5.0MHz Band QPSK	1/#Mid	1712.5	-2.65	3.13	27.63	21.85	153.109	Horizontal	1	Pass
		1732.5	-2.55	3.27	27.61	21.79	151.008	Horizontal	1	Pass
		1752.5	-2.43	3.30	27.60	21.87	153.815	Horizontal	1	Pass
10.0MHz Band QPSK	1/#Mid	1715	-2.59	3.15	27.64	21.90	154.882	Horizontal	1	Pass
		1732.5	-2.36	3.31	27.61	21.94	156.315	Horizontal	1	Pass
		1750	-2.38	3.33	27.59	21.88	154.170	Horizontal	1	Pass
15.0MHz Band QPSK	1/#Mid	1717.5	-2.60	3.15	27.65	21.90	154.882	Horizontal	1	Pass
		1732.5	-2.44	3.31	27.61	21.86	153.462	Horizontal	1	Pass
		1747.5	-2.38	3.33	27.57	21.86	153.462	Horizontal	1	Pass
20.0MHz Band QPSK	1/#Mid	1720	-2.54	3.17	27.66	**21.95**	156.675	Horizontal	1	Pass
		1732.5	-2.37	3.32	27.61	21.92	155.597	Horizontal	1	Pass
		1745	-2.31	3.36	27.56	21.89	154.525	Horizontal	1	Pass
1.4MHz Band QPSK	1/#Mid	1710.7	-3.51	3.12	27.58	20.95	124.451	Vertical	1	Pass
		1732.5	-3.89	3.27	27.61	20.45	110.917	Vertical	1	Pass
		1754.3	-3.49	3.29	27.63	20.85	121.619	Vertical	1	Pass
3.0MHz Band QPSK	1/#Mid	1711.5	-3.41	3.13	27.61	21.07	127.938	Vertical	1	Pass
		1732.5	-2.94	3.27	27.61	21.40	138.038	Vertical	1	Pass
		1753.5	-3.78	3.30	27.62	20.54	113.240	Vertical	1	Pass
5.0MHz Band QPSK	1/#Mid	1712.5	-3.27	3.13	27.63	21.23	132.739	Vertical	1	Pass
		1732.5	-3.11	3.27	27.61	21.23	132.739	Vertical	1	Pass
		1752.5	-3.34	3.30	27.60	20.96	124.738	Vertical	1	Pass
10.0MHz Band QPSK	1/#Mid	1715	-3.84	3.15	27.64	20.65	116.145	Vertical	1	Pass
		1732.5	-3.33	3.31	27.61	20.97	125.026	Vertical	1	Pass
		1750	-3.51	3.33	27.59	20.75	118.850	Vertical	1	Pass

15.0MHz	1/#Mid	1717.5	-4.04	3.15	27.65	20.46	111.173	Vertical	1	Pass
Band		1732.5	-3.61	3.31	27.61	20.69	117.220	Vertical	1	Pass
QPSK		1747.5	-3.77	3.33	27.57	20.47	111.429	Vertical	1	Pass
20.0MHz	1/#Mid	1720	-4.00	3.17	27.66	20.49	111.944	Vertical	1	Pass
Band		1732.5	-2.95	3.32	27.61	21.34	136.144	Vertical	1	Pass
QPSK		1745	-3.56	3.36	27.56	20.64	115.878	Vertical	1	Pass

	Radiated Power (EIRP) for Band 4									
Mode	RB/RB SIZE	Frequency	Result						Limit(W)	Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP		
1.4MHz Band 16 QAM	1/#Mid	1710.7	-3.52	3.12	27.58	20.94	124.165	Horizontal	1	Pass
		1732.5	-3.37	3.27	27.61	20.97	125.026	Horizontal	1	Pass
		1754.3	-3.37	3.29	27.63	20.97	125.026	Horizontal	1	Pass
3.0MHz Band 16 QAM	1/#Mid	1711.5	-3.46	3.13	27.61	21.02	126.474	Horizontal	1	Pass
		1732.5	-3.59	3.27	27.61	20.75	118.850	Horizontal	1	Pass
		1753.5	-3.81	3.30	27.62	20.51	112.460	Horizontal	1	Pass
5.0MHz Band 16 QAM	1/#Mid	1712.5	-3.29	3.13	27.63	21.21	132.130	Horizontal	1	Pass
		1732.5	-3.25	3.27	27.61	21.09	128.529	Horizontal	1	Pass
		1752.5	-2.94	3.30	27.60	21.36	136.773	Horizontal	1	Pass
10.0MHz Band 16 QAM	1/#Mid	1715	-3.36	3.15	27.64	21.13	129.718	Horizontal	1	Pass
		1732.5	-3.55	3.31	27.61	20.75	118.850	Horizontal	1	Pass
		1750	-2.93	3.33	27.59	21.33	135.831	Horizontal	1	Pass
15.0MHz Band 16 QAM	1/#Mid	1717.5	-3.16	3.15	27.65	21.34	136.144	Horizontal	1	Pass
		1732.5	-3.22	3.31	27.61	21.08	128.233	Horizontal	1	Pass
		1747.5	-3.24	3.33	27.57	21.00	125.893	Horizontal	1	Pass
20.0MHz Band 16 QAM	1/#Mid	1720	-3.11	3.17	27.66	**21.38**	137.404	Horizontal	1	Pass
		1732.5	-3.12	3.32	27.61	21.17	130.918	Horizontal	1	Pass
		1745	-2.93	3.36	27.56	21.27	133.968	Horizontal	1	Pass
1.4MHz Band 16 QAM	1/#Mid	1710.7	-4.16	3.12	27.58	20.30	107.152	Vertical	1	Pass
		1732.5	-4.42	3.27	27.61	19.92	98.175	Vertical	1	Pass
		1754.3	-4.66	3.29	27.63	19.68	92.897	Vertical	1	Pass
3.0MHz Band 16 QAM	1/#Mid	1711.5	-4.35	3.13	27.61	20.13	103.039	Vertical	1	Pass
		1732.5	-4.25	3.27	27.61	20.09	102.094	Vertical	1	Pass
		1753.5	-4.29	3.30	27.62	20.03	100.693	Vertical	1	Pass
5.0MHz Band 16 QAM	1/#Mid	1712.5	-4.91	3.13	27.63	19.59	90.991	Vertical	1	Pass
		1732.5	-4.62	3.27	27.61	19.72	93.756	Vertical	1	Pass
		1752.5	-4.23	3.30	27.60	20.07	101.625	Vertical	1	Pass
10.0MHz Band 16 QAM	1/#Mid	1715	-5.04	3.15	27.64	19.45	88.105	Vertical	1	Pass
		1732.5	-4.38	3.31	27.61	19.92	98.175	Vertical	1	Pass
		1750	-4.51	3.33	27.59	19.75	94.406	Vertical	1	Pass
15.0MHz Band 16 QAM	1/#Mid	1717.5	-4.94	3.15	27.65	19.56	90.365	Vertical	1	Pass
		1732.5	-4.86	3.31	27.61	19.44	87.902	Vertical	1	Pass
		1747.5	-4.83	3.33	27.57	19.41	87.297	Vertical	1	Pass

20.0MHz	1/#Mid	1720	-4.40	3.17	27.66	20.09	102.094	Vertical	1	Pass
Band 16		1732.5	-4.58	3.32	27.61	19.71	93.541	Vertical	1	Pass
QAM		1745	-4.24	3.36	27.56	19.96	99.083	Vertical	1	Pass

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Antenna Gain(dB)+ SG Level (dBm)- Cable Loss(dBm)

Factor Gain(dB)=Antenna Gain(dB) + Amplifier Factor (dB)

8.4 LTE BAND 5

	Radiated Power (ERP) for Band 5										
Mode	RB/RB SIZE	Frequency	Result								Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Correction (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP	Limit (W)	
1.4MHz Band QPSK	3/#Mid	824.7	6.59	2.01	19.68	2.15	22.11	162.555	Horizontal	7	Pass
		836.5	6.47	2.01	19.77	2.15	22.08	161.436	Horizontal	7	Pass
		848.3	6.27	2.02	19.82	2.15	21.92	155.597	Horizontal	7	Pass
3.0MHz Band QPSK	1/#Mid	825.5	6.36	2.01	19.70	2.15	21.90	154.882	Horizontal	7	Pass
		836.5	6.26	2.01	19.77	2.15	21.87	153.815	Horizontal	7	Pass
		847.5	6.13	2.02	19.81	2.15	21.77	150.314	Horizontal	7	Pass
5.0MHz Band QPSK	1/#Mid	826.5	6.64	2.01	19.71	2.15	22.19	165.577	Horizontal	7	Pass
		836.5	6.52	2.01	19.77	2.15	22.13	163.305	Horizontal	7	Pass
		846.5	6.36	2.02	19.79	2.15	21.98	157.761	Horizontal	7	Pass
10.0MHz Band QPSK	1/#Mid	829	6.66	2.01	19.73	2.15	**22.23**	167.109	Horizontal	7	Pass
		836.5	6.61	2.01	19.77	2.15	22.22	166.725	Horizontal	7	Pass
		844	6.51	2.02	19.78	2.15	22.12	162.930	Horizontal	7	Pass
1.4MHz Band QPSK	1/#Mid	824.7	5.18	2.01	19.68	2.15	20.70	117.490	Vertical	7	Pass
		836.5	5.22	2.01	19.77	2.15	20.83	121.060	Vertical	7	Pass
		848.3	5.55	2.02	19.82	2.15	21.20	131.826	Vertical	7	Pass
3.0MHz Band QPSK	1/#Mid	825.5	5.86	2.01	19.70	2.15	21.40	138.038	Vertical	7	Pass
		836.5	5.35	2.01	19.77	2.15	20.96	124.738	Vertical	7	Pass
		847.5	5.37	2.02	19.81	2.15	21.01	126.183	Vertical	7	Pass
5.0MHz Band QPSK	1/#Mid	826.5	5.10	2.01	19.71	2.15	20.65	116.145	Vertical	7	Pass
		836.5	5.30	2.01	19.77	2.15	20.91	123.310	Vertical	7	Pass
		846.5	5.37	2.02	19.79	2.15	20.99	125.603	Vertical	7	Pass
10.0MHz Band QPSK	1/#Mid	829	4.96	2.01	19.73	2.15	20.53	112.980	Vertical	7	Pass
		836.5	5.54	2.01	19.77	2.15	21.15	130.317	Vertical	7	Pass
		844	5.77	2.02	19.78	2.15	21.38	137.404	Vertical	7	Pass

	Radiated Power (ERP) for Band 5											
Mode	RB/RB SIZE	Frequency	Result									Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Correction (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP	Limit (W)		
1.4MHz Band 16 QAM	3/#Mid	824.7	5.74	2.01	19.68	2.15	21.26	133.660	Horizontal	7		Pass
		836.5	5.67	2.01	19.77	2.15	21.28	134.276	Horizontal	7		Pass
		848.3	5.51	2.02	19.82	2.15	21.16	130.617	Horizontal	7		Pass
3.0MHz Band 16 QAM	1/#Mid	825.5	5.82	2.01	19.70	2.15	21.36	136.773	Horizontal	7		Pass
		836.5	5.53	2.01	19.77	2.15	21.14	130.017	Horizontal	7		Pass
		847.5	5.01	2.02	19.81	2.15	20.65	116.145	Horizontal	7		Pass
5.0MHz Band 16 QAM	1/#Mid	826.5	6.14	2.01	19.71	2.15	21.69	147.571	Horizontal	7		Pass
		836.5	5.91	2.01	19.77	2.15	21.52	141.906	Horizontal	7		Pass
		846.5	5.66	2.02	19.79	2.15	21.28	134.276	Horizontal	7		Pass
10.0MHz Band 16 QAM	1/#Mid	829	6.14	2.01	19.73	2.15	**21.71**	148.252	Horizontal	7		Pass
		836.5	5.86	2.01	19.77	2.15	21.47	140.281	Horizontal	7		Pass
		844	5.40	2.02	19.78	2.15	21.01	126.183	Horizontal	7		Pass
1.4MHz Band 16 QAM	1/#Mid	824.7	4.88	2.01	19.68	2.15	20.40	109.648	Vertical	7		Pass
		836.5	5.79	2.01	19.77	2.15	21.40	138.038	Vertical	7		Pass
		848.3	5.31	2.02	19.82	2.15	20.96	124.738	Vertical	7		Pass
3.0MHz Band 16 QAM	1/#Mid	825.5	5.19	2.01	19.70	2.15	20.73	118.304	Vertical	7		Pass
		836.5	4.13	2.01	19.77	2.15	19.74	94.189	Vertical	7		Pass
		847.5	4.80	2.02	19.81	2.15	20.44	110.662	Vertical	7		Pass
5.0MHz Band 16 QAM	1/#Mid	826.5	4.84	2.01	19.71	2.15	20.39	109.396	Vertical	7		Pass
		836.5	4.38	2.01	19.77	2.15	19.99	99.770	Vertical	7		Pass
		846.5	3.80	2.02	19.79	2.15	19.42	87.498	Vertical	7		Pass
10.0MHz Band 16 QAM	1/#Mid	829	4.35	2.01	19.73	2.15	19.92	98.175	Vertical	7		Pass
		836.5	4.22	2.01	19.77	2.15	19.83	96.161	Vertical	7		Pass
		844	4.62	2.02	19.78	2.15	20.23	105.439	Vertical	7		Pass

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Antenna Gain(dB)+ SG Level (dBm)- Cable Loss(dBm)

Factor Gain(dB)=Antenna Gain(dB) + Amplifier Factor (dB)

ERP(dBm)=EIRP-2.15

8.5 LTE BAND 7

	Radiated Power (EIRP) for Band 7										
Mode	RB/RB SIZE	Frequency	Result								Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP	Limit (W)		
5.0MHz Band QPSK	1/#Mid	2502.5	-0.99	4.54	27.75	22.22	166.725	Horizontal	2		Pass
		2535	-0.82	4.69	27.72	22.21	166.341	Horizontal	2		Pass
		2567.5	-0.75	4.71	27.71	22.25	167.880	Horizontal	2		Pass
10.0MHz Band QPSK	1/#Mid	2505	-0.92	4.55	27.76	22.29	169.434	Horizontal	2		Pass
		2535	-0.73	4.69	27.72	22.30	169.824	Horizontal	2		Pass
		2565	-0.65	4.72	27.70	22.33	171.002	Horizontal	2		Pass
15.0MHz Band QPSK	1/#Mid	2507.5	-0.93	4.55	27.77	22.29	169.434	Horizontal	2		Pass
		2535	-0.79	4.69	27.72	22.24	167.494	Horizontal	2		Pass
		2562.5	-0.69	4.72	27.69	22.28	169.044	Horizontal	2		Pass
20.0MHz Band QPSK	1/#Mid	2510	-0.87	4.57	27.78	**22.34**	171.396	Horizontal	2		Pass
		2535	-0.69	4.73	27.72	22.30	169.824	Horizontal	2		Pass
		2560	-0.65	4.75	27.68	22.28	169.044	Horizontal	2		Pass
5.0MHz Band QPSK	1/#Mid	2502.5	-2.79	4.54	27.75	20.42	110.154	Vertical	2		Pass
		2535	-2.56	4.69	27.72	20.47	111.429	Vertical	2		Pass
		2567.5	-1.91	4.71	27.71	21.09	128.529	Vertical	2		Pass
10.0MHz Band QPSK	1/#Mid	2505	-2.19	4.55	27.76	21.02	126.474	Vertical	2		Pass
		2535	-1.85	4.69	27.72	21.18	131.220	Vertical	2		Pass
		2565	-2.46	4.72	27.70	20.52	112.720	Vertical	2		Pass
15.0MHz Band QPSK	1/#Mid	2507.5	-2.09	4.55	27.77	21.13	129.718	Vertical	2		Pass
		2535	-1.79	4.69	27.72	21.24	133.045	Vertical	2		Pass
		2562.5	-2.57	4.72	27.69	20.40	109.648	Vertical	2		Pass
20.0MHz Band QPSK	1/#Mid	2510	-1.88	4.57	27.78	21.33	135.831	Vertical	2		Pass
		2535	-2.34	4.73	27.72	20.65	116.145	Vertical	2		Pass
		2560	-2.52	4.75	27.68	20.41	109.901	Vertical	2		Pass

	Radiated Power (EIRP) for Band 7									
Mode	RB/RB SIZE	Frequency	Result					Polarization Of Max. ERP	Limit (W)	Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)			
5.0MHz Band 16 QAM	1/#Mid	2502.5	-1.68	4.54	27.75	21.53	142.233	Horizontal	2	Pass
		2535	-1.37	4.69	27.72	21.66	146.555	Horizontal	2	Pass
		2567.5	-1.45	4.71	27.71	21.55	142.889	Horizontal	2	Pass
10.0MHz Band 16 QAM	1/#Mid	2505	-1.57	4.55	27.76	21.64	145.881	Horizontal	2	Pass
		2535	-1.58	4.69	27.72	21.45	139.637	Horizontal	2	Pass
		2565	-1.85	4.72	27.70	21.13	129.718	Horizontal	2	Pass
15.0MHz Band 16 QAM	1/#Mid	2507.5	-1.75	4.55	27.77	21.47	140.281	Horizontal	2	Pass
		2535	-1.72	4.69	27.72	21.31	135.207	Horizontal	2	Pass
		2562.5	-1.33	4.72	27.69	21.64	145.881	Horizontal	2	Pass
20.0MHz Band 16 QAM	1/#Mid	2510	-1.63	4.57	27.78	21.58	143.880	Horizontal	2	Pass
		2535	-1.30	4.73	27.72	**21.69**	147.571	Horizontal	2	Pass
		2560	-1.40	4.75	27.68	21.53	142.233	Horizontal	2	Pass
5.0MHz Band 16 QAM	1/#Mid	2502.5	-3.05	4.54	27.75	20.16	103.753	Vertical	2	Pass
		2535	-3.13	4.69	27.72	19.90	97.724	Vertical	2	Pass
		2567.5	-1.83	4.71	27.71	21.17	130.918	Vertical	2	Pass
10.0MHz Band 16 QAM	1/#Mid	2505	-1.94	4.55	27.76	21.27	133.968	Vertical	2	Pass
		2535	-2.38	4.69	27.72	20.65	116.145	Vertical	2	Pass
		2565	-2.42	4.72	27.70	20.56	113.763	Vertical	2	Pass
15.0MHz Band 16 QAM	1/#Mid	2507.5	-2.32	4.55	27.77	20.90	123.027	Vertical	2	Pass
		2535	-2.58	4.69	27.72	20.45	110.917	Vertical	2	Pass
		2562.5	-2.76	4.72	27.69	20.21	104.954	Vertical	2	Pass
20.0MHz Band 16 QAM	1/#Mid	2510	-3.31	4.57	27.78	19.90	97.724	Vertical	2	Pass
		2535	-3.06	4.73	27.72	19.93	98.401	Vertical	2	Pass
		2560	-2.17	4.75	27.68	20.76	119.124	Vertical	2	Pass

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Antenna Factor (dB)+ SG Level (dBm)- Cable Loss(dBm)

8.6 LTE BAND 12

	Radiated Power (ERP) for Band 12										
Mode	RB/RB SIZE	Frequency	Result							Limit (W)	Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Correction (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP		
1.4MHz Band QPSK	1/#Mid	699.7	6.96	1.91	19.21	2.15	22.11	162.555	Vertical	3	Pass
		707.5	6.88	1.91	19.26	2.15	22.08	161.436	Vertical	3	Pass
		715.3	6.66	1.93	19.34	2.15	21.92	155.597	Vertical	3	Pass
3.0MHz Band QPSK	1/#Mid	700.5	6.75	1.91	19.21	2.15	21.90	154.882	Vertical	3	Pass
		707.5	6.67	1.91	19.26	2.15	21.87	153.815	Vertical	3	Pass
		714.5	6.51	1.93	19.34	2.15	21.77	150.314	Vertical	3	Pass
5.0MHz Band QPSK	1/#Mid	701.5	7.02	1.91	19.23	2.15	22.19	165.577	Vertical	3	Pass
		707.5	6.93	1.91	19.26	2.15	22.13	163.305	Vertical	3	Pass
		713.5	6.72	1.92	19.33	2.15	21.98	157.761	Vertical	3	Pass
10.0MHz Band QPSK	1/#Mid	704	7.04	1.91	19.25	2.15	**22.23**	167.109	Vertical	3	Pass
		707.5	7.02	1.91	19.26	2.15	22.22	166.725	Vertical	3	Pass
		711	6.87	1.92	19.32	2.15	22.12	162.930	Vertical	3	Pass
1.4MHz Band QPSK	1/#Mid	699.7	5.88	1.91	19.21	2.15	21.03	126.765	Horizontal	3	Pass
		707.5	6.19	1.91	19.26	2.15	21.39	137.721	Horizontal	3	Pass
		715.3	6.03	1.93	19.34	2.15	21.29	134.586	Horizontal	3	Pass
3.0MHz Band QPSK	1/#Mid	700.5	5.26	1.91	19.21	2.15	20.41	109.901	Horizontal	3	Pass
		707.5	5.30	1.91	19.26	2.15	20.50	112.202	Horizontal	3	Pass
		714.5	5.44	1.93	19.34	2.15	20.70	117.490	Horizontal	3	Pass
5.0MHz Band QPSK	1/#Mid	701.5	5.81	1.91	19.23	2.15	20.98	125.314	Horizontal	3	Pass
		707.5	5.49	1.91	19.26	2.15	20.69	117.220	Horizontal	3	Pass
		713.5	5.82	1.92	19.33	2.15	21.08	128.233	Horizontal	3	Pass
10.0MHz Band QPSK	1/#Mid	704	6.04	1.91	19.25	2.15	21.23	132.739	Horizontal	3	Pass
		707.5	5.71	1.91	19.26	2.15	20.91	123.310	Horizontal	3	Pass
		711	5.90	1.92	19.32	2.15	21.15	130.317	Horizontal	3	Pass

	Radiated Power (ERP) for Band 12										
Mode	RB/RB SIZE	Frequency	Result						Polarization Of Max. ERP	Limit	Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Correction (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)		(W)	
1.4MHz Band 16 QAM	1/#Mid	699.7	6.87	1.91	19.21	2.15	22.02	159.221	Vertical	3	Pass
		707.5	6.79	1.91	19.26	2.15	21.99	158.125	Vertical	3	Pass
		715.3	6.57	1.93	19.34	2.15	21.83	152.405	Vertical	3	Pass
3.0MHz Band 16 QAM	1/#Mid	700.5	6.66	1.91	19.21	2.15	21.81	151.705	Vertical	3	Pass
		707.5	6.58	1.91	19.26	2.15	21.78	150.661	Vertical	3	Pass
		714.5	6.42	1.93	19.34	2.15	21.68	147.231	Vertical	3	Pass
5.0MHz Band 16 QAM	1/#Mid	701.5	6.93	1.91	19.23	2.15	22.10	162.181	Vertical	3	Pass
		707.5	6.84	1.91	19.26	2.15	22.04	159.956	Vertical	3	Pass
		713.5	6.63	1.92	19.33	2.15	21.89	154.525	Vertical	3	Pass
10.0MHz Band 16 QAM	1/#Mid	704	6.95	1.91	19.25	2.15	**22.14**	163.682	Vertical	3	Pass
		707.5	6.93	1.91	19.26	2.15	22.13	163.305	Vertical	3	Pass
		711	6.78	1.92	19.32	2.15	22.03	159.588	Vertical	3	Pass
1.4MHz Band 16 QAM	1/#Mid	699.7	5.51	1.91	19.21	2.15	20.66	116.413	Horizontal	3	Pass
		707.5	5.53	1.91	19.26	2.15	20.73	118.304	Horizontal	3	Pass
		715.3	5.58	1.93	19.34	2.15	20.84	121.339	Horizontal	3	Pass
3.0MHz Band 16 QAM	1/#Mid	700.5	5.57	1.91	19.21	2.15	20.72	118.032	Horizontal	3	Pass
		707.5	5.68	1.91	19.26	2.15	20.88	122.462	Horizontal	3	Pass
		714.5	5.41	1.93	19.34	2.15	20.67	116.681	Horizontal	3	Pass
5.0MHz Band 16 QAM	1/#Mid	701.5	5.91	1.91	19.23	2.15	21.08	128.233	Horizontal	3	Pass
		707.5	5.75	1.91	19.26	2.15	20.95	124.451	Horizontal	3	Pass
		713.5	5.91	1.92	19.33	2.15	21.17	130.918	Horizontal	3	Pass
10.0MHz Band 16 QAM	1/#Mid	704	5.39	1.91	19.25	2.15	20.58	114.288	Horizontal	3	Pass
		707.5	5.16	1.91	19.26	2.15	20.36	108.643	Horizontal	3	Pass
		711	5.32	1.92	19.32	2.15	20.57	114.025	Horizontal	3	Pass

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Antenna Gain(dB)+ SG Level (dBm)- Cable Loss(dBm)

Factor Gain(dB)=Antenna Gain(dB) + Amplifier Factor (dB)

ERP(dBm)=EIRP-2.15

8.7 LTE BAND 13

	Radiated Power (ERP) for Band 13										
Mode	RB/RB SIZE	Frequency	Result								Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Correction (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP	Limit (W)	
5.0MHz Band QPSK	25/0	779.5	5.81	1.91	19.23	2.15	20.98	125.31	Horizontal	3	Pass
		782	5.66	1.91	19.26	2.15	20.86	121.90	Horizontal	3	Pass
		784.5	4.27	1.92	19.33	2.15	19.53	89.74	Horizontal	3	Pass
10.0MHz Band QPSK	50/0	782	5.96	1.91	19.26	2.15	21.16	130.62	Horizontal	3 3 3	Pass
5.0MHz Band QPSK	25/0	779.5	4.37	1.91	19.23	2.15	19.54	89.95	Vertical	3	Pass
		782	4.17	1.91	19.26	2.15	19.37	86.50	Vertical	3	Pass
		784.5	4.22	1.92	19.33	2.15	19.48	88.72	Vertical	3	Pass
10.0MHz Band QPSK	50/0	782	4.91	1.92	19.32	2.15	20.16	103.75	Vertical	3 3 3	Pass

	Radiated Power (ERP) for Band 13										
Mode	RB/RB SIZE	Frequency	Result							Limit (W)	Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Correction (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP		
5.0MHz Band 16 QAM	25/0	779.5	5.88	1.91	19.23	2.15	21.05	127.35	Horizontal	3	Pass
		782	4.80	1.91	19.26	2.15	20.00	100.00	Horizontal	3	Pass
		784.5	4.85	1.92	19.33	2.15	20.11	102.57	Horizontal	3	Pass
10.0MHz Band 16 QAM	50/0	782	5.87	1.91	19.26	2.15	21.07	127.94	Horizontal	3	Pass
										3	
										3	
5.0MHz Band 16 QAM	25/0	779.5	4.31	1.91	19.23	2.15	19.48	88.72	Vertical	3	Pass
		782	4.62	1.91	19.26	2.15	19.82	95.94	Vertical	3	Pass
		784.5	4.13	1.92	19.33	2.15	19.39	86.90	Vertical	3	Pass
10.0MHz Band 16 QAM	50/0	782	5.86	1.92	19.32	2.15	**21.11**	129.12	Vertical	3	Pass
										3	
										3	

Note:

ERP=EIRP-2.15

SG Level= Signal generator output

Max. EIRP Average (dBm)= Antenna Gain(dB)+ SG Level (dBm)- Cable Loss(dBm)

8.8 LTE BAND 25

	Radiated Power (EIRP) for Band 25										
Mode	RB/RB SIZE	Frequency	Result						Limit(W)	Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP		
1.4MHz Band QPSK	1/#Mid	1850.7	-2.85	3.12	27.58	21.61	144.877	Horizontal	2	Pass
		1882,5	-2.76	3.27	27.61	21.58	143.880	Horizontal	2	Pass
		1914.3	-2.92	3.29	27.63	21.42	138.676	Horizontal	2	Pass
3.0MHz Band QPSK	1/#Mid	1851.5	-3.08	3.13	27.61	21.40	138.038	Horizontal	2	Pass
		1882,5	-2.97	3.27	27.61	21.37	137.088	Horizontal	2	Pass
		1913.5	-3.05	3.30	27.62	21.27	133.968	Horizontal	2	Pass
5.0MHz Band QPSK	1/#Mid	1852.5	-2.81	3.13	27.63	21.69	147.571	Horizontal	2	Pass
		1882,5	-2.71	3.27	27.61	21.63	145.546	Horizontal	2	Pass
		1912.5	-2.82	3.30	27.60	21.48	140.605	Horizontal	2	Pass
10.0MHz Band QPSK	1/#Mid	1855	-2.76	3.15	27.64	21.73	148.936	Horizontal	2	Pass
		1882,5	-2.58	3.31	27.61	21.72	148.594	Horizontal	2	Pass
		1910	-2.64	3.33	27.59	21.62	145.211	Horizontal	2	Pass
15.0MHz Band QPSK	1/#Mid	1857.5	-4.13	3.15	27.65	20.37	108.893	Horizontal	2	Pass
		1882,5	-3.96	3.31	27.61	20.34	108.143	Horizontal	2	Pass
		1907.5	-4.10	3.33	27.57	20.14	103.276	Horizontal	2	Pass
20.0MHz Band QPSK	1/#Mid	1860	-4.31	3.17	27.66	20.18	104.232	Horizontal	2	Pass
		1882,5	-2.55	3.32	27.61	21.74	149.279	Horizontal	2	Pass
		1905	-2.36	3.36	27.56	**21.84**	152.757	Horizontal	2	Pass
1.4MHz Band QPSK	1/#Mid	1850.7	-3.88	3.12	27.58	20.58	114.288	Vertical	2	Pass
		1882,5	-3.62	3.27	27.61	20.72	118.032	Vertical	2	Pass
		1914.3	-3.76	3.29	27.63	20.58	114.288	Vertical	2	Pass
3.0MHz Band QPSK	1/#Mid	1851.5	-3.66	3.13	27.61	20.82	120.781	Vertical	2	Pass
		1882,5	-3.90	3.27	27.61	20.44	110.662	Vertical	2	Pass
		1913.5	-3.89	3.30	27.62	20.43	110.408	Vertical	2	Pass
5.0MHz Band QPSK	1/#Mid	1852.5	-3.67	3.13	27.63	20.83	121.060	Vertical	2	Pass
		1882,5	-4.22	3.27	27.61	20.12	102.802	Vertical	2	Pass
		1912.5	-3.53	3.30	27.60	20.77	119.399	Vertical	2	Pass
10.0MHz Band QPSK	1/#Mid	1855	-4.22	3.15	27.64	20.27	106.414	Vertical	2	Pass
		1882,5	-3.68	3.31	27.61	20.62	115.345	Vertical	2	Pass
		1910	-3.94	3.33	27.59	20.32	107.647	Vertical	2	Pass

15.0MHz Band QPSK	1/#Mid	1857.5	-4.45	3.15	27.65	20.05	101.158	Vertical	2	Pass
		1882,5	-3.76	3.31	27.61	20.54	113.240	Vertical	2	Pass
		1907.5	-3.50	3.33	27.57	20.74	118.577	Vertical	2	Pass
20.0MHz Band QPSK	1/#Mid	1860	-4.24	3.17	27.66	20.25	105.925	Vertical	2	Pass
		1882,5	-3.58	3.32	27.61	20.71	117.761	Vertical	2	Pass
		1905	-4.16	3.36	27.56	20.04	100.925	Vertical	2	Pass

	Radiated Power (EIRP) for Band 25									
Mode	RB/RB SIZE	Frequency	Result						Limit(W)	Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP		
1.4MHz Band 16 QAM	1/#Mid	1850.7	-2.75	3.12	27.58	21.71	148.252	Horizontal	2	Pass
		1882,5	-2.66	3.27	27.61	21.68	147.231	Horizontal	2	Pass
		1914.3	-2.82	3.29	27.63	21.52	141.906	Horizontal	2	Pass
3.0MHz Band 16 QAM	1/#Mid	1851.5	-2.98	3.13	27.61	21.50	141.254	Horizontal	2	Pass
		1882,5	-2.87	3.27	27.61	21.47	140.281	Horizontal	2	Pass
		1913.5	-2.95	3.30	27.62	21.37	137.088	Horizontal	2	Pass
5.0MHz Band 16 QAM	1/#Mid	1852.5	-2.71	3.13	27.63	21.79	151.008	Horizontal	2	Pass
		1882,5	-2.61	3.27	27.61	21.73	148.936	Horizontal	2	Pass
		1912.5	-2.72	3.30	27.60	21.58	143.880	Horizontal	2	Pass
10.0MHz Band 16 QAM	1/#Mid	1855	-2.66	3.15	27.64	21.83	152.405	Horizontal	2	Pass
		1882,5	-2.48	3.31	27.61	21.82	152.055	Horizontal	2	Pass
		1910	-2.35	3.33	27.59	20.87	122.180	Horizontal	2	Pass
15.0MHz Band 16 QAM	1/#Mid	1857.5	-3.71	3.15	27.65	20.79	119.950	Horizontal	2	Pass
		1882,5	-3.95	3.31	27.61	20.35	108.393	Horizontal	2	Pass
		1907.5	-3.91	3.33	27.57	20.33	107.895	Horizontal	2	Pass
20.0MHz Band 16 QAM	1/#Mid	1860	-4.37	3.17	27.66	20.12	102.802	Horizontal	2	Pass
		1882,5	-3.42	3.32	27.61	**21.91**	155.239	Horizontal	2	Pass
		1905	-4.09	3.36	27.56	20.11	102.565	Horizontal	2	Pass
1.4MHz Band 16 QAM	1/#Mid	1850.7	-4.08	3.12	27.58	20.38	109.144	Vertical	2	Pass
		1882,5	-3.63	3.27	27.61	20.71	117.761	Vertical	2	Pass
		1914.3	-4.29	3.29	27.63	20.05	101.158	Vertical	2	Pass
3.0MHz Band 16 QAM	1/#Mid	1851.5	-4.10	3.13	27.61	20.38	109.144	Vertical	2	Pass
		1882,5	-3.98	3.27	27.61	20.36	108.643	Vertical	2	Pass
		1913.5	-3.94	3.30	27.62	20.38	109.144	Vertical	2	Pass
5.0MHz Band 16 QAM	1/#Mid	1852.5	-3.92	3.13	27.63	20.58	114.288	Vertical	2	Pass
		1882,5	-4.23	3.27	27.61	20.11	102.565	Vertical	2	Pass
		1912.5	-3.47	3.30	27.60	20.83	121.060	Vertical	2	Pass
10.0MHz Band 16 QAM	1/#Mid	1855	-4.22	3.15	27.64	20.27	106.414	Vertical	2	Pass
		1882,5	-3.54	3.31	27.61	20.76	119.124	Vertical	2	Pass
		1910	-3.35	3.33	27.59	20.91	123.310	Vertical	2	Pass
15.0MHz Band 16 QAM	1/#Mid	1857.5	-3.70	3.15	27.65	20.80	120.226	Vertical	2	Pass
		1882,5	-3.49	3.31	27.61	20.81	120.504	Vertical	2	Pass
		1907.5	-3.99	3.33	27.57	20.25	105.925	Vertical	2	Pass

20.0MHz	1/#Mid	1860	-4.03	3.17	27.66	20.46	111.173	Vertical	2	Pass
Band 16		1882,5	-3.61	3.32	27.61	20.68	116.950	Vertical	2	Pass
QAM		1905	-3.60	3.36	27.56	20.60	114.815	Vertical	2	Pass

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Antenna Gain(dB)+ SG Level (dBm)- Cable Loss(dBm)

Factor Gain(dB)=Antenna Gain(dB) + Amplifier Factor (dB)

8.9 LTE BAND 26 A

	Radiated Power (ERP) for Band 26(814-824)											
Mode	RB/RB SIZE	Frequency	Result									Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Correction (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP	Limit (W)		
1.4MHz BW QPSK	6/0	814.7	-0.62	3.76	28.24	2.15	21.71	148.25	Horizontal	100		Pass
		819	-0.48	3.91	28.22	2.15	21.68	147.23	Horizontal	100		Pass
		823.3	-0.60	3.93	28.20	2.15	21.52	141.91	Horizontal	100		Pass
3.0MHz BW QPSK	15/0	815.5	-0.81	3.77	28.23	2.15	21.50	141.25	Horizontal	100		Pass
		819	-0.71	3.91	28.24	2.15	21.47	140.28	Horizontal	100		Pass
		822.5	-0.79	3.94	28.25	2.15	21.37	137.09	Horizontal	100		Pass
5.0MHz BW QPSK	25/0	816.5	-0.60	3.77	28.31	2.15	21.79	151.01	Horizontal	100		Pass
		819	-0.43	3.91	28.22	2.15	21.73	148.94	Horizontal	100		Pass
		821.5	-0.53	3.94	28.20	2.15	21.58	143.88	Horizontal	100		Pass
10.0MHz BW QPSK	50/0	819	-0.33	3.91	28.22	2.15	**21.83**	152.41	Horizontal	100		Pass
1.4MHz BW QPSK	6/0	814.7	-0.58	3.79	28.34	2.15	21.82	152.05	Vertical	100		Pass
		819	-0.40	3.95	28.22	2.15	21.72	148.59	Vertical	100		Pass
		823.3	-1.15	3.97	28.18	2.15	20.91	123.31	Vertical	100		Pass
3.0MHz BW QPSK	15/0	815.5	-2.15	3.77	28.23	2.15	20.16	103.75	Vertical	100		Pass
		819	-1.79	3.91	28.24	2.15	20.39	109.40	Vertical	100		Pass
		822.5	-1.79	3.94	28.25	2.15	20.37	108.89	Vertical	100		Pass
5.0MHz BW QPSK	25/0	816.5	-1.41	3.77	28.31	2.15	20.98	125.31	Vertical	100		Pass
		819	-1.57	3.91	28.22	2.15	20.59	114.55	Vertical	100		Pass
		821.5	-1.42	3.94	28.20	2.15	20.69	117.22	Vertical	100		Pass
10.0MHz BW QPSK	50/0	819	-1.78	3.91	28.22	2.15	20.38	109.14	Vertical	100		Pass

	Radiated Power (ERP) for Band 26(814-824)										
Mode	RB/RB SIZE	Frequency	Result								Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Correction (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP	Limit (W)	
1.4MHz BW 16 QAM	6/0	814.7	-0.17	3.76	28.24	2.15	22.16	164.44	Horizontal	100	Pass
		819	-0.03	3.91	28.22	2.15	22.13	163.31	Horizontal	100	Pass
		823.3	-0.15	3.93	28.20	2.15	21.97	157.40	Horizontal	100	Pass
3.0MHz BW 16 QAM	15/0	815.5	-0.36	3.77	28.23	2.15	21.95	156.68	Horizontal	100	Pass
		819	-0.26	3.91	28.24	2.15	21.92	155.60	Horizontal	100	Pass
		822.5	-0.34	3.94	28.25	2.15	21.82	152.05	Horizontal	100	Pass
5.0MHz BW 16 QAM	25/0	816.5	-0.15	3.77	28.31	2.15	22.24	167.49	Horizontal	100	Pass
		819	0.02	3.91	28.22	2.15	22.18	165.20	Horizontal	100	Pass
		821.5	-0.08	3.94	28.20	2.15	22.03	159.59	Horizontal	100	Pass
10.0MHz BW 16 QAM	50/0	819	0.10	3.91	28.24	2.15	**22.28**	169.04	Horizontal	100	Pass
1.4MHz BW 16 QAM	6/0	814.7	-0.13	3.79	28.34	2.15	22.27	168.66	Vertical	100	Pass
		819	0.05	3.95	28.22	2.15	22.17	164.82	Vertical	100	Pass
		823.3	-1.53	3.97	28.18	2.15	20.53	112.98	Vertical	100	Pass
3.0MHz BW 16 QAM	15/0	815.5	-1.64	3.77	28.23	2.15	20.67	116.68	Vertical	100	Pass
		819	-0.89	3.91	28.24	2.15	21.29	134.59	Vertical	100	Pass
		822.5	-0.91	3.94	28.25	2.15	21.25	133.35	Vertical	100	Pass
5.0MHz BW 16 QAM	25/0	816.5	-1.12	3.77	28.31	2.15	21.27	133.97	Vertical	100	Pass
		819	-1.00	3.91	28.22	2.15	21.16	130.62	Vertical	100	Pass
		821.5	-1.51	3.94	28.20	2.15	20.60	114.82	Vertical	100	Pass
10.0MHz BW 16 QAM	50/0	819	-0.92	3.91	28.24	2.15	21.26	133.66	Vertical	100	Pass

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Antenna Gain(dB)+ SG Level (dBm)- Cable Loss(dBm)

Factor Gain(dB)=Antenna Gain(dB) + Amplifier Factor (dB)

ERP(dBm)=EIRP-2.15

8.10 LTE BAND 26 B

	Radiated Power (ERP) for Band 26(824-849)										
Mode	RB/RB SIZE	Frequency	Result								Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Correction (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP	Limit (W)	
1.4MHz Band QPSK	6/0	824.7	5.19	2.01	19.68	2.15	20.71	117.76	Horizontal	7	Pass
		836.5	5.13	2.01	19.77	2.15	20.74	118.58	Horizontal	7	Pass
		848.3	5.07	2.02	19.82	2.15	20.72	118.03	Horizontal	7	Pass
3.0MHz Band QPSK	15/0	825.5	5.23	2.01	19.70	2.15	20.77	119.40	Horizontal	7	Pass
		836.5	4.86	2.01	19.77	2.15	20.47	111.43	Horizontal	7	Pass
		847.5	5.31	2.02	19.81	2.15	20.95	124.45	Horizontal	7	Pass
5.0MHz Band QPSK	25/0	826.5	5.49	2.01	19.71	2.15	21.04	127.06	Horizontal	7	Pass
		836.5	5.31	2.01	19.77	2.15	20.92	123.59	Horizontal	7	Pass
		846.5	4.68	2.02	19.79	2.15	20.30	107.15	Horizontal	7	Pass
10.0MHz Band QPSK	50/0	829	4.70	2.01	19.73	2.15	20.27	106.41	Horizontal	7	Pass
		836.5	4.82	2.01	19.77	2.15	20.43	110.41	Horizontal	7	Pass
		844	5.42	2.02	19.78	2.15	21.03	126.77	Horizontal	7	Pass
15.0MHz Band QPSK	75/0	831.5	4.51	2.01	19.73	2.15	20.08	101.86	Horizontal	7	Pass
		836.5	5.44	2.01	19.77	2.15	**21.05**	127.35	Horizontal	7	Pass
		841.5	5.17	2.02	19.78	2.15	20.78	119.67	Horizontal	7	Pass
1.4MHz Band QPSK	6/0	824.7	4.77	2.01	19.68	2.15	20.29	106.91	Vertical	7	Pass
		836.5	4.71	2.01	19.77	2.15	20.32	107.65	Vertical	7	Pass
		848.3	4.97	2.02	19.82	2.15	20.62	115.35	Vertical	7	Pass
3.0MHz Band QPSK	15/0	825.5	4.91	2.01	19.70	2.15	20.45	110.92	Vertical	7	Pass
		836.5	4.53	2.01	19.77	2.15	20.14	103.28	Vertical	7	Pass
		847.5	4.78	2.02	19.81	2.15	20.42	110.15	Vertical	7	Pass
5.0MHz Band QPSK	25/0	826.5	4.93	2.01	19.71	2.15	20.48	111.69	Vertical	7	Pass
		836.5	4.68	2.01	19.77	2.15	20.29	106.91	Vertical	7	Pass
		846.5	4.80	2.02	19.79	2.15	20.42	110.15	Vertical	7	Pass
10.0MHz Band QPSK	50/0	829	4.57	2.01	19.73	2.15	20.14	103.28	Vertical	7	Pass
		836.5	4.91	2.01	19.77	2.15	20.52	112.72	Vertical	7	Pass
		844	4.75	2.02	19.78	2.15	20.36	108.64	Vertical	7	Pass
15.0MHz Band QPSK	75/0	831.5	4.58	2.01	19.73	2.15	20.15	103.51	Vertical	7	Pass
		836.5	5.33	2.01	19.77	2.15	20.94	124.17	Vertical	7	Pass
		841.5	4.93	2.02	19.78	2.15	20.54	113.24	Vertical	7	Pass

	Radiated Power (ERP) for Band 26(824-849)										
Mode	RB/RB SIZE	Frequency	Result								Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Correction (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP	Limit (W)	
1.4MHz Band 16 QAM	6/0	824.7	5.50	2.01	19.68	2.15	21.02	126.47	Horizontal	7	Pass
		836.5	4.73	2.01	19.77	2.15	20.34	108.14	Horizontal	7	Pass
		848.3	4.67	2.02	19.82	2.15	20.32	107.65	Horizontal	7	Pass
3.0MHz Band 16 QAM	15/0	825.5	4.76	2.01	19.70	2.15	20.30	107.15	Horizontal	7	Pass
		836.5	5.06	2.01	19.77	2.15	20.67	116.68	Horizontal	7	Pass
		847.5	4.76	2.02	19.81	2.15	20.40	109.65	Horizontal	7	Pass
5.0MHz Band 16 QAM	25/0	826.5	4.92	2.01	19.71	2.15	20.47	111.43	Horizontal	7	Pass
		836.5	4.89	2.01	19.77	2.15	20.50	112.20	Horizontal	7	Pass
		846.5	4.73	2.02	19.79	2.15	20.35	108.39	Horizontal	7	Pass
10.0MHz Band 16 QAM	50/0	829	5.13	2.01	19.73	2.15	20.70	117.49	Horizontal	7	Pass
		836.5	5.45	2.01	19.77	2.15	21.06	127.64	Horizontal	7	Pass
		844	4.69	2.02	19.78	2.15	20.30	107.15	Horizontal	7	Pass
15.0MHz Band QPSK	75/0	831.5	5.51	2.01	19.73	2.15	**21.08**	128.23	Horizontal	7	Pass
		836.5	4.69	2.01	19.77	2.15	20.30	107.15	Horizontal	7	Pass
		841.5	4.49	2.02	19.78	2.15	20.10	102.33	Horizontal	7	Pass
1.4MHz Band 16 QAM	6/0	824.7	5.01	2.01	19.68	2.15	20.53	112.98	Vertical	7	Pass
		836.5	5.40	2.01	19.77	2.15	21.01	126.18	Vertical	7	Pass
		848.3	5.15	2.02	19.82	2.15	20.80	120.23	Vertical	7	Pass
3.0MHz Band 16 QAM	15/0	825.5	4.95	2.01	19.70	2.15	20.49	111.94	Vertical	7	Pass
		836.5	4.77	2.01	19.77	2.15	20.38	109.14	Vertical	7	Pass
		847.5	5.37	2.02	19.81	2.15	21.01	126.18	Vertical	7	Pass
5.0MHz Band 16 QAM	25/0	826.5	4.64	2.01	19.71	2.15	20.19	104.47	Vertical	7	Pass
		836.5	5.08	2.01	19.77	2.15	20.69	117.22	Vertical	7	Pass
		846.5	4.70	2.02	19.79	2.15	20.32	107.65	Vertical	7	Pass
10.0MHz Band 16 QAM	50/0	829	5.11	2.01	19.73	2.15	20.68	116.95	Vertical	7	Pass
		836.5	5.33	2.01	19.77	2.15	20.94	124.17	Vertical	7	Pass
		844	4.71	2.02	19.78	2.15	20.32	107.65	Vertical	7	Pass
15.0MHz Band QPSK	75/0	831.5	4.65	2.01	19.73	2.15	20.22	105.20	Vertical	7	Pass
		836.5	4.58	2.01	19.77	2.15	20.19	104.47	Vertical	7	Pass
		841.5	4.84	2.02	19.78	2.15	20.45	110.92	Vertical	7	Pass

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Antenna Gain(dB)+ SG Level (dBm)- Cable Loss(dBm)

Factor Gain(dB)=Antenna Gain(dB) + Amplifier Factor (dB)

ERP(dBm)=EIRP-2.15

8.11 LTE BAND 41

	Radiated Power (EIRP) for Band 41									
Mode	RB/RB SIZE	Frequency	Result						Limit(W)	Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP		
5.0MHz Band QPSK	1/#Mid	2498.5	-1.51	4.54	27.75	21.70	147.911	Horizontal	2	Pass
		2593	-1.36	4.69	27.72	21.67	146.893	Horizontal	2	Pass
		2687.5	-1.24	4.71	27.71	21.76	149.968	Horizontal	2	Pass
10.0MHz Band QPSK	1/#Mid	2501	-1.59	4.55	27.76	21.62	145.211	Horizontal	2	Pass
		2593	-1.45	4.69	27.72	21.58	143.880	Horizontal	2	Pass
		2685	-1.44	4.72	27.70	21.54	142.561	Horizontal	2	Pass
15.0MHz Band QPSK	1/#Mid	2503.5	-1.42	4.55	27.77	21.80	151.356	Horizontal	2	Pass
		2593	-1.14	4.69	27.72	21.89	154.525	Horizontal	2	Pass
		2682.5	-1.19	4.72	27.69	21.78	150.661	Horizontal	2	Pass
20.0MHz Band QPSK	1/#Mid	2506	-1.03	4.57	27.78	**22.18**	165.196	Horizontal	2	Pass
		2593	-1.08	4.73	27.72	21.91	155.239	Horizontal	2	Pass
		2680	-1.08	4.75	27.68	21.85	153.109	Horizontal	2	Pass
5.0MHz Band QPSK	1/#Mid	2498.5	-1.31	4.54	27.75	21.90	154.882	Vertical	2	Pass
		2593	-1.22	4.69	27.72	21.81	151.705	Vertical	2	Pass
		2687.5	-1.20	4.71	27.71	21.80	151.356	Vertical	2	Pass
10.0MHz Band QPSK	1/#Mid	2501	-1.29	4.55	27.76	21.92	155.597	Vertical	2	Pass
		2593	-1.13	4.69	27.72	21.90	154.882	Vertical	2	Pass
		2685	-1.20	4.72	27.70	21.78	150.661	Vertical	2	Pass
15.0MHz Band QPSK	1/#Mid	2503.5	-2.36	4.55	27.77	20.86	121.899	Vertical	2	Pass
		2593	-2.06	4.69	27.72	20.97	125.026	Vertical	2	Pass
		2682.5	-2.69	4.72	27.69	20.28	106.660	Vertical	2	Pass
20.0MHz Band QPSK	1/#Mid	2506	-2.91	4.57	27.78	20.30	107.152	Vertical	2	Pass
		2593	-1.89	4.73	27.72	21.10	128.825	Vertical	2	Pass
		2680	-1.79	4.75	27.68	21.14	130.017	Vertical	2	Pass

	Radiated Power (EIRP) for Band 41									
Mode	RB/RB SIZE	Frequency	Result						Limit(W)	Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP		
5.0MHz Band 16 QAM	1/#Mid	2498.5	-1.57	4.54	27.75	21.64	145.881	Horizontal	2	Pass
		2593	-1.42	4.69	27.72	21.61	144.877	Horizontal	2	Pass
		2687.5	-1.30	4.71	27.71	21.70	147.911	Horizontal	2	Pass
10.0MHz Band 16 QAM	1/#Mid	2501	-1.65	4.55	27.76	21.56	143.219	Horizontal	2	Pass
		2593	-1.51	4.69	27.72	21.52	141.906	Horizontal	2	Pass
		2685	-1.50	4.72	27.70	21.48	140.605	Horizontal	2	Pass
15.0MHz Band 16 QAM	1/#Mid	2503.5	-1.48	4.55	27.77	21.74	149.279	Horizontal	2	Pass
		2593	-1.20	4.69	27.72	21.83	152.405	Horizontal	2	Pass
		2682.5	-1.25	4.72	27.69	21.72	148.594	Horizontal	2	Pass
20.0MHz Band 16 QAM	1/#Mid	2506	-1.20	4.57	27.78	**22.01**	158.855	Horizontal	2	Pass
		2593	-1.14	4.73	27.72	21.85	153.109	Horizontal	2	Pass
		2680	-1.14	4.75	27.68	21.79	151.008	Horizontal	2	Pass
5.0MHz Band 16 QAM	1/#Mid	2498.5	-1.37	4.54	27.75	21.84	152.757	Vertical	2	Pass
		2593	-1.28	4.69	27.72	21.75	149.624	Vertical	2	Pass
		2687.5	-1.26	4.71	27.71	21.74	149.279	Vertical	2	Pass
10.0MHz Band 16 QAM	1/#Mid	2501	-1.35	4.55	27.76	21.86	153.462	Vertical	2	Pass
		2593	-1.19	4.69	27.72	21.84	152.757	Vertical	2	Pass
		2685	-1.26	4.72	27.70	21.72	148.594	Vertical	2	Pass
15.0MHz Band 16 QAM	1/#Mid	2503.5	-2.14	4.55	27.77	21.08	128.233	Vertical	2	Pass
		2593	-2.52	4.69	27.72	20.51	112.460	Vertical	2	Pass
		2682.5	-2.05	4.72	27.69	20.92	123.595	Vertical	2	Pass
20.0MHz Band 16 QAM	1/#Mid	2506	-3.09	4.57	27.78	20.12	102.802	Vertical	2	Pass
		2593	-1.89	4.73	27.72	21.10	128.825	Vertical	2	Pass
		2680	-1.87	4.75	27.68	21.06	127.644	Vertical	2	Pass

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Antenna Gain(dB)+ SG Level (dBm)- Cable Loss(dBm)

Factor Gain(dB)=Antenna Gain(dB) + Amplifier Factor (dB)

9. SPURIOUS RADIATION EMISSION

RULE PART(S)

FCC: §2.1053, §22.917, §24.238, §27.53 and §90.691

LIMIT

§22.917 (e) and §24.238 and §90.691 (a): Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

§27.53 (g) For operations in the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB.

§27.53 (h) For operations in the 1710–1755 MHz and 2110–2155 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 43 + 10 log10(P) dB.

TEST PROCEDURE

For Cellular equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

For PCS equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

The unwanted emission power shall be measured with a resolution bandwidth of at least 1% of the occupied bandwidth in the 1 MHz band immediately outside and adjacent to the channel edge of the equipment. Beyond the 1 MHz band immediately outside the channel edge of the equipment, a resolution bandwidth of 1 MHz shall be employed. A narrower resolution bandwidth is allowed to be used provided that the measured power is integrated over the full required measurement bandwidth of 1 MHz or 1% of the occupied bandwidth as applicable.

The power of any unwanted emissions measured from the channel edge of the equipment shall be attenuated below the transmitter power, P (dBW), as follows:
a. for base station and subscriber equipment, other than mobile subscriber equipment, the attenuation shall not be less than 43 + 10 Log10 (p), dB; and
b. for mobile subscriber equipment, the attenuation shall not be less than 43 + 10 Log10 (p), dB at the channel edges and 55 + 10 Log10 (p) at 5.5 MHz away and beyond the channel edges where p in (a) and (b) is the transmitter power measured in watts.

MODES TESTED

LTE Band 2/4/5/7/12/13/25/26/41

RESULTS

PASS

9.1 LTE BAND 2

QPSK EIRP POWER FOR LTE BAND 2 (1.4MHZ BANDWIDTH)

Test Results for Low Channel 1850.7MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
3701.4	-45.98	4.04	33.51	-16.51	-13	-3.51	Horizontal
3701.4	-45.81	4.04	33.51	-16.34	-13	-3.34	Vertical
5552.1	-51.22	5.24	35.84	-20.62	-13	-7.62	Vertical
5552.1	-52.71	5.24	35.84	-22.11	-13	-9.11	Horizontal
195.8	-35.27	1.43	16.02	-20.68	-13	-7.68	Vertical
387.8	-35.55	1.30	17.99	-18.86	-13	-5.86	Horizontal
Test Results for Mid Channel 1880MHz							
3760.0	-48.32	4.04	33.56	-18.80	-13	-5.80	Horizontal
3760.0	-49.30	4.04	33.56	-19.78	-13	-6.78	Vertical
5640.0	-51.30	5.24	35.91	-20.63	-13	-7.63	Vertical
5640.0	-50.09	5.24	35.91	-19.42	-13	-6.42	Horizontal
203.0	-39.02	1.62	16.97	-23.67	-13	-10.67	Vertical
370.4	-42.33	1.74	15.98	-28.10	-13	-15.10	Horizontal
Test Results for High Channel 1909.3MHz							
3818.6	-52.49	4.04	34.00	-22.53	-13	-9.53	Horizontal
3818.6	-45.16	4.04	34.00	-15.20	-13	-2.20	Vertical
5727.9	-47.97	5.24	36.04	-17.17	-13	-4.17	Vertical
5727.9	-52.43	5.24	36.04	-21.63	-13	-8.63	Horizontal
196.9	-44.49	1.42	17.29	-28.62	-13	-15.62	Vertical
298.9	-36.89	1.50	17.90	-20.48	-13	-7.48	Horizontal

QPSK EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

Test Results for Low Channel 1860MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
3720.0	-48.30	4.07	33.54	-18.83	-13	-5.83	Horizontal
3720.0	-53.86	4.07	33.54	-24.39	-13	-11.39	Vertical
5580.0	-47.65	5.28	35.86	-17.07	-13	-4.07	Vertical
5580.0	-50.25	5.28	35.86	-19.67	-13	-6.67	Horizontal
191.4	-41.59	1.58	16.89	-26.27	-13	-13.27	Vertical
341.1	-36.82	1.76	17.26	-21.32	-13	-8.32	Horizontal
Test Results for Mid Channel 1880MHz							
3760.0	-47.42	4.04	33.56	-17.90	-13	-4.90	Horizontal
3760.0	-51.62	4.04	33.56	-22.10	-13	-9.10	Vertical
5640.0	-48.48	5.24	35.91	-17.81	-13	-4.81	Vertical
5640.0	-51.01	5.24	35.91	-20.34	-13	-7.34	Horizontal
198.2	-44.90	1.46	16.27	-30.09	-13	-17.09	Vertical
404.2	-34.39	1.59	15.15	-20.83	-13	-7.83	Horizontal
Test Results for High Channel 1900MHz							
3800.0	-48.76	4.04	34.00	-18.80	-13	-5.80	Horizontal
3800.0	-49.00	4.04	34.00	-19.04	-13	-6.04	Vertical
5700.0	-50.20	5.24	36.04	-19.40	-13	-6.40	Vertical
5700.0	-53.57	5.24	36.04	-22.77	-13	-9.77	Horizontal
207.4	-37.02	1.36	17.39	-20.98	-13	-7.98	Vertical
461.6	-40.33	1.66	15.39	-26.60	-13	-13.60	Horizontal

Note: PMea(dBm)= Power(dBm)+ ARpl (dBm)

. Over Limit= : PMea(dBm)-Limit(dBm)

. Both QPSK and 16QAM has been tested, the worst case is QPSK mode, the report just reported the worst case.

9.2 LTE BAND 4

QPSK EIRP POWER FOR LTE BAND 4 (1.4MHZ BANDWIDTH)

Test Results for Low Channel 1710.7MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
3421.4	-50.27	4.02	29.80	-24.49	-13	-11.49	Horizontal
3421.4	-48.80	4.02	29.80	-23.02	-13	-10.02	Vertical
5132.1	-48.50	5.24	35.84	-17.90	-13	-4.90	Vertical
5132.1	-50.27	5.24	35.84	-19.67	-13	-6.67	Horizontal
175.9	-35.50	1.68	16.04	-21.14	-13	-8.14	Vertical
298.2	-37.06	1.78	17.74	-21.10	-13	-8.10	Horizontal
Test Results for Mid Channel 1732.5MHz							
3465.0	-53.31	4.03	30.00	-27.34	-13	-14.34	Horizontal
3465.0	-52.28	4.03	30.00	-26.31	-13	-13.31	Vertical
5197.5	-53.01	5.25	35.86	-22.40	-13	-9.40	Vertical
5197.5	-52.58	5.25	35.86	-21.97	-13	-8.97	Horizontal
210.4	-44.00	1.72	17.69	-28.03	-13	-15.03	Vertical
331.5	-37.59	1.62	16.02	-23.18	-13	-10.18	Horizontal
Test Results for High Channel 1754.3MHz							
3508.6	-53.60	4.05	30.01	-27.64	-13	-14.64	Horizontal
3508.6	-46.95	4.05	30.01	-20.99	-13	-7.99	Vertical
5262.9	-48.25	5.26	35.86	-17.65	-13	-4.65	Vertical
5262.9	-52.34	5.26	35.86	-21.74	-13	-8.74	Horizontal
187.2	-37.95	1.80	16.69	-23.06	-13	-10.06	Vertical
316.0	-44.35	1.75	16.66	-29.45	-13	-16.45	Horizontal

QPSK EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

Test Results for Low Channel 1720MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
3440.0	-44.58	4.02	29.80	-18.80	-13	-5.80	Horizontal
3440.0	-44.95	4.02	29.80	-19.17	-13	-6.17	Vertical
5160.0	-50.81	5.24	35.84	-20.21	-13	-7.21	Vertical
5160.0	-49.74	5.24	35.84	-19.14	-13	-6.14	Horizontal
203.0	-44.03	1.57	17.26	-28.34	-13	-15.34	Vertical
365.3	-38.15	1.78	16.35	-23.58	-13	-10.58	Horizontal
Test Results for Mid Channel 1732.5MHz							
3465.0	-47.43	4.03	30.00	-21.46	-13	-8.46	Horizontal
3465.0	-45.54	4.03	30.00	-19.57	-13	-6.57	Vertical
5197.5	-49.27	5.25	35.86	-18.66	-13	-5.66	Vertical
5197.5	-50.86	5.25	35.86	-20.25	-13	-7.25	Horizontal
175.1	-38.85	1.44	17.95	-22.34	-13	-9.34	Vertical
391.1	-37.07	1.65	16.09	-22.63	-13	-9.63	Horizontal
Test Results for High Channel 1745MHz							
3490.0	-44.80	2.91	27.68	-20.03	-13	-7.03	Horizontal
3490.0	-44.15	2.91	27.68	-19.38	-13	-6.38	Vertical
5235.0	-53.61	5.26	35.86	-23.01	-13	-10.01	Vertical
5235.0	-51.87	5.26	35.86	-21.27	-13	-8.27	Horizontal
206.4	-35.53	1.61	16.85	-20.29	-13	-7.29	Vertical
295.9	-42.60	1.61	15.19	-29.02	-13	-16.02	Horizontal

Note: PMea(dBm)= Power(dBm)+ ARpl (dBm)

. Over Limit= : PMea(dBm)-Limit(dBm)

. Both QPSK and 16QAM has been tested, the worst case is QPSK mode, the report just reported the worst case.

9.3 LTE BAND 5

QPSK EIRP POWER FOR LTE BAND 5 (1.4MHZ BANDWIDTH)

Test Results for Low Channel 824.7MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
1649.4	-46.45	2.78	27.50	-21.73	-13	-8.73	Horizontal
1649.4	-49.34	2.78	27.50	-24.62	-13	-11.62	Vertical
2474.1	-51.00	2.90	27.80	-26.10	-13	-13.10	Vertical
2474.1	-51.45	2.90	27.80	-26.55	-13	-13.55	Horizontal
192.0	-44.88	1.76	17.59	-29.05	-13	-16.05	Vertical
315.2	-42.89	1.63	15.87	-28.65	-13	-15.65	Horizontal
Test Results For Mid Channel 836.5MHz							
1673.0	-45.63	2.80	27.48	-20.95	-13	-7.95	Horizontal
1673.0	-53.17	2.80	27.48	-28.49	-13	-15.49	Vertical
2509.5	-52.11	2.91	27.70	-27.32	-13	-14.32	Vertical
2509.5	-51.11	2.91	27.70	-26.32	-13	-13.32	Horizontal
190.1	-36.06	1.61	15.68	-21.99	-13	-8.99	Vertical
462.2	-43.47	1.59	17.52	-27.55	-13	-14.55	Horizontal
Test Results for High Channel 848.3MHz							
1696.6	-48.30	2.82	27.43	-23.69	-13	-10.69	Horizontal
1696.6	-47.67	2.82	27.43	-23.06	-13	-10.06	Vertical
2544.9	-52.85	2.92	27.74	-28.03	-13	-15.03	Vertical
2544.9	-49.01	2.92	27.74	-24.19	-13	-11.19	Horizontal
201.4	-34.68	1.69	16.67	-19.69	-13	-6.69	Vertical
370.2	-35.36	1.70	17.18	-19.88	-13	-6.88	Horizontal

QPSK EIRP POWER FOR LTE BAND 5 (10MHZ BANDWIDTH)

Test Results for Low Channel 829MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
1658.0	-46.52	2.78	27.50	-21.80	-13	-8.80	Horizontal
1658.0	-50.85	2.78	27.50	-26.13	-13	-13.13	Vertical
2487.0	-45.91	2.90	27.80	-21.01	-13	-8.01	Vertical
2487.0	-51.27	2.90	27.80	-26.37	-13	-13.37	Horizontal
185.1	-34.21	1.71	15.57	-20.35	-13	-7.35	Vertical
320.2	-40.56	1.34	16.40	-25.50	-13	-12.50	Horizontal
Test Results for Mid Channel 836.5MHz							
1673.0	-49.11	2.80	27.48	-24.43	-13	-11.43	Horizontal
1673.0	-46.04	2.80	27.48	-21.36	-13	-8.36	Vertical
2509.5	-51.39	2.91	27.70	-26.60	-13	-13.60	Vertical
2509.5	-53.12	2.91	27.70	-28.33	-13	-15.33	Horizontal
196.5	-41.86	1.44	17.04	-26.26	-13	-13.26	Vertical
282.8	-43.16	1.76	17.62	-27.30	-13	-14.30	Horizontal
Test Results for High Channel 844MHz							
1688.0	-44.45	2.82	27.43	-19.84	-13	-6.84	Horizontal
1688.0	-53.99	2.82	27.43	-29.38	-13	-16.38	Vertical
2532.0	-50.54	2.92	27.74	-25.72	-13	-12.72	Vertical
2532.0	-53.49	2.92	27.74	-28.67	-13	-15.67	Horizontal
203.3	-44.82	1.74	17.70	-28.86	-13	-15.86	Vertical
276.4	-40.02	1.41	17.46	-23.96	-13	-10.96	Horizontal

Note: PMea(dBm)= Power(dBm)+ ARpl (dBm)

. Over Limit= : PMea(dBm)-Limit(dBm)

. Both QPSK and 16QAM has been tested, the worst case is QPSK mode, the report just reported the worst case.

9.4 LTE BAND 7

QPSK EIRP POWER FOR LTE BAND 7 (5.0MHZ BANDWIDTH)

Test Results for Low Channel 2502.5MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
5005.0	-62.16	5.23	35.81	-31.58	-25	-6.58	Horizontal
5005.0	-60.43	5.23	35.81	-29.85	-25	-4.85	Vertical
7507.5	-64.14	5.67	36.85	-32.96	-25	-7.96	Vertical
7507.5	-60.14	5.67	36.85	-28.96	-25	-3.96	Horizontal
182.2	-54.88	1.73	17.97	-38.64	-25	-13.64	Vertical
297.5	-50.53	1.38	15.11	-36.80	-25	-11.80	Horizontal
Test Results for Mid Channel 2535MHz							
5070.0	-63.97	5.23	35.82	-33.38	-25	-8.38	Horizontal
5070.0	-59.09	5.23	35.82	-28.50	-25	-3.50	Vertical
7605.0	-63.33	5.67	36.85	-32.15	-25	-7.15	Vertical
7605.0	-62.75	5.67	36.85	-31.57	-25	-6.57	Horizontal
205.5	-51.73	1.77	16.17	-37.32	-25	-12.32	Vertical
317.7	-50.91	1.63	15.21	-37.33	-25	-12.33	Horizontal
Test Results for High Channel 2567.5MHz							
5135.0	-61.67	5.24	35.83	-31.08	-25	-6.08	Horizontal
5135.0	-63.48	5.24	35.83	-32.89	-25	-7.89	Vertical
7702.5	-64.56	5.68	36.87	-33.37	-25	-8.37	Vertical
7702.5	-59.10	5.68	36.87	-27.91	-25	-2.91	Horizontal
177.6	-46.41	1.58	17.56	-30.43	-25	-5.43	Vertical
427.6	-45.29	1.45	16.58	-30.16	-25	-5.16	Horizontal

QPSK EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

Test Results for Low Channel 2510MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
5020.0	-64.14	5.23	35.82	-33.55	-25	-8.55	Horizontal
5020.0	-61.76	5.23	35.82	-31.17	-25	-6.17	Vertical
7530.0	-59.72	5.67	36.86	-28.53	-25	-3.53	Vertical
7530.0	-61.14	5.67	36.86	-29.95	-25	-4.95	Horizontal
198.1	-54.99	1.63	15.76	-40.86	-25	-15.86	Vertical
403.4	-53.56	1.71	15.44	-39.83	-25	-14.83	Horizontal
Test Results for Mid Channel 2535MHz							
5070.0	-61.33	5.23	35.82	-30.74	-25	-5.74	Horizontal
5070.0	-62.71	5.23	35.82	-32.12	-25	-7.12	Vertical
7605.0	-60.06	5.67	36.85	-28.88	-25	-3.88	Vertical
7605.0	-61.49	5.67	36.85	-30.31	-25	-5.31	Horizontal
180.8	-51.63	1.79	16.84	-36.57	-25	-11.57	Vertical
340.9	-50.05	1.71	17.64	-34.12	-25	-9.12	Horizontal
Test Results for High Channel 2560MHz							
5120.0	-63.67	5.24	35.83	-33.08	-25	-8.08	Horizontal
5120.0	-62.71	5.24	35.83	-32.12	-25	-7.12	Vertical
7680.0	-62.20	5.70	36.88	-31.02	-25	-6.02	Vertical
7680.0	-64.59	5.70	36.88	-33.41	-25	-8.41	Horizontal
179.8	-46.56	1.79	16.84	-31.50	-25	-6.50	Vertical
335.1	-44.15	1.71	17.64	-28.22	-25	-3.22	Horizontal

Note: Spurious Emission Level = Spectrum Analyzer Read Value + Cable Loss+ Antenna Factor + 11.74

. Margin = Spurious Emission Level - Limit

. Both QPSK and 16QAM has been tested, the worst case is QPSK mode, the report just reported the worst case.

9.5 LTE BAND 12

QPSK EIRP POWER FOR LTE BAND 12 (1.4MHZ BANDWIDTH)

Test Results for Low Channel 699.7MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
1399.4	-47.42	2.60	27.20	-22.82	-13	-9.82	Horizontal
1399.4	-44.96	2.60	27.20	-20.36	-13	-7.36	Vertical
2099.1	-47.60	2.85	27.54	-22.91	-13	-9.91	Vertical
2099.1	-49.81	2.85	27.54	-25.12	-13	-12.12	Horizontal
177.2	-42.56	1.49	17.78	-26.27	-13	-13.27	Vertical
367.2	-40.40	1.36	17.33	-24.43	-13	-11.43	Horizontal
Test Results For Mid Channel 707.5MHz							
1415.0	-47.97	2.61	27.28	-23.30	-13	-10.30	Horizontal
1415.0	-48.30	2.61	27.28	-23.63	-13	-10.63	Vertical
2122.5	-48.40	2.87	27.59	-23.68	-13	-10.68	Vertical
2122.5	-53.53	2.87	27.59	-28.81	-13	-15.81	Horizontal
188.0	-42.96	1.73	15.74	-28.95	-13	-15.95	Vertical
372.9	-39.14	1.62	15.79	-24.97	-13	-11.97	Horizontal
Test Results for High Channel 715.3MHz							
1430.6	-44.02	2.63	27.28	-19.37	-13	-6.37	Horizontal
1430.6	-44.18	2.63	27.28	-19.53	-13	-6.53	Vertical
2145.9	-45.04	2.88	27.60	-20.32	-13	-7.32	Vertical
2145.9	-49.55	2.88	27.60	-24.83	-13	-11.83	Horizontal
212.7	-34.52	1.61	18.00	-18.13	-13	-5.13	Vertical
444.6	-39.42	1.45	15.49	-25.39	-13	-12.39	Horizontal

QPSK EIRP POWER FOR LTE BAND 12 (10MHZ BANDWIDTH)

Test Results for Low Channel 704MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
1408.0	-46.33	2.61	27.26	-21.68	-13	-8.68	Horizontal
1408.0	-49.64	2.61	27.26	-24.99	-13	-11.99	Vertical
2112.0	-50.67	2.87	27.58	-25.96	-13	-12.96	Vertical
2112.0	-51.67	2.87	27.58	-26.96	-13	-13.96	Horizontal
180.0	-41.82	1.31	16.97	-26.16	-13	-13.16	Vertical
305.5	-40.34	1.65	16.70	-25.29	-13	-12.29	Horizontal
Test Results for Mid Channel 707.5MHz							
1415.0	-52.94	2.61	27.28	-28.27	-13	-15.27	Horizontal
1415.0	-47.45	2.61	27.28	-22.78	-13	-9.78	Vertical
2122.5	-47.77	2.87	27.59	-23.05	-13	-10.05	Vertical
2122.5	-53.38	2.87	27.59	-28.66	-13	-15.66	Horizontal
195.9	-34.07	1.72	17.99	-17.80	-13	-4.80	Vertical
378.1	-43.92	1.73	17.94	-27.71	-13	-14.71	Horizontal
Test Results for High Channel 711MHz							
1422.0	-48.43	2.62	27.28	-23.77	-13	-10.77	Horizontal
1422.0	-44.44	2.62	27.28	-19.78	-13	-6.78	Vertical
2133.0	-50.71	2.87	27.60	-25.98	-13	-12.98	Vertical
2133.0	-52.64	2.87	27.60	-27.91	-13	-14.91	Horizontal
186.0	-42.06	1.58	15.93	-27.71	-13	-14.71	Vertical
330.4	-44.88	1.36	15.59	-30.65	-13	-17.65	Horizontal

Note: PMea(dBm)= Power(dBm)+ ARpl (dBm)

. Over Limit= : PMea(dBm)-Limit(dBm)

. Both QPSK and 16QAM has been tested, the worst case is QPSK mode, the report just reported the worst case.

9.6 LTE BAND 13

QPSK EIRP POWER FOR LTE BAND 13 (5MHZ BANDWIDTH)

Test Results for Low Channel 779.5MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit（dBm）	Margin(dBm)	Polarity
1559.0	-74.35	2.61	27.28	-49.68	-40	-9.68	Horizontal
1559.0	-71.37	2.61	27.28	-46.70	-40	-6.70	Vertical
2338.5	-40.42	2.87	27.59	-15.70	-13	-2.70	Vertical
2338.5	-41.54	2.87	27.59	-16.82	-13	-3.82	Horizontal
120.1	-34.43	1.54	15.61	-20.36	-13	-7.36	Vertical
197.8	-34.24	1.51	15.21	-20.54	-13	-7.54	Horizontal
Test Results For Mid Channel 782MHz							
1564.0	-73.92	2.62	27.30	-49.24	-40	-9.24	Horizontal
1564.0	-73.00	2.62	27.30	-48.32	-40	-8.32	Vertical
2346.0	-42.50	2.87	27.62	-17.75	-13	-4.75	Vertical
2346.0	-42.37	2.87	27.62	-17.62	-13	-4.62	Horizontal
131.2	-37.13	1.65	16.17	-22.61	-13	-9.61	Vertical
267.5	-36.97	1.48	16.88	-21.57	-13	-8.57	Horizontal
Test Results for High Channel 784.5MHz							
1569.0	-73.68	2.66	27.28	-49.06	-40	-9.06	Horizontal
1569.0	-73.23	2.66	27.28	-48.61	-40	-8.61	Vertical
2353.5	-44.12	2.88	27.60	-19.40	-13	-6.40	Vertical
2353.5	-40.33	2.88	27.60	-15.61	-13	-2.61	Horizontal
80.8	-39.70	1.54	16.40	-24.84	-13	-11.84	Vertical
155.6	-39.77	1.43	15.77	-25.43	-13	-12.43	Horizontal

QPSK EIRP POWER FOR LTE BAND 13 (10MHZ BANDWIDTH)

Test Results for Channel 782MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit（dBm）	Margin(dBm)	Polarity
1564.0	-73.32	2.62	27.30	-48.64	-40	-8.64	Horizontal
1564.0	-70.64	2.62	27.30	-45.96	-40	-5.96	Vertical
2346.0	-44.07	2.87	27.62	-19.32	-13	-6.32	Vertical
2346.0	-42.58	2.87	27.62	-17.83	-13	-4.83	Horizontal
129.1	-34.59	1.43	17.03	-18.99	-13	-5.99	Vertical
86.9	-36.59	1.62	16.63	-21.58	-13	-8.58	Horizontal

Note: PMea(dBm)= Power(dBm)+ ARpl (dBm)

. Over Limit= : PMea(dBm)-Limit(dBm)

. Both QPSK and 16QAM has been tested, the worst case is QPSK mode, the report just reported the worst case.

9.7 LTE BAND 25

QPSK EIRP POWER FOR LTE BAND 25 (1.4MHZ BANDWIDTH)

Test Results for Low Channel 1710.7MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
3701.4	-48.65	4.02	29.80	-22.87	-13	-9.87	Horizontal
3701.4	-46.24	4.02	29.80	-20.46	-13	-7.46	Vertical
5552.1	-48.84	5.24	35.84	-18.24	-13	-5.24	Vertical
5552.1	-46.35	5.24	35.84	-15.75	-13	-2.75	Horizontal
93.9	-32.55	1.59	15.11	-19.03	-13	-6.03	Vertical
119.7	-33.63	1.80	15.61	-19.82	-13	-6.82	Horizontal
Test Results for Mid Channel 1732.5MHz							
3765.0	-47.22	4.03	30.00	-21.25	-13	-8.25	Horizontal
3765.0	-43.38	4.03	30.00	-17.41	-13	-4.41	Vertical
5647.5	-48.37	5.25	35.86	-17.76	-13	-4.76	Vertical
5647.5	-47.75	5.25	35.86	-17.14	-13	-4.14	Horizontal
166.1	-34.50	1.37	15.62	-20.25	-13	-7.25	Vertical
274.4	-32.06	1.55	17.51	-16.10	-13	-3.10	Horizontal
Test Results for High Channel 1754.3MHz							
3828.6	-46.48	4.05	30.01	-20.52	-13	-7.52	Horizontal
3828.6	-43.44	4.05	30.01	-17.48	-13	-4.48	Vertical
5742.9	-48.25	5.26	35.86	-17.65	-13	-4.65	Vertical
5742.9	-47.48	5.26	35.86	-16.88	-13	-3.88	Horizontal
108.6	-34.72	1.66	17.19	-19.19	-13	-6.19	Vertical
138.7	-32.57	1.35	17.94	-15.98	-13	-2.98	Horizontal

QPSK EIRP POWER FOR LTE BAND 25 (20MHZ BANDWIDTH)

Test Results for Low Channel 1720MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
3720.0	-48.94	4.02	29.80	-23.16	-13	-10.16	Horizontal
3720.0	-49.09	4.02	29.80	-23.31	-13	-10.31	Vertical
5580.0	-46.60	5.24	35.84	-16.00	-13	-3.00	Vertical
5580.0	-48.84	5.24	35.84	-18.24	-13	-5.24	Horizontal
146.2	-32.52	1.70	15.24	-18.98	-13	-5.98	Vertical
215.4	-34.44	1.42	16.58	-19.28	-13	-6.28	Horizontal
Test Results for Mid Channel 1732.5MHz							
3765.0	-48.94	4.03	30.00	-22.97	-13	-9.97	Horizontal
3765.0	-42.58	4.03	30.00	-16.61	-13	-3.61	Vertical
5647.5	-49.94	5.25	35.86	-19.33	-13	-6.33	Vertical
5647.5	-46.97	5.25	35.86	-16.36	-13	-3.36	Horizontal
132.2	-32.19	1.64	16.16	-17.67	-13	-4.67	Vertical
133.3	-33.24	1.62	17.37	-17.49	-13	-4.49	Horizontal
Test Results for High Channel 1745MHz							
3810.0	-47.06	2.91	27.68	-22.29	-13	-9.29	Horizontal
3810.0	-43.41	2.91	27.68	-18.64	-13	-5.64	Vertical
5715.0	-47.16	5.26	35.86	-16.56	-13	-3.56	Vertical
5715.0	-46.24	5.26	35.86	-15.64	-13	-2.64	Horizontal
212.6	-32.08	1.49	15.29	-18.28	-13	-5.28	Vertical
275.8	-33.72	1.79	16.42	-19.09	-13	-6.09	Horizontal

9.8 LTE BAND 26 A

QPSK EIRP POWER FOR LTE BAND 26A(814MHz~824MHz) (1.4MHZ BANDWIDTH)

Test Results for Low Channel 814.7MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
1629.4	-48.97	2.78	27.50	-24.25	-13	-11.25	Horizontal
1629.4	-42.61	2.78	27.50	-17.89	-13	-4.89	Vertical
2444.1	-48.46	2.90	27.80	-23.56	-13	-10.56	Vertical
2444.1	-49.85	2.90	27.80	-24.95	-13	-11.95	Horizontal
229.6	-34.96	1.54	16.98	-19.52	-13	-6.52	Vertical
83.3	-33.15	1.47	15.82	-18.80	-13	-5.80	Horizontal
Test Results For Mid Channel 819MHz							
1638.0	-46.72	2.80	27.48	-22.04	-13	-9.04	Horizontal
1638.0	-41.95	2.80	27.48	-17.27	-13	-4.27	Vertical
2457.0	-48.33	2.91	27.70	-23.54	-13	-10.54	Vertical
2457.0	-49.26	2.91	27.70	-24.47	-13	-11.47	Horizontal
168.2	-33.29	1.74	16.19	-18.84	-13	-5.84	Vertical
92.9	-34.82	1.46	15.43	-20.85	-13	-7.85	Horizontal
Test Results for High Channel 823.3MHz							
1646.6	-49.26	2.82	27.43	-24.65	-13	-11.65	Horizontal
1646.6	-41.00	2.82	27.43	-16.39	-13	-3.39	Vertical
2469.9	-47.92	2.92	27.74	-23.10	-13	-10.10	Vertical
2469.9	-49.39	2.92	27.74	-24.57	-13	-11.57	Horizontal
213.1	-34.51	1.67	17.05	-19.13	-13	-6.13	Vertical
121.7	-33.65	1.42	16.12	-18.95	-13	-5.95	Horizontal

QPSK EIRP POWER FOR LTE BAND 26A(814MHz~824MHz) (10MHZ BANDWIDTH)

Test Results for Channel 819MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
1638.0	-46.36	2.78	27.50	-21.64	-13	-8.64	Horizontal
1638.0	-45.86	2.78	27.50	-21.14	-13	-8.14	Vertical
2457.0	-48.20	2.90	27.80	-23.30	-13	-10.30	Vertical
2457.0	-46.21	2.90	27.80	-21.31	-13	-8.31	Horizontal
253.7	-33.34	1.43	17.34	-17.43	-13	-4.43	Vertical
256.8	-32.66	1.56	15.71	-18.51	-13	-5.51	Horizontal

9.9 LTE BAND 26 B

QPSK EIRP POWER FOR LTE BAND 26B(824MHz~849MHz) (1.4MHZ BANDWIDTH)

Test Results for Low Channel 824.7MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
1649.4	-46.96	2.78	27.50	-22.24	-13	-9.24	Horizontal
1649.4	-46.77	2.78	27.50	-22.05	-13	-9.05	Vertical
2474.1	-48.81	2.90	27.80	-23.91	-13	-10.91	Vertical
2474.1	-46.04	2.90	27.80	-21.14	-13	-8.14	Horizontal
237.0	-34.75	1.33	17.34	-18.74	-13	-5.74	Vertical
180.5	-32.56	1.47	16.80	-17.23	-13	-4.23	Horizontal
Test Results For Mid Channel 836.5MHz							
1673.0	-46.23	2.80	27.48	-21.55	-13	-8.55	Horizontal
1673.0	-41.10	2.80	27.48	-16.42	-13	-3.42	Vertical
2509.5	-49.24	2.91	27.70	-24.45	-13	-11.45	Vertical
2509.5	-47.51	2.91	27.70	-22.72	-13	-9.72	Horizontal
140.8	-32.17	1.75	15.46	-18.46	-13	-5.46	Vertical
90.6	-34.67	1.52	16.14	-20.05	-13	-7.05	Horizontal
Test Results for High Channel 848.3MHz							
1696.6	-46.83	2.82	27.43	-22.22	-13	-9.22	Horizontal
1696.6	-46.14	2.82	27.43	-21.53	-13	-8.53	Vertical
2544.9	-47.66	2.92	27.74	-22.84	-13	-9.84	Vertical
2544.9	-49.00	2.92	27.74	-24.18	-13	-11.18	Horizontal
171.4	-34.64	1.67	16.09	-20.22	-13	-7.22	Vertical
247.2	-33.11	1.80	17.55	-17.36	-13	-4.36	Horizontal

QPSK EIRP POWER FOR LTE BAND 26B(824MHz~849MHz) (15MHZ BANDWIDTH)

Test Results for Low Channel 831.5MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit （dBm）	Margin(dBm)	Polarity
1663.0	-48.05	2.78	27.50	-23.33	-13	-10.33	Horizontal
1663.0	-46.32	2.78	27.50	-21.60	-13	-8.60	Vertical
2494.5	-49.06	2.90	27.80	-24.16	-13	-11.16	Vertical
2494.5	-47.84	2.90	27.80	-22.94	-13	-9.94	Horizontal
255.4	-32.08	1.52	15.72	-17.88	-13	-4.88	Vertical
163.1	-32.44	1.40	17.03	-16.81	-13	-3.81	Horizontal
Test Results for Mid Channel 836.5MHz							
1673.0	-47.17	2.80	27.48	-22.49	-13	-9.49	Horizontal
1673.0	-43.04	2.80	27.48	-18.36	-13	-5.36	Vertical
2509.5	-47.19	2.91	27.70	-22.40	-13	-9.40	Vertical
2509.5	-49.85	2.91	27.70	-25.06	-13	-12.06	Horizontal
227.1	-33.01	1.74	16.38	-18.37	-13	-5.37	Vertical
101.3	-34.49	1.79	15.20	-21.08	-13	-8.08	Horizontal
Test Results for High Channel841.5MHz							
1683.0	-46.86	2.82	27.43	-22.25	-13	-9.25	Horizontal
1683.0	-47.08	2.82	27.43	-22.47	-13	-9.47	Vertical
2524.5	-49.67	2.92	27.74	-24.85	-13	-11.85	Vertical
2524.5	-47.34	2.92	27.74	-22.52	-13	-9.52	Horizontal
261.1	-33.34	1.78	17.44	-17.68	-13	-4.68	Vertical
120.1	-33.16	1.70	15.93	-18.93	-13	-5.93	Horizontal

9.10 LTE BAND 41

QPSK EIRP POWER FOR LTE BAND 41 (5MHZ BANDWIDTH)

Test Results for Low Channel 2498.5MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit（dBm）	Margin(dBm)	Polarity
5145.0	-63.91	5.23	35.81	-33.33	-25	-8.33	Horizontal
5145.0	-63.04	5.23	35.81	-32.46	-25	-7.46	Vertical
7717.5	-62.50	5.67	36.85	-31.32	-25	-6.32	Vertical
7717.5	-64.38	5.67	36.85	-33.20	-25	-8.20	Horizontal
435.3	-48.77	1.38	15.98	-34.17	-25	-9.17	Vertical
465.8	-45.56	1.62	15.66	-31.52	-25	-6.52	Horizontal
Test Results for Mid Channel 2593MHz							
5190.0	-62.44	5.23	35.82	-31.85	-25	-6.85	Horizontal
5190.0	-63.23	5.23	35.82	-32.64	-25	-7.64	Vertical
7785.0	-61.73	5.67	36.85	-30.55	-25	-5.55	Vertical
7785.0	-60.65	5.67	36.85	-29.47	-25	-4.47	Horizontal
510.4	-49.84	1.62	16.17	-35.29	-25	-10.29	Vertical
562.9	-46.86	1.74	17.63	-30.97	-25	-5.97	Horizontal
Test Results for High Channel 2617.5MHz							
5235.0	-60.21	5.24	35.83	-29.62	-25	-4.62	Horizontal
5235.0	-61.35	5.24	35.83	-30.76	-25	-5.76	Vertical
7852.5	-63.93	5.68	36.87	-32.74	-25	-7.74	Vertical
7852.5	-62.25	5.68	36.87	-31.06	-25	-6.06	Horizontal
197.6	-47.31	1.55	15.84	-33.02	-25	-8.02	Vertical
353.1	-46.21	1.51	17.06	-30.66	-25	-5.66	Horizontal

QPSK EIRP POWER FOR LTE BAND 41 (20MHZ BANDWIDTH)

Test Results for Low Channel 2506MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit（dBm）	Margin(dBm)	Polarity
5160.0	-63.53	5.23	35.82	-32.94	-25	-7.94	Horizontal
5160.0	-60.64	5.23	35.82	-30.05	-25	-5.05	Vertical
7740.0	-59.30	5.67	36.86	-28.11	-25	-3.11	Vertical
7740.0	-60.01	5.67	36.86	-28.82	-25	-3.82	Horizontal
128.9	-47.67	1.43	15.51	-33.59	-25	-8.59	Vertical
344.8	-45.76	1.40	16.97	-30.19	-25	-5.19	Horizontal
Test Results for Mid Channel 2593MHz							
5190.0	-63.47	5.23	35.82	-32.88	-25	-7.88	Horizontal
5190.0	-64.14	5.23	35.82	-33.55	-25	-8.55	Vertical
7785.0	-62.57	5.67	36.85	-31.39	-25	-6.39	Vertical
7785.0	-62.84	5.67	36.85	-31.66	-25	-6.66	Horizontal
100.8	-45.69	1.77	16.72	-30.74	-25	-5.74	Vertical
263.5	-46.87	1.31	16.99	-31.19	-25	-6.19	Horizontal
Test Results for High Channel 2680MHz							
5220.0	-63.08	5.24	35.83	-32.49	-25	-7.49	Horizontal
5220.0	-59.48	5.24	35.83	-28.89	-25	-3.89	Vertical
7830.0	-60.26	5.70	36.88	-29.08	-25	-4.08	Vertical
7830.0	-59.07	5.70	36.88	-27.89	-25	-2.89	Horizontal
349.9	-49.87	1.70	15.73	-35.84	-25	-10.84	Vertical
110.3	-44.47	1.75	17.33	-28.89	-25	-3.89	Horizontal

Note: PMea(dBm)= Power(dBm)+ ARpl (dBm)

. Over Limit= : PMea(dBm)-Limit(dBm)

. We test both H direction and V direction, recorded worst case direction.

Both QPSK and 16QAM has been tested, the worst case is QPSK mode, the report just reported the worst case.

10. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §22.355, §24.235, §27.54, §90.213

LIMITS

§22.355 - The carrier frequency shall not depart from the reference frequency in excess of ±2.5 ppm for mobile stations.

§24.235 - The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

TEST PROCEDURE

Use CMW 500 with Frequency Error measurement capability.

- Temp. = −30° to +50°C
- Voltage =low voltage, DC21.6V, Normal, DC 24V and High voltage, DC 26.4V.

Frequency Stability vs Temperature:

The EUT is place inside a temperature chamber. The temperature is set to -30ºC and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until +50ºC is reached.

Frequency Stability vs Voltage:

The peak frequency error is recorded (worst-case).

MODES TESTED

LTE Band 2/4/5/7/12/13/25/26/41

RESULTS

See the following pages.

10.1 LTE BAND 2

Band 2 QPSK, (20MHz BANDWIDTH RB size 100 RB Offset 0)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	1880	12.6	0.006713	2.5
24	1880	13.3	0.007084	2.5
26.4	1880	13.0	0.006930	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	1880	12.8	0.006798	2.5
Extreme (50C)	1880	11.9	0.006321	2.5
Extreme (40C)	1880	13.3	0.007069	2.5
Extreme (30C)	1880	13.5	0.007195	2.5
Extreme (10C)	1880	14.2	0.007547	2.5
Extreme (0C)	1880	12.4	0.006614	2.5
Extreme (-10C)	1880	13.0	0.006896	2.5
Extreme (-20C)	1880	14.1	0.007508	2.5
Extreme (-30C)	1880	14.6	0.007779	2.5

Band 2 16QAM, (20MHz BANDWIDTH RB size 100 RB Offset 0)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	1880	9.8	0.005218	2.5
24	1880	8.4	0.004487	2.5
26.4	1880	7.7	0.004107	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	1880	9.3	0.004937	2.5
Extreme (50C)	1880	8.5	0.004519	2.5
Extreme (40C)	1880	8.5	0.004500	2.5
Extreme (30C)	1880	9.1	0.004851	2.5
Extreme (10C)	1880	9.0	0.004781	2.5
Extreme (0C)	1880	8.6	0.004559	2.5
Extreme (-10C)	1880	8.9	0.004717	2.5
Extreme (-20C)	1880	8.9	0.004755	2.5
Extreme (-30C)	1880	7.9	0.004185	2.5

***Note:** Frequency error measurements were made by using the build-in capability of the Wireless Communication Test Set.

10.2 LTE BAND 4

Band 4 QPSK, (20MHz BANDWIDTH RB size 100 RB Offset 0)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	1732.5	9.2	0.005331	2.5
24	1732.5	8.4	0.004853	2.5
26.4	1732.5	8.2	0.004733	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	1732.5	8.0	0.004634	2.5
Extreme (50C)	1732.5	8.5	0.004906	2.5
Extreme (40C)	1732.5	7.2	0.004145	2.5
Extreme (30C)	1732.5	5.7	0.003301	2.5
Extreme (10C)	1732.5	7.0	0.004044	2.5
Extreme (0C)	1732.5	9.0	0.005212	2.5
Extreme (-10C)	1732.5	8.3	0.004776	2.5
Extreme (-20C)	1732.5	6.8	0.003907	2.5
Extreme (-30C)	1732.5	8.0	0.004610	2.5

Band 4 16QAM, (20MHz BANDWIDTH RB size 100 RB Offset 0)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	1732.5	9.9	0.005729	2.5
24	1732.5	9.3	0.005371	2.5
26.4	1732.5	7.6	0.004410	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	1732.5	10.0	0.005750	2.5
Extreme (50C)	1732.5	8.5	0.004919	2.5
Extreme (40C)	1732.5	8.1	0.004700	2.5
Extreme (30C)	1732.5	8.8	0.005096	2.5
Extreme (10C)	1732.5	8.8	0.005059	2.5
Extreme (0C)	1732.5	7.9	0.004588	2.5
Extreme (-10C)	1732.5	8.8	0.005102	2.5
Extreme (-20C)	1732.5	9.4	0.005417	2.5
Extreme (-30C)	1732.5	7.8	0.004506	2.5

***Note:** Frequency error measurements were made by using the build-in capability of the Wireless Communication Test Set.

10.3 LTE BAND 5

Band 5 QPSK, (10MHz BANDWIDTH RB size 50 RB Offset 0)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	836.5	5.5	0.006562	2.5
24	836.5	6.3	0.007482	2.5
26.4	836.5	4.3	0.005166	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	836.5	5.9	0.007011	2.5
Extreme (50C)	836.5	6.1	0.007303	2.5
Extreme (40C)	836.5	5.9	0.007096	2.5
Extreme (30C)	836.5	6.2	0.007373	2.5
Extreme (10C)	836.5	5.2	0.006207	2.5
Extreme (0C)	836.5	4.9	0.005886	2.5
Extreme (-10C)	836.5	5.2	0.006248	2.5
Extreme (-20C)	836.5	6.2	0.007375	2.5
Extreme (-30C)	836.5	6.2	0.007456	2.5

Band 5 16QAM, (10MHz BANDWIDTH RB size 50 RB Offset 0)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	836.5	5.6	0.006643	2.5
24	836.5	6.7	0.008049	2.5
26.4	836.5	4.6	0.005520	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	836.5	6.2	0.007460	2.5
Extreme (50C)	836.5	5.8	0.006943	2.5
Extreme (40C)	836.5	6.4	0.007604	2.5
Extreme (30C)	836.5	6.1	0.007326	2.5
Extreme (10C)	836.5	5.5	0.006610	2.5
Extreme (0C)	836.5	5.2	0.006162	2.5
Extreme (-10C)	836.5	6.0	0.007158	2.5
Extreme (-20C)	836.5	6.0	0.007188	2.5
Extreme (-30C)	836.5	5.9	0.007081	2.5

***Note:** Frequency error measurements were made by using the build-in capability of the Wireless Communication Test Set.

10.4 LTE BAND 7

Band 7 QPSK, (20MHz BANDWIDTH RB size 100 RB Offset 0)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	2535	9.6	0.003773	2.5
24	2535	9.2	0.003633	2.5
26.4	2535	8.6	0.003399	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	2535	9.0	0.003531	2.5
Extreme (50C)	2535	8.8	0.003479	2.5
Extreme (40C)	2535	8.7	0.003424	2.5
Extreme (30C)	2535	8.4	0.003327	2.5
Extreme (10C)	2535	8.0	0.003150	2.5
Extreme (0C)	2535	8.5	0.003367	2.5
Extreme (-10C)	2535	9.1	0.003606	2.5
Extreme (-20C)	2535	8.9	0.003520	2.5
Extreme (-30C)	2535	8.3	0.003265	2.5

Band 7 16QAM, (20MHz BANDWIDTH RB size 100 RB Offset 0)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	2535	7.2	0.002833	2.5
24	2535	6.1	0.002408	2.5
26.4	2535	5.8	0.002275	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	2535	6.3	0.002480	2.5
Extreme (50C)	2535	5.9	0.002322	2.5
Extreme (40C)	2535	5.1	0.002012	2.5
Extreme (30C)	2535	6.6	0.002612	2.5
Extreme (10C)	2535	5.4	0.002115	2.5
Extreme (0C)	2535	5.1	0.002015	2.5
Extreme (-10C)	2535	5.0	0.001982	2.5
Extreme (-20C)	2535	6.4	0.002517	2.5
Extreme (-30C)	2535	5.7	0.002242	2.5

***Note:** Frequency error measurements were made by using the build-in capability of the Wireless Communication Test Set.

10.5 LTE BAND 12

Band 12 QPSK, (10MHz BANDWIDTH RB size 50 RB Offset 0

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	707.5	8.4	0.011902	2.5
24	707.5	10.1	0.014344	2.5
26.4	707.5	9.1	0.012849	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	707.5	8.4	0.011899	2.5
Extreme (50C)	707.5	7.2	0.010203	2.5
Extreme (40C)	707.5	7.9	0.011140	2.5
Extreme (30C)	707.5	8.1	0.011476	2.5
Extreme (10C)	707.5	7.7	0.010862	2.5
Extreme (0C)	707.5	8.9	0.012542	2.5
Extreme (-10C)	707.5	8.2	0.011612	2.5
Extreme (-20C)	707.5	8.5	0.012031	2.5
Extreme (-30C)	707.5	7.7	0.010905	2.5

Band 12 16QAM, (10MHz BANDWIDTH RB size 50 RB Offset 0)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	707.5	7.2	0.010142	2.5
24	707.5	8.1	0.011427	2.5
26.4	707.5	7.8	0.010977	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	707.5	6.5	0.009175	2.5
Extreme (50C)	707.5	5.5	0.007765	2.5
Extreme (40C)	707.5	6.4	0.009110	2.5
Extreme (30C)	707.5	-7.7	-0.010912	2.5
Extreme (10C)	707.5	-8.2	-0.011590	2.5
Extreme (0C)	707.5	2.9	0.004100	2.5
Extreme (-10C)	707.5	-5.2	-0.007292	2.5
Extreme (-20C)	707.5	-8.7	-0.012302	2.5
Extreme (-30C)	707.5	-10.2	-0.014350	2.5

***Note:** Frequency error measurements were made by using the build-in capability of the Wireless Communication Test Set.

10.6 LTE BAND 13

QPSK, (10MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	710.0	13.0	0.018256	2.5
24	710.0	14.1	0.019846	2.5
26.4	710.0	13.6	0.019188	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	710.0	13.9	0.019609	2.5
Extreme (50C)	710.0	13.9	0.019519	2.5
Extreme (40C)	710.0	14.9	0.021035	2.5
Extreme (30C)	710.0	14.3	0.020163	2.5
Extreme (10C)	710.0	14.3	0.020148	2.5
Extreme (0C)	710.0	14.1	0.019867	2.5
Extreme (-10C)	710.0	14.5	0.020411	2.5
Extreme (-20C)	710	14.0	0.019740	2.5
Extreme (-30C)	710	13.8	0.019380	2.5

16QAM, (10MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	710.0	12.7	0.017867	2.5
24	710.0	13.8	0.019410	2.5
26.4	710.0	12.9	0.018129	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	710.0	12.8	0.017992	2.5
Extreme (50C)	710.0	12.0	0.016947	2.5
Extreme (40C)	710.0	13.9	0.019554	2.5
Extreme (30C)	710.0	13.3	0.018712	2.5
Extreme (10C)	710.0	14.2	0.019935	2.5
Extreme (0C)	710.0	12.1	0.016985	2.5
Extreme (-10C)	710.0	12.6	0.017798	2.5
Extreme (-20C)	710.0	14.1	0.019919	2.5
Extreme (-30C)	710.0	14.9	0.021033	2.5

***Note:** Frequency error measurements were made by using the build-in capability of the Wireless Communication Test Set.

10.7 LTE BAND 25

QPSK, (20MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	1882.5	4	0.002125	2.5
24	1882.5	17	0.009031	2.5
26.4	1882.5	1	0.000531	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	1882.5	4.7	0.002494	2.5
Extreme (50C)	1882.5	9.7	0.005164	2.5
Extreme (40C)	1882.5	6.1	0.003220	2.5
Extreme (30C)	1882.5	6.7	0.003559	2.5
Extreme (10C)	1882.5	6.0	0.003165	2.5
Extreme (0C)	1882.5	8.3	0.004404	2.5
Extreme (-10C)	1882.5	1.2	0.000615	2.5
Extreme (-20C)	1882.5	3.0	0.001589	2.5
Extreme (-30C)	1882.5	6.3	0.003334	2.5

16QAM, (20MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	1882.5	9.5	0.005022	2.5
24	1882.5	7.4	0.003950	2.5
26.4	1882.5	5.9	0.003136	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	1882.5	7.1	0.003798	2.5
Extreme (50C)	1882.5	5.2	0.002779	2.5
Extreme (40C)	1882.5	8.7	0.004627	2.5
Extreme (30C)	1882.5	2.0	0.001047	2.5
Extreme (10C)	1882.5	2.8	0.001470	2.5
Extreme (0C)	1882.5	6.6	0.003532	2.5
Extreme (-10C)	1882.5	5.9	0.003140	2.5
Extreme (-20C)	1882.5	7.1	0.003781	2.5
Extreme (-30C)	1882.5	6.9	0.003676	2.5

***Note:** Frequency error measurements were made by using the build-in capability of the Wireless Communication Test Set.

10.8 LTE BAND 26 A

Band 26A QPSK, (10MHz BANDWIDTH RB size 50 RB Offset 0)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26 QPSK, (CH 26915 RB size 75 RB Offset 0 10MHz BANDWIDTH)				
21.6	819	8.3	0.010186	2.5
24	819	5.3	0.006463	2.5
26.4	819	6.7	0.008194	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26 QPSK, (CH 26915 RB size 75 RB Offset 0 10MHz BANDWIDTH)				
Normal (25C)	819	8.2	0.010057	2.5
Extreme (50C)	819	1.5	0.001829	2.5
Extreme (40C)	819	2.0	0.002483	2.5
Extreme (30C)	819	6.5	0.007921	2.5
Extreme (10C)	819	5.1	0.006285	2.5
Extreme (0C)	819	6.9	0.008376	2.5
Extreme (-10C)	819	8.6	0.010489	2.5
Extreme (-20C)	819	6.8	0.008340	2.5
Extreme (-30C)	819	4.1	0.004966	2.5

Band 26A 16QAM, (10MHz BANDWIDTH RB size 50 RB Offset 0)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26 16QAM, (CH 26915 RB size 75 RB Offset 0 10MHz BANDWIDTH)				
21.6	819	2.0	0.002481	2.5
24	819	6.0	0.007378	2.5
26.4	819	5.0	0.006111	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26 16QAM, (CH 26915 RB size 75 RB Offset 0 10MHz BANDWIDTH)				
Normal (25C)	819	6.9	0.008458	2.5
Extreme (50C)	819	8.5	0.010413	2.5
Extreme (40C)	819	6.3	0.007643	2.5
Extreme (30C)	819	4.2	0.005161	2.5
Extreme (10C)	819	6.9	0.008461	2.5
Extreme (0C)	819	5.9	0.007218	2.5
Extreme (-10C)	819	8.2	0.010022	2.5
Extreme (-20C)	819	6.7	0.008141	2.5
Extreme (-30C)	819	7.3	0.008879	2.5

***Note:** Frequency error measurements were made by using the build-in capability of the Wireless Communication Test Set.

10.9 LTE BAND 26 B

Band 26A QPSK, (10MHz BANDWIDTH RB size 50 RB Offset 0)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26 QPSK, (CH 26740 RB size 75 RB Offset 0 10MHz				
21.6	836.5	8.1	0.009655	2.5
24	836.5	6.6	0.007939	2.5
26.4	836.5	8.2	0.009850	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26 QPSK, (CH 26740 RB size 75 RB Offset 0 10MHz				
Normal (25C)	836.5	10.1	0.012114	2.5
Extreme (50C)	836.5	9.2	0.011018	2.5
Extreme (40C)	836.5	6.9	0.008234	2.5
Extreme (30C)	836.5	8.2	0.009788	2.5
Extreme (10C)	836.5	7.7	0.009203	2.5
Extreme (0C)	836.5	9.3	0.011088	2.5
Extreme (-10C)	836.5	1.8	0.002202	2.5
Extreme (-20C)	836.5	8.1	0.009737	2.5
Extreme (-30C)	836.5	7.3	0.008756	2.5

Band 26A 16QAM, (10MHz BANDWIDTH RB size 50 RB Offset 0)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26 16QAM, (CH 26740 RB size 75 RB Offset 0 10MHz				
21.6	836.5	9.6	0.011429	2.5
24	836.5	11.2	0.013436	2.5
26.4	836.5	11.0	0.013103	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26 16QAM, (CH 26740 RB size 75 RB Offset 0 10MHz				
Normal (25C)	836.5	6.1	0.007293	2.5
Extreme (50C)	836.5	8.2	0.009779	2.5
Extreme (40C)	836.5	7.6	0.009092	2.5
Extreme (30C)	836.5	7.7	0.009191	2.5
Extreme (10C)	836.5	6.1	0.007348	2.5
Extreme (0C)	836.5	5.9	0.007073	2.5
Extreme (-10C)	836.5	5.2	0.006269	2.5
Extreme (-20C)	836.5	3.4	0.011237	2.5
Extreme (-30C)	836.5	8.9	0.007292	2.5

***Note:** Frequency error measurements were made by using the build-in capability of the Wireless Communication Test Set.

10.10 LTE BAND 41

Band 41 QPSK, (20MHz BANDWIDTH RB size 100 RB Offset 0)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	2593	8.3	0.003191	2.5
24	2593	6.1	0.002360	2.5
26.4	2593	7.5	0.002881	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	2593	7.9	0.003040	2.5
Extreme (50C)	2593	5.3	0.002039	2.5
Extreme (40C)	2593	5.0	0.001917	2.5
Extreme (30C)	2593	4.7	0.001807	2.5
Extreme (10C)	2593	6.8	0.002619	2.5
Extreme (0C)	2593	5.1	0.001980	2.5
Extreme (-10C)	2593	9.7	0.003739	2.5
Extreme (-20C)	2593	11.1	0.004274	2.5
Extreme (-30C)	2593	6.3	0.002441	2.5

Band 41 16QAM, (20MHz BANDWIDTH RB size 100 RB Offset 0)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
21.6	2593	8.9	0.003445	2.5
24	2593	6.0	0.002320	2.5
26.4	2593	6.5	0.002513	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	2593	7.1	0.002731	2.5
Extreme (50C)	2593	5.2	0.002018	2.5
Extreme (40C)	2593	5.4	0.002080	2.5
Extreme (30C)	2593	4.5	0.001729	2.5
Extreme (10C)	2593	6.4	0.002484	2.5
Extreme (0C)	2593	4.8	0.001847	2.5
Extreme (-10C)	2593	9.5	0.003660	2.5
Extreme (-20C)	2593	10.6	0.004093	2.5
Extreme (-30C)	2593	6.7	0.002571	2.5

***Note:** Frequency error measurements were made by using the build-in capability of the Wireless Communication Test Set.

11. Peak-to-Average Ratio

11.1 Description of the PAR Measurement

The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

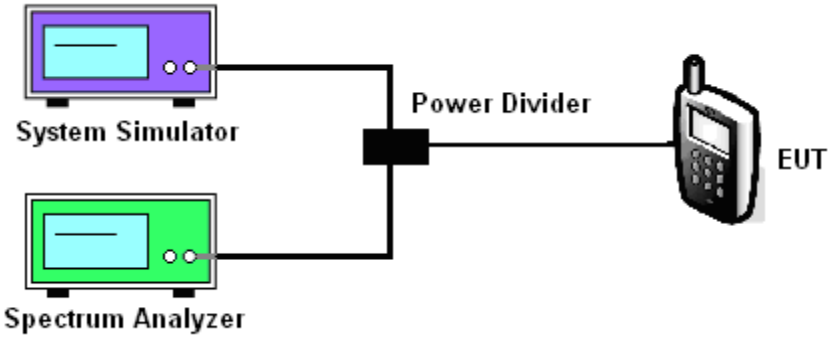
11.2 Measuring Instruments

See list of measuring instruments of this test report.

11.3 Test Procedures

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. For LTE operating modes:
   a. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
   b. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.

11.4 Test Setup



MODES TESTED

LTE Band 2/4/5/7/12/13/25/26/41

Test data reference attachment.

----END OF REPORT----