

FCC CFR47 PART 22H, 24E, 27,90S CERTIFICATION TEST REPORT FCC ID: 2ANMU-G3

Product: Smart Phone
Trade Mark: OUKITEL
Model No.: G3
Family Model: G3 Pro, G3 E, G3 S, G3 Ultra, G3 TITAN, G3 Plus
Report No.: S25050603406006
Issue Date: Jun. 03, 2025

Prepared for

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A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU INDUSTRIAL ZONE,
GUANLAN, LONGHUA SHENZHEN, 518XXX China

Prepared by

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TEST RESULT CERTIFICATION

Applicant's name : SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO.,LTD

Address..... : A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU
INDUSTRIAL ZONE, GUANLAN,LONGHUA SHENZHEN, 518XXX
China

Manufacturer's Name..... : SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO.,LTD

Address..... : A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU
INDUSTRIAL ZONE, GUANLAN,LONGHUA SHENZHEN, 518XXX
China

Product name..... : Smart Phone

Model and/or type reference .. : G3

Trade Mark..... : OUKITEL

Family Model..... : G3 Pro, G3 E, G3 S, G3 Ultra, G3 TITAN, G3 Plus

Test Sample Number..... S250506034007

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. 03, 2025

Date of Issue Jun. 03, 2025

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

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1. GENERAL INFORMATION

1.1 PRODUCT DESCRIPTION

A major technical description of EUT is described as following:

Product Designation:	Smart Phone
Trade Mark	OUKITEL
Model Name	G3
Family Model	G3 Pro, G3 E, G3 S, G3 Ultra, G3 TITAN, G3 Plus
Model Difference	All models are the same circuit and RF module, except for the color.
FCC ID:	2ANMU-G3
Frequency Bands:	U.S. Bands: ☒ LTE FDD Band 2, 4, 5, 7, 12, 17, 25, 26, 66 TDD Band 38, 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 17 Uplink: 704MHz-716MHz, Downlink: 734MHz-746MHz; 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 38 Uplink& Downlink: 2570MHz-2620MHz LTE TDD Band 41 Uplink & Downlink: 2535MHz-2655MHz, LTE FDD Band 66 Uplink: 1710MHz-1780MHz, Downlink: 2110MHz-2200MHz;
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:	PIFA Antenna
Antenna gain:	Band 2: 0.16 dBi, Band 4: 0.22 dBi, Band 5: -2.26 dBi, Band 7: 0.35 dBi, Band 12: -2.47 dBi, Band 17: -2.46 dBi, Band25:0.15 dBi, Band 26: -2.26 dBi, Band 38: 0.35 dBi, Band 41: 0.33 dBi, Band66: 0.23 dBi;
Adapter	Model: PS10UA050K2000UU Input: 100-240V~50/60Hz 0.35A Max Output: 5.0V---2.0A 10.0W
Battery	DC 3.87V, 6300mAh, 24.381Wh
Power supply	DC 3.87V from battery or DC 5V from adapter
Extreme Vol. Limits:	DC 3.29V to DC 4.45V (Nominal DC 3.87V) (Note 1)

HW Version	J575
FW Version	N/A
SW Version	V04
** Note1: The High Voltage DC 4.45V and Low Voltage 3.29V 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: 2ANMU-G3** 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 Xinfu 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 2/4/5/7/12/17/25/26/38/41/66

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	Smart Phone	G3	FCC ID: 2ANMU-G3	EUT

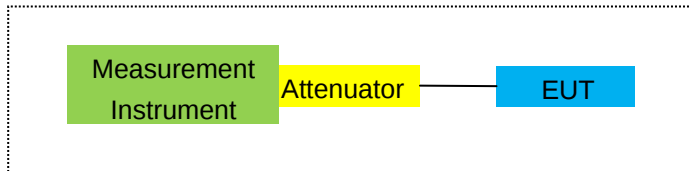
*Note: All the accessories have been used during the test.
the following "EUT" in setup diagram means EUT system.*

2.4 TEST SETUP

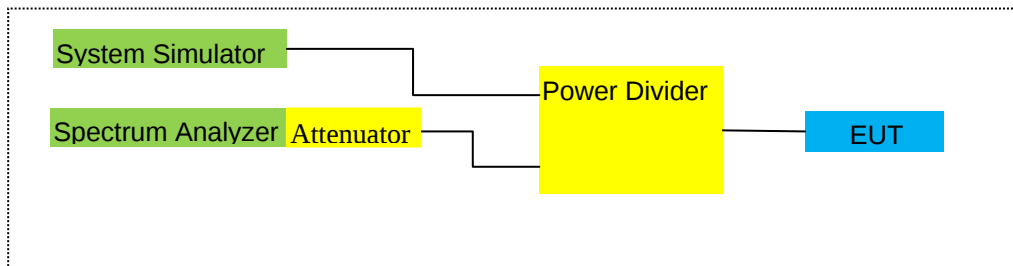
For Radiated Test Cases



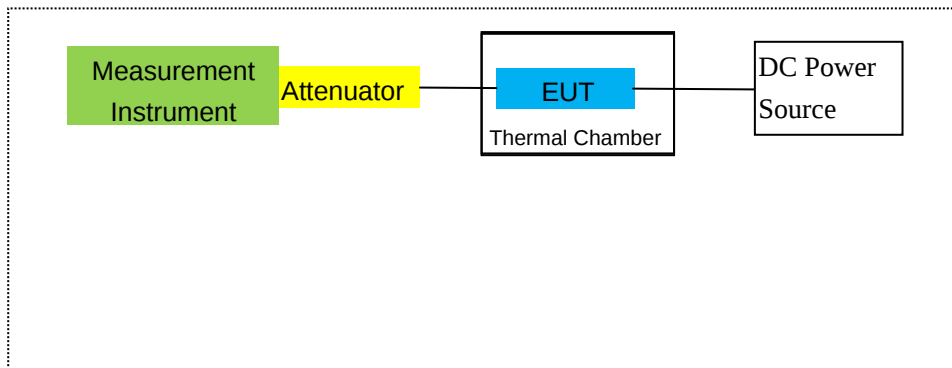
For Conducted Output Power



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	ESPI7	101318	2025.04.17	2026.04.16	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2025.04.17	2026.04.16	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2024.04.26	2027.04.25	3 year
5	Horn Antenna	EM	EM-AH-10180	2011071402	2024.05.12	2027.05.11	3 year
6	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2024.05.12	2027.05.11	3 year
7	Amplifier	EM	EM-30180	060538	2025.04.17	2026.04.16	1 year
8	Loop Antenna	ARA	PLA-1030/B	1029	2025.04.17	2026.04.16	1 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	3 year
12	Test Cable	N/A	R-02	N/A	2022.06.17	2025.06.16	3 year
13	Test Cable	N/A	R-03	N/A	2022.06.17	2025.06.16	3 year
14	Test Receiver	R&S	ESCI	101160	2024.04.26	2025.04.25	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	6200264417	2025.04.17	2026.04.16	1 year
18	Passive Voltage Probe	R&S	ESH2-Z3	100196	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	Attenuator	MCE	24-10-34	BN9258	2025.04.17	2026.04.16	1 year
23	Spectrum Analyzer	agilent	e4440a	us44300399	2025.04.17	2026.04.16	1 year
24	test receiver	R&S	ESCI	a0304218	2025.04.17	2026.04.16	1 year
25	Communication Tester	R&S	CMU200	A0304247	2025.04.17	2026.04.16	1 year
26	Thermal Chamber	Ten Billion	TTC-B3C	TBN-960502	2025.04.17	2026.04.16	1 year

27	DC Power Source	N/A	PS-6005D	2017040292 3	2023.05.06	2026.05.05	3 year
28	MXG Vector Signal Generator	Agilent	N5182A	MY47070317	2025.04.17	2026.04.16	1 year
29	Communication Tester	R&S	CMW500	148500	2025.05.06	2026.05.05	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 2/4/5/7/12/17/25/26/38/41/66

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 than $43 + 10 \log (P)$ 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 $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ 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 $43 + 10 \log_{10}(P)$ 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 2/4/5/7/12/17/25/26/38/41/66

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 2/4/5/7/12/17/25/26/38/41/66

☐

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 2/4/5/7/12/17/25/26/38/41/66

RESULTS

Pass

8.2 LTE BAND 2

		Radiated Power (EIRP) for Band 2								
Mode	RB/RB SIZE	Frequency	Result							Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP Average (dBm)	Max. EIRP	Polarization Of Max. ERP		
							Average		Limit	
							(mW)		(W)	
1.4MHz Band QPSK	1/#Mid	1850.7	-3.89	3.76	28.24	20.59	114.551	Horizontal	2	Pass
		1880	-3.70	3.91	28.22	20.61	115.080	Horizontal	2	Pass
		1909.3	-3.61	3.93	28.20	20.66	116.413	Horizontal	2	Pass
3.0MHz Band QPSK	1/#Mid	1851.5	-3.95	3.77	28.23	20.51	112.460	Horizontal	2	Pass
		1880	-3.80	3.91	28.24	20.53	112.980	Horizontal	2	Pass
		1908.5	-3.67	3.94	28.25	20.64	115.878	Horizontal	2	Pass
5.0MHz Band QPSK	1/#Mid	1852.5	-3.84	3.77	28.31	20.70	117.490	Horizontal	2	Pass
		1880	-3.46	3.91	28.22	20.85	121.619	Horizontal	2	Pass
		1907.5	-3.39	3.94	28.20	20.87	122.180	Horizontal	2	Pass
10.0MHz Band QPSK	1/#Mid	1855	-3.70	3.79	28.33	20.84	121.339	Horizontal	2	Pass
		1880	-3.40	3.95	28.22	20.87	122.180	Horizontal	2	Pass
		1905	-3.29	3.97	28.19	20.93	123.880	Horizontal	2	Pass
15.0MHz Band QPSK	1/#Mid	1857.5	-3.66	3.79	28.34	20.89	122.744	Horizontal	2	Pass
		1880	-3.45	3.95	28.22	20.82	120.781	Horizontal	2	Pass
		1902.5	-3.31	3.97	28.18	20.90	123.027	Horizontal	2	Pass
20.0MHz Band QPSK	1/#Mid	1860	-3.65	3.81	28.35	20.89	122.744	Horizontal	2	Pass
		1880	-3.32	3.96	28.22	20.94	124.165	Horizontal	2	Pass
		1900	-3.26	4.00	28.16	20.90	123.027	Horizontal	2	Pass
1.4MHz Band QPSK	1/#Mid	1850.7	-5.06	3.76	28.24	19.42	87.498	Vertical	2	Pass
		1880	-4.52	3.91	28.22	19.79	95.280	Vertical	2	Pass
		1909.3	-4.72	3.93	28.20	19.55	90.157	Vertical	2	Pass
3.0MHz Band QPSK	1/#Mid	1851.5	-4.24	3.77	28.23	20.22	105.196	Vertical	2	Pass
		1880	-4.30	3.91	28.24	20.03	100.693	Vertical	2	Pass
		1908.5	-4.78	3.94	28.25	19.53	89.743	Vertical	2	Pass
5.0MHz Band QPSK	1/#Mid	1852.5	-5.02	3.77	28.31	19.52	89.536	Vertical	2	Pass
		1880	-4.48	3.91	28.22	19.83	96.161	Vertical	2	Pass
		1907.5	-4.43	3.94	28.20	19.83	96.161	Vertical	2	Pass
10.0MHz Band QPSK	1/#Mid	1855	-5.18	3.79	28.33	19.36	86.298	Vertical	2	Pass
		1880	-4.22	3.95	28.22	20.05	101.158	Vertical	2	Pass
		1905	-4.06	3.97	28.19	20.16	103.753	Vertical	2	Pass
15.0MHz Band	1/#Mid	1857.5	-4.92	3.79	28.34	19.63	91.833	Vertical	2	Pass
		1880	-4.86	3.95	28.22	19.41	87.297	Vertical	2	Pass

QPSK		1902.5	-4.82	3.97	28.18	19.39	86.896	Vertical	2	Pass
20.0MHz	1/#Mid	1860	-4.26	3.81	28.35	20.28	106.660	Vertical	2	Pass
Band		1880	-4.78	3.96	28.22	19.48	88.716	Vertical	2	Pass
QPSK		1900	-4.67	4.00	28.16	19.49	88.920	Vertical	2	Pass

		Radiated Power (EIRP) for Band 2								
Mode	RB/RB SIZE	Frequency	Result							Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP Average (dBm)	Max. EIRP	Polarization Of Max. ERP		
							Average		Limit	
							(mW)			
1.4MHz Band 16 QAM	1/#Mid	1850.7	-5.01	3.76	28.24	19.47	88.512	Horizontal	2	Pass
		1880	-4.48	3.91	28.22	19.83	96.161	Horizontal	2	Pass
		1909.3	-4.41	3.93	28.20	19.86	96.828	Horizontal	2	Pass
3.0MHz Band 16 QAM	1/#Mid	1851.5	-4.51	3.77	28.23	19.95	98.855	Horizontal	2	Pass
		1880	-4.59	3.91	28.24	19.74	94.189	Horizontal	2	Pass
		1908.5	-4.80	3.94	28.25	19.51	89.331	Horizontal	2	Pass
5.0MHz Band 16 QAM	1/#Mid	1852.5	-4.45	3.77	28.31	20.09	102.094	Horizontal	2	Pass
		1880	-4.36	3.91	28.22	19.95	98.855	Horizontal	2	Pass
		1907.5	-4.04	3.94	28.20	20.22	105.196	Horizontal	2	Pass
10.0MHz Band 16 QAM	1/#Mid	1855	-4.50	3.79	28.33	20.04	100.925	Horizontal	2	Pass
		1880	-4.49	3.95	28.22	19.78	95.060	Horizontal	2	Pass
		1905	-3.96	3.97	28.19	20.26	106.170	Horizontal	2	Pass
15.0MHz Band 16 QAM	1/#Mid	1857.5	-4.48	3.79	28.34	20.07	101.625	Horizontal	2	Pass
		1880	-4.27	3.95	28.22	20.00	100.000	Horizontal	2	Pass
		1902.5	-4.23	3.97	28.18	19.98	99.541	Horizontal	2	Pass
20.0MHz Band 16 QAM	1/#Mid	1860	-4.37	3.81	28.35	20.17	103.992	Horizontal	2	Pass
		1880	-4.07	3.96	28.22	20.19	104.472	Horizontal	2	Pass
		1900	-3.89	4.00	28.16	20.27	106.414	Horizontal	2	Pass
1.4MHz Band 16 QAM	1/#Mid	1850.7	-5.58	3.76	28.24	18.90	77.625	Vertical	2	Pass
		1880	-5.50	3.91	28.22	18.81	76.033	Vertical	2	Pass
		1909.3	-5.29	3.93	28.20	18.98	79.068	Vertical	2	Pass
3.0MHz Band 16 QAM	1/#Mid	1851.5	-5.42	3.77	28.23	19.04	80.168	Vertical	2	Pass
		1880	-5.13	3.91	28.24	19.20	83.176	Vertical	2	Pass
		1908.5	-5.75	3.94	28.25	18.56	71.779	Vertical	2	Pass
5.0MHz Band 16 QAM	1/#Mid	1852.5	-5.36	3.77	28.31	19.18	82.794	Vertical	2	Pass
		1880	-5.18	3.91	28.22	19.13	81.846	Vertical	2	Pass
		1907.5	-5.73	3.94	28.20	18.53	71.285	Vertical	2	Pass
10.0MHz Band 16 QAM	1/#Mid	1855	-5.76	3.79	28.33	18.78	75.509	Vertical	2	Pass
		1880	-5.63	3.95	28.22	18.64	73.114	Vertical	2	Pass
		1905	-5.63	3.97	28.19	18.59	72.277	Vertical	2	Pass
15.0MHz Band 16 QAM	1/#Mid	1857.5	-6.12	3.79	28.34	18.43	69.663	Vertical	2	Pass
		1880	-5.75	3.95	28.22	18.52	71.121	Vertical	2	Pass
		1902.5	-5.70	3.97	28.18	18.51	70.958	Vertical	2	Pass
20.0MHz	1/#Mid	1860	-5.67	3.81	28.35	18.87	77.090	Vertical	2	Pass

Band 16		1880	-5.62	3.96	28.22	18.64	73.114	Vertical	2	Pass
QAM		1900	-5.30	4.00	28.16	18.86	76.913	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							Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP		
									Limit	
1.4MHz Band QPSK	1/#Mid	1710.7	-3.80	3.12	27.58	20.66	116.413	Horizontal	1	Pass
		1732.5	-3.79	3.27	27.61	20.55	113.501	Horizontal	1	Pass
		1754.3	-3.77	3.29	27.63	20.57	114.025	Horizontal	1	Pass
3.0MHz Band QPSK	1/#Mid	1711.5	-3.97	3.13	27.61	20.51	112.460	Horizontal	1	Pass
		1732.5	-3.89	3.27	27.61	20.45	110.917	Horizontal	1	Pass
		1753.5	-3.81	3.30	27.62	20.51	112.460	Horizontal	1	Pass
5.0MHz Band QPSK	1/#Mid	1712.5	-3.74	3.13	27.63	20.76	119.124	Horizontal	1	Pass
		1732.5	-3.64	3.27	27.61	20.70	117.490	Horizontal	1	Pass
		1752.5	-3.52	3.30	27.60	20.78	119.674	Horizontal	1	Pass
10.0MHz Band QPSK	1/#Mid	1715	-3.68	3.15	27.64	20.81	120.504	Horizontal	1	Pass
		1732.5	-3.45	3.31	27.61	20.85	121.619	Horizontal	1	Pass
		1750	-3.47	3.33	27.59	20.79	119.950	Horizontal	1	Pass
15.0MHz Band QPSK	1/#Mid	1717.5	-3.69	3.15	27.65	20.81	120.504	Horizontal	1	Pass
		1732.5	-3.53	3.31	27.61	20.77	119.399	Horizontal	1	Pass
		1747.5	-3.47	3.33	27.57	20.77	119.399	Horizontal	1	Pass
20.0MHz Band QPSK	1/#Mid	1720	-3.63	3.17	27.66	20.86	121.899	Horizontal	1	Pass
		1732.5	-3.46	3.32	27.61	20.83	121.060	Horizontal	1	Pass
		1745	-3.40	3.36	27.56	20.80	120.226	Horizontal	1	Pass
1.4MHz Band QPSK	1/#Mid	1710.7	-4.60	3.12	27.58	19.86	96.828	Vertical	1	Pass
		1732.5	-4.98	3.27	27.61	19.36	86.298	Vertical	1	Pass
		1754.3	-4.58	3.29	27.63	19.76	94.624	Vertical	1	Pass
3.0MHz Band QPSK	1/#Mid	1711.5	-4.50	3.13	27.61	19.98	99.541	Vertical	1	Pass
		1732.5	-4.03	3.27	27.61	20.31	107.399	Vertical	1	Pass
		1753.5	-4.87	3.30	27.62	19.45	88.105	Vertical	1	Pass
5.0MHz Band QPSK	1/#Mid	1712.5	-4.36	3.13	27.63	20.14	103.276	Vertical	1	Pass
		1732.5	-4.20	3.27	27.61	20.14	103.276	Vertical	1	Pass
		1752.5	-4.43	3.30	27.60	19.87	97.051	Vertical	1	Pass
10.0MHz Band QPSK	1/#Mid	1715	-4.93	3.15	27.64	19.56	90.365	Vertical	1	Pass
		1732.5	-4.42	3.31	27.61	19.88	97.275	Vertical	1	Pass
		1750	-4.60	3.33	27.59	19.66	92.470	Vertical	1	Pass

15.0MHz	Band QPSK	1/#Mid	1717.5	-5.13	3.15	27.65	19.37	86.497	Vertical	1	Pass
			1732.5	-4.70	3.31	27.61	19.60	91.201	Vertical	1	Pass
			1747.5	-4.86	3.33	27.57	19.38	86.696	Vertical	1	Pass
20.0MHz	Band QPSK	1/#Mid	1720	-5.09	3.17	27.66	19.40	87.096	Vertical	1	Pass
			1732.5	-4.04	3.32	27.61	20.25	105.925	Vertical	1	Pass
			1745	-4.65	3.36	27.56	19.55	90.157	Vertical	1	Pass

		Radiated Power (EIRP) for Band 4								
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	
1.4MHz Band 16 QAM	1/#Mid	1710.7	-4.61	3.12	27.58	19.85	96.605	Horizontal	1	Pass
		1732.5	-4.46	3.27	27.61	19.88	97.275	Horizontal	1	Pass
		1754.3	-4.46	3.29	27.63	19.88	97.275	Horizontal	1	Pass
3.0MHz Band 16 QAM	1/#Mid	1711.5	-4.55	3.13	27.61	19.93	98.401	Horizontal	1	Pass
		1732.5	-4.68	3.27	27.61	19.66	92.470	Horizontal	1	Pass
		1753.5	-4.90	3.30	27.62	19.42	87.498	Horizontal	1	Pass
5.0MHz Band 16 QAM	1/#Mid	1712.5	-4.38	3.13	27.63	20.12	102.802	Horizontal	1	Pass
		1732.5	-4.34	3.27	27.61	20.00	100.000	Horizontal	1	Pass
		1752.5	-4.03	3.30	27.60	20.27	106.414	Horizontal	1	Pass
10.0MHz Band 16 QAM	1/#Mid	1715	-4.45	3.15	27.64	20.04	100.925	Horizontal	1	Pass
		1732.5	-4.64	3.31	27.61	19.66	92.470	Horizontal	1	Pass
		1750	-4.02	3.33	27.59	20.24	105.682	Horizontal	1	Pass
15.0MHz Band 16 QAM	1/#Mid	1717.5	-4.25	3.15	27.65	20.25	105.925	Horizontal	1	Pass
		1732.5	-4.31	3.31	27.61	19.99	99.770	Horizontal	1	Pass
		1747.5	-4.33	3.33	27.57	19.91	97.949	Horizontal	1	Pass
20.0MHz Band 16 QAM	1/#Mid	1720	-4.20	3.17	27.66	20.29	106.905	Horizontal	1	Pass
		1732.5	-4.21	3.32	27.61	20.08	101.859	Horizontal	1	Pass
		1745	-4.02	3.36	27.56	20.18	104.232	Horizontal	1	Pass
1.4MHz Band 16 QAM	1/#Mid	1710.7	-5.25	3.12	27.58	19.21	83.368	Vertical	1	Pass
		1732.5	-5.51	3.27	27.61	18.83	76.384	Vertical	1	Pass
		1754.3	-5.75	3.29	27.63	18.59	72.277	Vertical	1	Pass
3.0MHz Band 16 QAM	1/#Mid	1711.5	-5.44	3.13	27.61	19.04	80.168	Vertical	1	Pass
		1732.5	-5.34	3.27	27.61	19.00	79.433	Vertical	1	Pass
		1753.5	-5.38	3.30	27.62	18.94	78.343	Vertical	1	Pass
5.0MHz Band 16 QAM	1/#Mid	1712.5	-6.00	3.13	27.63	18.50	70.795	Vertical	1	Pass
		1732.5	-5.71	3.27	27.61	18.63	72.946	Vertical	1	Pass
		1752.5	-5.32	3.30	27.60	18.98	79.068	Vertical	1	Pass
10.0MHz Band 16 QAM	1/#Mid	1715	-6.13	3.15	27.64	18.36	68.549	Vertical	1	Pass
		1732.5	-5.47	3.31	27.61	18.83	76.384	Vertical	1	Pass
		1750	-5.60	3.33	27.59	18.66	73.451	Vertical	1	Pass
15.0MHz Band 16 QAM	1/#Mid	1717.5	-6.03	3.15	27.65	18.47	70.307	Vertical	1	Pass
		1732.5	-5.95	3.31	27.61	18.35	68.391	Vertical	1	Pass
		1747.5	-5.92	3.33	27.57	18.32	67.920	Vertical	1	Pass

20.0MHz		1720	-5.49	3.17	27.66	19.00	79.433	Vertical	1	Pass
Band 16	1/#Mid	1732.5	-5.67	3.32	27.61	18.62	72.778	Vertical	1	Pass
QAM		1745	-5.33	3.36	27.56	18.87	77.090	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	
1.4MHz	3/#Mid	824.7	5.50	2.01	19.68	2.15	21.02	126.474	Horizontal	7	Pass
Band		836.5	5.38	2.01	19.77	2.15	20.99	125.603	Horizontal	7	Pass
QPSK		848.3	5.18	2.02	19.82	2.15	20.83	121.060	Horizontal	7	Pass
3.0MHz	1/#Mid	825.5	5.27	2.01	19.70	2.15	20.81	120.504	Horizontal	7	Pass
Band		836.5	5.17	2.01	19.77	2.15	20.78	119.674	Horizontal	7	Pass
QPSK		847.5	5.04	2.02	19.81	2.15	20.68	116.950	Horizontal	7	Pass
5.0MHz	1/#Mid	826.5	5.55	2.01	19.71	2.15	21.10	128.825	Horizontal	7	Pass
Band		836.5	5.43	2.01	19.77	2.15	21.04	127.057	Horizontal	7	Pass
QPSK		846.5	5.27	2.02	19.79	2.15	20.89	122.744	Horizontal	7	Pass
10.0MHz	1/#Mid	829	5.57	2.01	19.73	2.15	21.14	130.017	Horizontal	7	Pass
Band		836.5	5.52	2.01	19.77	2.15	21.13	129.718	Horizontal	7	Pass
QPSK		844	5.42	2.02	19.78	2.15	21.03	126.765	Horizontal	7	Pass
1.4MHz	1/#Mid	824.7	4.09	2.01	19.68	2.15	19.61	91.411	Vertical	7	Pass
Band		836.5	4.13	2.01	19.77	2.15	19.74	94.189	Vertical	7	Pass
QPSK		848.3	4.46	2.02	19.82	2.15	20.11	102.565	Vertical	7	Pass
3.0MHz	1/#Mid	825.5	4.77	2.01	19.70	2.15	20.31	107.399	Vertical	7	Pass
Band		836.5	4.26	2.01	19.77	2.15	19.87	97.051	Vertical	7	Pass
QPSK		847.5	4.28	2.02	19.81	2.15	19.92	98.175	Vertical	7	Pass
5.0MHz	1/#Mid	826.5	4.01	2.01	19.71	2.15	19.56	90.365	Vertical	7	Pass
Band		836.5	4.21	2.01	19.77	2.15	19.82	95.940	Vertical	7	Pass
QPSK		846.5	4.28	2.02	19.79	2.15	19.90	97.724	Vertical	7	Pass
10.0MHz	1/#Mid	829	3.87	2.01	19.73	2.15	19.44	87.902	Vertical	7	Pass
Band		836.5	4.45	2.01	19.77	2.15	20.06	101.391	Vertical	7	Pass
QPSK		844	4.68	2.02	19.78	2.15	20.29	106.905	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	
1.4MHz Band 16 QAM	3/##Mid	824.7	4.65	2.01	19.68	2.15	20.17	103.992	Horizontal	7	Pass
		836.5	4.58	2.01	19.77	2.15	20.19	104.472	Horizontal	7	Pass
		848.3	4.42	2.02	19.82	2.15	20.07	101.625	Horizontal	7	Pass
3.0MHz Band 16 QAM	1/##Mid	825.5	4.73	2.01	19.70	2.15	20.27	106.414	Horizontal	7	Pass
		836.5	4.44	2.01	19.77	2.15	20.05	101.158	Horizontal	7	Pass
		847.5	3.92	2.02	19.81	2.15	19.56	90.365	Horizontal	7	Pass
5.0MHz Band 16 QAM	1/##Mid	826.5	5.05	2.01	19.71	2.15	20.60	114.815	Horizontal	7	Pass
		836.5	4.82	2.01	19.77	2.15	20.43	110.408	Horizontal	7	Pass
		846.5	4.57	2.02	19.79	2.15	20.19	104.472	Horizontal	7	Pass
10.0MHz Band 16 QAM	1/##Mid	829	5.05	2.01	19.73	2.15	20.62	115.345	Horizontal	7	Pass
		836.5	4.77	2.01	19.77	2.15	20.38	109.144	Horizontal	7	Pass
		844	4.31	2.02	19.78	2.15	19.92	98.175	Horizontal	7	Pass
1.4MHz Band 16 QAM	1/##Mid	824.7	3.79	2.01	19.68	2.15	19.31	85.310	Vertical	7	Pass
		836.5	4.70	2.01	19.77	2.15	20.31	107.399	Vertical	7	Pass
		848.3	4.22	2.02	19.82	2.15	19.87	97.051	Vertical	7	Pass
3.0MHz Band 16 QAM	1/##Mid	825.5	4.10	2.01	19.70	2.15	19.64	92.045	Vertical	7	Pass
		836.5	3.04	2.01	19.77	2.15	18.65	73.282	Vertical	7	Pass
		847.5	3.71	2.02	19.81	2.15	19.35	86.099	Vertical	7	Pass
5.0MHz Band 16 QAM	1/##Mid	826.5	3.75	2.01	19.71	2.15	19.30	85.114	Vertical	7	Pass
		836.5	3.29	2.01	19.77	2.15	18.90	77.625	Vertical	7	Pass
		846.5	2.71	2.02	19.79	2.15	18.33	68.077	Vertical	7	Pass
10.0MHz Band 16 QAM	1/##Mid	829	3.26	2.01	19.73	2.15	18.83	76.384	Vertical	7	Pass
		836.5	3.13	2.01	19.77	2.15	18.74	74.817	Vertical	7	Pass
		844	3.53	2.02	19.78	2.15	19.14	82.035	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	
5.0MHz Band QPSK	1/#Mid	2502.5	-2.08	4.54	27.75	21.13	129.718	Horizontal	2	Pass
		2535	-1.91	4.69	27.72	21.12	129.420	Horizontal	2	Pass
		2567.5	-1.84	4.71	27.71	21.16	130.617	Horizontal	2	Pass
10.0MHz Band QPSK	1/#Mid	2505	-2.01	4.55	27.76	21.20	131.826	Horizontal	2	Pass
		2535	-1.82	4.69	27.72	21.21	132.130	Horizontal	2	Pass
		2565	-1.74	4.72	27.70	21.24	133.045	Horizontal	2	Pass
15.0MHz Band QPSK	1/#Mid	2507.5	-2.02	4.55	27.77	21.20	131.826	Horizontal	2	Pass
		2535	-1.88	4.69	27.72	21.15	130.317	Horizontal	2	Pass
		2562.5	-1.78	4.72	27.69	21.19	131.522	Horizontal	2	Pass
20.0MHz Band QPSK	1/#Mid	2510	-1.96	4.57	27.78	21.25	133.352	Horizontal	2	Pass
		2535	-1.78	4.73	27.72	21.21	132.130	Horizontal	2	Pass
		2560	-1.74	4.75	27.68	21.19	131.522	Horizontal	2	Pass
5.0MHz Band QPSK	1/#Mid	2502.5	-3.88	4.54	27.75	19.33	85.704	Vertical	2	Pass
		2535	-3.65	4.69	27.72	19.38	86.696	Vertical	2	Pass
		2567.5	-3.00	4.71	27.71	20.00	100.000	Vertical	2	Pass
10.0MHz Band QPSK	1/#Mid	2505	-3.28	4.55	27.76	19.93	98.401	Vertical	2	Pass
		2535	-2.94	4.69	27.72	20.09	102.094	Vertical	2	Pass
		2565	-3.55	4.72	27.70	19.43	87.700	Vertical	2	Pass
15.0MHz Band QPSK	1/#Mid	2507.5	-3.18	4.55	27.77	20.04	100.925	Vertical	2	Pass
		2535	-2.88	4.69	27.72	20.15	103.514	Vertical	2	Pass
		2562.5	-3.66	4.72	27.69	19.31	85.310	Vertical	2	Pass
20.0MHz Band QPSK	1/#Mid	2510	-2.97	4.57	27.78	20.24	105.682	Vertical	2	Pass
		2535	-3.43	4.73	27.72	19.56	90.365	Vertical	2	Pass
		2560	-3.61	4.75	27.68	19.32	85.507	Vertical	2	Pass

		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	
5.0MHz Band 16 QAM	1/#Mid	2502.5	-2.77	4.54	27.75	20.44	110.662	Horizontal	2	Pass
		2535	-2.46	4.69	27.72	20.57	114.025	Horizontal	2	Pass
		2567.5	-2.54	4.71	27.71	20.46	111.173	Horizontal	2	Pass
10.0MHz Band 16 QAM	1/#Mid	2505	-2.66	4.55	27.76	20.55	113.501	Horizontal	2	Pass
		2535	-2.67	4.69	27.72	20.36	108.643	Horizontal	2	Pass
		2565	-2.94	4.72	27.70	20.04	100.925	Horizontal	2	Pass
15.0MHz Band 16 QAM	1/#Mid	2507.5	-2.84	4.55	27.77	20.38	109.144	Horizontal	2	Pass
		2535	-2.81	4.69	27.72	20.22	105.196	Horizontal	2	Pass
		2562.5	-2.42	4.72	27.69	20.55	113.501	Horizontal	2	Pass
20.0MHz Band 16 QAM	1/#Mid	2510	-2.72	4.57	27.78	20.49	111.944	Horizontal	2	Pass
		2535	-2.39	4.73	27.72	20.60	114.815	Horizontal	2	Pass
		2560	-2.49	4.75	27.68	20.44	110.662	Horizontal	2	Pass
5.0MHz Band 16 QAM	1/#Mid	2502.5	-4.14	4.54	27.75	19.07	80.724	Vertical	2	Pass
		2535	-4.22	4.69	27.72	18.81	76.033	Vertical	2	Pass
		2567.5	-2.92	4.71	27.71	20.08	101.859	Vertical	2	Pass
10.0MHz Band 16 QAM	1/#Mid	2505	-3.03	4.55	27.76	20.18	104.232	Vertical	2	Pass
		2535	-3.47	4.69	27.72	19.56	90.365	Vertical	2	Pass
		2565	-3.51	4.72	27.70	19.47	88.512	Vertical	2	Pass
15.0MHz Band 16 QAM	1/#Mid	2507.5	-3.41	4.55	27.77	19.81	95.719	Vertical	2	Pass
		2535	-3.67	4.69	27.72	19.36	86.298	Vertical	2	Pass
		2562.5	-3.85	4.72	27.69	19.12	81.658	Vertical	2	Pass
20.0MHz Band 16 QAM	1/#Mid	2510	-4.40	4.57	27.78	18.81	76.033	Vertical	2	Pass
		2535	-4.15	4.73	27.72	18.84	76.560	Vertical	2	Pass
		2560	-3.26	4.75	27.68	19.67	92.683	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								Conclusio n
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Correction (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP		
										Limit	
1.4MHz	1/#Mid	699.7	5.87	1.91	19.21	2.15	21.02	126.474	Vertical	3	Pass
Band		707.5	5.79	1.91	19.26	2.15	20.99	125.603	Vertical	3	Pass
QPSK		715.3	5.57	1.93	19.34	2.15	20.83	121.060	Vertical	3	Pass
3.0MHz	1/#Mid	700.5	5.66	1.91	19.21	2.15	20.81	120.504	Vertical	3	Pass
Band		707.5	5.58	1.91	19.26	2.15	20.78	119.674	Vertical	3	Pass
QPSK		714.5	5.42	1.93	19.34	2.15	20.68	116.950	Vertical	3	Pass
5.0MHz	1/#Mid	701.5	5.93	1.91	19.23	2.15	21.10	128.825	Vertical	3	Pass
Band		707.5	5.84	1.91	19.26	2.15	21.04	127.057	Vertical	3	Pass
QPSK		713.5	5.63	1.92	19.33	2.15	20.89	122.744	Vertical	3	Pass
10.0MHz	1/#Mid	704	5.95	1.91	19.25	2.15	21.19	131.522	Vertical	3	Pass
Band		707.5	5.93	1.91	19.26	2.15	21.13	129.718	Vertical	3	Pass
QPSK		711	5.78	1.92	19.32	2.15	21.03	126.765	Vertical	3	Pass
1.4MHz	1/#Mid	699.7	4.79	1.91	19.21	2.15	19.94	98.628	Horizontal	3	Pass
Band		707.5	5.10	1.91	19.26	2.15	20.30	107.152	Horizontal	3	Pass
QPSK		715.3	4.94	1.93	19.34	2.15	20.20	104.713	Horizontal	3	Pass
3.0MHz	1/#Mid	700.5	4.17	1.91	19.21	2.15	19.32	85.507	Horizontal	3	Pass
Band		707.5	4.21	1.91	19.26	2.15	19.41	87.297	Horizontal	3	Pass
QPSK		714.5	4.35	1.93	19.34	2.15	19.61	91.411	Horizontal	3	Pass
5.0MHz	1/#Mid	701.5	4.72	1.91	19.23	2.15	19.89	97.499	Horizontal	3	Pass
Band		707.5	4.40	1.91	19.26	2.15	19.60	91.201	Horizontal	3	Pass
QPSK		713.5	4.73	1.92	19.33	2.15	19.99	99.770	Horizontal	3	Pass
10.0MHz	1/#Mid	704	4.95	1.91	19.25	2.15	20.14	103.276	Horizontal	3	Pass
Band		707.5	4.62	1.91	19.26	2.15	19.82	95.940	Horizontal	3	Pass
QPSK		711	4.81	1.92	19.32	2.15	20.06	101.391	Horizontal	3	Pass

		Radiated Power (ERP) for Band 12									
Mode	RB/RB SIZE	Frequency	Result								Conclusion
			SG Level	Cable Loss (dBm)	Antenna Factor (dB)	Correction	Max. EIRP	Max. EIRP	Polarization Of Max. ERP		
						(dB)	Average	Average		Limit	
							(dBm)	(mW)		(W)	
1.4MHz Band 16 QAM	1/#Mid	699.7	5.83	1.91	19.21	2.15	20.98	125.314	Vertical	3	Pass
		707.5	5.75	1.91	19.26	2.15	20.95	124.451	Vertical	3	Pass
		715.3	5.53	1.93	19.34	2.15	20.79	119.950	Vertical	3	Pass
3.0MHz Band 16 QAM	1/#Mid	700.5	5.62	1.91	19.21	2.15	20.77	119.399	Vertical	3	Pass
		707.5	5.54	1.91	19.26	2.15	20.74	118.577	Vertical	3	Pass
		714.5	5.38	1.93	19.34	2.15	20.64	115.878	Vertical	3	Pass
5.0MHz Band 16 QAM	1/#Mid	701.5	5.89	1.91	19.23	2.15	21.06	127.644	Vertical	3	Pass
		707.5	5.80	1.91	19.26	2.15	21.00	125.893	Vertical	3	Pass
		713.5	5.59	1.92	19.33	2.15	20.85	121.619	Vertical	3	Pass
10.0MHz Band 16 QAM	1/#Mid	704	5.91	1.91	19.25	2.15	21.10	128.825	Vertical	3	Pass
		707.5	5.89	1.91	19.26	2.15	21.09	128.529	Vertical	3	Pass
		711	5.74	1.92	19.32	2.15	20.99	125.603	Vertical	3	Pass
1.4MHz Band 16 QAM	1/#Mid	699.7	4.47	1.91	19.21	2.15	19.62	91.622	Horizontal	3	Pass
		707.5	4.49	1.91	19.26	2.15	19.69	93.111	Horizontal	3	Pass
		715.3	4.54	1.93	19.34	2.15	19.80	95.499	Horizontal	3	Pass
3.0MHz Band 16 QAM	1/#Mid	700.5	4.53	1.91	19.21	2.15	19.68	92.897	Horizontal	3	Pass
		707.5	4.64	1.91	19.26	2.15	19.84	96.383	Horizontal	3	Pass
		714.5	4.37	1.93	19.34	2.15	19.63	91.833	Horizontal	3	Pass
5.0MHz Band 16 QAM	1/#Mid	701.5	4.87	1.91	19.23	2.15	20.04	100.925	Horizontal	3	Pass
		707.5	4.71	1.91	19.26	2.15	19.91	97.949	Horizontal	3	Pass
		713.5	4.87	1.92	19.33	2.15	20.13	103.039	Horizontal	3	Pass
10.0MHz Band 16 QAM	1/#Mid	704	4.35	1.91	19.25	2.15	19.54	89.950	Horizontal	3	Pass
		707.5	4.12	1.91	19.26	2.15	19.32	85.507	Horizontal	3	Pass
		711	4.28	1.92	19.32	2.15	19.53	89.743	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 17

		Radiated Power (ERP) for Band 17									
Mode	RB/RB SIZE	Frequency	Result								Conclusio n
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Correction (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP		
										Limit	
5.0MHz Band QPSK	1/##Mid	706.5	6.29	1.91	19.23	2.15	21.46	139.959	Vertical	3	Pass
		710	6.15	1.91	19.26	2.15	21.35	136.458	Vertical	3	Pass
		713.5	6.05	1.92	19.33	2.15	21.31	135.207	Vertical	3	Pass
10.0MHz Band QPSK	1/##Mid	709	6.30	1.91	19.25	2.15	21.49	140.929	Vertical	3	Pass
		710	6.25	1.91	19.26	2.15	21.45	139.637	Vertical	3	Pass
		711	6.21	1.92	19.32	2.15	21.46	139.959	Vertical	3	Pass
5.0MHz Band QPSK	1/##Mid	706.5	4.86	1.91	19.23	2.15	20.03	100.693	Horizontal	3	Pass
		710	4.68	1.91	19.26	2.15	19.88	97.275	Horizontal	3	Pass
		713.5	5.09	1.92	19.33	2.15	20.35	108.393	Horizontal	3	Pass
10.0MHz Band QPSK	1/##Mid	709	5.90	1.91	19.25	2.15	21.09	128.529	Horizontal	3	Pass
		710	5.56	1.91	19.26	2.15	20.76	119.124	Horizontal	3	Pass
		711	4.65	1.92	19.32	2.15	19.90	97.724	Horizontal	3	Pass

		Radiated Power (ERP) for Band 17									
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 16 QAM	1/#Mid	706.5	5.54	1.91	19.23	2.15	20.71	117.761	Vertical	3	Pass
		710	5.45	1.91	19.26	2.15	20.65	116.145	Vertical	3	Pass
		713.5	5.25	1.92	19.33	2.15	20.51	112.460	Vertical	3	Pass
10.0MHz Band 16 QAM	1/#Mid	709	5.08	1.91	19.25	2.15	20.27	106.414	Vertical	3	Pass
		710	5.61	1.91	19.26	2.15	20.81	120.504	Vertical	3	Pass
		711	5.34	1.92	19.32	2.15	20.59	114.551	Vertical	3	Pass
5.0MHz Band 16 QAM	1/#Mid	706.5	4.63	1.91	19.23	2.15	19.80	95.499	Horizontal	3	Pass
		710	4.49	1.91	19.26	2.15	19.69	93.111	Horizontal	3	Pass
		713.5	4.08	1.92	19.33	2.15	19.34	85.901	Horizontal	3	Pass
10.0MHz Band 16 QAM	1/#Mid	709	4.18	1.91	19.25	2.15	19.37	86.497	Horizontal	3	Pass
		710	3.98	1.91	19.26	2.15	19.18	82.794	Horizontal	3	Pass
		711	4.22	1.92	19.32	2.15	19.47	88.512	Horizontal	3	Pass

Note:

ERP=EIRP-2.15

SG Level= Signal generator output

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

8.8 LTE BAND 25

		Radiated Power (EIRP) for Band 25								
Mode	RB/RB SIZE	Frequency	Result							Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP	Max. EIRP	Polarization Of Max. ERP		
						Average	Average		Limit	
						(dBm)	(mW)		(W)	
1.4MHz Band QPSK	1/#Mid	1850.7	-3.60	3.12	27.58	20.86	121.899	Horizontal	2	Pass
		1882,5	-3.51	3.27	27.61	20.83	121.060	Horizontal	2	Pass
		1914.3	-3.67	3.29	27.63	20.67	116.681	Horizontal	2	Pass
3.0MHz Band QPSK	1/#Mid	1851.5	-3.83	3.13	27.61	20.65	116.145	Horizontal	2	Pass
		1882,5	-3.72	3.27	27.61	20.62	115.345	Horizontal	2	Pass
		1913.5	-3.80	3.30	27.62	20.52	112.720	Horizontal	2	Pass
5.0MHz Band QPSK	1/#Mid	1852.5	-3.56	3.13	27.63	20.94	124.165	Horizontal	2	Pass
		1882,5	-3.46	3.27	27.61	20.88	122.462	Horizontal	2	Pass
		1912.5	-3.57	3.30	27.60	20.73	118.304	Horizontal	2	Pass
10.0MHz Band QPSK	1/#Mid	1855	-3.51	3.15	27.64	20.98	125.314	Horizontal	2	Pass
		1882,5	-3.33	3.31	27.61	20.97	125.026	Horizontal	2	Pass
		1910	-3.39	3.33	27.59	20.87	122.180	Horizontal	2	Pass
15.0MHz Band QPSK	1/#Mid	1857.5	-4.88	3.15	27.65	19.62	91.622	Horizontal	2	Pass
		1882,5	-4.71	3.31	27.61	19.59	90.991	Horizontal	2	Pass
		1907.5	-4.85	3.33	27.57	19.39	86.896	Horizontal	2	Pass
20.0MHz Band QPSK	1/#Mid	1860	-5.06	3.17	27.66	19.43	87.700	Horizontal	2	Pass
		1882,5	-3.30	3.32	27.61	20.99	125.603	Horizontal	2	Pass
		1905	-3.11	3.36	27.56	21.09	128.529	Horizontal	2	Pass
1.4MHz Band QPSK	1/#Mid	1850.7	-4.63	3.12	27.58	19.83	96.161	Vertical	2	Pass
		1882,5	-4.37	3.27	27.61	19.97	99.312	Vertical	2	Pass
		1914.3	-4.51	3.29	27.63	19.83	96.161	Vertical	2	Pass
3.0MHz Band QPSK	1/#Mid	1851.5	-4.41	3.13	27.61	20.07	101.625	Vertical	2	Pass
		1882,5	-4.65	3.27	27.61	19.69	93.111	Vertical	2	Pass
		1913.5	-4.64	3.30	27.62	19.68	92.897	Vertical	2	Pass
5.0MHz Band QPSK	1/#Mid	1852.5	-4.42	3.13	27.63	20.08	101.859	Vertical	2	Pass
		1882,5	-4.97	3.27	27.61	19.37	86.497	Vertical	2	Pass
		1912.5	-4.28	3.30	27.60	20.02	100.462	Vertical	2	Pass
10.0MHz Band	1/#Mid	1855	-4.97	3.15	27.64	19.52	89.536	Vertical	2	Pass
		1882,5	-4.43	3.31	27.61	19.87	97.051	Vertical	2	Pass

QPSK		1910	-4.69	3.33	27.59	19.57	90.573	Vertical	2	Pass
15.0MHz	1/#Mid	1857.5	-5.20	3.15	27.65	19.30	85.114	Vertical	2	Pass
Band		1882,5	-4.51	3.31	27.61	19.79	95.280	Vertical	2	Pass
QPSK		1907.5	-4.25	3.33	27.57	19.99	99.770	Vertical	2	Pass
20.0MHz	1/#Mid	1860	-4.99	3.17	27.66	19.50	89.125	Vertical	2	Pass
Band		1882,5	-4.33	3.32	27.61	19.96	99.083	Vertical	2	Pass
QPSK		1905	-4.91	3.36	27.56	19.29	84.918	Vertical	2	Pass

		Radiated Power (EIRP) for Band 25								
Mode	RB/RB SIZE	Frequency	Result							Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP	Max. EIRP	Polarization Of Max. ERP		
						Average	Average		Limit	
						(dBm)	(mW)		(W)	
1.4MHz Band 16 QAM	1/#Mid	1850.7	-3.52	3.12	27.58	20.94	124.165	Horizontal	2	Pass
		1882,5	-3.43	3.27	27.61	20.91	123.310	Horizontal	2	Pass
		1914.3	-3.59	3.29	27.63	20.75	118.850	Horizontal	2	Pass
3.0MHz Band 16 QAM	1/#Mid	1851.5	-3.75	3.13	27.61	20.73	118.304	Horizontal	2	Pass
		1882,5	-3.64	3.27	27.61	20.70	117.490	Horizontal	2	Pass
		1913.5	-3.72	3.30	27.62	20.60	114.815	Horizontal	2	Pass
5.0MHz Band 16 QAM	1/#Mid	1852.5	-3.48	3.13	27.63	21.02	126.474	Horizontal	2	Pass
		1882,5	-3.38	3.27	27.61	20.96	124.738	Horizontal	2	Pass
		1912.5	-3.49	3.30	27.60	20.81	120.504	Horizontal	2	Pass
10.0MHz Band 16 QAM	1/#Mid	1855	-3.43	3.15	27.64	21.06	127.644	Horizontal	2	Pass
		1882,5	-3.25	3.31	27.61	21.05	127.350	Horizontal	2	Pass
		1910	-3.12	3.33	27.59	21.31	135.207	Horizontal	2	Pass
15.0MHz Band 16 QAM	1/#Mid	1857.5	-4.48	3.15	27.65	20.02	100.462	Horizontal	2	Pass
		1882,5	-4.72	3.31	27.61	19.58	90.782	Horizontal	2	Pass
		1907.5	-4.68	3.33	27.57	19.56	90.365	Horizontal	2	Pass
20.0MHz Band 16 QAM	1/#Mid	1860	-5.14	3.17	27.66	19.35	86.099	Horizontal	2	Pass
		1882,5	-4.19	3.32	27.61	20.10	102.329	Horizontal	2	Pass
		1905	-4.86	3.36	27.56	19.34	85.901	Horizontal	2	Pass
1.4MHz Band 16 QAM	1/#Mid	1850.7	-4.85	3.12	27.58	19.61	91.411	Vertical	2	Pass
		1882,5	-4.40	3.27	27.61	19.94	98.628	Vertical	2	Pass
		1914.3	-5.06	3.29	27.63	19.28	84.723	Vertical	2	Pass
3.0MHz Band 16 QAM	1/#Mid	1851.5	-4.87	3.13	27.61	19.61	91.411	Vertical	2	Pass
		1882,5	-4.75	3.27	27.61	19.59	90.991	Vertical	2	Pass
		1913.5	-4.71	3.30	27.62	19.61	91.411	Vertical	2	Pass
5.0MHz Band 16 QAM	1/#Mid	1852.5	-4.69	3.13	27.63	19.81	95.719	Vertical	2	Pass
		1882,5	-5.00	3.27	27.61	19.34	85.901	Vertical	2	Pass
		1912.5	-4.24	3.30	27.60	20.06	101.391	Vertical	2	Pass
10.0MHz Band 16 QAM	1/#Mid	1855	-4.99	3.15	27.64	19.50	89.125	Vertical	2	Pass
		1882,5	-4.31	3.31	27.61	19.99	99.770	Vertical	2	Pass
		1910	-4.12	3.33	27.59	20.14	103.276	Vertical	2	Pass
15.0MHz Band 16 QAM	1/#Mid	1857.5	-4.47	3.15	27.65	20.03	100.693	Vertical	2	Pass
		1882,5	-4.26	3.31	27.61	20.04	100.925	Vertical	2	Pass
		1907.5	-4.76	3.33	27.57	19.48	88.716	Vertical	2	Pass

20.0MHz		1860	-4.80	3.17	27.66	19.69	93.111	Vertical	2	Pass
Band 16	1/#Mid	1882,5	-4.38	3.32	27.61	19.91	97.949	Vertical	2	Pass
QAM		1905	-4.37	3.36	27.56	19.83	96.161	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	
1.4MHz BW QPSK	6/0	814.7	-1.39	3.76	28.24	2.15	20.94	124.17	Horizontal	100	Pass
		819	-1.25	3.91	28.22	2.15	20.91	123.31	Horizontal	100	Pass
		823.3	-1.37	3.93	28.20	2.15	20.75	118.85	Horizontal	100	Pass
3.0MHz BW QPSK	15/0	815.5	-1.58	3.77	28.23	2.15	20.73	118.30	Horizontal	100	Pass
		819	-1.48	3.91	28.24	2.15	20.70	117.49	Horizontal	100	Pass
		822.5	-1.56	3.94	28.25	2.15	20.60	114.82	Horizontal	100	Pass
5.0MHz BW QPSK	25/0	816.5	-1.37	3.77	28.31	2.15	21.02	126.47	Horizontal	100	Pass
		819	-1.20	3.91	28.22	2.15	20.96	124.74	Horizontal	100	Pass
		821.5	-1.30	3.94	28.20	2.15	20.81	120.50	Horizontal	100	Pass
10.0MHz BW QPSK	50/0	819	-1.10	3.91	28.22	2.15	21.06	127.64	Horizontal	100	Pass
1.4MHz BW QPSK	6/0	814.7	-1.35	3.79	28.34	2.15	21.05	127.35	Vertical	100	Pass
		819	-1.17	3.95	28.22	2.15	20.95	124.45	Vertical	100	Pass
		823.3	-1.92	3.97	28.18	2.15	20.14	103.28	Vertical	100	Pass
3.0MHz BW QPSK	15/0	815.5	-2.92	3.77	28.23	2.15	19.39	86.90	Vertical	100	Pass
		819	-2.56	3.91	28.24	2.15	19.62	91.62	Vertical	100	Pass
		822.5	-2.56	3.94	28.25	2.15	19.60	91.20	Vertical	100	Pass
5.0MHz BW QPSK	25/0	816.5	-2.18	3.77	28.31	2.15	20.21	104.95	Vertical	100	Pass
		819	-2.34	3.91	28.22	2.15	19.82	95.94	Vertical	100	Pass
		821.5	-2.19	3.94	28.20	2.15	19.92	98.17	Vertical	100	Pass
10.0MHz BW QPSK	50/0	819	-2.55	3.91	28.22	2.15	19.61	91.41	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	
1.4MHz BW 16 QAM	6/0	814.7	-1.30	3.76	28.24	2.15	21.03	126.77	Horizontal	100	Pass
		819	-1.16	3.91	28.22	2.15	21.00	125.89	Horizontal	100	Pass
		823.3	-1.28	3.93	28.20	2.15	20.84	121.34	Horizontal	100	Pass
3.0MHz BW 16 QAM	15/0	815.5	-1.49	3.77	28.23	2.15	20.82	120.78	Horizontal	100	Pass
		819	-1.39	3.91	28.24	2.15	20.79	119.95	Horizontal	100	Pass
		822.5	-1.47	3.94	28.25	2.15	20.69	117.22	Horizontal	100	Pass
5.0MHz BW 16 QAM	25/0	816.5	-1.28	3.77	28.31	2.15	21.11	129.12	Horizontal	100	Pass
		819	-1.11	3.91	28.22	2.15	21.05	127.35	Horizontal	100	Pass
		821.5	-1.21	3.94	28.20	2.15	20.90	123.03	Horizontal	100	Pass
10.0MHz BW 16 QAM	50/0	819	-1.03	3.91	28.24	2.15	21.15	130.32	Horizontal	100	Pass
1.4MHz BW 16 QAM	6/0	814.7	-1.26	3.79	28.34	2.15	21.14	130.02	Vertical	100	Pass
		819	-1.08	3.95	28.22	2.15	21.04	127.06	Vertical	100	Pass
		823.3	-2.66	3.97	28.18	2.15	19.40	87.10	Vertical	100	Pass
3.0MHz BW 16 QAM	15/0	815.5	-2.77	3.77	28.23	2.15	19.54	89.95	Vertical	100	Pass
		819	-2.02	3.91	28.24	2.15	20.16	103.75	Vertical	100	Pass
		822.5	-2.04	3.94	28.25	2.15	20.12	102.80	Vertical	100	Pass
5.0MHz BW 16 QAM	25/0	816.5	-2.25	3.77	28.31	2.15	20.14	103.28	Vertical	100	Pass
		819	-2.13	3.91	28.22	2.15	20.03	100.69	Vertical	100	Pass
		821.5	-2.64	3.94	28.20	2.15	19.47	88.51	Vertical	100	Pass
10.0MHz BW 16 QAM	50/0	819	-2.05	3.91	28.24	2.15	20.13	103.04	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	
1.4MHz Band QPSK	6/0	824.7	4.47	2.01	19.68	2.15	19.99	99.77	Horizontal	7	Pass
		836.5	4.41	2.01	19.77	2.15	20.02	100.46	Horizontal	7	Pass
		848.3	4.35	2.02	19.82	2.15	20.00	100.00	Horizontal	7	Pass
3.0MHz Band QPSK	15/0	825.5	4.51	2.01	19.70	2.15	20.05	101.16	Horizontal	7	Pass
		836.5	4.14	2.01	19.77	2.15	19.75	94.41	Horizontal	7	Pass
		847.5	4.59	2.02	19.81	2.15	20.23	105.44	Horizontal	7	Pass
5.0MHz Band QPSK	25/0	826.5	4.77	2.01	19.71	2.15	20.32	107.65	Horizontal	7	Pass
		836.5	4.59	2.01	19.77	2.15	20.20	104.71	Horizontal	7	Pass
		846.5	3.96	2.02	19.79	2.15	19.58	90.78	Horizontal	7	Pass
10.0MHz Band QPSK	50/0	829	3.98	2.01	19.73	2.15	19.55	90.16	Horizontal	7	Pass
		836.5	4.10	2.01	19.77	2.15	19.71	93.54	Horizontal	7	Pass
		844	4.70	2.02	19.78	2.15	20.31	107.40	Horizontal	7	Pass
15.0MHz Band QPSK	75/0	831.5	3.79	2.01	19.73	2.15	19.36	86.30	Horizontal	7	Pass
		836.5	4.72	2.01	19.77	2.15	20.33	107.89	Horizontal	7	Pass
		841.5	4.45	2.02	19.78	2.15	20.06	101.39	Horizontal	7	Pass
1.4MHz Band QPSK	6/0	824.7	4.05	2.01	19.68	2.15	19.57	90.57	Vertical	7	Pass
		836.5	3.99	2.01	19.77	2.15	19.60	91.20	Vertical	7	Pass
		848.3	4.25	2.02	19.82	2.15	19.90	97.72	Vertical	7	Pass
3.0MHz Band QPSK	15/0	825.5	4.19	2.01	19.70	2.15	19.73	93.97	Vertical	7	Pass
		836.5	3.81	2.01	19.77	2.15	19.42	87.50	Vertical	7	Pass
		847.5	4.06	2.02	19.81	2.15	19.70	93.33	Vertical	7	Pass
5.0MHz Band QPSK	25/0	826.5	4.21	2.01	19.71	2.15	19.76	94.62	Vertical	7	Pass
		836.5	3.96	2.01	19.77	2.15	19.57	90.57	Vertical	7	Pass
		846.5	4.08	2.02	19.79	2.15	19.70	93.33	Vertical	7	Pass
10.0MHz Band QPSK	50/0	829	3.85	2.01	19.73	2.15	19.42	87.50	Vertical	7	Pass
		836.5	4.19	2.01	19.77	2.15	19.80	95.50	Vertical	7	Pass
		844	4.03	2.02	19.78	2.15	19.64	92.04	Vertical	7	Pass
15.0MHz Band QPSK	75/0	831.5	3.86	2.01	19.73	2.15	19.43	87.70	Vertical	7	Pass
		836.5	4.61	2.01	19.77	2.15	20.22	105.20	Vertical	7	Pass
		841.5	4.21	2.02	19.78	2.15	19.82	95.94	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	4.84	2.01	19.68	2.15	20.36	108.64	Horizontal	7	Pass
		836.5	4.07	2.01	19.77	2.15	19.68	92.90	Horizontal	7	Pass
		848.3	4.01	2.02	19.82	2.15	19.66	92.47	Horizontal	7	Pass
3.0MHz Band 16 QAM	15/0	825.5	4.10	2.01	19.70	2.15	19.64	92.04	Horizontal	7	Pass
		836.5	4.40	2.01	19.77	2.15	20.01	100.23	Horizontal	7	Pass
		847.5	4.10	2.02	19.81	2.15	19.74	94.19	Horizontal	7	Pass
5.0MHz Band 16 QAM	25/0	826.5	4.26	2.01	19.71	2.15	19.81	95.72	Horizontal	7	Pass
		836.5	4.23	2.01	19.77	2.15	19.84	96.38	Horizontal	7	Pass
		846.5	4.07	2.02	19.79	2.15	19.69	93.11	Horizontal	7	Pass
10.0MHz Band 16 QAM	50/0	829	4.47	2.01	19.73	2.15	20.04	100.93	Horizontal	7	Pass
		836.5	4.79	2.01	19.77	2.15	20.40	109.65	Horizontal	7	Pass
		844	4.03	2.02	19.78	2.15	19.64	92.04	Horizontal	7	Pass
15.0MHz Band QPSK	75/0	831.5	4.85	2.01	19.73	2.15	20.42	110.15	Horizontal	7	Pass
		836.5	4.03	2.01	19.77	2.15	19.64	92.04	Horizontal	7	Pass
		841.5	3.83	2.02	19.78	2.15	19.44	87.90	Horizontal	7	Pass
1.4MHz Band 16 QAM	6/0	824.7	4.35	2.01	19.68	2.15	19.87	97.05	Vertical	7	Pass
		836.5	4.74	2.01	19.77	2.15	20.35	108.39	Vertical	7	Pass
		848.3	4.49	2.02	19.82	2.15	20.14	103.28	Vertical	7	Pass
3.0MHz Band 16 QAM	15/0	825.5	4.29	2.01	19.70	2.15	19.83	96.16	Vertical	7	Pass
		836.5	4.11	2.01	19.77	2.15	19.72	93.76	Vertical	7	Pass
		847.5	4.71	2.02	19.81	2.15	20.35	108.39	Vertical	7	Pass
5.0MHz Band 16 QAM	25/0	826.5	3.98	2.01	19.71	2.15	19.53	89.74	Vertical	7	Pass
		836.5	4.42	2.01	19.77	2.15	20.03	100.69	Vertical	7	Pass
		846.5	4.04	2.02	19.79	2.15	19.66	92.47	Vertical	7	Pass
10.0MHz Band 16 QAM	50/0	829	4.45	2.01	19.73	2.15	20.02	100.46	Vertical	7	Pass
		836.5	4.67	2.01	19.77	2.15	20.28	106.66	Vertical	7	Pass
		844	4.05	2.02	19.78	2.15	19.66	92.47	Vertical	7	Pass

15.0MHz		831.5	3.99	2.01	19.73	2.15	19.56	90.36	Vertical	7	Pass
Band	75/0	836.5	3.92	2.01	19.77	2.15	19.53	89.74	Vertical	7	Pass
QPSK		841.5	4.18	2.02	19.78	2.15	19.79	95.28	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 38

		Radiated Power (EIRP) for Band 38								
Mode	RB/RB SIZE	Frequency	Result							Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Gain (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP		
									Limit	
5.0MHz Band QPSK	25/0	2572.5	-2.12	4.95	27.79	19.43	87.700	Vertical	2	Pass
		2595	-2.64	4.88	27.71	19.60	91.201	Vertical	2	Pass
		2617.5	-2.58	4.93	27.95	19.84	96.383	Vertical	2	Pass
5.0MHz Band 16 QAM	25/0	2572.5	-2.37	4.81	27.73	19.52	89.536	Vertical	2	Pass
		2595	-2.47	4.95	27.81	20.00	100.000	Vertical	2	Pass
		2617.5	-2.59	5.03	27.69	19.92	98.175	Vertical	2	Pass
10.0MHz Band QPSK	50/0	2575	-2.98	5.01	27.86	20.36	108.643	Vertical	2	Pass
		2595	-2.6	5	27.65	20.29	106.905	Vertical	2	Pass
		2615	-2.67	4.87	27.89	19.71	93.541	Vertical	2	Pass
10.0MHz Band 16 QAM	50/0	2575	-2.71	4.77	27.78	19.87	97.051	Vertical	2	Pass
		2595	-2.38	4.87	27.87	20.39	109.396	Vertical	2	Pass
		2615	-2.56	4.94	27.77	19.59	90.991	Vertical	2	Pass
15.0MHz Band QPSK	75/0	2577.5	-2.9	4.89	27.88	20.24	105.682	Vertical	2	Pass
		2595	-2.32	4.87	27.84	20.33	107.895	Vertical	2	Pass
		2612.5	-2.52	4.92	27.93	19.78	95.060	Vertical	2	Pass
15.0MHz Band 16 QAM	75/0	2577.5	-2.53	4.75	27.78	19.44	87.902	Vertical	2	Pass
		2595	-2.53	4.98	27.82	20.31	107.399	Vertical	2	Pass
		2612.5	-2.6	4.95	27.83	20.22	105.196	Vertical	2	Pass
20.0MHz Band QPSK	100/0	2580	-2.53	4.86	27.8	19.93	98.401	Vertical	2	Pass
		2595	-2.37	4.79	27.83	21.23	132.739	Vertical	2	Pass
		2610	-2.68	4.89	27.87	20.16	103.753	Vertical	2	Pass
20.0MHz Band 16 QAM	100/0	2580	-2.87	4.95	27.73	19.49	88.920	Vertical	2	Pass
		2595	-2.88	4.91	27.71	19.50	89.125	Vertical	2	Pass
		2610	-2.81	4.96	27.92	19.88	97.275	Vertical	2	Pass

	Radiated Power (EIRP) for Band 38									
Mode	RB/RB SIZE	Frequency	Result							Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Gain (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP		
									Limit	
5.0MHz Band QPSK	25/0	2572.5	-2.12	4.95	27.79	19.83	96.161	Horizontal	2	Pass
		2595	-2.64	4.88	27.71	20.18	104.232	Horizontal	2	Pass
		2617.5	-2.58	4.93	27.95	19.87	97.051	Horizontal	2	Pass
5.0MHz Band 16 QAM	25/0	2572.5	-2.37	4.81	27.73	19.99	99.770	Horizontal	2	Pass
		2595	-2.47	4.95	27.81	19.73	93.972	Horizontal	2	Pass
		2617.5	-2.59	5.03	27.69	19.90	97.724	Horizontal	2	Pass
10.0MHz Band QPSK	50/0	2575	-2.98	5.01	27.86	19.39	86.896	Horizontal	2	Pass
		2595	-2.6	5	27.65	20.37	108.893	Horizontal	2	Pass
		2615	-2.67	4.87	27.89	20.32	107.647	Horizontal	2	Pass
10.0MHz Band 16 QAM	50/0	2575	-2.71	4.77	27.78	20.23	105.439	Horizontal	2	Pass
		2595	-2.38	4.87	27.87	19.50	89.125	Horizontal	2	Pass
		2615	-2.56	4.94	27.77	20.17	103.992	Horizontal	2	Pass
15.0MHz Band QPSK	75/0	2577.5	-2.9	4.89	27.88	19.62	91.622	Horizontal	2	Pass
		2595	-2.32	4.87	27.84	20.20	104.713	Horizontal	2	Pass
		2612.5	-2.52	4.92	27.93	19.97	99.312	Horizontal	2	Pass
15.0MHz Band 16 QAM	75/0	2577.5	-2.53	4.75	27.78	19.89	97.499	Horizontal	2	Pass
		2595	-2.53	4.98	27.82	20.17	103.992	Horizontal	2	Pass
		2612.5	-2.6	4.95	27.83	20.25	105.925	Horizontal	2	Pass
20.0MHz Band QPSK	100/0	2580	-2.53	4.86	27.8	19.90	97.724	Horizontal	2	Pass
		2595	-2.37	4.79	27.83	20.88	122.462	Horizontal	2	Pass
		2610	-2.68	4.89	27.87	20.08	101.859	Horizontal	2	Pass
20.0MHz Band 16 QAM	100/0	2580	-2.87	4.95	27.73	20.00	100.000	Horizontal	2	Pass
		2595	-2.88	4.91	27.71	20.98	125.314	Horizontal	2	Pass
		2610	-2.81	4.96	27.92	20.00	100.000	Horizontal	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)

8.12 LTE BAND 41

		Radiated Power (EIRP) for Band 41								
Mode	RB/RB SIZE	Frequency	Result							Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP	Max. EIRP	Polarization Of Max. ERP		
						Average	Average		Limit	
						(dBm)	(mW)		(W)	
5.0MHz Band QPSK	1/#Mid	2537.5	-2.52	4.54	27.75	20.69	117.220	Horizontal	2	Pass
		2595	-2.37	4.69	27.72	20.66	116.413	Horizontal	2	Pass
		2652.5	-2.25	4.71	27.71	20.75	118.850	Horizontal	2	Pass
10.0MHz Band QPSK	1/#Mid	2540	-2.60	4.55	27.76	20.61	115.080	Horizontal	2	Pass
		2595	-2.46	4.69	27.72	20.57	114.025	Horizontal	2	Pass
		2650	-2.45	4.72	27.70	20.53	112.980	Horizontal	2	Pass
15.0MHz Band QPSK	1/#Mid	2542.5	-2.43	4.55	27.77	20.79	119.950	Horizontal	2	Pass
		2595	-2.15	4.69	27.72	20.88	122.462	Horizontal	2	Pass
		2647.5	-2.20	4.72	27.69	20.77	119.399	Horizontal	2	Pass
20.0MHz Band QPSK	1/#Mid	2545	-2.04	4.57	27.78	21.17	130.918	Horizontal	2	Pass
		2595	-2.09	4.73	27.72	20.90	123.027	Horizontal	2	Pass
		2645	-2.09	4.75	27.68	20.84	121.339	Horizontal	2	Pass
5.0MHz Band QPSK	1/#Mid	2537.5	-2.32	4.54	27.75	20.89	122.744	Vertical	2	Pass
		2595	-2.23	4.69	27.72	20.80	120.226	Vertical	2	Pass
		2652.5	-2.21	4.71	27.71	20.79	119.950	Vertical	2	Pass
10.0MHz Band QPSK	1/#Mid	2540	-2.30	4.55	27.76	20.91	123.310	Vertical	2	Pass
		2595	-2.14	4.69	27.72	20.89	122.744	Vertical	2	Pass
		2650	-2.21	4.72	27.70	20.77	119.399	Vertical	2	Pass
15.0MHz Band QPSK	1/#Mid	2542.5	-3.20	4.55	27.77	20.02	100.462	Vertical	2	Pass
		2595	-3.36	4.69	27.72	19.67	92.683	Vertical	2	Pass
		2647.5	-2.95	4.72	27.69	20.02	100.462	Vertical	2	Pass
20.0MHz Band QPSK	1/#Mid	2545	-3.28	4.57	27.78	19.93	98.401	Vertical	2	Pass
		2595	-2.84	4.73	27.72	20.15	103.514	Vertical	2	Pass
		2645	-3.02	4.75	27.68	19.91	97.949	Vertical	2	Pass

		Radiated Power (EIRP) for Band 41								
Mode	RB/RB SIZE	Frequency	Result							Conclusion
			SG Level	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP	Max. EIRP	Polarization Of Max. ERP		
						Average	Average		Limit	
						(dBm)	(mW)		(W)	
5.0MHz Band 16 QAM	1/#Mid	2537.5	-2.33	4.54	27.75	20.88	122.462	Horizontal	2	Pass
		2595	-2.18	4.69	27.72	20.85	121.619	Horizontal	2	Pass
		2652.5	-2.06	4.71	27.71	20.94	124.165	Horizontal	2	Pass
10.0MHz Band 16 QAM	1/#Mid	2540	-2.41	4.55	27.76	20.80	120.226	Horizontal	2	Pass
		2595	-2.27	4.69	27.72	20.76	119.124	Horizontal	2	Pass
		2650	-2.26	4.72	27.70	20.72	118.032	Horizontal	2	Pass
15.0MHz Band 16 QAM	1/#Mid	2542.5	-2.24	4.55	27.77	20.98	125.314	Horizontal	2	Pass
		2595	-1.96	4.69	27.72	21.07	127.938	Horizontal	2	Pass
		2647.5	-2.01	4.72	27.69	20.96	124.738	Horizontal	2	Pass
20.0MHz Band 16 QAM	1/#Mid	2545	-1.96	4.57	27.78	21.25	133.352	Horizontal	2	Pass
		2595	-1.90	4.73	27.72	21.09	128.529	Horizontal	2	Pass
		2645	-1.90	4.75	27.68	21.03	126.765	Horizontal	2	Pass
5.0MHz Band 16 QAM	1/#Mid	2537.5	-2.13	4.54	27.75	21.08	128.233	Vertical	2	Pass
		2595	-2.04	4.69	27.72	20.99	125.603	Vertical	2	Pass
		2652.5	-2.02	4.71	27.71	20.98	125.314	Vertical	2	Pass
10.0MHz Band 16 QAM	1/#Mid	2540	-2.11	4.55	27.76	21.10	128.825	Vertical	2	Pass
		2595	-1.95	4.69	27.72	21.08	128.233	Vertical	2	Pass
		2650	-2.02	4.72	27.70	20.96	124.738	Vertical	2	Pass
15.0MHz Band 16 QAM	1/#Mid	2542.5	-3.41	4.55	27.77	19.81	95.719	Vertical	2	Pass
		2595	-3.46	4.69	27.72	19.57	90.573	Vertical	2	Pass
		2647.5	-3.56	4.72	27.69	19.41	87.297	Vertical	2	Pass
20.0MHz Band 16 QAM	1/#Mid	2545	-2.98	4.57	27.78	20.23	105.439	Vertical	2	Pass
		2595	-2.83	4.73	27.72	20.16	103.753	Vertical	2	Pass
		2645	-2.67	4.75	27.68	20.26	106.170	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)

8.13 LTE BAND 66

		Radiated Power (EIRP) for Band 66								
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	
1.4MHz Band QPSK	1/#Mid	1710.7	-3.60	3.76	28.24	20.88	122.462	Horizontal	1	Pass
		1745	-3.46	3.91	28.22	20.85	121.619	Horizontal	1	Pass
		1779.3	-3.33	3.93	28.2	20.94	124.165	Horizontal	1	Pass
3.0MHz Band QPSK	1/#Mid	1711.5	-3.66	3.77	28.23	20.80	120.226	Horizontal	1	Pass
		1745	-3.57	3.91	28.24	20.76	119.124	Horizontal	1	Pass
		1778.5	-3.59	3.94	28.25	20.72	118.032	Horizontal	1	Pass
5.0MHz Band QPSK	1/#Mid	1712.5	-3.56	3.77	28.31	20.98	125.314	Horizontal	1	Pass
		1745	-3.24	3.91	28.22	21.07	127.938	Horizontal	1	Pass
		1777.5	-3.30	3.94	28.2	20.96	124.738	Horizontal	1	Pass
10.0MHz Band QPSK	1/#Mid	1715	-3.45	3.79	28.33	21.09	128.529	Horizontal	1	Pass
		1745	-3.18	3.95	28.22	21.09	128.529	Horizontal	1	Pass
		1775	-3.19	3.97	28.19	21.03	126.765	Horizontal	1	Pass
15.0MHz Band QPSK	1/#Mid	1717.5	-3.47	3.79	28.34	21.08	128.233	Horizontal	1	Pass
		1745	-3.28	3.95	28.22	20.99	125.603	Horizontal	1	Pass
		1772.5	-3.23	3.97	28.18	20.98	125.314	Horizontal	1	Pass
20.0MHz Band QPSK	1/#Mid	1720	-3.44	3.81	28.35	21.10	128.825	Horizontal	1	Pass
		1745	-3.18	3.96	28.22	21.08	128.233	Horizontal	1	Pass
		1770	-3.20	4	28.16	20.96	124.738	Horizontal	1	Pass
1.4MHz Band QPSK	1/#Mid	1710.7	-4.86	3.76	28.24	19.62	91.622	Vertical	1	Pass
		1745	-4.61	3.91	28.22	19.70	93.325	Vertical	1	Pass
		1779.3	-4.57	3.93	28.2	19.70	93.325	Vertical	1	Pass
3.0MHz Band QPSK	1/#Mid	1711.5	-4.67	3.77	28.23	19.79	95.280	Vertical	1	Pass
		1745	-3.97	3.91	28.24	20.36	108.643	Vertical	1	Pass
		1778.5	-4.34	3.94	28.25	19.97	99.312	Vertical	1	Pass
5.0MHz Band QPSK	1/#Mid	1712.5	-4.78	3.77	28.31	19.76	94.624	Vertical	1	Pass
		1745	-4.19	3.91	28.22	20.12	102.802	Vertical	1	Pass
		1777.5	-4.25	3.94	28.2	20.01	100.231	Vertical	1	Pass

10.0MHz	1/#Mid	1715	-4.60	3.79	28.34	19.95	98.855	Vertical	1	Pass
Band		1745	-4.20	3.95	28.22	20.07	101.625	Vertical	1	Pass
QPSK		1775	-3.89	3.97	28.18	20.32	107.647	Vertical	1	Pass
15.0MHz	1/#Mid	1717.5	-4.36	3.81	28.35	20.18	104.232	Vertical	1	Pass
Band		1745	-4.83	3.96	28.22	19.43	87.700	Vertical	1	Pass
QPSK		1772.5	-4.56	4	28.16	19.60	91.201	Vertical	1	Pass
20.0MHz	1/#Mid	1720	-4.85	3.79	28.34	19.70	93.325	Vertical	1	Pass
Band		1745	-4.06	3.95	28.22	20.21	104.954	Vertical	1	Pass
QPSK		1770	-4.80	3.97	28.18	19.41	87.297	Vertical	1	Pass

		Radiated Power (EIRP) for Band 66								
Mode	RB/RB SIZE	Frequency	Result							Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP Average (dBm)	Max. EIRP	Polarization Of Max. ERP		
							Average		Limit	
							(mW)		(W)	
1.4MHz Band 16 QAM	1/#Mid	1710.7	-4.64	3.76	28.24	19.84	96.383	Horizontal	1	Pass
		1745	-4.25	3.91	28.22	20.06	101.391	Horizontal	1	Pass
		1779.3	-4.43	3.93	28.2	19.84	96.383	Horizontal	1	Pass
3.0MHz Band 16 QAM	1/#Mid	1711.5	-5.03	3.77	28.23	19.43	87.700	Horizontal	1	Pass
		1745	-4.28	3.91	28.24	20.05	101.158	Horizontal	1	Pass
		1778.5	-4.57	3.94	28.25	19.74	94.189	Horizontal	1	Pass
5.0MHz Band 16 QAM	1/#Mid	1712.5	-4.45	3.77	28.31	20.09	102.094	Horizontal	1	Pass
		1745	-4.51	3.91	28.22	19.80	95.499	Horizontal	1	Pass
		1777.5	-4.18	3.94	28.2	20.08	101.859	Horizontal	1	Pass
10.0MHz Band 16 QAM	1/#Mid	1715	-4.50	3.79	28.33	20.04	100.925	Horizontal	1	Pass
		1745	-4.16	3.95	28.22	20.11	102.565	Horizontal	1	Pass
		1775	-4.48	3.97	28.19	19.74	94.189	Horizontal	1	Pass
15.0MHz Band 16 QAM	1/#Mid	1717.5	-4.49	3.79	28.34	20.06	101.391	Horizontal	1	Pass
		1745	-4.31	3.95	28.22	19.96	99.083	Horizontal	1	Pass
		1772.5	-4.10	3.97	28.18	20.11	102.565	Horizontal	1	Pass
20.0MHz Band 16 QAM	1/#Mid	1720	-4.32	3.81	28.35	20.22	105.196	Horizontal	1	Pass
		1745	-4.10	3.96	28.22	20.16	103.753	Horizontal	1	Pass
		1770	-4.04	4	28.16	20.12	102.802	Horizontal	1	Pass
1.4MHz Band 16 QAM	1/#Mid	1710.7	-4.72	3.76	28.24	19.76	94.624	Vertical	1	Pass
		1745	-6.07	3.91	28.22	18.24	66.681	Vertical	1	Pass
		1779.3	-4.47	3.93	28.2	19.80	95.499	Vertical	1	Pass
3.0MHz Band 16 QAM	1/#Mid	1711.5	-6.11	3.77	28.23	18.35	68.391	Vertical	1	Pass
		1745	-4.56	3.91	28.24	19.77	94.842	Vertical	1	Pass
		1778.5	-6.16	3.94	28.25	18.15	65.313	Vertical	1	Pass
5.0MHz Band 16 QAM	1/#Mid	1712.5	-5.85	3.77	28.31	18.69	73.961	Vertical	1	Pass
		1745	-6.03	3.91	28.22	18.28	67.298	Vertical	1	Pass
		1777.5	-5.72	3.94	28.2	18.54	71.450	Vertical	1	Pass
10.0MHz Band 16 QAM	1/#Mid	1715	-4.51	3.79	28.34	20.04	100.925	Vertical	1	Pass
		1745	-4.97	3.95	28.22	19.30	85.114	Vertical	1	Pass
		1775	-6.02	3.97	28.18	18.19	65.917	Vertical	1	Pass
15.0MHz	1/#Mid	1717.5	-6.36	3.81	28.35	18.18	65.766	Vertical	1	Pass

Band 16		1745	-4.35	3.96	28.22	19.91	97.949	Vertical	1	Pass
QAM		1772.5	-4.64	4	28.16	19.52	89.536	Vertical	1	Pass
20.0MHz	1/#Mid	1720	-6.05	3.79	28.34	18.50	70.795	Vertical	1	Pass
Band 16		1745	-5.42	3.95	28.22	18.85	76.736	Vertical	1	Pass
QAM		1770	-4.33	3.97	28.18	19.88	97.275	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)

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 $43 + 10 \log_{10}(P)$ 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 $43 + 10 \log_{10}(p)$, dB; and
- b. for mobile subscriber equipment, the attenuation shall not be less than $43 + 10 \log_{10}(p)$, dB at the channel edges and $55 + 10 \log_{10}(p)$ 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 2/4/5/7/12/17/25/26/38/41/66

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	-51.30	4.04	33.51	-21.83	-13	-8.83	Horizontal
3701.4	-50.98	4.04	33.51	-21.51	-13	-8.51	Vertical
5552.1	-52.90	5.24	35.84	-22.30	-13	-9.30	Vertical
5552.1	-50.52	5.24	35.84	-19.92	-13	-6.92	Horizontal
210.5	-41.88	1.43	16.02	-27.29	-13	-14.29	Vertical
245.6	-36.21	1.30	17.99	-19.52	-13	-6.52	Horizontal
Test Results for Mid Channel 1880MHz							
3760.0	-46.53	4.04	33.56	-17.01	-13	-4.01	Horizontal
3760.0	-52.90	4.04	33.56	-23.38	-13	-10.38	Vertical
5640.0	-52.67	5.24	35.91	-22.00	-13	-9.00	Vertical
5640.0	-51.26	5.24	35.91	-20.59	-13	-7.59	Horizontal
193.8	-42.23	1.62	16.97	-26.88	-13	-13.88	Vertical
323.4	-37.57	1.74	15.98	-23.34	-13	-10.34	Horizontal
Test Results for High Channel 1909.3MHz							
3818.6	-51.18	4.04	34.00	-21.22	-13	-8.22	Horizontal
3818.6	-46.07	4.04	34.00	-16.11	-13	-3.11	Vertical
5727.9	-49.18	5.24	36.04	-18.38	-13	-5.38	Vertical
5727.9	-51.60	5.24	36.04	-20.80	-13	-7.80	Horizontal
194.2	-35.32	1.42	17.29	-19.45	-13	-6.45	Vertical
253.1	-35.67	1.50	17.90	-19.26	-13	-6.26	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	-45.65	4.07	33.54	-16.18	-13	-3.18	Horizontal
3720.0	-47.57	4.07	33.54	-18.10	-13	-5.10	Vertical
5580.0	-52.57	5.28	35.86	-21.99	-13	-8.99	Vertical
5580.0	-53.87	5.28	35.86	-23.29	-13	-10.29	Horizontal
176.5	-40.27	1.58	16.89	-24.95	-13	-11.95	Vertical
246.8	-36.15	1.76	17.26	-20.65	-13	-7.65	Horizontal
Test Results for Mid Channel 1880MHz							
3760.0	-51.85	4.04	33.56	-22.33	-13	-9.33	Horizontal
3760.0	-52.17	4.04	33.56	-22.65	-13	-9.65	Vertical
5640.0	-49.17	5.24	35.91	-18.50	-13	-5.50	Vertical
5640.0	-50.52	5.24	35.91	-19.85	-13	-6.85	Horizontal
202.9	-34.67	1.46	16.27	-19.86	-13	-6.86	Vertical
245.3	-39.35	1.59	15.15	-25.79	-13	-12.79	Horizontal
Test Results for High Channel 1900MHz							
3800.0	-48.33	4.04	34.00	-18.37	-13	-5.37	Horizontal
3800.0	-49.25	4.04	34.00	-19.29	-13	-6.29	Vertical
5700.0	-51.93	5.24	36.04	-21.13	-13	-8.13	Vertical
5700.0	-51.28	5.24	36.04	-20.48	-13	-7.48	Horizontal
185.7	-43.57	1.36	17.39	-27.53	-13	-14.53	Vertical
452.5	-44.98	1.66	15.39	-31.25	-13	-18.25	Horizontal

Note: P_{Mea}(dBm)= Power(dBm)+ AR_{pl} (dBm)

Over Limit= : P_{Mea}(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	-47.79	4.02	29.80	-22.01	-13	-9.01	Horizontal
3421.4	-50.79	4.02	29.80	-25.01	-13	-12.01	Vertical
5132.1	-46.32	5.24	35.84	-15.72	-13	-2.72	Vertical
5132.1	-50.08	5.24	35.84	-19.48	-13	-6.48	Horizontal
200.0	-36.26	1.68	16.04	-21.90	-13	-8.90	Vertical
318.5	-44.62	1.78	17.74	-28.66	-13	-15.66	Horizontal
Test Results for Mid Channel 1732.5MHz							
3465.0	-46.90	4.03	30.00	-20.93	-13	-7.93	Horizontal
3465.0	-44.30	4.03	30.00	-18.33	-13	-5.33	Vertical
5197.5	-49.01	5.25	35.86	-18.40	-13	-5.40	Vertical
5197.5	-52.66	5.25	35.86	-22.05	-13	-9.05	Horizontal
197.1	-39.66	1.72	17.69	-23.69	-13	-10.69	Vertical
284.8	-42.31	1.62	16.02	-27.90	-13	-14.90	Horizontal
Test Results for High Channel 1754.3MHz							
3508.6	-53.10	4.05	30.01	-27.14	-13	-14.14	Horizontal
3508.6	-52.24	4.05	30.01	-26.28	-13	-13.28	Vertical
5262.9	-52.32	5.26	35.86	-21.72	-13	-8.72	Vertical
5262.9	-50.64	5.26	35.86	-20.04	-13	-7.04	Horizontal
205.5	-34.78	1.80	16.69	-19.89	-13	-6.89	Vertical
437.1	-42.87	1.75	16.66	-27.97	-13	-14.97	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	-47.08	4.02	29.80	-21.30	-13	-8.30	Horizontal
3440.0	-47.83	4.02	29.80	-22.05	-13	-9.05	Vertical
5160.0	-44.63	5.24	35.84	-14.03	-13	-1.03	Vertical
5160.0	-49.42	5.24	35.84	-18.82	-13	-5.82	Horizontal
189.5	-39.85	1.57	17.26	-24.16	-13	-11.16	Vertical
273.3	-40.37	1.78	16.35	-25.80	-13	-12.80	Horizontal
Test Results for Mid Channel 1732.5MHz							
3465.0	-45.42	4.03	30.00	-19.45	-13	-6.45	Horizontal
3465.0	-44.06	4.03	30.00	-18.09	-13	-5.09	Vertical
5197.5	-48.42	5.25	35.86	-17.81	-13	-4.81	Vertical
5197.5	-53.56	5.25	35.86	-22.95	-13	-9.95	Horizontal
210.4	-39.05	1.44	17.95	-22.54	-13	-9.54	Vertical
432.7	-42.83	1.65	16.09	-28.39	-13	-15.39	Horizontal
Test Results for High Channel 1745MHz							
3490.0	-46.17	2.91	27.68	-21.40	-13	-8.40	Horizontal
3490.0	-52.38	2.91	27.68	-27.61	-13	-14.61	Vertical
5235.0	-50.20	5.26	35.86	-19.60	-13	-6.60	Vertical
5235.0	-51.36	5.26	35.86	-20.76	-13	-7.76	Horizontal
202.2	-42.64	1.61	16.85	-27.40	-13	-14.40	Vertical
450.4	-37.75	1.61	15.19	-24.17	-13	-11.17	Horizontal

Note: P_{Mea}(dBm)= Power(dBm)+ AR_{pl} (dBm)

. Over Limit= : P_{Mea}(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	-47.45	2.78	27.50	-22.73	-13	-9.73	Horizontal
1649.4	-49.35	2.78	27.50	-24.63	-13	-11.63	Vertical
2474.1	-51.04	2.90	27.80	-26.14	-13	-13.14	Vertical
2474.1	-50.46	2.90	27.80	-25.56	-13	-12.56	Horizontal
205.1	-39.39	1.76	17.59	-23.56	-13	-10.56	Vertical
399.4	-38.42	1.63	15.87	-24.18	-13	-11.18	Horizontal
Test Results For Mid Channel 836.5MHz							
1673.0	-53.97	2.80	27.48	-29.29	-13	-16.29	Horizontal
1673.0	-45.47	2.80	27.48	-20.79	-13	-7.79	Vertical
2509.5	-45.86	2.91	27.70	-21.07	-13	-8.07	Vertical
2509.5	-49.34	2.91	27.70	-24.55	-13	-11.55	Horizontal
206.1	-44.30	1.61	15.68	-30.23	-13	-17.23	Vertical
419.7	-36.85	1.59	17.52	-20.93	-13	-7.93	Horizontal
Test Results for High Channel 848.3MHz							
1696.6	-47.25	2.82	27.43	-22.64	-13	-9.64	Horizontal
1696.6	-49.83	2.82	27.43	-25.22	-13	-12.22	Vertical
2544.9	-47.72	2.92	27.74	-22.90	-13	-9.90	Vertical
2544.9	-53.46	2.92	27.74	-28.64	-13	-15.64	Horizontal
187.5	-40.95	1.69	16.67	-25.96	-13	-12.96	Vertical
274.7	-42.44	1.70	17.18	-26.96	-13	-13.96	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	-52.09	2.78	27.50	-27.37	-13	-14.37	Horizontal
1658.0	-49.65	2.78	27.50	-24.93	-13	-11.93	Vertical
2487.0	-46.97	2.90	27.80	-22.07	-13	-9.07	Vertical
2487.0	-49.48	2.90	27.80	-24.58	-13	-11.58	Horizontal
197.5	-38.57	1.71	15.57	-24.71	-13	-11.71	Vertical
434.4	-38.30	1.34	16.40	-23.24	-13	-10.24	Horizontal
Test Results for Mid Channel 836.5MHz							
1673.0	-50.09	2.80	27.48	-25.41	-13	-12.41	Horizontal
1673.0	-44.85	2.80	27.48	-20.17	-13	-7.17	Vertical
2509.5	-44.72	2.91	27.70	-19.93	-13	-6.93	Vertical
2509.5	-53.18	2.91	27.70	-28.39	-13	-15.39	Horizontal
189.9	-42.25	1.44	17.04	-26.65	-13	-13.65	Vertical
403.6	-44.97	1.76	17.62	-29.11	-13	-16.11	Horizontal
Test Results for High Channel 844MHz							
1688.0	-48.76	2.82	27.43	-24.15	-13	-11.15	Horizontal
1688.0	-51.24	2.82	27.43	-26.63	-13	-13.63	Vertical
2532.0	-45.04	2.92	27.74	-20.22	-13	-7.22	Vertical
2532.0	-52.93	2.92	27.74	-28.11	-13	-15.11	Horizontal
177.8	-37.07	1.74	17.70	-21.11	-13	-8.11	Vertical
268.3	-42.92	1.41	17.46	-26.86	-13	-13.86	Horizontal

Note: P_{Mea}(dBm)= Power(dBm)+ AR_{pl} (dBm)

. Over Limit= : P_{Mea}(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	-59.07	5.23	35.81	-28.49	-25	-3.49	Horizontal
5005.0	-59.77	5.23	35.81	-29.19	-25	-4.19	Vertical
7507.5	-60.76	5.67	36.85	-29.58	-25	-4.58	Vertical
7507.5	-59.45	5.67	36.85	-28.27	-25	-3.27	Horizontal
212.9	-48.03	1.73	17.97	-31.79	-25	-6.79	Vertical
447.0	-50.62	1.38	15.11	-36.89	-25	-11.89	Horizontal
Test Results for Mid Channel 2535MHz							
5070.0	-64.68	5.23	35.82	-34.09	-25	-9.09	Horizontal
5070.0	-64.66	5.23	35.82	-34.07	-25	-9.07	Vertical
7605.0	-64.97	5.67	36.85	-33.79	-25	-8.79	Vertical
7605.0	-63.52	5.67	36.85	-32.34	-25	-7.34	Horizontal
177.9	-49.22	1.77	16.17	-34.81	-25	-9.81	Vertical
356.7	-54.04	1.63	15.21	-40.46	-25	-15.46	Horizontal
Test Results for High Channel 2567.5MHz							
5135.0	-60.01	5.24	35.83	-29.42	-25	-4.42	Horizontal
5135.0	-63.62	5.24	35.83	-33.03	-25	-8.03	Vertical
7702.5	-59.12	5.68	36.87	-27.93	-25	-2.93	Vertical
7702.5	-62.43	5.68	36.87	-31.24	-25	-6.24	Horizontal
176.6	-45.77	1.58	17.56	-29.79	-25	-4.79	Vertical
296.5	-50.67	1.45	16.58	-35.54	-25	-10.54	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	-64.39	5.23	35.82	-33.80	-25	-8.80	Horizontal
5020.0	-60.41	5.23	35.82	-29.82	-25	-4.82	Vertical
7530.0	-64.49	5.67	36.86	-33.30	-25	-8.30	Vertical
7530.0	-60.25	5.67	36.86	-29.06	-25	-4.06	Horizontal
186.3	-47.98	1.63	15.76	-33.85	-25	-8.85	Vertical
247.0	-54.75	1.71	15.44	-41.02	-25	-16.02	Horizontal
Test Results for Mid Channel 2535MHz							
5070.0	-59.93	5.23	35.82	-29.34	-25	-4.34	Horizontal
5070.0	-59.44	5.23	35.82	-28.85	-25	-3.85	Vertical
7605.0	-60.30	5.67	36.85	-29.12	-25	-4.12	Vertical
7605.0	-63.89	5.67	36.85	-32.71	-25	-7.71	Horizontal
211.3	-52.15	1.79	16.84	-37.09	-25	-12.09	Vertical
374.7	-50.24	1.71	17.64	-34.31	-25	-9.31	Horizontal
Test Results for High Channel 2560MHz							
5120.0	-59.39	5.24	35.83	-28.80	-25	-3.80	Horizontal
5120.0	-59.15	5.24	35.83	-28.56	-25	-3.56	Vertical
7680.0	-61.59	5.70	36.88	-30.41	-25	-5.41	Vertical
7680.0	-64.33	5.70	36.88	-33.15	-25	-8.15	Horizontal
191.0	-49.34	1.79	16.84	-34.28	-25	-9.28	Vertical
257.6	-49.66	1.71	17.64	-33.73	-25	-8.73	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	-44.02	2.60	27.20	-19.42	-13	-6.42	Horizontal
1399.4	-50.93	2.60	27.20	-26.33	-13	-13.33	Vertical
2099.1	-48.14	2.85	27.54	-23.45	-13	-10.45	Vertical
2099.1	-50.24	2.85	27.54	-25.55	-13	-12.55	Horizontal
209.5	-37.98	1.49	17.78	-21.69	-13	-8.69	Vertical
308.9	-37.36	1.36	17.33	-21.39	-13	-8.39	Horizontal
Test Results For Mid Channel 707.5MHz							
1415.0	-48.04	2.61	27.28	-23.37	-13	-10.37	Horizontal
1415.0	-52.83	2.61	27.28	-28.16	-13	-15.16	Vertical
2122.5	-45.82	2.87	27.59	-21.10	-13	-8.10	Vertical
2122.5	-51.16	2.87	27.59	-26.44	-13	-13.44	Horizontal
179.5	-36.20	1.73	15.74	-22.19	-13	-9.19	Vertical
463.3	-38.86	1.62	15.79	-24.69	-13	-11.69	Horizontal
Test Results for High Channel 715.3MHz							
1430.6	-49.00	2.63	27.28	-24.35	-13	-11.35	Horizontal
1430.6	-47.08	2.63	27.28	-22.43	-13	-9.43	Vertical
2145.9	-46.55	2.88	27.60	-21.83	-13	-8.83	Vertical
2145.9	-49.82	2.88	27.60	-25.10	-13	-12.10	Horizontal
175.9	-43.81	1.61	18.00	-27.42	-13	-14.42	Vertical
350.1	-42.12	1.45	15.49	-28.09	-13	-15.09	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	-45.47	2.61	27.26	-20.82	-13	-7.82	Horizontal
1408.0	-46.20	2.61	27.26	-21.55	-13	-8.55	Vertical
2112.0	-47.83	2.87	27.58	-23.12	-13	-10.12	Vertical
2112.0	-53.75	2.87	27.58	-29.04	-13	-16.04	Horizontal
192.9	-34.57	1.31	16.97	-18.91	-13	-5.91	Vertical
381.0	-39.20	1.65	16.70	-24.15	-13	-11.15	Horizontal
Test Results for Mid Channel 707.5MHz							
1415.0	-49.28	2.61	27.28	-24.61	-13	-11.61	Horizontal
1415.0	-49.92	2.61	27.28	-25.25	-13	-12.25	Vertical
2122.5	-51.83	2.87	27.59	-27.11	-13	-14.11	Vertical
2122.5	-49.91	2.87	27.59	-25.19	-13	-12.19	Horizontal
190.3	-39.76	1.72	17.99	-23.49	-13	-10.49	Vertical
253.2	-39.71	1.73	17.94	-23.50	-13	-10.50	Horizontal
Test Results for High Channel 711MHz							
1422.0	-50.06	2.62	27.28	-25.40	-13	-12.40	Horizontal
1422.0	-50.39	2.62	27.28	-25.73	-13	-12.73	Vertical
2133.0	-48.60	2.87	27.60	-23.87	-13	-10.87	Vertical
2133.0	-52.07	2.87	27.60	-27.34	-13	-14.34	Horizontal
182.3	-40.20	1.58	15.93	-25.85	-13	-12.85	Vertical
365.2	-40.11	1.36	15.59	-25.88	-13	-12.88	Horizontal

Note: P_{Mea}(dBm)= Power(dBm)+ AR_{pl} (dBm)

. Over Limit= : P_{Mea}(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 17

QPSK EIRP POWER FOR LTE BAND 17 (5MHZ BANDWIDTH)

Test Results for Low Channel 706.5MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit (dBm)	Margin(dBm)	Polarity
1413.0	-50.08	2.61	27.28	-25.41	-13	-12.41	Horizontal
1413.0	-52.34	2.61	27.28	-27.67	-13	-14.67	Vertical
2119.5	-45.45	2.87	27.59	-20.73	-13	-7.73	Vertical
2119.5	-49.88	2.87	27.59	-25.16	-13	-12.16	Horizontal
183.8	-34.97	1.71	16.15	-20.53	-13	-7.53	Vertical
270.4	-39.08	1.41	17.32	-23.17	-13	-10.17	Horizontal
Test Results For Mid Channel 710MHz							
1420.0	-44.12	2.62	27.30	-19.44	-13	-6.44	Horizontal
1420.0	-49.99	2.62	27.30	-25.31	-13	-12.31	Vertical
2130.0	-44.48	2.87	27.62	-19.73	-13	-6.73	Vertical
2130.0	-50.53	2.87	27.62	-25.78	-13	-12.78	Horizontal
201.4	-43.62	1.42	15.25	-29.80	-13	-16.80	Vertical
424.9	-36.34	1.36	17.19	-20.51	-13	-7.51	Horizontal
Test Results for High Channel 713.5MHz							
1427.0	-53.40	2.66	27.28	-28.78	-13	-15.78	Horizontal
1427.0	-53.52	2.66	27.28	-28.90	-13	-15.90	Vertical
2140.5	-50.48	2.88	27.60	-25.76	-13	-12.76	Vertical
2140.5	-52.62	2.88	27.60	-27.90	-13	-14.90	Horizontal
177.9	-39.45	1.32	17.29	-23.48	-13	-10.48	Vertical
260.6	-39.46	1.72	16.89	-24.29	-13	-11.29	Horizontal

QPSK EIRP POWER FOR LTE BAND 17 (10MHZ BANDWIDTH)

Test Results for Low Channel 709MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit (dBm)	Margin(dBm)	Polarity
1418.0	-45.17	2.62	27.30	-20.49	-13	-7.49	Horizontal
1418.0	-45.86	2.62	27.30	-21.18	-13	-8.18	Vertical
2127.0	-47.16	2.87	27.62	-22.41	-13	-9.41	Vertical
2127.0	-52.12	2.87	27.62	-27.37	-13	-14.37	Horizontal
198.3	-34.30	1.35	16.91	-18.74	-13	-5.74	Vertical
255.0	-34.21	1.62	16.31	-19.52	-13	-6.52	Horizontal
Test Results for Mid Channel 710MHz							
1420.0	-51.49	2.62	27.30	-26.81	-13	-13.81	Horizontal
1420.0	-46.80	2.62	27.30	-22.12	-13	-9.12	Vertical
2130.0	-46.89	2.87	27.62	-22.14	-13	-9.14	Vertical
2130.0	-53.99	2.87	27.62	-29.24	-13	-16.24	Horizontal
180.6	-44.51	1.51	17.14	-28.88	-13	-15.88	Vertical
402.9	-42.23	1.77	16.88	-27.12	-13	-14.12	Horizontal
Test Results for High Channel 711MHz							
1422.0	-46.96	2.62	27.30	-22.28	-13	-9.28	Horizontal
1422.0	-46.63	2.62	27.30	-21.95	-13	-8.95	Vertical
2133.0	-50.78	2.87	27.62	-26.03	-13	-13.03	Vertical
2133.0	-52.58	2.87	27.62	-27.83	-13	-14.83	Horizontal
205.9	-38.60	1.78	15.95	-24.43	-13	-11.43	Vertical
451.5	-41.68	1.34	17.95	-25.08	-13	-12.08	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.

9.7 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	-49.92	4.02	29.80	-24.14	-13	-11.14	Horizontal
3701.4	-49.45	4.02	29.80	-23.67	-13	-10.67	Vertical
5552.1	-47.85	5.24	35.84	-17.25	-13	-4.25	Vertical
5552.1	-47.05	5.24	35.84	-16.45	-13	-3.45	Horizontal
93.9	-32.61	1.59	15.11	-19.09	-13	-6.09	Vertical
119.7	-34.71	1.80	15.61	-20.90	-13	-7.90	Horizontal
Test Results for Mid Channel 1732.5MHz							
3765.0	-46.15	4.03	30.00	-20.18	-13	-7.18	Horizontal
3765.0	-45.89	4.03	30.00	-19.92	-13	-6.92	Vertical
5647.5	-47.07	5.25	35.86	-16.46	-13	-3.46	Vertical
5647.5	-49.68	5.25	35.86	-19.07	-13	-6.07	Horizontal
166.1	-34.04	1.37	15.62	-19.79	-13	-6.79	Vertical
274.4	-33.04	1.55	17.51	-17.08	-13	-4.08	Horizontal
Test Results for High Channel 1754.3MHz							
3828.6	-46.38	4.05	30.01	-20.42	-13	-7.42	Horizontal
3828.6	-47.71	4.05	30.01	-21.75	-13	-8.75	Vertical
5742.9	-47.64	5.26	35.86	-17.04	-13	-4.04	Vertical
5742.9	-48.00	5.26	35.86	-17.40	-13	-4.40	Horizontal
108.6	-34.71	1.66	17.19	-19.18	-13	-6.18	Vertical
138.7	-33.23	1.35	17.94	-16.64	-13	-3.64	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	-46.80	4.02	29.80	-21.02	-13	-8.02	Horizontal
3720.0	-45.81	4.02	29.80	-20.03	-13	-7.03	Vertical
5580.0	-47.89	5.24	35.84	-17.29	-13	-4.29	Vertical
5580.0	-47.01	5.24	35.84	-16.41	-13	-3.41	Horizontal
146.2	-34.57	1.70	15.24	-21.03	-13	-8.03	Vertical
215.4	-33.82	1.42	16.58	-18.66	-13	-5.66	Horizontal
Test Results for Mid Channel 1732.5MHz							
3765.0	-46.86	4.03	30.00	-20.89	-13	-7.89	Horizontal
3765.0	-44.16	4.03	30.00	-18.19	-13	-5.19	Vertical
5647.5	-49.20	5.25	35.86	-18.59	-13	-5.59	Vertical
5647.5	-46.66	5.25	35.86	-16.05	-13	-3.05	Horizontal
132.2	-33.33	1.64	16.16	-18.81	-13	-5.81	Vertical
133.3	-33.93	1.62	17.37	-18.18	-13	-5.18	Horizontal
Test Results for High Channel 1745MHz							
3810.0	-47.61	2.91	27.68	-22.84	-13	-9.84	Horizontal
3810.0	-47.09	2.91	27.68	-22.32	-13	-9.32	Vertical
5715.0	-48.62	5.26	35.86	-18.02	-13	-5.02	Vertical
5715.0	-47.23	5.26	35.86	-16.63	-13	-3.63	Horizontal
212.6	-33.10	1.49	15.29	-19.30	-13	-6.30	Vertical
275.8	-33.26	1.79	16.42	-18.63	-13	-5.63	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	-49.45	2.78	27.50	-24.73	-13	-11.73	Horizontal
1629.4	-42.27	2.78	27.50	-17.55	-13	-4.55	Vertical
2444.1	-47.01	2.90	27.80	-22.11	-13	-9.11	Vertical
2444.1	-48.88	2.90	27.80	-23.98	-13	-10.98	Horizontal
229.6	-34.03	1.54	16.98	-18.59	-13	-5.59	Vertical
83.3	-34.59	1.47	15.82	-20.24	-13	-7.24	Horizontal
Test Results For Mid Channel 819MHz							
1638.0	-48.22	2.80	27.48	-23.54	-13	-10.54	Horizontal
1638.0	-49.62	2.80	27.48	-24.94	-13	-11.94	Vertical
2457.0	-47.15	2.91	27.70	-22.36	-13	-9.36	Vertical
2457.0	-47.83	2.91	27.70	-23.04	-13	-10.04	Horizontal
168.2	-33.03	1.74	16.19	-18.58	-13	-5.58	Vertical
92.9	-33.15	1.46	15.43	-19.18	-13	-6.18	Horizontal
Test Results for High Channel 823.3MHz							
1646.6	-49.98	2.82	27.43	-25.37	-13	-12.37	Horizontal
1646.6	-42.89	2.82	27.43	-18.28	-13	-5.28	Vertical
2469.9	-46.01	2.92	27.74	-21.19	-13	-8.19	Vertical
2469.9	-46.01	2.92	27.74	-21.19	-13	-8.19	Horizontal
213.1	-34.01	1.67	17.05	-18.63	-13	-5.63	Vertical
121.7	-32.82	1.42	16.12	-18.12	-13	-5.12	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	-49.45	2.78	27.50	-24.73	-13	-11.73	Horizontal
1638.0	-48.61	2.78	27.50	-23.89	-13	-10.89	Vertical
2457.0	-49.68	2.90	27.80	-24.78	-13	-11.78	Vertical
2457.0	-49.50	2.90	27.80	-24.60	-13	-11.60	Horizontal
253.7	-33.70	1.43	17.34	-17.79	-13	-4.79	Vertical
256.8	-34.36	1.56	15.71	-20.21	-13	-7.21	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	-47.74	2.78	27.50	-23.02	-13	-10.02	Horizontal
1649.4	-47.50	2.78	27.50	-22.78	-13	-9.78	Vertical
2474.1	-46.31	2.90	27.80	-21.41	-13	-8.41	Vertical
2474.1	-49.84	2.90	27.80	-24.94	-13	-11.94	Horizontal
237.0	-33.58	1.33	17.34	-17.57	-13	-4.57	Vertical
180.5	-34.77	1.47	16.80	-19.44	-13	-6.44	Horizontal
Test Results For Mid Channel 836.5MHz							
1673.0	-46.37	2.80	27.48	-21.69	-13	-8.69	Horizontal
1673.0	-46.94	2.80	27.48	-22.26	-13	-9.26	Vertical
2509.5	-46.02	2.91	27.70	-21.23	-13	-8.23	Vertical
2509.5	-48.92	2.91	27.70	-24.13	-13	-11.13	Horizontal
140.8	-33.32	1.75	15.46	-19.61	-13	-6.61	Vertical
90.6	-34.75	1.52	16.14	-20.13	-13	-7.13	Horizontal
Test Results for High Channel 848.3MHz							
1696.6	-49.82	2.82	27.43	-25.21	-13	-12.21	Horizontal
1696.6	-44.11	2.82	27.43	-19.50	-13	-6.50	Vertical
2544.9	-47.24	2.92	27.74	-22.42	-13	-9.42	Vertical
2544.9	-48.52	2.92	27.74	-23.70	-13	-10.70	Horizontal
171.4	-32.93	1.67	16.09	-18.51	-13	-5.51	Vertical
247.2	-34.74	1.80	17.55	-18.99	-13	-5.99	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	-49.73	2.78	27.50	-25.01	-13	-12.01	Horizontal
1663.0	-41.00	2.78	27.50	-16.28	-13	-3.28	Vertical
2494.5	-49.60	2.90	27.80	-24.70	-13	-11.70	Vertical
2494.5	-48.20	2.90	27.80	-23.30	-13	-10.30	Horizontal
255.4	-33.77	1.52	15.72	-19.57	-13	-6.57	Vertical
163.1	-33.70	1.40	17.03	-18.07	-13	-5.07	Horizontal
Test Results for Mid Channel 836.5MHz							
1673.0	-48.49	2.80	27.48	-23.81	-13	-10.81	Horizontal
1673.0	-44.52	2.80	27.48	-19.84	-13	-6.84	Vertical
2509.5	-46.90	2.91	27.70	-22.11	-13	-9.11	Vertical
2509.5	-48.00	2.91	27.70	-23.21	-13	-10.21	Horizontal
227.1	-32.08	1.74	16.38	-17.44	-13	-4.44	Vertical
101.3	-33.21	1.79	15.20	-19.80	-13	-6.80	Horizontal
Test Results for High Channel 841.5MHz							
1683.0	-49.64	2.82	27.43	-25.03	-13	-12.03	Horizontal
1683.0	-45.27	2.82	27.43	-20.66	-13	-7.66	Vertical
2524.5	-47.32	2.92	27.74	-22.50	-13	-9.50	Vertical
2524.5	-48.26	2.92	27.74	-23.44	-13	-10.44	Horizontal
261.1	-32.64	1.78	17.44	-16.98	-13	-3.98	Vertical
120.1	-34.75	1.70	15.93	-20.52	-13	-7.52	Horizontal

9.10 LTE BAND 38

QPSK EIRP POWER FOR LTE BAND 38 (5MHZ BANDWIDTH)

Test Results for Low Channel 2572.5MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit (dBm)	Margin(dBm)	Polarity
5145	-53.88	4.01	27.5	-30.39	-25	-5.39	Horizontal
5145	-54.44	4.01	27.5	-30.95	-25	-5.95	Vertical
7717.5	-50.09	5.09	27.8	-27.38	-25	-2.38	Vertical
7717.5	-51.02	5.09	27.8	-28.31	-25	-3.31	Horizontal
Test Results for Mid Channel 2595MHz							
5190	-53.66	4.1	27.48	-30.28	-25	-5.28	Horizontal
5190	-52.99	4.1	27.48	-29.61	-25	-4.61	Vertical
7785	-54.65	5.42	27.7	-32.37	-25	-7.37	Vertical
7785	-52.66	5.42	27.7	-30.38	-25	-5.38	Horizontal
Test Results for High Channel 2617.5MHz							
5234	-54.62	4.11	27.43	-31.30	-25	-6.30	Horizontal
5234	-52.90	4.11	27.43	-29.58	-25	-4.58	Vertical
7851	-54.71	5.31	27.74	-32.28	-25	-7.28	Vertical
7851	-50.27	5.31	27.74	-27.84	-25	-2.84	Horizontal

QPSK EIRP POWER FOR LTE BAND 38 (20MHZ BANDWIDTH)

Test Results for Low Channel 2580MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit (dBm)	Margin(dBm)	Polarity
5160	-55.02	3.89	27.5	-31.41	-25	-6.41	Horizontal
5160	-58.30	3.89	27.5	-34.69	-25	-9.69	Vertical
7740	-49.69	5.33	27.8	-27.22	-25	-2.22	Vertical
7740	-53.95	5.33	27.8	-31.48	-25	-6.48	Horizontal
Test Results for Mid Channel 2595MHz							
5190	-50.14	4.1	27.48	-26.76	-25	-1.76	Horizontal
5190	-55.30	4.1	27.48	-31.92	-25	-6.92	Vertical
7785	-52.23	5.42	27.7	-29.95	-25	-4.95	Vertical
7785	-50.58	5.42	27.7	-28.30	-25	-3.30	Horizontal
Test Results for High Channel 2610MHz							
5220	-54.11	4.01	27.43	-30.69	-25	-5.69	Horizontal
5220	-50.40	4.01	27.43	-26.98	-25	-1.98	Vertical
7830	-53.60	5.34	27.74	-31.20	-25	-6.20	Vertical
7830	-53.38	5.34	27.74	-30.98	-25	-5.98	Horizontal

Note: $P_{Mea}(dBm) = Power(dBm) + AR_{pl}(dBm)$

. Over Limit = : $P_{Mea}(dBm) - Limit(dBm)$

. 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.

9.11 LTE BAND 41

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

Test Results for Low Channel 2537.5MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit (dBm)	Margin(dBm)	Polarity
5075.0	-61.72	5.23	35.81	-31.14	-25	-6.14	Horizontal
5075.0	-61.15	5.23	35.81	-30.57	-25	-5.57	Vertical
7612.5	-63.13	5.67	36.85	-31.95	-25	-6.95	Vertical
7612.5	-61.57	5.67	36.85	-30.39	-25	-5.39	Horizontal
435.3	-45.89	1.38	15.98	-31.29	-25	-6.29	Vertical
465.8	-47.14	1.62	15.66	-33.10	-25	-8.10	Horizontal
Test Results for Mid Channel 2595MHz							
5190.0	-60.04	5.23	35.82	-29.45	-25	-4.45	Horizontal
5190.0	-60.81	5.23	35.82	-30.22	-25	-5.22	Vertical
7785.0	-60.77	5.67	36.85	-29.59	-25	-4.59	Vertical
7785.0	-63.74	5.67	36.85	-32.56	-25	-7.56	Horizontal
510.4	-48.19	1.62	16.17	-33.64	-25	-8.64	Vertical
562.9	-48.59	1.74	17.63	-32.70	-25	-7.70	Horizontal
Test Results for High Channel 2652.5MHz							
5305.0	-63.29	5.24	35.83	-32.70	-25	-7.70	Horizontal
5305.0	-62.31	5.24	35.83	-31.72	-25	-6.72	Vertical
7957.5	-62.09	5.68	36.87	-30.90	-25	-5.90	Vertical
7957.5	-64.39	5.68	36.87	-33.20	-25	-8.20	Horizontal
197.6	-49.02	1.55	15.84	-34.73	-25	-9.73	Vertical
353.1	-45.78	1.51	17.06	-30.23	-25	-5.23	Horizontal

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

Test Results for Low Channel 2545MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit (dBm)	Margin(dBm)	Polarity
5090.0	-63.87	5.23	35.82	-33.28	-25	-8.28	Horizontal
5090.0	-61.21	5.23	35.82	-30.62	-25	-5.62	Vertical
7635.0	-63.34	5.67	36.86	-32.15	-25	-7.15	Vertical
7635.0	-63.08	5.67	36.86	-31.89	-25	-6.89	Horizontal
128.9	-44.72	1.43	15.51	-30.64	-25	-5.64	Vertical
344.8	-44.84	1.40	16.97	-29.27	-25	-4.27	Horizontal
Test Results for Mid Channel 2595MHz							
5190.0	-62.02	5.23	35.82	-31.43	-25	-6.43	Horizontal
5190.0	-64.48	5.23	35.82	-33.89	-25	-8.89	Vertical
7785.0	-64.41	5.67	36.85	-33.23	-25	-8.23	Vertical
7785.0	-64.21	5.67	36.85	-33.03	-25	-8.03	Horizontal
100.8	-49.26	1.77	16.72	-34.31	-25	-9.31	Vertical
263.5	-44.05	1.31	16.99	-28.37	-25	-3.37	Horizontal
Test Results for High Channel 2645MHz							
5290.0	-59.31	5.24	35.83	-28.72	-25	-3.72	Horizontal
5290.0	-61.83	5.24	35.83	-31.24	-25	-6.24	Vertical
7935.0	-64.69	5.70	36.88	-33.51	-25	-8.51	Vertical
7935.0	-62.19	5.70	36.88	-31.01	-25	-6.01	Horizontal
349.9	-48.50	1.70	15.73	-34.47	-25	-9.47	Vertical
110.3	-45.53	1.75	17.33	-29.95	-25	-4.95	Horizontal

Note: P_{Mea}(dBm)= Power(dBm)+ AR_{pl} (dBm)

Over Limit= : P_{Mea}(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.

9.12 LTE BAND 66

QPSK EIRP POWER FOR LTE BAND 66 (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	-45.64	4.02	29.80	-19.86	-13	-6.86	Horizontal
3421.4	-53.72	4.02	29.80	-27.94	-13	-14.94	Vertical
5132.1	-51.66	5.24	35.84	-21.06	-13	-8.06	Vertical
5132.1	-48.46	5.24	35.84	-17.86	-13	-4.86	Horizontal
112.6	-52.99	1.52	15.57	-38.94	-13	-25.94	Vertical
220.5	-47.68	1.33	17.14	-31.87	-13	-18.87	Horizontal
Test Results for Mid Channel 1745MHz							
3490.0	-45.48	4.03	30.00	-19.51	-13	-6.51	Horizontal
3490.0	-50.58	4.03	30.00	-24.61	-13	-11.61	Vertical
5235.0	-49.00	5.25	35.86	-18.39	-13	-5.39	Vertical
5235.0	-52.46	5.25	35.86	-21.85	-13	-8.85	Horizontal
157.3	-50.88	1.53	17.13	-35.28	-13	-22.28	Vertical
213.1	-44.88	1.41	15.95	-30.34	-13	-17.34	Horizontal
Test Results for High Channel 1779.3MHz							
3558.6	-54.04	4.05	30.01	-28.08	-13	-15.08	Horizontal
3558.6	-50.13	4.05	30.01	-24.17	-13	-11.17	Vertical
5337.9	-51.99	5.26	35.86	-21.39	-13	-8.39	Vertical
5337.9	-51.00	5.26	35.86	-20.40	-13	-7.40	Horizontal
170.6	-52.99	1.44	15.51	-38.92	-13	-25.92	Vertical
169.0	-44.31	1.78	15.76	-30.33	-13	-17.33	Horizontal

QPSK EIRP POWER FOR LTE BAND 66 (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
3440.0	-44.73	4.02	29.80	-18.95	-13	-5.95	Horizontal
3440.0	-49.36	4.02	29.80	-23.58	-13	-10.58	Vertical
5160.0	-50.70	5.24	35.84	-20.10	-13	-7.10	Vertical
5160.0	-50.30	5.24	35.84	-19.70	-13	-6.70	Horizontal
268.8	-47.76	1.62	17.02	-32.36	-13	-19.36	Vertical
161.4	-46.48	1.32	17.31	-30.49	-13	-17.49	Horizontal
Test Results for Mid Channel 1745MHz							
3490.0	-47.29	4.03	30.00	-21.32	-13	-8.32	Horizontal
3490.0	-52.01	4.03	30.00	-26.04	-13	-13.04	Vertical
5235.0	-50.83	5.25	35.86	-20.22	-13	-7.22	Vertical
5235.0	-48.07	5.25	35.86	-17.46	-13	-4.46	Horizontal
159.9	-50.00	1.45	15.17	-36.28	-13	-23.28	Vertical
172.1	-44.97	1.48	17.82	-28.63	-13	-15.63	Horizontal
Test Results for High Channel 1770MHz							
3540.0	-44.87	2.91	27.68	-20.10	-13	-7.10	Horizontal
3540.0	-49.85	2.91	27.68	-25.08	-13	-12.08	Vertical
5310.0	-52.65	5.26	35.86	-22.05	-13	-9.05	Vertical
5310.0	-54.02	5.26	35.86	-23.42	-13	-10.42	Horizontal
197.3	-46.21	1.76	16.38	-31.59	-13	-18.59	Vertical
158.5	-45.88	1.43	17.13	-30.18	-13	-17.18	Horizontal

Note: P_{Mea}(dBm)= Power(dBm)+ AR_{pl} (dBm)

. Over Limit= : P_{Mea}(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 $+50^{\circ}\text{C}$
- ☐ Voltage = low voltage, DC 3.29V, Normal, DC 3.87V and High voltage, DC 4.45V.

Frequency Stability vs Temperature:

The EUT is placed inside a temperature chamber. The temperature is set to -30°C 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 $+50^{\circ}\text{C}$ is reached.

Frequency Stability vs Voltage:

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

MODES TESTED

LTE Band 2/4/5/7/12/17/25/26/38/41/66

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]
3.29	1880	12.4	0.006617	2.5
3.87	1880	13.4	0.007134	2.5
4.45	1880	13.1	0.006983	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	1880	12.3	0.006560	2.5
Extreme (50C)	1880	11.1	0.005911	2.5
Extreme (40C)	1880	13.3	0.007084	2.5
Extreme (30C)	1880	13.3	0.007078	2.5
Extreme (10C)	1880	13.7	0.007269	2.5
Extreme (0C)	1880	12.0	0.006378	2.5
Extreme (-10C)	1880	13.1	0.006963	2.5
Extreme (-20C)	1880	14.0	0.007456	2.5
Extreme (-30C)	1880	14.6	0.007786	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]
3.29	1880	10.3	0.005452	2.5
3.87	1880	8.8	0.004685	2.5
4.45	1880	8.0	0.004270	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	1880	9.3	0.004953	2.5
Extreme (50C)	1880	8.8	0.004672	2.5
Extreme (40C)	1880	7.7	0.004074	2.5
Extreme (30C)	1880	9.2	0.004870	2.5
Extreme (10C)	1880	8.8	0.004659	2.5
Extreme (0C)	1880	7.8	0.004144	2.5
Extreme (-10C)	1880	8.8	0.004665	2.5
Extreme (-20C)	1880	8.9	0.004710	2.5
Extreme (-30C)	1880	8.5	0.004526	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]
3.29	1732.5	8.4	0.004830	2.5
3.87	1732.5	9.1	0.005241	2.5
4.45	1732.5	8.4	0.004825	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	1732.5	8.3	0.004793	2.5
Extreme (50C)	1732.5	8.7	0.005011	2.5
Extreme (40C)	1732.5	7.5	0.004357	2.5
Extreme (30C)	1732.5	5.5	0.003169	2.5
Extreme (10C)	1732.5	7.3	0.004217	2.5
Extreme (0C)	1732.5	9.7	0.005625	2.5
Extreme (-10C)	1732.5	8.0	0.004590	2.5
Extreme (-20C)	1732.5	6.9	0.003998	2.5
Extreme (-30C)	1732.5	8.8	0.005057	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]
3.29	1732.5	10.1	0.005856	2.5
3.87	1732.5	8.9	0.005161	2.5
4.45	1732.5	7.8	0.004496	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	1732.5	10.0	0.005800	2.5
Extreme (50C)	1732.5	8.9	0.005113	2.5
Extreme (40C)	1732.5	8.4	0.004870	2.5
Extreme (30C)	1732.5	9.0	0.005197	2.5
Extreme (10C)	1732.5	9.2	0.005323	2.5
Extreme (0C)	1732.5	8.4	0.004834	2.5
Extreme (-10C)	1732.5	8.6	0.004975	2.5
Extreme (-20C)	1732.5	8.8	0.005087	2.5
Extreme (-30C)	1732.5	7.7	0.004429	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]
3.29	836.5	5.6	0.006646	2.5
3.87	836.5	6.7	0.007964	2.5
4.45	836.5	5.0	0.005977	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	836.5	5.8	0.006983	2.5
Extreme (50C)	836.5	6.2	0.007374	2.5
Extreme (40C)	836.5	6.5	0.007796	2.5
Extreme (30C)	836.5	5.9	0.007070	2.5
Extreme (10C)	836.5	5.3	0.006371	2.5
Extreme (0C)	836.5	4.9	0.005813	2.5
Extreme (-10C)	836.5	5.4	0.006437	2.5
Extreme (-20C)	836.5	6.6	0.007853	2.5
Extreme (-30C)	836.5	6.1	0.007233	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]
3.29	836.5	5.8	0.006971	2.5
3.87	836.5	6.5	0.007801	2.5
4.45	836.5	4.9	0.005871	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	836.5	5.6	0.006727	2.5
Extreme (50C)	836.5	6.1	0.007318	2.5
Extreme (40C)	836.5	6.4	0.007633	2.5
Extreme (30C)	836.5	5.9	0.007082	2.5
Extreme (10C)	836.5	5.3	0.006394	2.5
Extreme (0C)	836.5	5.6	0.006636	2.5
Extreme (-10C)	836.5	5.9	0.007037	2.5
Extreme (-20C)	836.5	6.2	0.007352	2.5
Extreme (-30C)	836.5	6.2	0.007455	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]
3.29	2535	9.7	0.003839	2.5
3.87	2535	8.4	0.003325	2.5
4.45	2535	7.9	0.003118	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	2535	9.0	0.003541	2.5
Extreme (50C)	2535	8.7	0.003425	2.5
Extreme (40C)	2535	8.7	0.003438	2.5
Extreme (30C)	2535	9.1	0.003607	2.5
Extreme (10C)	2535	8.2	0.003231	2.5
Extreme (0C)	2535	8.5	0.003371	2.5
Extreme (-10C)	2535	9.7	0.003843	2.5
Extreme (-20C)	2535	8.9	0.003506	2.5
Extreme (-30C)	2535	8.5	0.003345	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]
3.29	2535	6.5	0.002563	2.5
3.87	2535	6.6	0.002590	2.5
4.45	2535	5.4	0.002115	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	2535	7.2	0.002827	2.5
Extreme (50C)	2535	5.9	0.002329	2.5
Extreme (40C)	2535	5.4	0.002134	2.5
Extreme (30C)	2535	7.1	0.002793	2.5
Extreme (10C)	2535	5.8	0.002289	2.5
Extreme (0C)	2535	4.7	0.001843	2.5
Extreme (-10C)	2535	5.4	0.002118	2.5
Extreme (-20C)	2535	6.1	0.002398	2.5
Extreme (-30C)	2535	5.4	0.002135	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]
3.29	707.5	9.0	0.012769	2.5
3.87	707.5	10.1	0.014276	2.5
4.45	707.5	8.5	0.011975	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	707.5	8.7	0.012308	2.5
Extreme (50C)	707.5	7.3	0.010358	2.5
Extreme (40C)	707.5	7.8	0.010992	2.5
Extreme (30C)	707.5	7.9	0.011110	2.5
Extreme (10C)	707.5	7.4	0.010511	2.5
Extreme (0C)	707.5	9.0	0.012653	2.5
Extreme (-10C)	707.5	8.4	0.011939	2.5
Extreme (-20C)	707.5	9.4	0.013225	2.5
Extreme (-30C)	707.5	7.7	0.010893	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]
3.29	707.5	7.9	0.011099	2.5
3.87	707.5	8.2	0.011655	2.5
4.45	707.5	7.5	0.010671	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 17

Band 17 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]
3.29	710.0	9.6	0.013519	2.5
3.87	710.0	8.8	0.012443	2.5
4.45	710.0	8.5	0.011976	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	710.0	9.3	0.013117	2.5
Extreme (50C)	710.0	8.9	0.012535	2.5
Extreme (40C)	710.0	8.0	0.011278	2.5
Extreme (30C)	710.0	9.1	0.012873	2.5
Extreme (10C)	710.0	8.9	0.012597	2.5
Extreme (0C)	710.0	7.9	0.011153	2.5
Extreme (-10C)	710.0	8.8	0.012372	2.5
Extreme (-20C)	710.0	8.5	0.011925	2.5
Extreme (-30C)	710.0	8.0	0.011308	2.5

Band 17 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]
3.29	710.0	10.4	0.014636	2.5
3.87	710.0	8.6	0.012172	2.5
4.45	710.0	8.7	0.012275	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	710.0	9.8	0.013855	2.5
Extreme (50C)	710.0	8.7	0.012310	2.5
Extreme (40C)	710.0	8.3	0.011718	2.5
Extreme (30C)	710.0	9.0	0.012744	2.5
Extreme (10C)	710.0	7.7	0.010873	2.5
Extreme (0C)	710.0	8.2	0.011549	2.5
Extreme (-10C)	710.0	9.8	0.013802	2.5
Extreme (-20C)	710.0	8.5	0.011946	2.5
Extreme (-30C)	710.0	8.8	0.012403	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]
3.29	1882.5	24	0.012749	2.5
3.87	1882.5	26	0.013811	2.5
4.45	1882.5	24	0.012749	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	1882.5	4.3	0.002280	2.5
Extreme (50C)	1882.5	9.8	0.005192	2.5
Extreme (40C)	1882.5	6.5	0.003474	2.5
Extreme (30C)	1882.5	6.0	0.003203	2.5
Extreme (10C)	1882.5	5.5	0.002930	2.5
Extreme (0C)	1882.5	8.2	0.004358	2.5
Extreme (-10C)	1882.5	1.5	0.000815	2.5
Extreme (-20C)	1882.5	2.5	0.001334	2.5
Extreme (-30C)	1882.5	6.5	0.003472	2.5

16QAM, (20MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
3.29	1882.5	9.9	0.005233	2.5
3.87	1882.5	7.6	0.004016	2.5
4.45	1882.5	5.2	0.002785	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	1882.5	7.2	0.003819	2.5
Extreme (50C)	1882.5	5.8	0.003078	2.5
Extreme (40C)	1882.5	8.0	0.004276	2.5
Extreme (30C)	1882.5	1.5	0.000815	2.5
Extreme (10C)	1882.5	2.1	0.001102	2.5
Extreme (0C)	1882.5	6.7	0.003538	2.5
Extreme (-10C)	1882.5	5.4	0.002845	2.5
Extreme (-20C)	1882.5	7.3	0.003874	2.5
Extreme (-30C)	1882.5	6.7	0.003553	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)				
3.29	819	8.1	0.009884	2.5
3.87	819	5.8	0.007036	2.5
4.45	819	6.8	0.008242	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	8.1	0.009877	2.5
Extreme (50C)	819	1.9	0.002317	2.5
Extreme (40C)	819	2.1	0.002583	2.5
Extreme (30C)	819	6.7	0.008221	2.5
Extreme (10C)	819	5.6	0.006833	2.5
Extreme (0C)	819	6.6	0.008062	2.5
Extreme (-10C)	819	8.2	0.010006	2.5
Extreme (-20C)	819	6.3	0.007738	2.5
Extreme (-30C)	819	4.5	0.005488	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)				
3.29	819	2.4	0.002946	2.5
3.87	819	6.7	0.008220	2.5
4.45	819	5.8	0.007025	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	6.3	0.007642	2.5
Extreme (50C)	819	8.8	0.010778	2.5
Extreme (40C)	819	6.2	0.007558	2.5
Extreme (30C)	819	4.4	0.005427	2.5
Extreme (10C)	819	6.5	0.007979	2.5
Extreme (0C)	819	5.5	0.006662	2.5
Extreme (-10C)	819	8.9	0.010873	2.5
Extreme (-20C)	819	6.8	0.008292	2.5
Extreme (-30C)	819	7.8	0.009576	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)				
3.29	836.5	8.4	0.010074	2.5
3.87	836.5	6.6	0.007864	2.5
4.45	836.5	8.3	0.009914	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	10.3	0.012357	2.5
Extreme (50C)	836.5	9.5	0.011398	2.5
Extreme (40C)	836.5	6.8	0.008096	2.5
Extreme (30C)	836.5	8.8	0.010506	2.5
Extreme (10C)	836.5	7.3	0.008732	2.5
Extreme (0C)	836.5	9.3	0.011174	2.5
Extreme (-10C)	836.5	1.1	0.001359	2.5
Extreme (-20C)	836.5	8.9	0.010675	2.5
Extreme (-30C)	836.5	7.0	0.008381	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)				
3.29	836.5	9.6	0.011514	2.5
3.87	836.5	11.6	0.013885	2.5
4.45	836.5	10.4	0.012470	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	6.6	0.007894	2.5
Extreme (50C)	836.5	8.8	0.010501	2.5
Extreme (40C)	836.5	7.6	0.009061	2.5
Extreme (30C)	836.5	7.3	0.008715	2.5
Extreme (10C)	836.5	6.4	0.007643	2.5
Extreme (0C)	836.5	5.2	0.006177	2.5
Extreme (-10C)	836.5	5.4	0.006489	2.5
Extreme (-20C)	836.5	3.0	0.011237	2.5
Extreme (-30C)	836.5	8.0	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 38

Band 38 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]
3.29	2595	8.7	0.003360	2.5
3.87	2595	6.6	0.002557	2.5
4.45	2595	7.7	0.002981	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	2595	7.8	0.003001	2.5
Extreme (50C)	2595	5.2	0.001986	2.5
Extreme (40C)	2595	5.8	0.002252	2.5
Extreme (30C)	2595	5.2	0.002015	2.5
Extreme (10C)	2595	6.9	0.002671	2.5
Extreme (0C)	2595	4.4	0.001696	2.5
Extreme (-10C)	2595	9.9	0.003832	2.5
Extreme (-20C)	2595	10.3	0.003972	2.5
Extreme (-30C)	2595	6.0	0.002321	2.5

Band 38 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]
3.29	2595	8.9	0.003419	2.5
3.87	2595	7.0	0.002690	2.5
4.45	2595	6.2	0.002403	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	2595	7.5	0.002908	2.5
Extreme (50C)	2595	4.9	0.001899	2.5
Extreme (40C)	2595	5.4	0.002096	2.5
Extreme (30C)	2595	5.2	0.002019	2.5
Extreme (10C)	2595	6.2	0.002371	2.5
Extreme (0C)	2595	4.6	0.001765	2.5
Extreme (-10C)	2595	9.2	0.003532	2.5
Extreme (-20C)	2595	10.7	0.004131	2.5
Extreme (-30C)	2595	5.7	0.002206	2.5

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

10.11 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]
3.29	2595	8.2	0.003150	2.5
3.87	2595	6.5	0.002491	2.5
4.45	2595	7.5	0.002908	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	2595	7.8	0.002990	2.5
Extreme (50C)	2595	4.7	0.001821	2.5
Extreme (40C)	2595	5.4	0.002101	2.5
Extreme (30C)	2595	4.5	0.001733	2.5
Extreme (10C)	2595	6.7	0.002587	2.5
Extreme (0C)	2595	5.3	0.002037	2.5
Extreme (-10C)	2595	9.5	0.003656	2.5
Extreme (-20C)	2595	11.0	0.004249	2.5
Extreme (-30C)	2595	6.5	0.002508	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]
3.29	2595	8.6	0.003305	2.5
3.87	2595	6.3	0.002448	2.5
4.45	2595	6.9	0.002644	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	2595	7.5	0.002892	2.5
Extreme (50C)	2595	4.4	0.001690	2.5
Extreme (40C)	2595	5.6	0.002171	2.5
Extreme (30C)	2595	4.7	0.001830	2.5
Extreme (10C)	2595	6.8	0.002620	2.5
Extreme (0C)	2595	5.1	0.001951	2.5
Extreme (-10C)	2595	9.2	0.003561	2.5
Extreme (-20C)	2595	10.9	0.004207	2.5
Extreme (-30C)	2595	6.0	0.002306	2.5

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

10.12 LTE BAND 66

QPSK, (20MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 66 QPSK, (CH 132322 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
3.29	1745	13.2	0.00755	2.5
3.87	1745	13.7	0.00786	2.5
4.45	1745	13.2	0.00756	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 66 QPSK, (CH 132322 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
Normal (25C)	1745	7.2	0.004143	2.5
Extreme (50C)	1745	4.3	0.002474	2.5
Extreme (40C)	1745	5.5	0.003140	2.5
Extreme (30C)	1745	4.4	0.002521	2.5
Extreme (10C)	1745	6.6	0.003803	2.5
Extreme (0C)	1745	4.3	0.002490	2.5
Extreme (-10C)	1745	9.8	0.005633	2.5
Extreme (-20C)	1745	11.1	0.006379	2.5
Extreme (-30C)	1745	5.7	0.003254	2.5

16QAM, (20MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 66 16QAM, (CH 132322 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
3.29	1745	12.6	0.007199	2.5
3.87	1745	14.2	0.008128	2.5
4.45	1745	13.7	0.007828	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 66 16QAM, (CH 132322 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
Normal (25C)	1745	7.4	0.004248	2.5
Extreme (50C)	1745	4.7	0.002690	2.5
Extreme (40C)	1745	5.7	0.003245	2.5
Extreme (30C)	1745	5.2	0.002983	2.5
Extreme (10C)	1745	6.6	0.003800	2.5
Extreme (0C)	1745	5.0	0.002889	2.5
Extreme (-10C)	1745	9.6	0.005493	2.5
Extreme (-20C)	1745	10.7	0.006138	2.5
Extreme (-30C)	1745	6.3	0.003637	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.

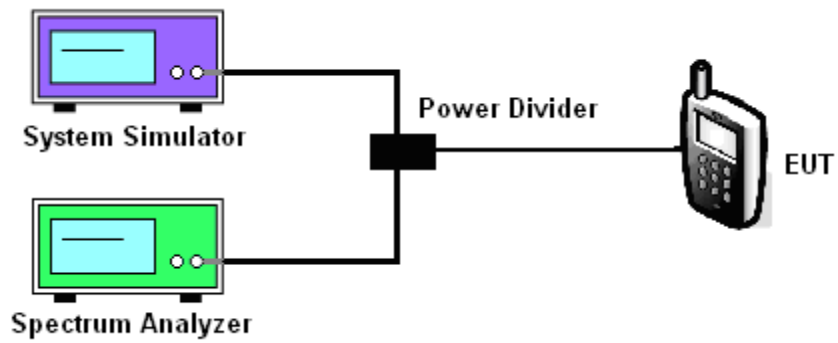
11.2 Measuring Instruments

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 2/4/5/7/12/17/25/26/38/41/66

Test data reference attachment.

-----END OF REPORT-----