

FCC CFR47 PART 22H, 24E, 27, 90S CERTIFICATION TEST REPORT FCC ID: 2AX4YN55

Product: Smart Phone

Trade Mark: DOOGEE

Model Number: N55

Family Model: N55 Pro, N55S, N55E, N55 SE, N55 Plus,
N55 Max, N55 Ultra

Report No.: S24031407607006

Prepared for

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TEST RESULT CERTIFICATION

Applicant's name.....: Shenzhen DOOGEE Hengtong Technology CO.,LTD
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Manufacturer's Name.....: Shenzhen DOOGEE Hengtong Technology CO.,LTD
Address.....: B, 2/F, Building A4, Silicon Valley Power Digital Industrial Park, No.22,Longhua New District,Shenzhen,China
Product name.....: Smart Phone
Model and/or type reference.....: N55
Family Model: N55 Pro, N55S, N55E, N55 SE, N55 Plus, N55 Max, N55 Ultra
Test sample number: S240314076007
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..... Mar 18, 2024 ~ Apr 02, 2024
Date of Issue..... Apr 07, 2024
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	DOOGEE
Model Name	N55
Family Model	N55 Pro, N55S, N55E, N55 SE, N55 Plus, N55 Max, N55 Ultra
Model Difference	All models are the same circuit and RF module, except the model name.
FCC ID:	2AX4YN55
Frequency Bands:	U.S. Bands: <input checked="" type="checkbox"/> LTE FDD Band 2, 4, 5, 7, 25, 26, 66 LTE TDD Band 41
Frequency Range:	LTE FDD Band 2 Uplink: 1850MHz-1910MHz, Downlink: 1930MHz-1990MHz; LTE FDD Band 4 Uplink: 1710MHz-1755MHz, Downlink: 2110MHz-2155MHz; LTE FDD Band 5 Uplink: 824MHz-849MHz, Downlink: 869MHz-894MHz; LTE-FDD Band 7 Uplink: 2500MHz-2570MHz, Downlink: 2620MHz-2690MHz;; LTE FDD Band 25 Uplink: 1850MHz-1915MHz, Downlink: 1930MHz-1995MHz; LTE FDD Band 26 Uplink: 814MHz-849MHz, Downlink: 859MHz-894MHz; LTE TDD Band 41 Uplink: 2535MHz-2655MHz LTE FDD Band 66 Uplink: 1710MHz-1780MHz, Downlink: 2110MHz-2200MHz;
Type of Modulation:	QPSK/16QAM
Antenna:	PIFA Antenna
Antenna gain:	Band2:0.91 dBi; Band4:0.88 dBi; Band5:0.31 dBi; Band7:0.78 dBi; Band25:0.91dBi; Band26:0.32 dBi; Band41:0.71 dBi; Band66:0.88 dBi;
Adapter	Model: DGCDQ-BC023-02 Input: AC100-240V~50/60Hz 0.35A Max Output: 5.0V---2.0A 10.0W Power: 10.0W Max
Battery	DC 3.87V, 5150 mAh
Power supply	DC 3.87V from battery or DC 5V from adapter
Extreme Vol. Limits:	DC 3.4V to DC 4.45V (Nominal DC 3.87V) (Note 1)

HW Version	N/A
SW Version	N/A
<p>** Note1: The High Voltage 4.45V and Low Voltage 3.4V was declared by manufacturer, The EUT couldn't be operate normally with higher or lower voltage.</p>	

1.2 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID: 2AX4YN55** 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.

1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen 518126 P.R.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, Band 4, Band 5, Band 7, Band 25, Band 26,Band 41, Band 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	N55	FCC ID: 2AX4YN55	EUT

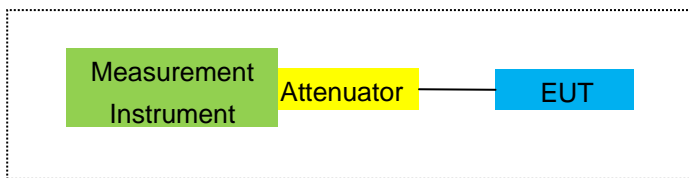
*Note: All the accessories have been used during the test.
the following "EUT" in setup diagram means EUT system.*

2.4 TEST SETUP

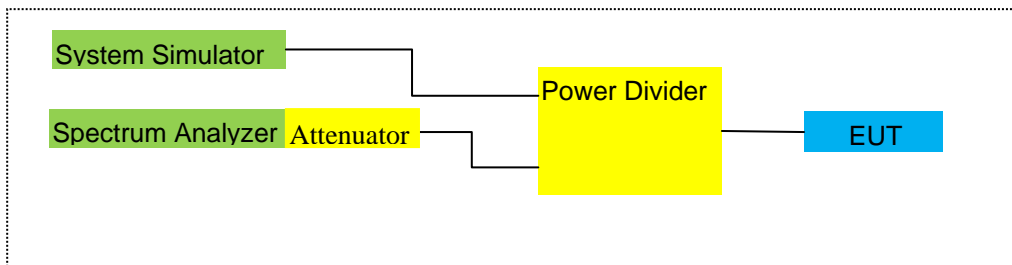
For Radiated Test Cases



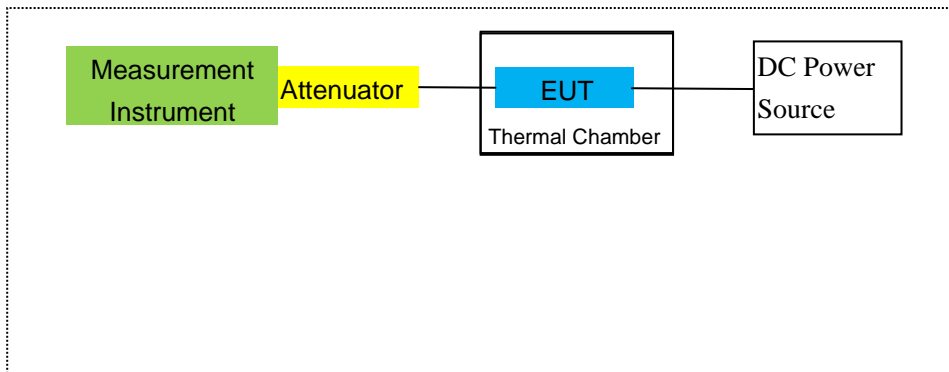
For Conducted Output Power



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	2023.05.29	2024.05.28	1 year
2	Test Receiver	R&S	ESPI	101318	2024.03.12	2025.03.11	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2024.03.11	2025.03.10	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2023.05.06	2026.05.05	3 year
5	Horn Antenna	EM	EM-AH-10180	2011071402	2024.03.12	2025.03.11	1 year
6	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2023.05.29	2024.05.28	1 year
7	Amplifier	EM	EM-30180	060538	2023.05.29	2024.05.28	1 year
8	Loop Antenna	ARA	PLA-1030/B	1029	2024.03.12	2025.03.11	1 year
9	Power Meter	R&S	NRVS	100696	2023.05.29	2024.05.28	1 year
10	Power Sensor	R&S	URV5-Z4	0395.1619.05	2024.03.12	2025.03.11	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	2024.03.12	2025.03.11	1 year
15	LISN	R&S	ENV216	101313	2024.03.12	2025.03.11	1 year
16	LISN	EMCO	3816/2	00042990	2024.03.12	2025.03.11	1 year
17	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2024.03.12	2025.03.11	1 year
18	Passive Voltage Probe	R&S	ESH2-Z3	100196	2024.03.12	2025.03.11	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	2024.03.12	2025.03.11	1 year
23	Spectrum Analyzer	agilent	e4440a	us44300399	2024.03.12	2025.03.11	1 year
24	test receiver	R&S	ESCI	a0304218	2024.03.12	2025.03.11	1 year
25	Communication Tester	R&S	CMU200	A0304247	2023.05.29	2024.05.28	1 year

26	Thermal Chamber	Ten Billion	TTC-B3C	TBN-960502	2024.03.12	2025.03.11	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	2023.05.29	2024.05.28	1 year
29	Communication Tester	R&S	CMW500	148500	2023.05.29	2024.05.28	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.

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	13	10	Table 6.2.4-2	Table 6.2.4-2
	6.6.3.3.2				
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

- LTE Band 2
- LTE Band 4
- LTE Band 5
- LTE Band 7
- LTE Band 25
- LTE Band 26
- LTE Band 41
- LTE Band 66

RESULTS

PASS

Test data reference attachment.

6. BANDEDGE AND EMISSION MASK

RULE PART(S)

FCC: §2.1051, §22.917(a), §24.238(a), §27.53(c)(g)(h)(m) and §90.691

FCC: §2.1046, §22.913, §24.232

LIMITS

The minimum permissible attenuation level of any spurious emission is $43 + \log_{10}(P[\text{Watts}])$, where P is the transmitter power in Watts.

The minimum permissible attenuation level for Band 7 is as following.

Per 27.53(g) for operations in the 698-746 MHz band, in the 100 kHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least 30 kHz may be employed to demonstrate compliance with the out-of-band emissions limit.

Per 27.53(c.5) for operations in the 776-788 MHz band, in the 100 kHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least 30 kHz may be employed to demonstrate compliance with the out-of-band emissions limit.

For all plots showing emissions in the 763 – 775MHz and 793 – 805MHz band, the FCC limit per 27.53(c.4) is $65 + 10\log_{10}(P) = -35\text{dBm}$ in a 6.25kHz bandwidth.

Per 27.53(m) for operations in the BRS/EBS bands, 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.

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 display line

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

MODES TESTED

- LTE Band2/4/5/7/25/26/41/66

RESULTS

Test data reference attachment.

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

7. OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.917(a), §24.238(a), §27.53(c)(g)(h)(m) and §90.691

LIMITS

The minimum permissible attenuation level of any spurious emission is $43 + \log_{10}(P[\text{Watts}])$, where P is the transmitter power in Watts.

The minimum permissible attenuation level for Band 7 is as following.

Per 27.53(g) for operations in the 698-746 MHz band, in the 100 kHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least 30 kHz may be employed to demonstrate compliance with the out-of-band emissions limit.

Per 27.53(c.5) for operations in the 776-788 MHz band, in the 100 kHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least 30 kHz may be employed to demonstrate compliance with the out-of-band emissions limit.

For all plots showing emissions in the 763 – 775MHz and 793 – 805MHz band, the FCC limit per 27.53(c.4) is $65 + 10\log_{10}(P) = -35\text{dBm}$ in a 6.25kHz bandwidth.

Per 27.53(m) for operations in the BRS/EBS bands, 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.

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

MODES TESTED

- LTE Band 2/4/5/7/25/26/41/66

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.

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

8. RADIATED MEASUREMENT

8.1. RADIATED POWER (ERP & EIRP)

RULE PART(S)

FCC: §2.1046, §22.913(a)(2), §24.232(c) and §27.50 (h)(2), (b)(10), (c)(10), (d)(4) and §90.635

LIMITS:

22.913(a) (2)- 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 in the 2500–2570 MHz and 2620–2690 MHz bands. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

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

☐ LTE Band 2/4/5/7/25/26/41/66

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 Average (mW)	Polarization Of Max. ERP	
1.4MHz Band QPSK	1/#Mid	1850.7	-2.69	3.76	28.24	21.79	151.008	Horizontal	Pass
		1880	-2.50	3.91	28.22	21.81	151.705	Horizontal	Pass
		1909.3	-2.41	3.93	28.20	21.86	153.462	Horizontal	Pass
3.0MHz Band QPSK	1/#Mid	1851.5	-2.75	3.77	28.23	21.71	148.252	Horizontal	Pass
		1880	-2.60	3.91	28.24	21.73	148.936	Horizontal	Pass
		1908.5	-2.47	3.94	28.25	21.84	152.757	Horizontal	Pass
5.0MHz Band QPSK	1/#Mid	1852.5	-2.64	3.77	28.31	21.90	154.882	Horizontal	Pass
		1880	-2.26	3.91	28.22	22.05	160.325	Horizontal	Pass
		1907.5	-2.19	3.94	28.20	22.07	161.065	Horizontal	Pass
10.0MHz Band QPSK	1/#Mid	1855	-2.50	3.79	28.33	22.04	159.956	Horizontal	Pass
		1880	-2.20	3.95	28.22	22.07	161.065	Horizontal	Pass
		1905	-2.09	3.97	28.19	22.13	163.305	Horizontal	Pass
15.0MHz Band QPSK	1/#Mid	1857.5	-2.46	3.79	28.34	22.09	161.808	Horizontal	Pass
		1880	-2.25	3.95	28.22	22.02	159.221	Horizontal	Pass
		1902.5	-2.11	3.97	28.18	22.10	162.181	Horizontal	Pass
20.0MHz Band QPSK	1/#Mid	1860	-2.45	3.81	28.35	22.09	161.808	Horizontal	Pass
		1880	-2.12	3.96	28.22	22.14	163.682	Horizontal	Pass
		1900	-2.06	4.00	28.16	22.10	162.181	Horizontal	Pass
1.4MHz Band QPSK	1/#Mid	1850.7	-3.09	3.76	28.24	21.39	137.721	Vertical	Pass
		1880	-3.18	3.91	28.22	21.13	129.718	Vertical	Pass
		1909.3	-2.82	3.93	28.20	21.45	139.637	Vertical	Pass
3.0MHz Band QPSK	1/#Mid	1851.5	-3.18	3.77	28.23	21.28	134.276	Vertical	Pass
		1880	-3.15	3.91	28.24	21.18	131.220	Vertical	Pass
		1908.5	-3.05	3.94	28.25	21.26	133.660	Vertical	Pass
5.0MHz Band QPSK	1/#Mid	1852.5	-3.36	3.77	28.31	21.18	131.220	Vertical	Pass
		1880	-3.58	3.91	28.22	20.73	118.304	Vertical	Pass
		1907.5	-3.57	3.94	28.20	20.69	117.220	Vertical	Pass
10.0MHz Band QPSK	1/#Mid	1855	-3.11	3.79	28.33	21.43	138.995	Vertical	Pass
		1880	-3.39	3.95	28.22	20.88	122.462	Vertical	Pass
		1905	-3.46	3.97	28.19	20.76	119.124	Vertical	Pass

15.0MHz		1857.5	-3.58	3.79	28.34	20.97	125.026	Vertical	Pass
Band	1/#Mid	1880	-2.98	3.95	28.22	21.29	134.586	Vertical	Pass
QPSK		1902.5	-2.86	3.97	28.18	21.35	136.458	Vertical	Pass
20.0MHz		1860	-3.15	3.81	28.35	21.39	137.721	Vertical	Pass
Band	1/#Mid	1880	-3.13	3.96	28.22	21.13	129.718	Vertical	Pass
QPSK		1900	-3.08	4.00	28.16	21.08	128.233	Vertical	Pass

Note:

SG Level= Signal generator output

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

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

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 Average (mW)	Polarization Of Max. ERP	
1.4MHz Band 16 QAM	1/#Mid	1850.7	-3.81	3.76	28.24	20.67	116.681	Horizontal	Pass
		1880	-3.28	3.91	28.22	21.03	126.765	Horizontal	Pass
		1909.3	-3.21	3.93	28.20	21.06	127.644	Horizontal	Pass
3.0MHz Band 16 QAM	1/#Mid	1851.5	-3.31	3.77	28.23	21.15	130.317	Horizontal	Pass
		1880	-3.39	3.91	28.24	20.94	124.165	Horizontal	Pass
		1908.5	-3.60	3.94	28.25	20.71	117.761	Horizontal	Pass
5.0MHz Band 16 QAM	1/#Mid	1852.5	-3.25	3.77	28.31	21.29	134.586	Horizontal	Pass
		1880	-3.16	3.91	28.22	21.15	130.317	Horizontal	Pass
		1907.5	-2.84	3.94	28.20	21.42	138.676	Horizontal	Pass
10.0MHz Band 16 QAM	1/#Mid	1855	-3.30	3.79	28.33	21.24	133.045	Horizontal	Pass
		1880	-3.29	3.95	28.22	20.98	125.314	Horizontal	Pass
		1905	-2.76	3.97	28.19	21.46	139.959	Horizontal	Pass
15.0MHz Band 16 QAM	1/#Mid	1857.5	-3.28	3.79	28.34	21.27	133.968	Horizontal	Pass
		1880	-3.07	3.95	28.22	21.20	131.826	Horizontal	Pass
		1902.5	-3.03	3.97	28.18	21.18	131.220	Horizontal	Pass
20.0MHz Band 16 QAM	1/#Mid	1860	-3.17	3.81	28.35	21.37	137.088	Horizontal	Pass
		1880	-2.87	3.96	28.22	21.39	137.721	Horizontal	Pass
		1900	-2.69	4.00	28.16	21.47	140.281	Horizontal	Pass
1.4MHz Band 16 QAM	1/#Mid	1850.7	-4.18	3.76	28.24	20.30	107.152	Vertical	Pass
		1880	-3.90	3.91	28.22	20.41	109.901	Vertical	Pass
		1909.3	-4.46	3.93	28.20	19.81	95.719	Vertical	Pass
3.0MHz Band 16 QAM	1/#Mid	1851.5	-4.29	3.77	28.23	20.17	103.992	Vertical	Pass
		1880	-3.84	3.91	28.24	20.49	111.944	Vertical	Pass
		1908.5	-4.65	3.94	28.25	19.66	92.470	Vertical	Pass
5.0MHz Band 16 QAM	1/#Mid	1852.5	-4.84	3.77	28.31	19.70	93.325	Vertical	Pass
		1880	-4.67	3.91	28.22	19.64	92.045	Vertical	Pass
		1907.5	-4.03	3.94	28.20	20.23	105.439	Vertical	Pass
10.0MHz Band 16 QAM	1/#Mid	1855	-4.58	3.79	28.33	19.96	99.083	Vertical	Pass
		1880	-4.56	3.95	28.22	19.71	93.541	Vertical	Pass
		1905	-4.44	3.97	28.19	19.78	95.060	Vertical	Pass
15.0MHz Band 16 QAM	1/#Mid	1857.5	-4.29	3.79	28.34	20.26	106.170	Vertical	Pass
		1880	-4.35	3.95	28.22	19.92	98.175	Vertical	Pass
		1902.5	-3.72	3.97	28.18	20.49	111.944	Vertical	Pass

20.0MHz		1860	-4.69	3.81	28.35	19.85	96.605	Vertical	Pass
Band 16	1/#Mid	1880	-4.18	3.96	28.22	20.08	101.859	Vertical	Pass
QAM		1900	-3.81	4.00	28.16	20.35	108.393	Vertical	Pass

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Factor 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	Cable Loss	Antenna Factor	Max. EIRP	Max. EIRP	Polarization	
			(dBm)	(dBm)	(dB)	Average	Average	Of Max. ERP	
						(dBm)	(mW)		
1.4MHz Band QPSK	1/#Mid	1710.7	-2.60	3.12	27.58	21.86	153.462	Horizontal	Pass
		1732.5	-2.59	3.27	27.61	21.75	149.624	Horizontal	Pass
		1754.3	-2.57	3.29	27.63	21.77	150.314	Horizontal	Pass
3.0MHz Band QPSK	1/#Mid	1711.5	-2.77	3.13	27.61	21.71	148.252	Horizontal	Pass
		1732.5	-2.69	3.27	27.61	21.65	146.218	Horizontal	Pass
		1753.5	-2.61	3.30	27.62	21.71	148.252	Horizontal	Pass
5.0MHz Band QPSK	1/#Mid	1712.5	-2.54	3.13	27.63	21.96	157.036	Horizontal	Pass
		1732.5	-2.44	3.27	27.61	21.90	154.882	Horizontal	Pass
		1752.5	-2.32	3.30	27.60	21.98	157.761	Horizontal	Pass
10.0MHz Band QPSK	1/#Mid	1715	-2.48	3.15	27.64	22.01	158.855	Horizontal	Pass
		1732.5	-2.25	3.31	27.61	22.05	160.325	Horizontal	Pass
		1750	-2.27	3.33	27.59	21.99	158.125	Horizontal	Pass
15.0MHz Band QPSK	1/#Mid	1717.5	-2.49	3.15	27.65	22.01	158.855	Horizontal	Pass
		1732.5	-2.33	3.31	27.61	21.97	157.398	Horizontal	Pass
		1747.5	-2.27	3.33	27.57	21.97	157.398	Horizontal	Pass
20.0MHz Band QPSK	1/#Mid	1720	-2.43	3.17	27.66	22.06	160.694	Horizontal	Pass
		1732.5	-2.26	3.32	27.61	22.03	159.588	Horizontal	Pass
		1745	-2.20	3.36	27.56	22.00	158.489	Horizontal	Pass
1.4MHz Band QPSK	1/#Mid	1710.7	-3.90	3.12	27.58	20.56	113.763	Vertical	Pass
		1732.5	-2.91	3.27	27.61	21.43	138.995	Vertical	Pass
		1754.3	-3.08	3.29	27.63	21.26	133.660	Vertical	Pass
3.0MHz Band QPSK	1/#Mid	1711.5	-3.38	3.13	27.61	21.10	128.825	Vertical	Pass
		1732.5	-3.71	3.27	27.61	20.63	115.611	Vertical	Pass
		1753.5	-3.49	3.30	27.62	20.83	121.060	Vertical	Pass
5.0MHz Band QPSK	1/#Mid	1712.5	-3.17	3.13	27.63	21.33	135.831	Vertical	Pass
		1732.5	-2.97	3.27	27.61	21.37	137.088	Vertical	Pass
		1752.5	-3.16	3.30	27.60	21.14	130.017	Vertical	Pass
10.0MHz Band QPSK	1/#Mid	1715	-3.96	3.15	27.64	20.53	112.980	Vertical	Pass
		1732.5	-3.69	3.31	27.61	20.61	115.080	Vertical	Pass
		1750	-3.47	3.33	27.59	20.79	119.950	Vertical	Pass

15.0MHz		1717.5	-3.12	3.15	27.65	21.38	137.404	Vertical	Pass
Band	1/#Mid	1732.5	-3.41	3.31	27.61	20.89	122.744	Vertical	Pass
QPSK		1747.5	-3.18	3.33	27.57	21.06	127.644	Vertical	Pass
20.0MHz		1720	-3.54	3.17	27.66	20.95	124.451	Vertical	Pass
Band	1/#Mid	1732.5	-3.10	3.32	27.61	21.19	131.522	Vertical	Pass
QPSK		1745	-3.28	3.36	27.56	20.92	123.595	Vertical	Pass

Note:

SG Level= Signal generator output

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

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

Radiated Power (EIRP) for Band 4									
Mode	RB/RB SIZE	Frequency	Result						Conclusion
			SG Level	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP	Max. EIRP	Polarization Of Max. ERP	
			(dBm)			Average	Average		
						(dBm)	(mW)		
1.4MHz Band 16 QAM	1/#Mid	1710.7	-3.41	3.12	27.58	21.05	127.350	Horizontal	Pass
		1732.5	-3.26	3.27	27.61	21.08	128.233	Horizontal	Pass
		1754.3	-3.26	3.29	27.63	21.08	128.233	Horizontal	Pass
3.0MHz Band 16 QAM	1/#Mid	1711.5	-3.35	3.13	27.61	21.13	129.718	Horizontal	Pass
		1732.5	-3.48	3.27	27.61	20.86	121.899	Horizontal	Pass
		1753.5	-3.70	3.30	27.62	20.62	115.345	Horizontal	Pass
5.0MHz Band 16 QAM	1/#Mid	1712.5	-3.18	3.13	27.63	21.32	135.519	Horizontal	Pass
		1732.5	-3.14	3.27	27.61	21.20	131.826	Horizontal	Pass
		1752.5	-2.83	3.30	27.60	21.47	140.281	Horizontal	Pass
10.0MHz Band 16 QAM	1/#Mid	1715	-3.25	3.15	27.64	21.24	133.045	Horizontal	Pass
		1732.5	-3.44	3.31	27.61	20.86	121.899	Horizontal	Pass
		1750	-2.82	3.33	27.59	21.44	139.316	Horizontal	Pass
15.0MHz Band 16 QAM	1/#Mid	1717.5	-3.05	3.15	27.65	21.45	139.637	Horizontal	Pass
		1732.5	-3.11	3.31	27.61	21.19	131.522	Horizontal	Pass
		1747.5	-3.13	3.33	27.57	21.11	129.122	Horizontal	Pass
20.0MHz Band 16 QAM	1/#Mid	1720	-3.00	3.17	27.66	21.49	140.929	Horizontal	Pass
		1732.5	-3.01	3.32	27.61	21.28	134.276	Horizontal	Pass
		1745	-2.82	3.36	27.56	21.38	137.404	Horizontal	Pass
1.4MHz Band 16 QAM	1/#Mid	1710.7	-4.19	3.12	27.58	20.27	106.414	Vertical	Pass
		1732.5	-3.94	3.27	27.61	20.40	109.648	Vertical	Pass
		1754.3	-4.35	3.29	27.63	19.99	99.770	Vertical	Pass
3.0MHz Band 16 QAM	1/#Mid	1711.5	-4.00	3.13	27.61	20.48	111.686	Vertical	Pass
		1732.5	-4.23	3.27	27.61	20.11	102.565	Vertical	Pass
		1753.5	-4.35	3.30	27.62	19.97	99.312	Vertical	Pass
5.0MHz Band 16 QAM	1/#Mid	1712.5	-4.23	3.13	27.63	20.27	106.414	Vertical	Pass
		1732.5	-4.33	3.27	27.61	20.01	100.231	Vertical	Pass
		1752.5	-4.26	3.30	27.60	20.04	100.925	Vertical	Pass
10.0MHz Band 16 QAM	1/#Mid	1715	-4.74	3.15	27.64	19.75	94.406	Vertical	Pass
		1732.5	-4.70	3.31	27.61	19.60	91.201	Vertical	Pass
		1750	-3.99	3.33	27.59	20.27	106.414	Vertical	Pass
15.0MHz Band 16 QAM	1/#Mid	1717.5	-4.10	3.15	27.65	20.40	109.648	Vertical	Pass
		1732.5	-4.08	3.31	27.61	20.22	105.196	Vertical	Pass
		1747.5	-4.67	3.33	27.57	19.57	90.573	Vertical	Pass

20.0MHz		1720	-4.58	3.17	27.66	19.91	97.949	Vertical	Pass
Band 16	1/#Mid	1732.5	-4.18	3.32	27.61	20.11	102.565	Vertical	Pass
QAM		1745	-4.07	3.36	27.56	20.13	103.039	Vertical	Pass

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Factor 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	Cable Loss	Antenna Factor	Correction	Max. EIRP	Max. EIRP	Polarization	
			(dBm)	(dBm)	(dB)	(dB)	Average	Average	Of Max. ERP	
							(dBm)	(mW)		
1.4MHz Band QPSK	3/#Mid	824.7	6.70	2.01	19.68	2.15	22.22	166.725	Horizontal	Pass
		836.5	6.58	2.01	19.77	2.15	22.19	165.577	Horizontal	Pass
		848.3	6.38	2.02	19.82	2.15	22.03	159.588	Horizontal	Pass
3.0MHz Band QPSK	1/#Mid	825.5	6.47	2.01	19.70	2.15	22.01	158.855	Horizontal	Pass
		836.5	6.37	2.01	19.77	2.15	21.98	157.761	Horizontal	Pass
		847.5	6.24	2.02	19.81	2.15	21.88	154.170	Horizontal	Pass
5.0MHz Band QPSK	1/#Mid	826.5	6.75	2.01	19.71	2.15	22.30	169.824	Horizontal	Pass
		836.5	6.63	2.01	19.77	2.15	22.24	167.494	Horizontal	Pass
		846.5	6.47	2.02	19.79	2.15	22.09	161.808	Horizontal	Pass
10.0MHz Band QPSK	1/#Mid	829	6.77	2.01	19.73	2.15	22.34	171.396	Horizontal	Pass
		836.5	6.72	2.01	19.77	2.15	22.33	171.002	Horizontal	Pass
		844	6.62	2.02	19.78	2.15	22.23	167.109	Horizontal	Pass
1.4MHz Band QPSK	1/#Mid	824.7	5.00	2.01	19.68	2.15	20.52	112.720	Vertical	Pass
		836.5	5.40	2.01	19.77	2.15	21.01	126.183	Vertical	Pass
		848.3	5.50	2.02	19.82	2.15	21.15	130.317	Vertical	Pass
3.0MHz Band QPSK	1/#Mid	825.5	5.35	2.01	19.70	2.15	20.89	122.744	Vertical	Pass
		836.5	5.53	2.01	19.77	2.15	21.14	130.017	Vertical	Pass
		847.5	5.14	2.02	19.81	2.15	20.78	119.674	Vertical	Pass
5.0MHz Band QPSK	1/#Mid	826.5	5.45	2.01	19.71	2.15	21.00	125.893	Vertical	Pass
		836.5	5.36	2.01	19.77	2.15	20.97	125.026	Vertical	Pass
		846.5	5.20	2.02	19.79	2.15	20.82	120.781	Vertical	Pass
10.0MHz Band QPSK	1/#Mid	829	5.24	2.01	19.73	2.15	20.81	120.504	Vertical	Pass
		836.5	4.98	2.01	19.77	2.15	20.59	114.551	Vertical	Pass
		844	4.94	2.02	19.78	2.15	20.55	113.501	Vertical	Pass

Radiated Power (ERP) for Band 5

Radiated Power (ERP) for Band 5											
Mode	RB/RB SIZE	Frequency	Result							Polarization Of Max. ERP	Conclusion
			SG Level	Cable Loss	Antenna Factor	Correction	Max. EIRP	Max. EIRP			
			(dBm)	(dBm)	(dB)	(dB)	Average	Average			
							(dBm)	(mW)			
1.4MHz Band 16 QAM	3/#Mid	824.7	5.85	2.01	19.68	2.15	21.37	137.088	Horizontal	Pass	
		836.5	5.78	2.01	19.77	2.15	21.39	137.721	Horizontal	Pass	
		848.3	5.62	2.02	19.82	2.15	21.27	133.968	Horizontal	Pass	
3.0MHz Band 16 QAM	1/#Mid	825.5	5.93	2.01	19.70	2.15	21.47	140.281	Horizontal	Pass	
		836.5	5.64	2.01	19.77	2.15	21.25	133.352	Horizontal	Pass	
		847.5	5.12	2.02	19.81	2.15	20.76	119.124	Horizontal	Pass	
5.0MHz Band 16 QAM	1/#Mid	826.5	6.25	2.01	19.71	2.15	21.80	151.356	Horizontal	Pass	
		836.5	6.02	2.01	19.77	2.15	21.63	145.546	Horizontal	Pass	
		846.5	5.77	2.02	19.79	2.15	21.39	137.721	Horizontal	Pass	
10.0MHz Band 16 QAM	1/#Mid	829	6.25	2.01	19.73	2.15	21.82	152.055	Horizontal	Pass	
		836.5	5.97	2.01	19.77	2.15	21.58	143.880	Horizontal	Pass	
		844	5.51	2.02	19.78	2.15	21.12	129.420	Horizontal	Pass	
1.4MHz Band 16 QAM	1/#Mid	824.7	4.02	2.01	19.68	2.15	19.54	89.950	Vertical	Pass	
		836.5	5.19	2.01	19.77	2.15	20.80	120.226	Vertical	Pass	
		848.3	4.33	2.02	19.82	2.15	19.98	99.541	Vertical	Pass	
3.0MHz Band 16 QAM	1/#Mid	825.5	4.00	2.01	19.70	2.15	19.54	89.950	Vertical	Pass	
		836.5	5.75	2.01	19.77	2.15	21.36	136.773	Vertical	Pass	
		847.5	4.65	2.02	19.81	2.15	20.29	106.905	Vertical	Pass	
5.0MHz Band 16 QAM	1/#Mid	826.5	4.74	2.01	19.71	2.15	20.29	106.905	Vertical	Pass	
		836.5	3.91	2.01	19.77	2.15	19.52	89.536	Vertical	Pass	
		846.5	4.57	2.02	19.79	2.15	20.19	104.472	Vertical	Pass	
10.0MHz Band 16 QAM	1/#Mid	829	4.07	2.01	19.73	2.15	19.64	92.045	Vertical	Pass	
		836.5	5.11	2.01	19.77	2.15	20.72	118.032	Vertical	Pass	
		844	5.30	2.02	19.78	2.15	20.91	123.310	Vertical	Pass	

Note:

ERP=EIRP-2.15

SG Level= Signal generator output

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

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

8.5 LTE BAND 7

Radiated Power (EIRP) for Band 7									
Mode	RB/RB SIZE	Frequency	Result						Conclusion
			SG Level	Cable	Antenna	Max.	Max.	Polarization	
			(dBm)	Loss	Factor	EIRP	EIRP	Of Max.	
				(dBm)	(dB)	Average	Average	ERP	
			(dBm)	(mW)					
5.0MHz Band QPSK	1/#Mid	2502.5	-1.22	4.54	27.75	21.99	158.125	Horizontal	Pass
		2535	-1.05	4.69	27.72	21.98	157.761	Horizontal	Pass
		2567.5	-0.98	4.71	27.71	22.02	159.221	Horizontal	Pass
10.0MHz Band QPSK	1/#Mid	2505	-1.15	4.55	27.76	22.06	160.694	Horizontal	Pass
		2535	-0.96	4.69	27.72	22.07	161.065	Horizontal	Pass
		2565	-0.88	4.72	27.70	22.10	162.181	Horizontal	Pass
15.0MHz Band QPSK	1/#Mid	2507.5	-1.16	4.55	27.77	22.06	160.694	Horizontal	Pass
		2535	-1.02	4.69	27.72	22.01	158.855	Horizontal	Pass
		2562.5	-0.92	4.72	27.69	22.05	160.325	Horizontal	Pass
20.0MHz Band QPSK	1/#Mid	2510	-1.10	4.57	27.78	22.11	162.555	Horizontal	Pass
		2535	-0.92	4.73	27.72	22.07	161.065	Horizontal	Pass
		2560	-0.88	4.75	27.68	22.05	160.325	Horizontal	Pass
5.0MHz Band QPSK	1/#Mid	2502.5	-2.09	4.54	27.75	21.12	129.420	Vertical	Pass
		2535	-2.00	4.69	27.72	21.03	126.765	Vertical	Pass
		2567.5	-2.39	4.71	27.71	20.61	115.080	Vertical	Pass
10.0MHz Band QPSK	1/#Mid	2505	-2.54	4.55	27.76	20.67	116.681	Vertical	Pass
		2535	-2.38	4.69	27.72	20.65	116.145	Vertical	Pass
		2565	-2.77	4.72	27.70	20.21	104.954	Vertical	Pass
15.0MHz Band QPSK	1/#Mid	2507.5	-2.24	4.55	27.77	20.98	125.314	Vertical	Pass
		2535	-2.09	4.69	27.72	20.94	124.165	Vertical	Pass
		2562.5	-2.76	4.72	27.69	20.21	104.954	Vertical	Pass
20.0MHz Band QPSK	1/#Mid	2510	-2.73	4.57	27.78	20.48	111.686	Vertical	Pass
		2535	-1.90	4.73	27.72	21.09	128.529	Vertical	Pass
		2560	-2.70	4.75	27.68	20.23	105.439	Vertical	Pass

Radiated Power (EIRP) for Band 7									
Mode	RB/RB SIZE	Frequency	Result						Conclusion
			SG Level	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP	Max. EIRP	Polarization Of Max. ERP	
			(dBm)			Average	Average		
						(dBm)	(mW)		
5.0MHz Band 16 QAM	1/#Mid	2502.5	-1.91	4.54	27.75	21.30	134.896	Horizontal	Pass
		2535	-1.60	4.69	27.72	21.43	138.995	Horizontal	Pass
		2567.5	-1.68	4.71	27.71	21.32	135.519	Horizontal	Pass
10.0MHz Band 16 QAM	1/#Mid	2505	-1.80	4.55	27.76	21.41	138.357	Horizontal	Pass
		2535	-1.81	4.69	27.72	21.22	132.434	Horizontal	Pass
		2565	-2.08	4.72	27.70	20.90	123.027	Horizontal	Pass
15.0MHz Band 16 QAM	1/#Mid	2507.5	-1.98	4.55	27.77	21.24	133.045	Horizontal	Pass
		2535	-1.95	4.69	27.72	21.08	128.233	Horizontal	Pass
		2562.5	-1.56	4.72	27.69	21.41	138.357	Horizontal	Pass
20.0MHz Band 16 QAM	1/#Mid	2510	-1.86	4.57	27.78	21.35	136.458	Horizontal	Pass
		2535	-1.53	4.73	27.72	21.46	139.959	Horizontal	Pass
		2560	-1.63	4.75	27.68	21.30	134.896	Horizontal	Pass
5.0MHz Band 16 QAM	1/#Mid	2502.5	-2.28	4.54	27.75	20.93	123.880	Vertical	Pass
		2535	-2.29	4.69	27.72	20.74	118.577	Vertical	Pass
		2567.5	-2.59	4.71	27.71	20.41	109.901	Vertical	Pass
10.0MHz Band 16 QAM	1/#Mid	2505	-3.83	4.55	27.76	19.38	86.696	Vertical	Pass
		2535	-2.63	4.69	27.72	20.40	109.648	Vertical	Pass
		2565	-2.49	4.72	27.70	20.49	111.944	Vertical	Pass
15.0MHz Band 16 QAM	1/#Mid	2507.5	-3.65	4.55	27.77	19.57	90.573	Vertical	Pass
		2535	-2.38	4.69	27.72	20.65	116.145	Vertical	Pass
		2562.5	-3.10	4.72	27.69	19.87	97.051	Vertical	Pass
20.0MHz Band 16 QAM	1/#Mid	2510	-2.44	4.57	27.78	20.77	119.399	Vertical	Pass
		2535	-2.69	4.73	27.72	20.30	107.152	Vertical	Pass
		2560	-3.02	4.75	27.68	19.91	97.949	Vertical	Pass

Note:

SG Level= Signal generator output

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

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

8.6 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 Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP	
1.4MHz Band QPSK	6/0	1850.7	-3.18	3.12	28.24	21.94	156.31	Horizontal	Pass
		1882.5	-3.02	3.27	28.22	21.93	155.96	Horizontal	Pass
		1914.3	-2.94	3.29	28.2	21.97	157.40	Horizontal	Pass
3.0MHz Band QPSK	15/0	1851.5	-3.09	3.13	28.23	22.01	158.85	Horizontal	Pass
		1882.5	-2.95	3.27	28.24	22.02	159.22	Horizontal	Pass
		1913.5	-2.90	3.30	28.25	22.05	160.32	Horizontal	Pass
5.0MHz Band QPSK	25/0	1852.5	-3.17	3.13	28.31	22.01	158.85	Horizontal	Pass
		1882.5	-2.99	3.27	28.22	21.96	157.04	Horizontal	Pass
		1912.5	-2.90	3.30	28.2	22.00	158.49	Horizontal	Pass
10.0MHz Band QPSK	50/0	1855	-3.12	3.15	28.33	22.06	160.69	Horizontal	Pass
		1882.5	-2.89	3.31	28.22	22.02	159.22	Horizontal	Pass
		1910	-2.86	3.33	28.19	22.00	158.49	Horizontal	Pass
15.0MHz Band QPSK	75/0	1857.5	-4.24	3.15	28.34	20.95	124.45	Horizontal	Pass
		1882.5	-4.23	3.31	28.22	20.68	116.95	Horizontal	Pass
		1907.5	-4.59	3.33	28.18	20.26	106.17	Horizontal	Pass
20.0MHz Band QPSK	100/0	1860	-4.94	3.17	28.35	20.24	105.68	Horizontal	Pass
		1882.5	-3.89	3.32	28.22	21.01	126.18	Horizontal	Pass
		1905	-2.73	3.36	28.16	22.07	161.06	Horizontal	Pass
1.4MHz Band QPSK	6/0	1850.7	-4.55	3.12	28.24	20.57	114.02	Vertical	Pass
		1882.5	-4.79	3.27	28.22	20.16	103.75	Vertical	Pass
		1914.3	-4.06	3.29	28.2	20.85	121.62	Vertical	Pass
3.0MHz Band QPSK	15/0	1851.5	-4.06	3.13	28.23	21.04	127.06	Vertical	Pass
		1882.5	-4.80	3.27	28.24	20.17	103.99	Vertical	Pass
		1913.5	-4.57	3.30	28.25	20.38	109.14	Vertical	Pass
5.0MHz Band QPSK	25/0	1852.5	-4.97	3.13	28.31	20.21	104.95	Vertical	Pass
		1882.5	-4.24	3.27	28.22	20.71	117.76	Vertical	Pass
		1912.5	-4.28	3.30	28.2	20.62	115.35	Vertical	Pass
10.0MHz Band	50/0	1855	-4.40	3.15	28.33	20.78	119.67	Vertical	Pass
		1882.5	-4.25	3.31	28.22	20.66	116.41	Vertical	Pass

QPSK		1910	-4.67	3.33	28.19	20.19	104.47	Vertical	Pass
15.0MHz	75/0	1857.5	-4.70	3.15	28.34	20.49	111.94	Vertical	Pass
Band		1882.5	-4.52	3.31	28.22	20.39	109.40	Vertical	Pass
QPSK		1907.5	-4.27	3.33	28.18	20.58	114.29	Vertical	Pass
20.0MHz	100/0	1860	-4.67	3.17	28.35	20.51	112.46	Vertical	Pass
Band		1882.5	-3.88	3.32	28.22	21.02	126.47	Vertical	Pass
QPSK		1905	-4.53	3.36	28.16	20.27	106.41	Vertical	Pass

Radiated Power (EIRP) for Band 25									
Mode	RB/RB SIZE	Frequency	Result						Conclusion
			SG Level	Cable	Antenna	Max.	Max.	Polarization	
			(dBm)	Loss	Factor	EIRP	EIRP	Of Max.	
				(dBm)	(dB)	Average	Average	ERP	
			(dBm)	(mW)					
1.4MHz Band 16 QAM	6/0	1850.7	-3.15	3.12	28.24	21.97	157.40	Horizontal	Pass
		1882.5	-2.99	3.27	28.22	21.96	157.04	Horizontal	Pass
		1914.3	-2.91	3.29	28.2	22.00	158.49	Horizontal	Pass
3.0MHz Band 16 QAM	15/0	1851.5	-3.06	3.13	28.23	22.04	159.96	Horizontal	Pass
		1882.5	-2.92	3.27	28.24	22.05	160.32	Horizontal	Pass
		1913.5	-2.87	3.30	28.25	22.08	161.44	Horizontal	Pass
5.0MHz Band 16 QAM	25/0	1852.5	-3.14	3.13	28.31	22.04	159.96	Horizontal	Pass
		1882.5	-2.96	3.27	28.22	21.99	158.12	Horizontal	Pass
		1912.5	-2.87	3.30	28.2	22.03	159.59	Horizontal	Pass
10.0MHz Band 16 QAM	50/0	1855	-3.13	3.15	28.33	22.05	160.32	Horizontal	Pass
		1882.5	-2.86	3.31	28.22	22.05	160.32	Horizontal	Pass
		1910	-2.83	3.33	28.19	22.03	159.59	Horizontal	Pass
15.0MHz Band 16 QAM	75/0	1857.5	-4.44	3.15	28.34	20.75	118.85	Horizontal	Pass
		1882.5	-4.44	3.31	28.22	20.47	111.43	Horizontal	Pass
		1907.5	-4.33	3.33	28.18	20.52	112.72	Horizontal	Pass
20.0MHz Band 16 QAM	100/0	1860	-4.17	3.17	28.35	21.01	126.18	Horizontal	Pass
		1882.5	-2.77	3.32	28.22	22.13	163.31	Horizontal	Pass
		1905	-4.51	3.36	28.16	20.29	106.91	Horizontal	Pass
1.4MHz Band 16 QAM	6/0	1850.7	-4.01	3.12	28.24	21.11	129.12	Vertical	Pass
		1882.5	-4.16	3.27	28.22	20.79	119.95	Vertical	Pass
		1914.3	-3.91	3.29	28.2	21.00	125.89	Vertical	Pass
3.0MHz Band 16 QAM	15/0	1851.5	-4.72	3.13	28.23	20.38	109.14	Vertical	Pass
		1882.5	-4.18	3.27	28.24	20.79	119.95	Vertical	Pass
		1913.5	-4.52	3.30	28.25	20.43	110.41	Vertical	Pass
5.0MHz Band 16 QAM	25/0	1852.5	-4.79	3.13	28.31	20.39	109.40	Vertical	Pass
		1882.5	-4.13	3.27	28.22	20.82	120.78	Vertical	Pass
		1912.5	-3.89	3.30	28.2	21.01	126.18	Vertical	Pass
10.0MHz Band 16 QAM	50/0	1855	-4.97	3.15	28.33	20.21	104.95	Vertical	Pass
		1882.5	-4.04	3.31	28.22	20.87	122.18	Vertical	Pass
		1910	-4.44	3.33	28.19	20.42	110.15	Vertical	Pass
15.0MHz Band 16	75/0	1857.5	-5.03	3.15	28.34	20.16	103.75	Vertical	Pass
		1882.5	-4.49	3.31	28.22	20.42	110.15	Vertical	Pass

QAM		1907.5	-3.75	3.33	28.18	21.10	128.82	Vertical	Pass
20.0MHz	100/0	1860	-4.67	3.17	28.35	20.51	112.46	Vertical	Pass
Band 16		1882.5	-4.64	3.32	28.22	20.26	106.17	Vertical	Pass
QAM		1905	-4.45	3.36	28.16	20.35	108.39	Vertical	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)

8.7 LTE BAND 26 A

Radiated Power (ERP) for Band 26(814-824)										
Mode	RB/RB SIZE	Frequency	Result							Conclusion
			SG	Cable	Antenna	Correction	Max. EIRP	Max.	Polarization	
			Level	Loss	Factor		EIRP	Of Max.		
			(dBm)	(dBm)	(dB)	(dB)	Average	Average	ERP	
					(dBm)	(mW)				
1.4MHz BW QPSK	6/0	814.7	-0.86	3.76	28.24	2.15	21.47	140.28	Horizontal	Pass
		819	-0.70	3.91	28.22	2.15	21.46	139.96	Horizontal	Pass
		823.3	-0.62	3.93	28.20	2.15	21.50	141.25	Horizontal	Pass
3.0MHz BW QPSK	15/0	815.5	-0.77	3.77	28.23	2.15	21.54	142.56	Horizontal	Pass
		819	-0.63	3.91	28.24	2.15	21.55	142.89	Horizontal	Pass
		822.5	-0.58	3.94	28.25	2.15	21.58	143.88	Horizontal	Pass
5.0MHz BW QPSK	25/0	816.5	-0.85	3.77	28.31	2.15	21.54	142.56	Horizontal	Pass
		819	-0.67	3.91	28.22	2.15	21.49	140.93	Horizontal	Pass
		821.5	-0.58	3.94	28.20	2.15	21.53	142.23	Horizontal	Pass
10.0MHz BW QPSK	50/0	819	-0.57	3.91	28.22	2.15	21.59	144.21	Horizontal	Pass
1.4MHz BW QPSK	6/0	814.7	-0.85	3.79	28.34	2.15	21.55	142.89	Vertical	Pass
		819	-0.59	3.95	28.22	2.15	21.53	142.23	Vertical	Pass
		823.3	-2.21	3.97	28.18	2.15	19.85	96.61	Vertical	Pass
3.0MHz BW QPSK	15/0	815.5	-1.91	3.77	28.23	2.15	20.40	109.65	Vertical	Pass
		819	-2.50	3.91	28.24	2.15	19.68	92.90	Vertical	Pass
		822.5	-1.52	3.94	28.25	2.15	20.64	115.88	Vertical	Pass
5.0MHz BW QPSK	25/0	816.5	-1.95	3.77	28.31	2.15	20.44	110.66	Vertical	Pass
		819	-1.72	3.91	28.22	2.15	20.44	110.66	Vertical	Pass
		821.5	-2.20	3.94	28.20	2.15	19.91	97.95	Vertical	Pass
10.0MHz BW QPSK	50/0	819	-1.51	3.91	28.22	2.15	20.65	116.14	Vertical	Pass

Radiated Power (ERP) for Band 26(814-824)										
Mode	RB/RB SIZE	Frequency	Result						Polarization Of Max. ERP	Conclusion
			SG Level	Cable Loss (dBm)	Antenna Factor (dB)	Correction (dB)	Max. EIRP	Max. EIRP		
			(dBm)				Average	Average		
						(dBm)	(mW)			
1.4MHz BW 16 QAM	6/0	814.7	-1.10	3.76	28.24	2.15	21.23	132.74	Horizontal	Pass
		819	-0.94	3.91	28.22	2.15	21.22	132.43	Horizontal	Pass
		823.3	-0.86	3.93	28.20	2.15	21.26	133.66	Horizontal	Pass
3.0MHz BW 16 QAM	15/0	815.5	-1.01	3.77	28.23	2.15	21.30	134.90	Horizontal	Pass
		819	-0.87	3.91	28.24	2.15	21.31	135.21	Horizontal	Pass
		822.5	-0.82	3.94	28.25	2.15	21.34	136.14	Horizontal	Pass
5.0MHz BW 16 QAM	25/0	816.5	-1.09	3.77	28.31	2.15	21.30	134.90	Horizontal	Pass
		819	-0.91	3.91	28.22	2.15	21.25	133.35	Horizontal	Pass
		821.5	-0.82	3.94	28.20	2.15	21.29	134.59	Horizontal	Pass
10.0MHz BW 16 QAM	50/0	819	-0.83	3.91	28.24	2.15	21.35	136.46	Horizontal	Pass
1.4MHz BW 16 QAM	6/0	814.7	-1.09	3.79	28.34	2.15	21.31	135.21	Vertical	Pass
		819	-0.83	3.95	28.22	2.15	21.29	134.59	Vertical	Pass
		823.3	-2.35	3.97	28.18	2.15	19.71	93.54	Vertical	Pass
3.0MHz BW 16 QAM	15/0	815.5	-2.80	3.77	28.23	2.15	19.51	89.33	Vertical	Pass
		819	-2.67	3.91	28.24	2.15	19.51	89.33	Vertical	Pass
		822.5	-2.30	3.94	28.25	2.15	19.86	96.83	Vertical	Pass
5.0MHz BW 16 QAM	25/0	816.5	-2.68	3.77	28.31	2.15	19.71	93.54	Vertical	Pass
		819	-2.13	3.91	28.22	2.15	20.03	100.69	Vertical	Pass
		821.5	-1.91	3.94	28.20	2.15	20.20	104.71	Vertical	Pass
10.0MHz BW 16 QAM	50/0	819	-2.76	3.91	28.24	2.15	19.42	87.50	Vertical	Pass

8.8 LTE BAND 26B

Radiated Power (ERP) for Band 26(824-849)											
Mode	RB/RB SIZE	Frequency	Result							Polarization Of Max. ERP	Conclusion
			SG Level	Cable Loss	Antenna Factor	Correction	Max. EIRP	Max. EIRP			
			(dBm)	(dBm)	(dB)	(dB)	Average	Average			
							(dBm)	(mW)			
1.4MHz Band QPSK	6/0	824.7	5.20	2.01	19.68	2.15	20.72	118.03	Horizontal	Pass	
		836.5	5.01	2.01	19.77	2.15	20.62	115.35	Horizontal	Pass	
		848.3	5.03	2.02	19.82	2.15	20.68	116.95	Horizontal	Pass	
3.0MHz Band QPSK	15/0	825.5	4.86	2.01	19.70	2.15	20.40	109.65	Horizontal	Pass	
		836.5	5.49	2.01	19.77	2.15	21.10	128.82	Horizontal	Pass	
		847.5	5.52	2.02	19.81	2.15	21.16	130.62	Horizontal	Pass	
5.0MHz Band QPSK	25/0	826.5	5.80	2.01	19.71	2.15	21.39	137.721	Horizontal	Pass	
		836.5	5.43	2.01	19.77	2.15	21.04	127.06	Horizontal	Pass	
		846.5	4.94	2.02	19.79	2.15	20.56	113.76	Horizontal	Pass	
10.0MHz Band QPSK	50/0	829	5.26	2.01	19.73	2.15	20.83	121.06	Horizontal	Pass	
		836.5	5.16	2.01	19.77	2.15	20.77	119.40	Horizontal	Pass	
		844	5.54	2.02	19.78	2.15	21.15	130.32	Horizontal	Pass	
15.0MHz Band QPSK	75/0	831.5	5.59	2.01	19.73	2.15	21.16	130.62	Horizontal	Pass	
		836.5	5.21	2.01	19.77	2.15	20.82	120.78	Horizontal	Pass	
		841.5	4.77	2.02	19.78	2.15	20.38	109.14	Horizontal	Pass	
1.4MHz Band QPSK	6/0	824.7	5.40	2.01	19.68	2.15	20.92	123.59	Vertical	Pass	
		836.5	5.00	2.01	19.77	2.15	20.61	115.08	Vertical	Pass	
		848.3	5.58	2.02	19.82	2.15	21.23	132.74	Vertical	Pass	
3.0MHz Band QPSK	15/0	825.5	5.08	2.01	19.70	2.15	20.62	115.35	Vertical	Pass	
		836.5	5.25	2.01	19.77	2.15	20.86	121.90	Vertical	Pass	
		847.5	5.02	2.02	19.81	2.15	20.66	116.41	Vertical	Pass	
5.0MHz Band QPSK	25/0	826.5	5.68	2.01	19.71	2.15	21.23	132.74	Vertical	Pass	
		836.5	4.75	2.01	19.77	2.15	20.36	108.64	Vertical	Pass	
		846.5	5.29	2.02	19.79	2.15	20.91	123.31	Vertical	Pass	
10.0MHz Band QPSK	50/0	829	4.82	2.01	19.73	2.15	20.39	109.40	Vertical	Pass	
		836.5	5.36	2.01	19.77	2.15	20.97	125.03	Vertical	Pass	
		844	4.94	2.02	19.78	2.15	20.55	113.50	Vertical	Pass	
15.0MHz Band QPSK	75/0	831.5	5.60	2.01	19.73	2.15	21.17	130.92	Vertical	Pass	
		836.5	5.17	2.01	19.77	2.15	20.78	119.67	Vertical	Pass	
		841.5	5.14	2.02	19.78	2.15	20.75	118.85	Vertical	Pass	

Radiated Power (ERP) for Band 26(824-849)											
Mode	RB/RB SIZE	Frequency	Result							Polarization Of Max. ERP	Conclusion
			SG Level	Cable Loss	Antenna Factor	Correction	Max. EIRP	Max. EIRP			
			(dBm)	(dBm)	(dB)	(dB)	Average	Average			
							(dBm)	(mW)			
1.4MHz Band 16 QAM	6/0	824.7	5.37	2.01	19.68	2.15	20.89	122.74	Horizontal	Pass	
		836.5	5.63	2.01	19.77	2.15	21.24	133.05	Horizontal	Pass	
		848.3	5.44	2.02	19.82	2.15	21.09	128.53	Horizontal	Pass	
3.0MHz Band 16 QAM	15/0	825.5	4.93	2.01	19.70	2.15	20.47	111.43	Horizontal	Pass	
		836.5	5.35	2.01	19.77	2.15	20.96	124.74	Horizontal	Pass	
		847.5	5.51	2.02	19.81	2.15	21.15	130.32	Horizontal	Pass	
5.0MHz Band 16 QAM	25/0	826.5	5.37	2.01	19.71	2.15	20.92	123.59	Horizontal	Pass	
		836.5	5.09	2.01	19.77	2.15	20.70	117.49	Horizontal	Pass	
		846.5	5.07	2.02	19.79	2.15	20.69	117.22	Horizontal	Pass	
10.0MHz Band 16 QAM	50/0	829	5.52	2.01	19.73	2.15	21.09	128.53	Horizontal	Pass	
		836.5	5.61	2.01	19.77	2.15	21.22	132.43	Horizontal	Pass	
		844	5.03	2.02	19.78	2.15	20.64	115.88	Horizontal	Pass	
15.0MHz Band QPSK	75/0	831.5	5.08	2.01	19.73	2.15	20.65	116.14	Horizontal	Pass	
		836.5	5.64	2.01	19.77	2.15	21.25	133.35	Horizontal	Pass	
		841.5	4.93	2.02	19.78	2.15	20.54	113.24	Horizontal	Pass	
1.4MHz Band 16 QAM	6/0	824.7	4.97	2.01	19.68	2.15	20.49	111.94	Vertical	Pass	
		836.5	5.31	2.01	19.77	2.15	20.92	123.59	Vertical	Pass	
		848.3	5.29	2.02	19.82	2.15	20.94	124.17	Vertical	Pass	
3.0MHz Band 16 QAM	15/0	825.5	5.18	2.01	19.70	2.15	20.72	118.03	Vertical	Pass	
		836.5	5.58	2.01	19.77	2.15	21.19	131.52	Vertical	Pass	
		847.5	5.58	2.02	19.81	2.15	21.22	132.43	Vertical	Pass	
5.0MHz Band 16 QAM	25/0	826.5	5.08	2.01	19.71	2.15	20.63	115.61	Vertical	Pass	
		836.5	5.74	2.01	19.77	2.15	21.42	138.676	Vertical	Pass	
		846.5	4.97	2.02	19.79	2.15	20.59	114.55	Vertical	Pass	

10.0MHz	50/0	829	5.63	2.01	19.73	2.15	21.20	131.83	Vertical	Pass
Band 16		836.5	4.80	2.01	19.77	2.15	20.41	109.90	Vertical	Pass
QAM		844	5.53	2.02	19.78	2.15	21.14	130.02	Vertical	Pass
15.0MHz	75/0	831.5	4.87	2.01	19.73	2.15	20.44	110.66	Vertical	Pass
Band		836.5	5.26	2.01	19.77	2.15	20.87	122.18	Vertical	Pass
QPSK		841.5	5.74	2.02	19.78	2.15	21.35	136.46	Vertical	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 41

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	
			(dBm)			Average	Average		
						(dBm)	(mW)		
5.0MHz Band QPSK	1/#Mid	2537.5	-2.05	4.54	27.75	21.16	130.617	Horizontal	Pass
		2595	-1.90	4.69	27.72	21.13	129.718	Horizontal	Pass
		2652.5	-1.78	4.71	27.71	21.22	132.434	Horizontal	Pass
10.0MHz Band QPSK	1/#Mid	2540	-2.13	4.55	27.76	21.08	128.233	Horizontal	Pass
		2595	-1.99	4.69	27.72	21.04	127.057	Horizontal	Pass
		2650	-1.98	4.72	27.70	21.00	125.893	Horizontal	Pass
15.0MHz Band QPSK	1/#Mid	2542.5	-1.96	4.55	27.77	21.26	133.660	Horizontal	Pass
		2595	-1.68	4.69	27.72	21.35	136.458	Horizontal	Pass
		2647.5	-1.73	4.72	27.69	21.24	133.045	Horizontal	Pass
20.0MHz Band QPSK	1/#Mid	2545	-1.84	4.57	27.78	21.37	137.088	Horizontal	Pass
		2595	-1.62	4.73	27.72	21.37	137.088	Horizontal	Pass
		2645	-1.62	4.75	27.68	21.31	135.207	Horizontal	Pass
5.0MHz Band QPSK	1/#Mid	2537.5	-1.85	4.54	27.75	21.36	136.773	Vertical	Pass
		2595	-1.76	4.69	27.72	21.27	133.968	Vertical	Pass
		2652.5	-1.74	4.71	27.71	21.26	133.660	Vertical	Pass
10.0MHz Band QPSK	1/#Mid	2540	-1.83	4.55	27.76	21.38	137.404	Vertical	Pass
		2595	-1.67	4.69	27.72	21.36	136.773	Vertical	Pass
		2650	-1.74	4.72	27.70	21.24	133.045	Vertical	Pass
15.0MHz Band QPSK	1/#Mid	2542.5	-2.65	4.55	27.77	20.57	114.025	Vertical	Pass
		2595	-2.48	4.69	27.72	20.55	113.501	Vertical	Pass
		2647.5	-2.52	4.72	27.69	20.45	110.917	Vertical	Pass
20.0MHz Band QPSK	1/#Mid	2545	-3.22	4.57	27.78	19.99	99.770	Vertical	Pass
		2595	-2.64	4.73	27.72	20.35	108.393	Vertical	Pass
		2645	-1.49	4.75	27.68	21.44	139.316	Vertical	Pass

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		
						(dBm)	(mW)		
5.0MHz Band 16 QAM	1/#Mid	2537.5	-2.05	4.54	27.75	21.16	130.617	Horizontal	Pass
		2595	-1.90	4.69	27.72	21.13	129.718	Horizontal	Pass
		2652.5	-1.78	4.71	27.71	21.22	132.434	Horizontal	Pass
10.0MHz Band 16 QAM	1/#Mid	2540	-2.13	4.55	27.76	21.08	128.233	Horizontal	Pass
		2595	-1.99	4.69	27.72	21.04	127.057	Horizontal	Pass
		2650	-1.98	4.72	27.70	21.00	125.893	Horizontal	Pass
15.0MHz Band 16 QAM	1/#Mid	2542.5	-1.96	4.55	27.77	21.26	133.660	Horizontal	Pass
		2595	-1.68	4.69	27.72	21.35	136.458	Horizontal	Pass
		2647.5	-1.73	4.72	27.69	21.24	133.045	Horizontal	Pass
20.0MHz Band 16 QAM	1/#Mid	2545	-1.84	4.57	27.78	21.37	137.088	Horizontal	Pass
		2595	-1.62	4.73	27.72	21.37	137.088	Horizontal	Pass
		2645	-1.62	4.75	27.68	21.31	135.207	Horizontal	Pass
5.0MHz Band 16 QAM	1/#Mid	2537.5	-1.85	4.54	27.75	21.36	136.773	Vertical	Pass
		2595	-1.76	4.69	27.72	21.27	133.968	Vertical	Pass
		2652.5	-1.74	4.71	27.71	21.26	133.660	Vertical	Pass
10.0MHz Band 16 QAM	1/#Mid	2540	-1.83	4.55	27.76	21.38	137.404	Vertical	Pass
		2595	-1.67	4.69	27.72	21.36	136.773	Vertical	Pass
		2650	-1.74	4.72	27.70	21.24	133.045	Vertical	Pass
15.0MHz Band 16 QAM	1/#Mid	2542.5	-2.90	4.55	27.77	20.32	107.647	Vertical	Pass
		2595	-3.01	4.69	27.72	20.02	100.462	Vertical	Pass
		2647.5	-2.66	4.72	27.69	20.31	107.399	Vertical	Pass
20.0MHz Band 16 QAM	1/#Mid	2545	-2.87	4.57	27.78	20.34	108.143	Vertical	Pass
		2595	-2.70	4.73	27.72	20.29	106.905	Vertical	Pass
		2645	-1.50	4.75	27.68	21.43	138.995	Vertical	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)

8.10 LTE BAND 66

Radiated Power (EIRP) for Band 66										
Mode	RB/RB SIZE	Frequency	Result						Polarization Of Max. ERP	Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Factor (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)			
1.4MHz Band QPSK	1/#Mid	1710.7	-2.66	3.76	28.24	21.82	152.055	Horizontal	Pass	
		1745	-2.52	3.91	28.22	21.79	151.008	Horizontal	Pass	
		1779.3	-2.39	3.93	28.2	21.88	154.170	Horizontal	Pass	
3.0MHz Band QPSK	1/#Mid	1711.5	-2.72	3.77	28.23	21.74	149.279	Horizontal	Pass	
		1745	-2.63	3.91	28.24	21.70	147.911	Horizontal	Pass	
		1778.5	-2.65	3.94	28.25	21.66	146.555	Horizontal	Pass	
5.0MHz Band QPSK	1/#Mid	1712.5	-2.62	3.77	28.31	21.92	155.597	Horizontal	Pass	
		1745	-2.30	3.91	28.22	22.01	158.855	Horizontal	Pass	
		1777.5	-2.36	3.94	28.2	21.90	154.882	Horizontal	Pass	
10.0MHz Band QPSK	1/#Mid	1715	-2.51	3.79	28.33	22.03	159.588	Horizontal	Pass	
		1745	-2.24	3.95	28.22	22.03	159.588	Horizontal	Pass	
		1775	-2.25	3.97	28.19	21.97	157.398	Horizontal	Pass	
15.0MHz Band QPSK	1/#Mid	1717.5	-2.53	3.79	28.34	22.02	159.221	Horizontal	Pass	
		1745	-2.34	3.95	28.22	21.93	155.955	Horizontal	Pass	
		1772.5	-2.29	3.97	28.18	21.92	155.597	Horizontal	Pass	
20.0MHz Band QPSK	1/#Mid	1720	-2.50	3.81	28.35	22.04	159.956	Horizontal	Pass	
		1745	-2.24	3.96	28.22	22.02	159.221	Horizontal	Pass	
		1770	-2.26	4	28.16	21.90	154.882	Horizontal	Pass	
1.4MHz Band QPSK	1/#Mid	1710.7	-3.76	3.76	28.24	20.72	118.032	Vertical	Pass	
		1745	-3.92	3.91	28.22	20.39	109.396	Vertical	Pass	
		1779.3	-3.85	3.93	28.2	20.42	110.154	Vertical	Pass	
3.0MHz Band QPSK	1/#Mid	1711.5	-3.83	3.77	28.23	20.63	115.611	Vertical	Pass	
		1745	-3.56	3.91	28.24	20.77	119.399	Vertical	Pass	
		1778.5	-3.71	3.94	28.25	20.60	114.815	Vertical	Pass	
5.0MHz Band QPSK	1/#Mid	1712.5	-4.16	3.77	28.31	20.38	109.144	Vertical	Pass	
		1745	-3.47	3.91	28.22	20.84	121.339	Vertical	Pass	
		1777.5	-3.95	3.94	28.2	20.31	107.399	Vertical	Pass	
10.0MHz Band QPSK	1/#Mid	1715	-4.16	3.79	28.34	20.39	109.396	Vertical	Pass	
		1745	-3.05	3.95	28.22	21.22	132.434	Vertical	Pass	
		1775	-3.69	3.97	28.18	20.52	112.720	Vertical	Pass	

15.0MHz		1717.5	-3.56	3.81	28.35	20.98	125.314	Vertical	Pass
Band	1/#Mid	1745	-3.72	3.96	28.22	20.54	113.240	Vertical	Pass
QPSK		1772.5	-2.95	4	28.16	21.21	132.130	Vertical	Pass
20.0MHz		1720	-3.29	3.79	28.34	21.26	133.660	Vertical	Pass
Band	1/#Mid	1745	-3.47	3.95	28.22	20.80	120.226	Vertical	Pass
QPSK		1770	-2.91	3.97	28.18	21.30	134.896	Vertical	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 Average (mW)	Polarization Of Max. ERP	
1.4MHz Band 16 QAM	1/#Mid	1710.7	-3.49	3.76	28.24	20.99	125.603	Horizontal	Pass
		1745	-3.10	3.91	28.22	21.21	132.130	Horizontal	Pass
		1779.3	-3.28	3.93	28.2	20.99	125.603	Horizontal	Pass
3.0MHz Band 16 QAM	1/#Mid	1711.5	-3.88	3.77	28.23	20.58	114.288	Horizontal	Pass
		1745	-3.13	3.91	28.24	21.20	131.826	Horizontal	Pass
		1778.5	-3.42	3.94	28.25	20.89	122.744	Horizontal	Pass
5.0MHz Band 16 QAM	1/#Mid	1712.5	-3.30	3.77	28.31	21.24	133.045	Horizontal	Pass
		1745	-3.36	3.91	28.22	20.95	124.451	Horizontal	Pass
		1777.5	-3.03	3.94	28.2	21.23	132.739	Horizontal	Pass
10.0MHz Band 16 QAM	1/#Mid	1715	-3.35	3.79	28.33	21.19	131.522	Horizontal	Pass
		1745	-3.01	3.95	28.22	21.26	133.660	Horizontal	Pass
		1775	-3.33	3.97	28.19	20.89	122.744	Horizontal	Pass
15.0MHz Band 16 QAM	1/#Mid	1717.5	-3.34	3.79	28.34	21.21	132.130	Horizontal	Pass
		1745	-3.16	3.95	28.22	21.11	129.122	Horizontal	Pass
		1772.5	-2.95	3.97	28.18	21.26	133.660	Horizontal	Pass
20.0MHz Band 16 QAM	1/#Mid	1720	-3.17	3.81	28.35	21.37	137.088	Horizontal	Pass
		1745	-2.95	3.96	28.22	21.31	135.207	Horizontal	Pass
		1770	-2.89	4	28.16	21.27	133.968	Horizontal	Pass
1.4MHz Band 16 QAM	1/#Mid	1710.7	-4.98	3.76	28.24	19.50	89.125	Vertical	Pass
		1745	-4.42	3.91	28.22	19.89	97.499	Vertical	Pass
		1779.3	-4.31	3.93	28.2	19.96	99.083	Vertical	Pass
3.0MHz Band 16 QAM	1/#Mid	1711.5	-3.93	3.77	28.23	20.53	112.980	Vertical	Pass
		1745	-3.77	3.91	28.24	20.56	113.763	Vertical	Pass
		1778.5	-4.36	3.94	28.25	19.95	98.855	Vertical	Pass
5.0MHz Band 16 QAM	1/#Mid	1712.5	-3.43	3.77	28.31	21.11	129.122	Vertical	Pass
		1745	-4.05	3.91	28.22	20.26	106.170	Vertical	Pass
		1777.5	-3.63	3.94	28.2	20.63	115.611	Vertical	Pass
10.0MHz Band 16 QAM	1/#Mid	1715	-4.06	3.79	28.34	20.49	111.944	Vertical	Pass
		1745	-4.50	3.95	28.22	19.77	94.842	Vertical	Pass
		1775	-3.09	3.97	28.18	21.12	129.420	Vertical	Pass
15.0MHz Band 16	1/#Mid	1717.5	-3.32	3.81	28.35	21.22	132.434	Vertical	Pass
		1745	-4.44	3.96	28.22	19.82	95.940	Vertical	Pass

QAM		1772.5	-4.31	4	28.16	19.85	96.605	Vertical	Pass
20.0MHz	1/#Mid	1720	-3.25	3.79	28.34	21.30	134.896	Vertical	Pass
Band 16		1745	-4.92	3.95	28.22	19.35	86.099	Vertical	Pass
QAM		1770	-3.75	3.97	28.18	20.46	111.173	Vertical	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: §2.1051, §22.917(a), §24.238(a), §27.53(c)(g)(h)(m) and §90.691

LIMIT

For Band 7, the minimum permissible attenuation level of any spurious emission is $55 + \log_{10}(P)$ [Watts].

The minimum permissible attenuation level of any spurious emission is $43 + \log_{10}(P)$ [Watts], where P is the transmitter power in Watts.

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

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	-50.22	4.04	33.51	-20.75	-13	-7.75	Horizontal
3701.4	-53.85	4.04	33.51	-24.38	-13	-11.38	Vertical
5552.1	-48.12	5.24	35.84	-17.52	-13	-4.52	Vertical
5552.1	-53.46	5.24	35.84	-22.86	-13	-9.86	Horizontal
202.3	-34.60	1.43	16.02	-20.01	-13	-7.01	Vertical
297.2	-42.65	1.30	17.99	-25.96	-13	-12.96	Horizontal
Test Results for Mid Channel 1880MHz							
3760.0	-46.06	4.04	33.56	-16.54	-13	-3.54	Horizontal
3760.0	-48.69	4.04	33.56	-19.17	-13	-6.17	Vertical
5640.0	-52.94	5.24	35.91	-22.27	-13	-9.27	Vertical
5640.0	-51.91	5.24	35.91	-21.24	-13	-8.24	Horizontal
178.5	-36.82	1.62	16.97	-21.47	-13	-8.47	Vertical
313.2	-40.61	1.74	15.98	-26.38	-13	-13.38	Horizontal
Test Results for High Channel 1909.3MHz							
3818.6	-49.75	4.04	34.00	-19.79	-13	-6.79	Horizontal
3818.6	-50.53	4.04	34.00	-20.57	-13	-7.57	Vertical
5727.9	-46.57	5.24	36.04	-15.77	-13	-2.77	Vertical
5727.9	-52.18	5.24	36.04	-21.38	-13	-8.38	Horizontal
204.0	-39.71	1.42	17.29	-23.84	-13	-10.84	Vertical
384.0	-34.29	1.50	17.90	-17.88	-13	-4.88	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	-53.20	4.07	33.54	-23.73	-13	-10.73	Horizontal
3720.0	-49.62	4.07	33.54	-20.15	-13	-7.15	Vertical
5580.0	-47.17	5.28	35.86	-16.59	-13	-3.59	Vertical
5580.0	-52.71	5.28	35.86	-22.13	-13	-9.13	Horizontal
179.1	-43.84	1.58	16.89	-28.52	-13	-15.52	Vertical
350.1	-43.66	1.76	17.26	-28.16	-13	-15.16	Horizontal
Test Results for Mid Channel 1880MHz							
3760.0	-49.73	4.04	33.56	-20.21	-13	-7.21	Horizontal
3760.0	-50.93	4.04	33.56	-21.41	-13	-8.41	Vertical
5640.0	-51.85	5.24	35.91	-21.18	-13	-8.18	Vertical
5640.0	-52.00	5.24	35.91	-21.33	-13	-8.33	Horizontal
212.4	-44.92	1.46	16.27	-30.11	-13	-17.11	Vertical
346.1	-44.30	1.59	15.15	-30.74	-13	-17.74	Horizontal
Test Results for High Channel 1900MHz							
3800.0	-50.28	4.04	34.00	-20.32	-13	-7.32	Horizontal
3800.0	-52.30	4.04	34.00	-22.34	-13	-9.34	Vertical
5700.0	-52.60	5.24	36.04	-21.80	-13	-8.80	Vertical
5700.0	-50.60	5.24	36.04	-19.80	-13	-6.80	Horizontal
176.8	-40.01	1.36	17.39	-23.97	-13	-10.97	Vertical
373.0	-41.43	1.66	15.39	-27.70	-13	-14.70	Horizontal

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	-47.70	4.02	29.80	-21.92	-13	-8.92	Horizontal
3421.4	-53.62	4.02	29.80	-27.84	-13	-14.84	Vertical
5132.1	-47.56	5.24	35.84	-16.96	-13	-3.96	Vertical
5132.1	-50.78	5.24	35.84	-20.18	-13	-7.18	Horizontal
188.1	-40.97	1.68	16.04	-26.61	-13	-13.61	Vertical
252.7	-35.30	1.78	17.74	-19.34	-13	-6.34	Horizontal
Test Results for Mid Channel 1732.5MHz							
3465.0	-50.47	4.03	30.00	-24.50	-13	-11.50	Horizontal
3465.0	-47.52	4.03	30.00	-21.55	-13	-8.55	Vertical
5197.5	-48.30	5.25	35.86	-17.69	-13	-4.69	Vertical
5197.5	-52.48	5.25	35.86	-21.87	-13	-8.87	Horizontal
195.1	-35.63	1.72	17.69	-19.66	-13	-6.66	Vertical
448.0	-35.27	1.62	16.02	-20.86	-13	-7.86	Horizontal
Test Results for High Channel 1754.3MHz							
3508.6	-49.36	4.05	30.01	-23.40	-13	-10.40	Horizontal
3508.6	-49.87	4.05	30.01	-23.91	-13	-10.91	Vertical
5262.9	-50.28	5.26	35.86	-19.68	-13	-6.68	Vertical
5262.9	-53.01	5.26	35.86	-22.41	-13	-9.41	Horizontal
188.3	-39.01	1.80	16.69	-24.12	-13	-11.12	Vertical
388.9	-38.68	1.75	16.66	-23.78	-13	-10.78	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	-51.70	4.02	29.80	-25.92	-13	-12.92	Horizontal
3440.0	-44.65	4.02	29.80	-18.87	-13	-5.87	Vertical
5160.0	-50.92	5.24	35.84	-20.32	-13	-7.32	Vertical
5160.0	-50.61	5.24	35.84	-20.01	-13	-7.01	Horizontal
201.9	-39.57	1.57	17.26	-23.88	-13	-10.88	Vertical
444.1	-34.64	1.78	16.35	-20.07	-13	-7.07	Horizontal
Test Results for Mid Channel 1732.5MHz							
3465.0	-52.94	4.03	30.00	-26.97	-13	-13.97	Horizontal
3465.0	-46.26	4.03	30.00	-20.29	-13	-7.29	Vertical
5197.5	-53.67	5.25	35.86	-23.06	-13	-10.06	Vertical
5197.5	-49.23	5.25	35.86	-18.62	-13	-5.62	Horizontal
196.4	-44.30	1.44	17.95	-27.79	-13	-14.79	Vertical
335.4	-38.79	1.65	16.09	-24.35	-13	-11.35	Horizontal
Test Results for High Channel 1745MHz							
3490.0	-52.08	2.91	27.68	-27.31	-13	-14.31	Horizontal
3490.0	-50.56	2.91	27.68	-25.79	-13	-12.79	Vertical
5235.0	-46.37	5.26	35.86	-15.77	-13	-2.77	Vertical
5235.0	-49.68	5.26	35.86	-19.08	-13	-6.08	Horizontal
186.4	-44.66	1.61	16.85	-29.42	-13	-16.42	Vertical
374.0	-41.97	1.61	15.19	-28.39	-13	-15.39	Horizontal

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	-52.98	2.78	27.50	-28.26	-13	-15.26	Horizontal
1649.4	-51.35	2.78	27.50	-26.63	-13	-13.63	Vertical
2474.1	-48.48	2.90	27.80	-23.58	-13	-10.58	Vertical
2474.1	-53.29	2.90	27.80	-28.39	-13	-15.39	Horizontal
198.6	-34.89	1.76	17.59	-19.06	-13	-6.06	Vertical
397.3	-42.96	1.63	15.87	-28.72	-13	-15.72	Horizontal
Test Results For Mid Channel 836.5MHz							
1673.0	-51.80	2.80	27.48	-27.12	-13	-14.12	Horizontal
1673.0	-53.64	2.80	27.48	-28.96	-13	-15.96	Vertical
2509.5	-45.84	2.91	27.70	-21.05	-13	-8.05	Vertical
2509.5	-50.20	2.91	27.70	-25.41	-13	-12.41	Horizontal
211.7	-36.51	1.61	15.68	-22.44	-13	-9.44	Vertical
432.0	-41.14	1.59	17.52	-25.22	-13	-12.22	Horizontal
Test Results for High Channel 848.3MHz							
1696.6	-45.52	2.82	27.43	-20.91	-13	-7.91	Horizontal
1696.6	-53.57	2.82	27.43	-28.96	-13	-15.96	Vertical
2544.9	-52.54	2.92	27.74	-27.72	-13	-14.72	Vertical
2544.9	-51.05	2.92	27.74	-26.23	-13	-13.23	Horizontal
205.3	-43.26	1.69	16.67	-28.27	-13	-15.27	Vertical
259.1	-34.18	1.70	17.18	-18.70	-13	-5.70	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	-44.18	2.78	27.50	-19.46	-13	-6.46	Horizontal
1658.0	-47.78	2.78	27.50	-23.06	-13	-10.06	Vertical
2487.0	-47.07	2.90	27.80	-22.17	-13	-9.17	Vertical
2487.0	-51.71	2.90	27.80	-26.81	-13	-13.81	Horizontal
186.7	-42.70	1.71	15.57	-28.84	-13	-15.84	Vertical
440.1	-38.04	1.34	16.40	-22.98	-13	-9.98	Horizontal
Test Results for Mid Channel 836.5MHz							
1673.0	-51.52	2.80	27.48	-26.84	-13	-13.84	Horizontal
1673.0	-45.84	2.80	27.48	-21.16	-13	-8.16	Vertical
2509.5	-48.79	2.91	27.70	-24.00	-13	-11.00	Vertical
2509.5	-50.69	2.91	27.70	-25.90	-13	-12.90	Horizontal
211.0	-41.46	1.44	17.04	-25.86	-13	-12.86	Vertical
232.6	-39.16	1.76	17.62	-23.30	-13	-10.30	Horizontal
Test Results for High Channel 844MHz							
1688.0	-50.19	2.82	27.43	-25.58	-13	-12.58	Horizontal
1688.0	-52.14	2.82	27.43	-27.53	-13	-14.53	Vertical
2532.0	-45.40	2.92	27.74	-20.58	-13	-7.58	Vertical
2532.0	-51.53	2.92	27.74	-26.71	-13	-13.71	Horizontal
199.3	-34.62	1.74	17.70	-18.66	-13	-5.66	Vertical
276.8	-36.19	1.41	17.46	-20.13	-13	-7.13	Horizontal

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	-64.00	5.23	35.81	-33.42	-25	-8.42	Horizontal
5005.0	-59.79	5.23	35.81	-29.21	-25	-4.21	Vertical
7507.5	-59.52	5.67	36.85	-28.34	-25	-3.34	Vertical
7507.5	-61.71	5.67	36.85	-30.53	-25	-5.53	Horizontal
187.5	-49.77	1.73	17.97	-33.53	-25	-8.53	Vertical
427.1	-46.36	1.38	15.11	-32.63	-25	-7.63	Horizontal
Test Results for Mid Channel 2535MHz							
5070.0	-62.54	5.23	35.82	-31.95	-25	-6.95	Horizontal
5070.0	-63.33	5.23	35.82	-32.74	-25	-7.74	Vertical
7605.0	-59.31	5.67	36.85	-28.13	-25	-3.13	Vertical
7605.0	-63.80	5.67	36.85	-32.62	-25	-7.62	Horizontal
202.3	-54.22	1.77	16.17	-39.81	-25	-14.81	Vertical
262.5	-50.15	1.63	15.21	-36.57	-25	-11.57	Horizontal
Test Results for High Channel 2567.5MHz							
5135.0	-64.31	5.24	35.83	-33.72	-25	-8.72	Horizontal
5135.0	-64.48	5.24	35.83	-33.89	-25	-8.89	Vertical
7702.5	-64.20	5.68	36.87	-33.01	-25	-8.01	Vertical
7702.5	-62.85	5.68	36.87	-31.66	-25	-6.66	Horizontal
181.3	-47.74	1.58	17.56	-31.76	-25	-6.76	Vertical
361.1	-51.70	1.45	16.58	-36.57	-25	-11.57	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	-61.52	5.23	35.82	-30.93	-25	-5.93	Horizontal
5020.0	-60.10	5.23	35.82	-29.51	-25	-4.51	Vertical
7530.0	-63.70	5.67	36.86	-32.51	-25	-7.51	Vertical
7530.0	-60.93	5.67	36.86	-29.74	-25	-4.74	Horizontal
175.6	-49.62	1.63	15.76	-35.49	-25	-10.49	Vertical
376.1	-50.22	1.71	15.44	-36.49	-25	-11.49	Horizontal
Test Results for Mid Channel 2535MHz							
5070.0	-62.22	5.23	35.82	-31.63	-25	-6.63	Horizontal
5070.0	-64.20	5.23	35.82	-33.61	-25	-8.61	Vertical
7605.0	-62.85	5.67	36.85	-31.67	-25	-6.67	Vertical
7605.0	-60.63	5.67	36.85	-29.45	-25	-4.45	Horizontal
190.7	-50.08	1.79	16.84	-35.02	-25	-10.02	Vertical
277.5	-53.54	1.71	17.64	-37.61	-25	-12.61	Horizontal
Test Results for High Channel 2560MHz							
5120.0	-63.56	5.24	35.83	-32.97	-25	-7.97	Horizontal
5120.0	-59.38	5.24	35.83	-28.79	-25	-3.79	Vertical
7680.0	-61.88	5.70	36.88	-30.70	-25	-5.70	Vertical
7680.0	-63.55	5.70	36.88	-32.37	-25	-7.37	Horizontal
191.8	-46.52	1.79	16.84	-31.46	-25	-6.46	Vertical
398.4	-45.82	1.71	17.64	-29.89	-25	-4.89	Horizontal

9.5 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	-46.86	4.02	29.80	-21.08	-13	-8.08	Horizontal
3701.4	-43.81	4.02	29.80	-18.03	-13	-5.03	Vertical
5552.1	-47.78	5.24	35.84	-17.18	-13	-4.18	Vertical
5552.1	-47.43	5.24	35.84	-16.83	-13	-3.83	Horizontal
93.9	-33.08	1.59	15.11	-19.56	-13	-6.56	Vertical
119.7	-32.84	1.80	15.61	-19.03	-13	-6.03	Horizontal
Test Results for Mid Channel 1732.5MHz							
3765.0	-48.69	4.03	30.00	-22.72	-13	-9.72	Horizontal
3765.0	-43.61	4.03	30.00	-17.64	-13	-4.64	Vertical
5647.5	-48.36	5.25	35.86	-17.75	-13	-4.75	Vertical
5647.5	-48.06	5.25	35.86	-17.45	-13	-4.45	Horizontal
166.1	-33.10	1.37	15.62	-18.85	-13	-5.85	Vertical
274.4	-32.96	1.55	17.51	-17.00	-13	-4.00	Horizontal
Test Results for High Channel 1754.3MHz							
3828.6	-49.17	4.05	30.01	-23.21	-13	-10.21	Horizontal
3828.6	-41.94	4.05	30.01	-15.98	-13	-2.98	Vertical
5742.9	-48.79	5.26	35.86	-18.19	-13	-5.19	Vertical
5742.9	-46.07	5.26	35.86	-15.47	-13	-2.47	Horizontal
108.6	-32.29	1.66	17.19	-16.76	-13	-3.76	Vertical
138.7	-33.09	1.35	17.94	-16.50	-13	-3.50	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	-46.07	4.02	29.80	-20.29	-13	-7.29	Horizontal
3720.0	-47.20	4.02	29.80	-21.42	-13	-8.42	Vertical
5580.0	-46.89	5.24	35.84	-16.29	-13	-3.29	Vertical
5580.0	-48.31	5.24	35.84	-17.71	-13	-4.71	Horizontal
146.2	-33.29	1.70	15.24	-19.75	-13	-6.75	Vertical
215.4	-32.19	1.42	16.58	-17.03	-13	-4.03	Horizontal
Test Results for Mid Channel 1732.5MHz							
3765.0	-49.97	4.03	30.00	-24.00	-13	-11.00	Horizontal
3765.0	-47.72	4.03	30.00	-21.75	-13	-8.75	Vertical
5647.5	-48.67	5.25	35.86	-18.06	-13	-5.06	Vertical
5647.5	-47.61	5.25	35.86	-17.00	-13	-4.00	Horizontal
132.2	-32.41	1.64	16.16	-17.89	-13	-4.89	Vertical
133.3	-32.98	1.62	17.37	-17.23	-13	-4.23	Horizontal
Test Results for High Channel 1745MHz							
3810.0	-48.82	2.91	27.68	-24.05	-13	-11.05	Horizontal
3810.0	-41.98	2.91	27.68	-17.21	-13	-4.21	Vertical
5715.0	-49.32	5.26	35.86	-18.72	-13	-5.72	Vertical
5715.0	-49.65	5.26	35.86	-19.05	-13	-6.05	Horizontal
212.6	-34.83	1.49	15.29	-21.03	-13	-8.03	Vertical
275.8	-32.59	1.79	16.42	-17.96	-13	-4.96	Horizontal

9.6 LTE BAND 26

QPSK EIRP POWER FOR LTE BAND 26(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	-46.11	2.78	27.50	-21.39	-13	-8.39	Horizontal
1629.4	-41.23	2.78	27.50	-16.51	-13	-3.51	Vertical
2444.1	-49.89	2.90	27.80	-24.99	-13	-11.99	Vertical
2444.1	-48.95	2.90	27.80	-24.05	-13	-11.05	Horizontal
229.6	-33.47	1.54	16.98	-18.03	-13	-5.03	Vertical
83.3	-34.98	1.47	15.82	-20.63	-13	-7.63	Horizontal
Test Results For Mid Channel 819MHz							
1638.0	-47.50	2.80	27.48	-22.82	-13	-9.82	Horizontal
1638.0	-46.68	2.80	27.48	-22.00	-13	-9.00	Vertical
2457.0	-49.32	2.91	27.70	-24.53	-13	-11.53	Vertical
2457.0	-46.93	2.91	27.70	-22.14	-13	-9.14	Horizontal
168.2	-32.56	1.74	16.19	-18.11	-13	-5.11	Vertical
92.9	-34.46	1.46	15.43	-20.49	-13	-7.49	Horizontal
Test Results for High Channel 823.3MHz							
1646.6	-47.89	2.82	27.43	-23.28	-13	-10.28	Horizontal
1646.6	-47.65	2.82	27.43	-23.04	-13	-10.04	Vertical
2469.9	-46.13	2.92	27.74	-21.31	-13	-8.31	Vertical
2469.9	-49.86	2.92	27.74	-25.04	-13	-12.04	Horizontal
213.1	-32.44	1.67	17.05	-17.06	-13	-4.06	Vertical
121.7	-34.83	1.42	16.12	-20.13	-13	-7.13	Horizontal

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

Test Results for Channel 819MHz							
Frequency(MHz)	SG Level(dBm)	Cable Loss(dB)	Antenna Factor(dB)	Absolute Level(dBm)	Limit (dBm)	Margin(dBm)	Polarity
1638.0	-46.15	2.78	27.50	-21.43	-13	-8.43	Horizontal
1638.0	-46.84	2.78	27.50	-22.12	-13	-9.12	Vertical
2457.0	-48.36	2.90	27.80	-23.46	-13	-10.46	Vertical
2457.0	-49.29	2.90	27.80	-24.39	-13	-11.39	Horizontal
253.7	-32.52	1.43	17.34	-16.61	-13	-3.61	Vertical
256.8	-33.48	1.56	15.71	-19.33	-13	-6.33	Horizontal

QPSK EIRP POWER FOR LTE BAND 26(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	-48.27	2.78	27.50	-23.55	-13	-10.55	Horizontal
1649.4	-43.17	2.78	27.50	-18.45	-13	-5.45	Vertical
2474.1	-48.18	2.90	27.80	-23.28	-13	-10.28	Vertical
2474.1	-46.33	2.90	27.80	-21.43	-13	-8.43	Horizontal
237.0	-32.53	1.33	17.34	-16.52	-13	-3.52	Vertical
180.5	-32.64	1.47	16.80	-17.31	-13	-4.31	Horizontal
Test Results For Mid Channel 836.5MHz							
1673.0	-48.07	2.80	27.48	-23.39	-13	-10.39	Horizontal
1673.0	-49.96	2.80	27.48	-25.28	-13	-12.28	Vertical
2509.5	-48.57	2.91	27.70	-23.78	-13	-10.78	Vertical
2509.5	-47.64	2.91	27.70	-22.85	-13	-9.85	Horizontal
140.8	-32.19	1.75	15.46	-18.48	-13	-5.48	Vertical
90.6	-32.35	1.52	16.14	-17.73	-13	-4.73	Horizontal
Test Results for High Channel 848.3MHz							
1696.6	-47.02	2.82	27.43	-22.41	-13	-9.41	Horizontal
1696.6	-42.89	2.82	27.43	-18.28	-13	-5.28	Vertical
2544.9	-46.06	2.92	27.74	-21.24	-13	-8.24	Vertical
2544.9	-48.96	2.92	27.74	-24.14	-13	-11.14	Horizontal
171.4	-32.62	1.67	16.09	-18.20	-13	-5.20	Vertical
247.2	-32.03	1.80	17.55	-16.28	-13	-3.28	Horizontal

QPSK EIRP POWER FOR LTE BAND 26(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	-47.68	2.78	27.50	-22.96	-13	-9.96	Horizontal
1663.0	-45.50	2.78	27.50	-20.78	-13	-7.78	Vertical
2494.5	-49.29	2.90	27.80	-24.39	-13	-11.39	Vertical
2494.5	-48.98	2.90	27.80	-24.08	-13	-11.08	Horizontal
255.4	-34.81	1.52	15.72	-20.61	-13	-7.61	Vertical
163.1	-32.58	1.40	17.03	-16.95	-13	-3.95	Horizontal
Test Results for Mid Channel 836.5MHz							
1673.0	-47.87	2.80	27.48	-23.19	-13	-10.19	Horizontal
1673.0	-44.14	2.80	27.48	-19.46	-13	-6.46	Vertical
2509.5	-48.45	2.91	27.70	-23.66	-13	-10.66	Vertical
2509.5	-47.18	2.91	27.70	-22.39	-13	-9.39	Horizontal
227.1	-34.92	1.74	16.38	-20.28	-13	-7.28	Vertical
101.3	-32.46	1.79	15.20	-19.05	-13	-6.05	Horizontal
Test Results for High Channel 841.5MHz							
1683.0	-49.17	2.82	27.43	-24.56	-13	-11.56	Horizontal
1683.0	-43.77	2.82	27.43	-19.16	-13	-6.16	Vertical
2524.5	-47.80	2.92	27.74	-22.98	-13	-9.98	Vertical
2524.5	-49.15	2.92	27.74	-24.33	-13	-11.33	Horizontal
261.1	-33.44	1.78	17.44	-17.78	-13	-4.78	Vertical
120.1	-32.44	1.70	15.93	-18.21	-13	-5.21	Horizontal

9.7 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	-60.20	5.23	35.81	-29.62	-25	-4.62	Horizontal
5075.0	-64.37	5.23	35.81	-33.79	-25	-8.79	Vertical
7612.5	-62.68	5.67	36.85	-31.50	-25	-6.50	Vertical
7612.5	-60.16	5.67	36.85	-28.98	-25	-3.98	Horizontal
435.3	-46.14	1.38	15.98	-31.54	-25	-6.54	Vertical
465.8	-47.82	1.62	15.66	-33.78	-25	-8.78	Horizontal
Test Results for Mid Channel 2595MHz							
5190.0	-64.53	5.23	35.82	-33.94	-25	-8.94	Horizontal
5190.0	-59.08	5.23	35.82	-28.49	-25	-3.49	Vertical
7785.0	-62.23	5.67	36.85	-31.05	-25	-6.05	Vertical
7785.0	-62.33	5.67	36.85	-31.15	-25	-6.15	Horizontal
510.4	-48.34	1.62	16.17	-33.79	-25	-8.79	Vertical
562.9	-46.37	1.74	17.63	-30.48	-25	-5.48	Horizontal
Test Results for High Channel 2652.5MHz							
5305.0	-61.37	5.24	35.83	-30.78	-25	-5.78	Horizontal
5305.0	-61.19	5.24	35.83	-30.60	-25	-5.60	Vertical
7957.5	-63.94	5.68	36.87	-32.75	-25	-7.75	Vertical
7957.5	-60.82	5.68	36.87	-29.63	-25	-4.63	Horizontal
197.6	-47.29	1.55	15.84	-33.00	-25	-8.00	Vertical
353.1	-47.38	1.51	17.06	-31.83	-25	-6.83	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	-60.99	5.23	35.82	-30.40	-25	-5.40	Horizontal
5090.0	-61.92	5.23	35.82	-31.33	-25	-6.33	Vertical
7635.0	-61.34	5.67	36.86	-30.15	-25	-5.15	Vertical
7635.0	-62.81	5.67	36.86	-31.62	-25	-6.62	Horizontal
128.9	-46.80	1.43	15.51	-32.72	-25	-7.72	Vertical
344.8	-45.24	1.40	16.97	-29.67	-25	-4.67	Horizontal
Test Results for Mid Channel 2595MHz							
5190.0	-64.20	5.23	35.82	-33.61	-25	-8.61	Horizontal
5190.0	-61.68	5.23	35.82	-31.09	-25	-6.09	Vertical
7785.0	-61.82	5.67	36.85	-30.64	-25	-5.64	Vertical
7785.0	-62.04	5.67	36.85	-30.86	-25	-5.86	Horizontal
100.8	-45.11	1.77	16.72	-30.16	-25	-5.16	Vertical
263.5	-44.28	1.31	16.99	-28.60	-25	-3.60	Horizontal
Test Results for High Channel 2645MHz							
5290.0	-61.88	5.24	35.83	-31.29	-25	-6.29	Horizontal
5290.0	-59.90	5.24	35.83	-29.31	-25	-4.31	Vertical
7935.0	-60.86	5.70	36.88	-29.68	-25	-4.68	Vertical
7935.0	-59.70	5.70	36.88	-28.52	-25	-3.52	Horizontal
349.9	-46.85	1.70	15.73	-32.82	-25	-7.82	Vertical
110.3	-44.08	1.75	17.33	-28.50	-25	-3.50	Horizontal

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

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.

9.8 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	-45.27	4.02	29.80	-19.49	-13	-6.49	Horizontal
3421.4	-50.63	4.02	29.80	-24.85	-13	-11.85	Vertical
5132.1	-50.19	5.24	35.84	-19.59	-13	-6.59	Vertical
5132.1	-51.30	5.24	35.84	-20.70	-13	-7.70	Horizontal
112.6	-51.03	1.52	15.57	-36.98	-13	-23.98	Vertical
220.5	-45.74	1.33	17.14	-29.93	-13	-16.93	Horizontal
Test Results for Mid Channel 1745MHz							
3490.0	-47.57	4.03	30.00	-21.60	-13	-8.60	Horizontal
3490.0	-44.55	4.03	30.00	-18.58	-13	-5.58	Vertical
5235.0	-51.68	5.25	35.86	-21.07	-13	-8.07	Vertical
5235.0	-49.36	5.25	35.86	-18.75	-13	-5.75	Horizontal
157.3	-51.39	1.53	17.13	-35.79	-13	-22.79	Vertical
213.1	-44.07	1.41	15.95	-29.53	-13	-16.53	Horizontal
Test Results for High Channel 1779.3MHz							
3558.6	-50.93	4.05	30.01	-24.97	-13	-11.97	Horizontal
3558.6	-45.29	4.05	30.01	-19.33	-13	-6.33	Vertical
5337.9	-53.17	5.26	35.86	-22.57	-13	-9.57	Vertical
5337.9	-52.29	5.26	35.86	-21.69	-13	-8.69	Horizontal
170.6	-49.53	1.44	15.51	-35.46	-13	-22.46	Vertical
169.0	-51.67	1.78	15.76	-37.69	-13	-24.69	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	-50.03	4.02	29.80	-24.25	-13	-11.25	Horizontal
3440.0	-44.19	4.02	29.80	-18.41	-13	-5.41	Vertical
5160.0	-54.48	5.24	35.84	-23.88	-13	-10.88	Vertical
5160.0	-49.03	5.24	35.84	-18.43	-13	-5.43	Horizontal
268.8	-44.44	1.62	17.02	-29.04	-13	-16.04	Vertical
161.4	-47.92	1.32	17.31	-31.93	-13	-18.93	Horizontal
Test Results for Mid Channel 1745MHz							
3490.0	-50.96	4.03	30.00	-24.99	-13	-11.99	Horizontal
3490.0	-44.02	4.03	30.00	-18.05	-13	-5.05	Vertical
5235.0	-53.07	5.25	35.86	-22.46	-13	-9.46	Vertical
5235.0	-49.89	5.25	35.86	-19.28	-13	-6.28	Horizontal
159.9	-45.35	1.45	15.17	-31.63	-13	-18.63	Vertical
172.1	-49.81	1.48	17.82	-33.47	-13	-20.47	Horizontal
Test Results for High Channel 1770MHz							
3540.0	-52.81	2.91	27.68	-28.04	-13	-15.04	Horizontal
3540.0	-45.46	2.91	27.68	-20.69	-13	-7.69	Vertical
5310.0	-51.37	5.26	35.86	-20.77	-13	-7.77	Vertical
5310.0	-54.63	5.26	35.86	-24.03	-13	-11.03	Horizontal
197.3	-48.98	1.76	16.38	-34.36	-13	-21.36	Vertical
158.5	-47.15	1.43	17.13	-31.45	-13	-18.45	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 3.4V, 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 2/4/5/7/25/26/41/66

RESULTS

See the following pages.

10.1 LTE BAND 2

QPSK, (20MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 2 QPSK, (CH 18900 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
3.4	1880	13.2	0.007008	2.5
3.87	1880	13.4	0.007146	2.5
4.45	1880	13.4	0.007135	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 2 QPSK, (CH 18900 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
Normal (25C)	1880	12.6	0.006681	2.5
Extreme (50C)	1880	11.2	0.005932	2.5
Extreme (40C)	1880	13.8	0.007334	2.5
Extreme (30C)	1880	13.5	0.007157	2.5
Extreme (10C)	1880	13.8	0.007344	2.5
Extreme (0C)	1880	12.2	0.006510	2.5
Extreme (-10C)	1880	12.5	0.006653	2.5
Extreme (-20C)	1880	14.3	0.007613	2.5
Extreme (-30C)	1880	14.4	0.007671	2.5

16QAM, (20MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 2 16QAM, (CH 18900 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
3.4	1880	10.0	0.005311	2.5
3.87	1880	9.0	0.004790	2.5
4.45	1880	7.7	0.004092	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 2 16QAM, (CH 18900 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
Normal (25C)	1880	9.9	0.005254	2.5
Extreme (50C)	1880	9.0	0.004786	2.5
Extreme (40C)	1880	7.7	0.004112	2.5
Extreme (30C)	1880	9.4	0.004999	2.5
Extreme (10C)	1880	9.0	0.004814	2.5
Extreme (0C)	1880	8.2	0.004341	2.5
Extreme (-10C)	1880	9.0	0.004767	2.5
Extreme (-20C)	1880	8.5	0.004528	2.5
Extreme (-30C)	1880	8.6	0.004573	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

QPSK, (10MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 4 QPSK, (CH 20175 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
3.4	1732.5	9.2	0.005304	2.5
3.87	1732.5	8.6	0.004977	2.5
4.45	1732.5	8.6	0.004937	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 4 QPSK, (CH 20175 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
Normal (25C)	1732.5	8.3	0.004809	2.5
Extreme (50C)	1732.5	8.7	0.005048	2.5
Extreme (40C)	1732.5	7.1	0.004092	2.5
Extreme (30C)	1732.5	6.0	0.003479	2.5
Extreme (10C)	1732.5	7.3	0.004187	2.5
Extreme (0C)	1732.5	9.2	0.005319	2.5
Extreme (-10C)	1732.5	8.4	0.004869	2.5
Extreme (-20C)	1732.5	7.0	0.004058	2.5
Extreme (-30C)	1732.5	7.9	0.004564	2.5

16QAM, (20MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 4 16QAM, (CH 20175 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
3.4	1732.5	9.8	0.005668	2.5
3.87	1732.5	9.0	0.005177	2.5
4.45	1732.5	8.5	0.004903	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 4 16QAM, (CH 20175 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
Normal (25C)	1732.5	9.7	0.005617	2.5
Extreme (50C)	1732.5	9.2	0.005303	2.5
Extreme (40C)	1732.5	8.2	0.004757	2.5
Extreme (30C)	1732.5	8.9	0.005128	2.5
Extreme (10C)	1732.5	8.6	0.004950	2.5
Extreme (0C)	1732.5	7.9	0.004563	2.5
Extreme (-10C)	1732.5	8.6	0.004946	2.5
Extreme (-20C)	1732.5	8.7	0.005043	2.5
Extreme (-30C)	1732.5	7.9	0.004565	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

QPSK, (10MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 5 QPSK, (CH 20525 RB size 50 RB Offset 0 10MHz BANDWIDTH)				
3.4	836.5	5.4	0.006404	2.5
3.87	836.5	6.6	0.007889	2.5
4.45	836.5	4.6	0.005522	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 5 QPSK, (CH 20525 RB size 50 RB Offset 0 10MHz BANDWIDTH)				
Normal (25C)	836.5	5.6	0.006734	2.5
Extreme (50C)	836.5	6.2	0.007410	2.5
Extreme (40C)	836.5	6.2	0.007428	2.5
Extreme (30C)	836.5	6.2	0.007407	2.5
Extreme (10C)	836.5	5.0	0.006001	2.5
Extreme (0C)	836.5	5.7	0.006852	2.5
Extreme (-10C)	836.5	5.8	0.006921	2.5
Extreme (-20C)	836.5	6.3	0.007525	2.5
Extreme (-30C)	836.5	6.0	0.007131	2.5

16QAM, (10MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 5 16QAM, (CH 20525 RB size 50 RB Offset 0 10MHz BANDWIDTH)				
3.4	836.5	6.2	0.007432	2.5
3.87	836.5	6.6	0.007895	2.5
4.45	836.5	5.1	0.006045	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 5 16QAM, (CH 20525 RB size 50 RB Offset 0 10MHz BANDWIDTH)				
Normal (25C)	836.5	5.8	0.006926	2.5
Extreme (50C)	836.5	5.5	0.006603	2.5
Extreme (40C)	836.5	5.9	0.007039	2.5
Extreme (30C)	836.5	6.6	0.007840	2.5
Extreme (10C)	836.5	5.6	0.006681	2.5
Extreme (0C)	836.5	5.2	0.006202	2.5
Extreme (-10C)	836.5	5.1	0.006107	2.5
Extreme (-20C)	836.5	5.8	0.006894	2.5
Extreme (-30C)	836.5	6.0	0.007158	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

QPSK, (20MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 7 QPSK, (CH 21100 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
3.4	2535	9.7	0.003814	2.5
3.87	2535	8.6	0.003402	2.5
4.45	2535	8.3	0.003280	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 7 QPSK, (CH 21100 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
Normal (25C)	2535	9.0	0.003548	2.5
Extreme (50C)	2535	8.5	0.003346	2.5
Extreme (40C)	2535	8.4	0.003318	2.5
Extreme (30C)	2535	8.7	0.003451	2.5
Extreme (10C)	2535	7.6	0.003011	2.5
Extreme (0C)	2535	8.8	0.003471	2.5
Extreme (-10C)	2535	9.6	0.003772	2.5
Extreme (-20C)	2535	9.0	0.003564	2.5
Extreme (-30C)	2535	8.4	0.003331	2.5

16QAM, (20MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 7 16QAM, (CH 21100 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
3.4	2535	6.5	0.002578	2.5
3.87	2535	6.2	0.002431	2.5
4.45	2535	6.2	0.002436	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 7 16QAM, (CH 21100 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
Normal (25C)	2535	7.0	0.002768	2.5
Extreme (50C)	2535	5.7	0.002240	2.5
Extreme (40C)	2535	5.7	0.002251	2.5
Extreme (30C)	2535	6.8	0.002682	2.5
Extreme (10C)	2535	5.2	0.002056	2.5
Extreme (0C)	2535	5.5	0.002153	2.5
Extreme (-10C)	2535	5.3	0.002081	2.5
Extreme (-20C)	2535	6.2	0.002465	2.5
Extreme (-30C)	2535	5.4	0.002125	2.5

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

10.5 LTE BAND 25

QPSK, (20MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 25 QPSK, (CH 26365 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
3.4	1882.5	9	0.004781	2.5
3.87	1882.5	23	0.012218	2.5
4.45	1882.5	0	0.000000	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 25 QPSK, (CH 26365 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
Normal (25C)	1882.5	4.3	0.002281	2.5
Extreme (50C)	1882.5	9.2	0.004897	2.5
Extreme (40C)	1882.5	6.7	0.003581	2.5
Extreme (30C)	1882.5	6.2	0.003268	2.5
Extreme (10C)	1882.5	5.2	0.002747	2.5
Extreme (0C)	1882.5	8.0	0.004271	2.5
Extreme (-10C)	1882.5	2.0	0.001045	2.5
Extreme (-20C)	1882.5	2.1	0.001105	2.5
Extreme (-30C)	1882.5	6.5	0.003465	2.5

16QAM, (20MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 25 16QAM, (CH 26365 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
3.4	1882.5	9.9	0.005253	2.5
3.87	1882.5	7.9	0.004212	2.5
4.45	1882.5	6.0	0.003167	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 25 16QAM, (CH 26365 RB size 100 RB Offset 0 20MHz BANDWIDTH)				
Normal (25C)	1882.5	7.5	0.003990	2.5
Extreme (50C)	1882.5	5.8	0.003072	2.5
Extreme (40C)	1882.5	8.7	0.004643	2.5
Extreme (30C)	1882.5	1.9	0.000999	2.5
Extreme (10C)	1882.5	2.3	0.001240	2.5
Extreme (0C)	1882.5	6.1	0.003260	2.5
Extreme (-10C)	1882.5	5.3	0.002800	2.5
Extreme (-20C)	1882.5	7.4	0.003919	2.5
Extreme (-30C)	1882.5	6.9	0.003668	2.5

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

10.6 LTE BAND 26

Band 26 A (814MHz~824MHz) QPSK,10MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26A QPSK, (CH 26740 RB size 50 RB Offset 0 10MHz BANDWIDTH)				
3.4	819	8.2	0.010041	2.5
3.87	819	5.4	0.006634	2.5
4.45	819	6.8	0.008274	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26A QPSK, (CH 26740RB size 50 RB Offset 0 10MHz BANDWIDTH)				
Normal (25C)	819	8.5	0.010395	2.5
Extreme (50C)	819	1.4	0.001714	2.5
Extreme (40C)	819	2.9	0.003601	2.5
Extreme (30C)	819	6.1	0.007406	2.5
Extreme (10C)	819	5.3	0.006488	2.5
Extreme (0C)	819	6.2	0.007537	2.5
Extreme (-10C)	819	8.4	0.010278	2.5
Extreme (-20C)	819	6.9	0.008382	2.5
Extreme (-30C)	819	4.9	0.006011	2.5

Band 26A (814MHz~824MHz) 16QAM, (10MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26A 16QAM, (CH 26740 RB size 50 RB Offset 0 10MHz BANDWIDTH)				
3.4	819	2.4	0.002926	2.5
3.87	819	6.7	0.008224	2.5
4.45	819	5.4	0.006606	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26A 16QAM, (CH 26740 RB size 50 RB Offset 0 10MHz BANDWIDTH)				
Normal (25C)	819	6.8	0.008250	2.5
Extreme (50C)	819	8.6	0.010536	2.5
Extreme (40C)	819	7.0	0.008520	2.5
Extreme (30C)	819	4.5	0.005460	2.5
Extreme (10C)	819	6.5	0.007883	2.5
Extreme (0C)	819	5.6	0.006806	2.5
Extreme (-10C)	819	8.3	0.010174	2.5
Extreme (-20C)	819	6.7	0.008165	2.5
Extreme (-30C)	819	7.2	0.008809	2.5

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

Band 26B ((824MHz~849MHz) QPSK,15MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26B QPSK, (CH 26915 RB size 75 RB Offset 0 15MHz BANDWIDTH)				
3.4	836.5	8.4	0.010099	2.5
3.87	836.5	6.5	0.007791	2.5
4.45	836.5	8.9	0.010692	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26B QPSK, (CH 26915 RB size 75 RB Offset 0 15MHz BANDWIDTH)				
Normal (25C)	836.5	10.8	0.012966	2.5
Extreme (50C)	836.5	9.0	0.010785	2.5
Extreme (40C)	836.5	6.1	0.007334	2.5
Extreme (30C)	836.5	8.2	0.009854	2.5
Extreme (10C)	836.5	7.2	0.008587	2.5
Extreme (0C)	836.5	9.1	0.010904	2.5
Extreme (-10C)	836.5	1.6	0.001919	2.5
Extreme (-20C)	836.5	8.6	0.010276	2.5
Extreme (-30C)	836.5	7.5	0.008951	2.5

Band 26B (824MHz~849MHz) 16QAM, (15MHz BANDWIDTH)

Frequency error vs. Voltage

Voltage [Vdc]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26B 16QAM, (CH 26915 RB size 75 RB Offset 0 15MHz BANDWIDTH)				
3.4	836.5	9.5	0.011364	2.5
3.87	836.5	11.9	0.014251	2.5
4.45	836.5	10.6	0.012653	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
BAND 26B 16QAM, (CH 26915 RB size 75 RB Offset 0 15MHz BANDWIDTH)				
Normal (25C)	836.5	6.1	0.007347	2.5
Extreme (50C)	836.5	8.7	0.010409	2.5
Extreme (40C)	836.5	7.3	0.008787	2.5
Extreme (30C)	836.5	7.8	0.009380	2.5
Extreme (10C)	836.5	6.7	0.008054	2.5
Extreme (0C)	836.5	5.8	0.006989	2.5
Extreme (-10C)	836.5	5.0	0.006035	2.5
Extreme (-20C)	836.5	3.0	0.011237	2.5
Extreme (-30C)	836.5	9.0	0.007292	2.5

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

10.7 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]
3.4	2593	8.9	0.003441	2.5
3.87	2593	6.1	0.002362	2.5
4.45	2593	7.9	0.003065	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	2593	7.7	0.002963	2.5
Extreme (50C)	2593	5.0	0.001935	2.5
Extreme (40C)	2593	5.0	0.001914	2.5
Extreme (30C)	2593	4.7	0.001829	2.5
Extreme (10C)	2593	6.4	0.002481	2.5
Extreme (0C)	2593	4.7	0.001819	2.5
Extreme (-10C)	2593	9.7	0.003724	2.5
Extreme (-20C)	2593	11.1	0.004282	2.5
Extreme (-30C)	2593	6.5	0.002496	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]
3.4	2593	8.2	0.003171	2.5
3.87	2593	6.3	0.002421	2.5
4.45	2593	6.4	0.002463	2.5

Frequency error vs. Temperature

Temperature [°C]	Frequency [MHz]	Frequency* Error[Hz]	Frequency Error[ppm]	Limit [ppm]
Normal (25C)	2593	7.0	0.002704	2.5
Extreme (50C)	2593	4.5	0.001736	2.5
Extreme (40C)	2593	5.5	0.002109	2.5
Extreme (30C)	2593	4.8	0.001861	2.5
Extreme (10C)	2593	6.3	0.002444	2.5
Extreme (0C)	2593	4.8	0.001870	2.5
Extreme (-10C)	2593	9.7	0.003749	2.5
Extreme (-20C)	2593	10.4	0.004002	2.5
Extreme (-30C)	2593	6.5	0.002497	2.5

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

10.8 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)				
3.4	1745	13.0	0.00743	2.5
3.87	1745	13.7	0.00782	2.5
4.45	1745	12.9	0.00739	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	7.7	0.004424	2.5
Extreme (50C)	1745	4.6	0.002629	2.5
Extreme (40C)	1745	5.7	0.003291	2.5
Extreme (30C)	1745	5.1	0.002917	2.5
Extreme (10C)	1745	6.6	0.003807	2.5
Extreme (0C)	1745	4.7	0.002696	2.5
Extreme (-10C)	1745	9.2	0.005280	2.5
Extreme (-20C)	1745	11.0	0.006318	2.5
Extreme (-30C)	1745	6.3	0.003624	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)				
3.4	1745	12.8	0.007358	2.5
3.87	1745	13.4	0.007680	2.5
4.45	1745	13.2	0.007562	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	7.5	0.004298	2.5
Extreme (50C)	1745	4.7	0.002705	2.5
Extreme (40C)	1745	5.5	0.003145	2.5
Extreme (30C)	1745	4.6	0.002618	2.5
Extreme (10C)	1745	6.5	0.003751	2.5
Extreme (0C)	1745	4.9	0.002795	2.5
Extreme (-10C)	1745	9.9	0.005656	2.5
Extreme (-20C)	1745	10.3	0.005927	2.5
Extreme (-30C)	1745	6.5	0.003721	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.

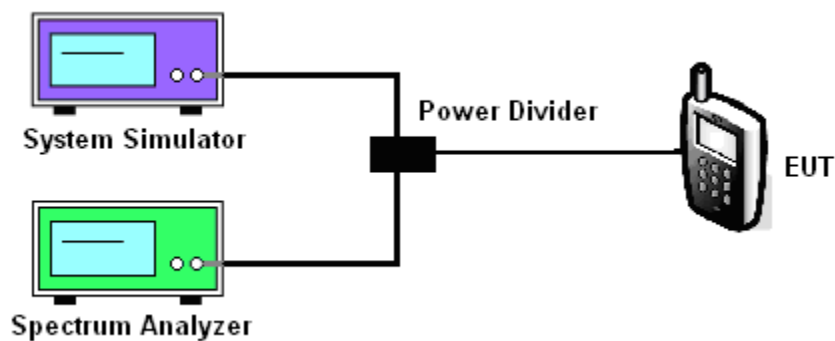
11.2 Measuring Instruments

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 GSM/EGPRS operating modes:
 - a. Set the RBW = 1MHz, VBW = 1MHz, Peak detector in spectrum analyzer.
 - b. Set EUT in maximum power output, and triggered the burst signal.
 - c. Measured respectively the Peak level and Mean level, and the deviation was recorded as Peak to Average Ratio.
4. For UMTS 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 2/4/5/7/25/26/41/66
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Test data reference attachment.

----END OF REPORT----