FCC RF Test Report

APPLICANT	:	**Bullitt Group**
EQUIPMENT	:	**Rugged Smart Phone**
BRAND NAME	:	**CAT**
MODEL NAME	:	**S40**
MARKETING NAME	:	**S40**
FCC ID	:	**ZL5S40**
STANDARD	:	**47 CFR Part 2, 22(H), 24(E), 27**
CLASSIFICATION	:	**PCS Licensed Transmitter Held to Ear (PCE)**

The product was received on May 29, 2015 and completely tested on Jun. 29, 2015. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA / EIA-603-C-2004 and the testing has shown the tested sample to be in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG552956B	Rev. 01	Initial issue of report	Jul. 16, 2015

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.4	§2.1046	RSS-Gen(6.12) RSS-130(4.4) RSS-132 (5.4) RSS-133 (6.4) RSS-139 (6.4) RSS-199 (4.4)	Conducted Output Power	Reporting Only	PASS	-
3.5	§24.232(d)	RSS-130(4.4) RSS-132 (5.4) RSS-133 (6.4) RSS-139 (6.4)	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	RSS-GEN(6.6) RSS-132 (3.1) RSS-133 (3.1) RSS-130(3.1) RSS-139 (3.1) RSS-199 (4.2)	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(m)(4)	RSS-132 (5.5) RSS-133 (6.5.1) RSS-130(4.6) RSS-139 (6.5) RSS-199 (4.5)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 17) (Band 7)	< 43+10log10(P[Watts])	PASS	-
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(g)	RSS-132 (5.5) RSS-133 (6.5.1) RSS-130(4.6) RSS-139 (6.5)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 17)	< 43+10log10(P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	RSS-199 (4.5)	Conducted Spurious Emission (Band 7)	< 55+10log$_{10}$(P[Watts])		

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.9	§2.1055 §22.355 §24.235 §27.54	RSS-GEN(6.11) RSS-132(5.3) RSS-133(6.3) RSS-130(4.3) RSS-139 (6.3) RSS-199 (4.3)	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22 Within Authorized Band	PASS	-
4.4	§22.913(a)(2)	RSS-132(5.4) SRSP-503(5.1.3)	Effective Radiated Power (Band 5)	ERP < 7 Watt	PASS	-
	§27.50(c)(10)	N/A	Effective Radiated Power (Band 12) (Band 17)	ERP < 3 Watt		
	N/A	RSS-130(4.4)	Equivalent Isotropic Radiated Power (Band 12) (Band 17)	EIRP < 5 Watt		
	§24.232(c) §27.50(h)(2)	RSS-133 (6.4) SRSP-510(5.1.2) RSS-199 (4.4)	Equivalent Isotropic Radiated Power (Band 2) (Band 7)	EIRP < 2Watt		
	§27.50(d)(4)	RSS-139 (6.4) SRSP-513(5.1.2)	Equivalent Isotropic Radiated Power (Band 4)	EIRP < 1Watt		
4.5	§2.1053 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	RSS-132 (5.5) RSS-133 (6.5.1) RSS-130(4.6) RSS-139 (6.5)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 17)	< $43+10\log_{10}$(P[Watts])	PASS	Under limit 3.62 dB at 5716.000 MHz
	§2.1053 §27.53(m)(4)	RSS-199 (4.5)	Radiated Spurious Emission (Band 7)	< $55+10\log_{10}$(P[Watts])		

1 General Description

1.1 Applicant

Bullitt Group

One Valpy, Valpy Street, Reading, Berkshire, RG1 1AR United Kingdom

1.2 Manufacturer

Compal Electronics, INC.

No. 385, Yangguang St. Neihu District, Taipei City 11491, Taiwan, R.O.C

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Rugged Smart Phone
Brand Name	CAT
Model Name	S40
FCC ID	ZL5S40
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE/NFC WLAN 11b/g/n HT20 Bluetooth v4.1 EDR/LE
HW Version	1.0
SW Version	LTE_D0201121.0_S40_0.012.00
EUT Stage	Identical Prototype

1.4 Product Specification subjective to this standard

Product Specification subjective to this standard	
Tx Frequency	LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 7 : 2502.5 MHz ~ 2567.5 MHz LTE Band 12 : 699 MHz ~ 716 MHz LTE Band 17 : 706.5 MHz ~ 713.5 MHz
Rx Frequency	LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 7 : 2622.5MHz ~ 2687.5 MHz LTE Band 12 : 729 MHz ~ 746 MHz LTE Band 17 : 736.5 MHz ~ 743.5 MHz
Bandwidth	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 7 : 5MHz/ 10MHz / 15MHz / 20MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 17 : 5MHz / 10MHz
Maximum Output Power to Antenna	LTE Band 2 : 23.67 dBm LTE Band 4 : 23.67 dBm LTE Band 5 : 23.57 dBm LTE Band 7 : 23.64 dBm LTE Band 12 : 23.42 dBm LTE Band 17 : 23.44 dBm
Type of Modulation	QPSK / 16QAM

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Emission Designator

LTE Band 2	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1M10G7D	-	0.1122	1M10W7D	-	0.0979
3	2M73G7D	-	0.1030	2M73W7D	-	0.0916
5	4M51G7D	-	0.1140	4M51W7D	-	0.0895
10	9M11G7D	0.0014	0.1096	9M03W7D	-	0.0944
15	13M5G7D	-	0.1074	13M5W7D	-	0.0802
20	18M5G7D	-	0.1072	18M5W7D	-	0.0832

LTE Band 4	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1M10G7D	-	0.1419	1M10W7D	-	0.1148
3	2M73G7D	-	0.1393	2M73W7D	-	0.1159
5	4M50G7D	-	0.1337	4M51W7D	-	0.1099
10	9M09G7D	0.0066	0.1318	9M03W7D	-	0.1069
15	13M5G7D	-	0.1324	13M5W7D	-	0.1191
20	18M4G7D	-	0.1409	18M5W7D	-	0.1140

LTE Band 5	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	1M10G7D	-	0.0656	1M10W7D	-	0.0522
3	2M73G7D	-	0.0689	2M73W7D	-	0.0583
5	4M51G7D	-	0.0682	4M51W7D	-	0.0545
10	9M09G7D	0.0075	0.0653	9M03W7D	-	0.0601

LTE Band 7	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	4M51G7D	-	0.1089	4M51W7D	-	0.0918
10	9M07G7D	-	0.1242	9M07W7D	-	0.0944
15	13M5G7D	-	0.1291	13M5W7D	-	0.0931
20	18M4G7D	0.0056	0.1294	18M5W7D	-	0.0977

LTE Band 12	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	1M09G7D	-	0.0267	1M10W7D	-	0.0229
3	2M73G7D	-	0.0262	2M74W7D	-	0.0211
5	4M51G7D	-	0.0244	4M51W7D	-	0.0203
10	9M09G7D	0.0086	0.0262	9M03W7D	-	0.0205

LTE Band 17	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
5	4M51G7D	-	0.0273	4M51W7D	-	0.0216
10	9M07G7D	0.0097	0.0252	9M01W7D	-	0.0218

- **Below table for IC**

LTE Band 7	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	4M51G7D	-	0.3170	4M51W7D	-	0.3105
10	9M07G7D	-	0.3724	9M07W7D	-	0.2938
15	13M5G7D	-	0.3802	13M5W7D	-	0.2838
20	18M4G7D	0.0056	0.3855	18M5W7D	-	0.3148

LTE Band 12	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1M09G7D	-	0.0439	1M10W7D	-	0.0375
3	2M73G7D	-	0.0430	2M74W7D	-	0.0347
5	4M51G7D	-	0.0401	4M51W7D	-	0.0333
10	9M09G7D	0.0086	0.0431	9M04W7D	-	0.0336

LTE Band 17	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	4M51G7D	-	0.0448	4M51W7D	-	0.0355
10	9M07G7D	0.0097	0.0414	9M01W7D	-	0.0358

1.7 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1022 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	**Sporton Site No.**	
	TH02-HY	03CH07-HY

1.8 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 2, 22(H), 24(E), 27
- ANSI / TIA / EIA-603-C-2004
- FCC KDB 971168 D01 Power Meas. License Digital Systems v02r02

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

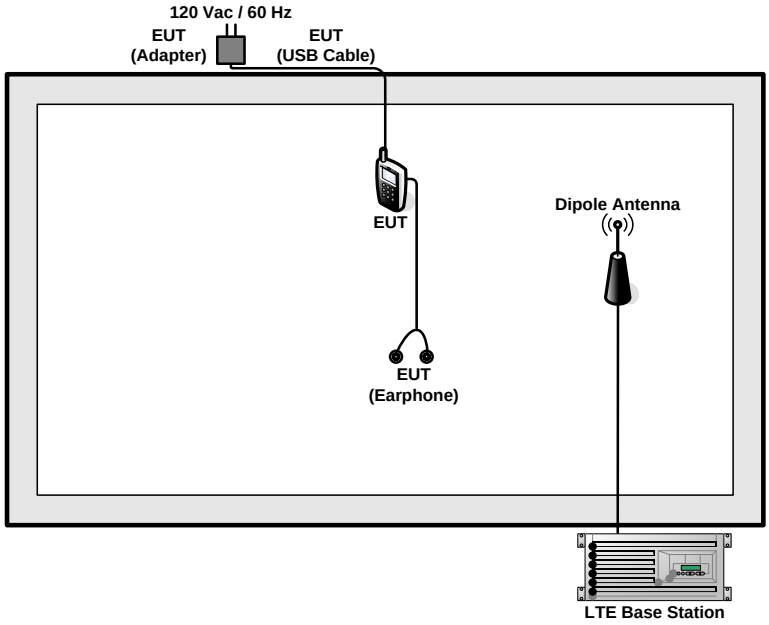
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v02r02 with maximum output power.

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v
	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v	-	-	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	2						v	v	v	v		v	v	v	v
	4						v	v	v	v		v	v	v	v
	5				v	-	-	v	v	v		v	v	v	v
	7	-	-				v	v	v	v		v	v	v	v
	12				v	-	-	v	v	v		v	v	v	v
	17	-	-		v	-	-	v	v	v		v	v	v	v
26dB and 99% Bandwidth	2	v	v	v	v	v	v	v	v			v	v	v	v
	4	v	v	v	v	v	v	v	v			v	v	v	v
	5	v	v	v	v	-	-	v	v			v	v	v	v
	7	-	-	v	v	v	v	v	v			v	v	v	v
	12	v	v	v	v	-	-	v	v			v	v	v	v
	17	-	-	v	v	-	-	v	v			v	v	v	v
Conducted Band Edge	2	v	v	v	v	v	v	v	v	v		v	v		v
	4	v	v	v	v	v	v	v	v	v		v	v		v
	5	v	v	v	v	-	-	v	v	v		v	v		v
	7	-	-	v	v	v	v	v	v	v		v	v		v
	12	v	v	v	v	-	-	v	v	v		v	v		v
	17	-	-	v	v	-	-	v	v	v		v	v		v

Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Conducted Spurious Emission	2	v	v	v	v	v	v	v	v	v			v	v	v
	4	v	v	v	v	v	v	v	v	v			v	v	v
	5	v	v	v	v	-	-	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v	-	-	v	v	v			v	v	v
	17	-	-	v	v	-	-	v	v	v			v	v	v
Frequency Stability	2				v			v				v		v	
	4				v			v				v		v	
	5				v	-	-	v				v		v	
	7	-	-		v			v				v		v	
	12				v	-	-	v				v		v	
	17	-	-		v	-	-	v				v		v	
E.R.P./ E.I.R.P.	2	v					v	v	v	v			v	v	v
	4	v					v	v	v	v			v	v	v
	5	v			v	-	-	v	v	v			v	v	v
	7	-	-	v			v	v	v	v			v	v	v
	12	v					v	v	v	v			v	v	v
	17	-	-	v	v	-	-	v	v	v			v	v	v
Radiated Spurious Emission	2	v	v	v	v	v	v	v		v			v	v	v
	4	v	v	v	v	v	v	v		v			v	v	v
	5	v	v	v	v	-	-	v		v			v	v	v
	7	-	-	v	v	v	v	v		v			v	v	v
	12	v	v	v	v	-	-	v		v			v	v	v
	17	-	-	v	v	-	-	v		v			v	v	v
Note	1. The mark "v" means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. For E.R.P/E.I.R.P. measurement, the widest bandwidth of each band is chosen for testing due to highest conducted power. Besides, the lowest bandwidth of each band is also measured for reporting only. 4. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.														

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

Example :

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.2 + 10 = 14.2 (dB)

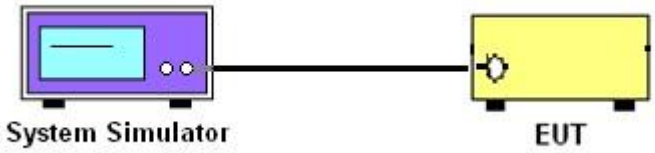
3 Conducted Test Items

3.1 Measuring Instruments

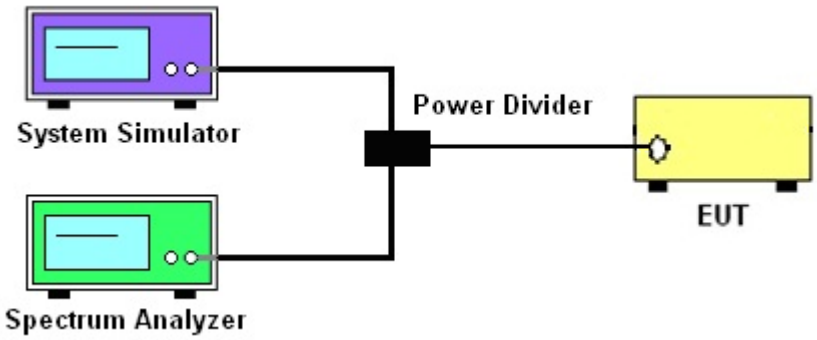
See list of measuring instruments of this test report.

3.2 Test Setup

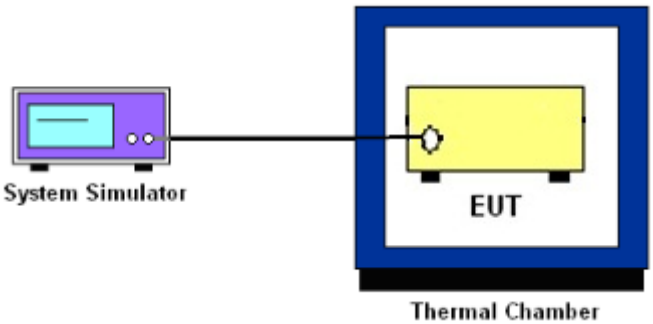
3.2.1 Conducted Output Power



3.2.2 Peak-to-Average Ratio, Occupied Bandwidth ,Conducted Band-Edge and Conducted Spurious Emission



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

3.4.1 Description of the Conducted Output Power Measurement and ERP/EIRP Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

3.4.2 Test Procedures

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through the system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

3.5.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 5.7.1.
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
4. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
5. Record the deviation as Peak to Average Ratio.

3.6 Occupied Bandwidth

3.6.1 Description of Occupied Bandwidth Measurement

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

3.6.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 4.2.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

22.917(a) and RSS – 132 for Band 5

For operations in the 824 – 849 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

24.238 (a) and RSS – 133 for Band 2

For operations in the 1850-1910 and 1930-1990 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 1MHz bandwidth. 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.

27.53 (g) and RSS – 130 for Band 12,17

For operations in the 698 -746 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 100 kHz bandwidth. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

27.53 (h) and RSS – 139 for Band 4

For operations in the 1710 – 1755 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

27.53(m)(4) and RSS-199 for Band 7

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

3.7.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 6.0.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
4. Set spectrum analyzer with RMS detector.
5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
6. The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
   = P(W)- [43 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
   = -13dBm.

3.8 Conducted Spurious Emission

3.8.1 Description of Conducted Spurious Emission Measurement

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

For Band 7:

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10^{th} harmonic.

3.8.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 6.0.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. 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.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
   = P(W)- [43 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
   = -13dBm.
9. For Band 7
   The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)

3.9 Frequency Stability

3.9.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency.

3.9.2 Test Procedures for Temperature Variation

1. The EUT was set up in the thermal chamber and connected with the system simulator.
2. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.9.3 Test Procedures for Voltage Variation

1. The testing follows FCC KDB 971168 v02r02 Section 9.0.
2. The EUT was placed in a temperature chamber at 25±5° C and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
4. The variation in frequency was measured for the worst case.

3.9.4 Test Procedures for Frequency Stability (IC)

1. The testing follows FCC KDB 971168 v02r02 Section 9.0.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The EUT was operated at the lowest and highest channel
4. Using RBW= 1% OBW and displaying line = -13dBm.
5. The frequency at these points shall be recorded as f_L and f_H respectively.
6. Calculate frequency stability within the 704 – 716 band.

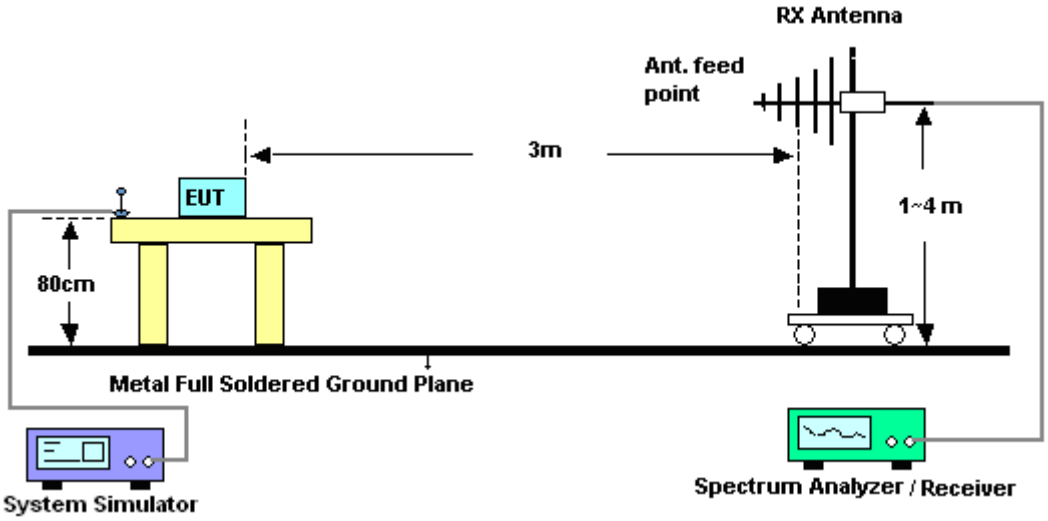
4 Radiated Test Items

4.1 Measuring Instruments

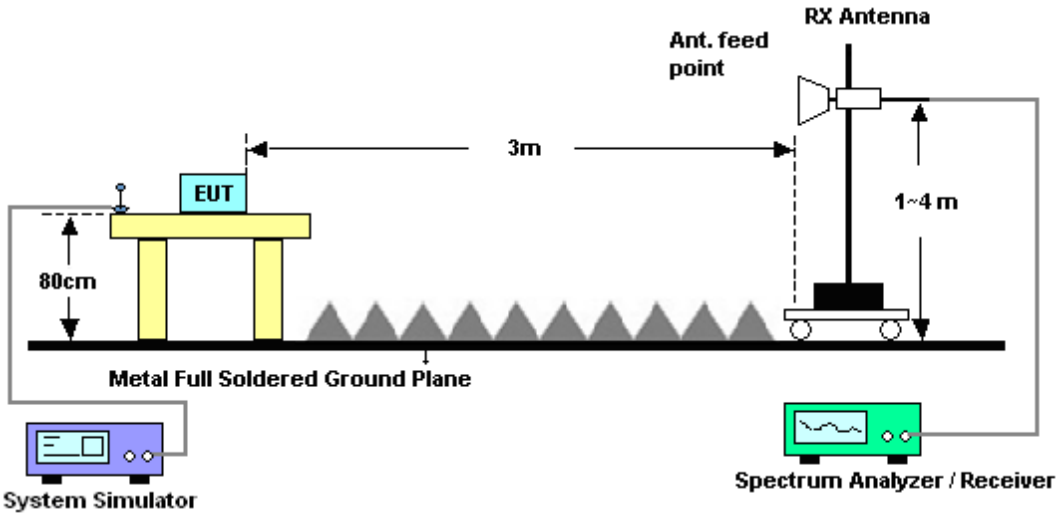
See list of measuring instruments of this test report.

4.2 Test Setup

4.2.1 For radiated test from 30MHz to 1GHz



4.2.2 For radiated test above 1GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

4.4 Effective Radiated Power and Effective Isotropic Radiated Power

4.4.1 Description of the ERP/EIRP Measurement

Effective radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-C-2004, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02r02. Mobile and portable (hand-held) stations operating are limited to average ERP of 7 watts with LTE band 5 and 3 watts with LTE band 12 / 17.

Equivalent isotropic radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-C-2004, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02r02. Mobile and portable (hand-held) stations operating are limited to average EIRP of 2 watts with LTE band 2 / 7 and 1 watt with LTE band 4.

4.4.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 5.2.1. (for CDMA/WCDMA), Section 5.2.2.2 (for GSM/GPRS/EDGE) and ANSI / TIA-603-C-2004 Section 2.2.17.
2. The EUT was placed on a non-conductive rotating platform 0.8 meters high in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with RMS detector.
3. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power. The maximum emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.
4. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to TIA/EIA-603-C. The EUT was replaced by dipole antenna (substitution antenna) at same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. The correction factor (in dB) = S.G. - Tx Cable loss + Substitution antenna gain - Analyzer reading. Then the EUT's EIRP was calculated with the correction factor, EIRP= LVL + Correction factor and ERP = EIRP – 2.15.

	LTE Average					
LTE BW	1.4M	3M	5M	10M	15M	20M
Span	3MHz	6MHz	10MHz	20MHz	30MHz	40MHz
RBW	30kHz	100kHz	100kHz	300kHz	300kHz	300kHz
VBW	100kHz	300kHz	300kHz	1MHz	1MHz	1MHz
Detector	RMS	RMS	RMS	RMS	RMS	RMS
Trace	Average	Average	Average	Average	Average	Average
Average Type	Power	Power	Power	Power	Power	Power
Sweep Count	100	100	100	100	100	100

	LTE Peak					
LTE BW	1.4M	3M	5M	10M	15M	20M
Span	3MHz	6MHz	10MHz	20MHz	30MHz	40MHz
RBW	30kHz	100kHz	100kHz	300kHz	300kHz	300kHz
VBW	100kHz	300kHz	300kHz	1MHz	1MHz	1MHz
Detector	Peak	Peak	Peak	Peak	Peak	Peak
Trace	Max Hold	Max Hold	Max Hold	Max Hold	Max Hold	Max Hold
Power	Channel	Channel	Channel	Channel	Channel	Channel

4.5 Radiated Spurious Emission

4.5.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI / TIA / EIA-603-C-2004. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

For Band 7

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.

For LTE Band 12, 17

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to −70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and −80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.5.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 5.8 and ANSI / TIA-603-C-2004 Section 2.2.12.
2. The EUT was placed on a rotatable wooden table with 0.8 meter above ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
9. Taking the record of output power at antenna port.
10. Repeat step 7 to step 8 for another polarization.
11. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
    The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.
    For Band 7:
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)
12. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
13. ERP (dBm) = EIRP - 2.15

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	Rohde & Schwarz	FSV40	101397	10Hz~40GHz	Sep. 17, 2014	Jun. 25, 2015 ~ Jun. 27, 2015	Sep. 16 2015	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SH-641	92013720	-30℃~70℃	Dec. 04, 2014	Jun. 25, 2015 ~ Jun. 27, 2015	Dec. 03, 2015	Conducted (TH05-HY)
Bilog Antenna	Schaffner	CBL6111C	2726	30MHz ~ 1GHz	Sep. 27, 2014	Jun. 26, 2015 ~ Jun. 29, 2015	Sep. 26, 2015	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Aug. 19, 2014	Jun. 26, 2015 ~ Jun. 29, 2015	Aug. 18, 2015	Radiation (03CH07-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1328	1GHz ~ 18GHz	Nov. 05, 2014	Jun. 26, 2015 ~ Jun. 29, 2015	Nov. 04, 2015	Radiation (03CH07-HY)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 03, 2014	Jun. 26, 2015 ~ Jun. 29, 2015	Nov. 02, 2015	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz-1000MHz	Mar. 12, 2015	Jun. 26, 2015 ~ Jun. 29, 2015	Mar. 11, 2016	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~ 26.5GHz	Oct. 21, 2014	Jun. 26, 2015 ~ Jun. 29, 2015	Oct. 20, 2015	Radiation (03CH07-HY)
Signal Analyzer	Rohde & Schwarz	FSV 30	101749	10Hz~30GHz	Mar. 10, 2015	Jun. 26, 2015 ~ Jun. 29, 2015	Mar. 09, 2016	Radiation (03CH07-HY)
Antenna Mast	Max-Full	MFA520BS	N/A	1m~4m	N/A	Jun. 26, 2015 ~ Jun. 29, 2015	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 degree	N/A	Jun. 26, 2015 ~ Jun. 29, 2015	N/A	Radiation (03CH07-HY)

6 Uncertainty of Evaluation

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.54**

Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.72**

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.17	23.14	22.94
1.4	1	2		23.27	23.25	23.39
1.4	1	5		23.10	23.19	23.11
1.4	3	0		23.12	23.18	23.33
1.4	3	1		23.36	23.22	23.45
1.4	3	2		23.30	23.21	23.37
1.4	6	0		22.22	22.27	22.34
1.4	1	0	16-QAM	22.22	22.31	22.09
1.4	1	2		22.40	22.59	22.35
1.4	1	5		22.40	22.43	22.68
1.4	3	0		22.48	22.77	22.55
1.4	3	1		22.36	22.41	22.58
1.4	3	2		22.46	22.25	22.67
1.4	6	0		21.11	21.15	20.99
3	1	0	QPSK	23.19	23.33	23.11
3	1	7		23.37	23.25	23.47
3	1	14		23.31	23.20	23.05
3	8	0		22.24	22.33	22.39
3	8	4		22.15	22.35	22.31
3	8	7		22.20	22.36	22.31
3	15	0		22.13	22.34	22.31
3	1	0	16-QAM	22.47	22.63	22.50
3	1	7		22.53	22.58	22.50
3	1	14		22.61	22.60	22.47
3	8	0		21.15	21.42	21.24
3	8	4		21.14	21.41	21.29
3	8	7		21.33	21.50	21.26
3	15	0		20.89	21.28	21.16

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.25	23.21	23.19
5	1	12		23.23	23.34	23.49
5	1	24		23.18	23.23	23.20
5	12	0		22.19	22.28	22.22
5	12	6		22.25	22.36	22.23
5	12	11		22.24	22.29	22.23
5	25	0		22.17	22.29	22.29
5	1	0	16-QAM	22.51	22.61	22.58
5	1	12		22.48	22.54	22.54
5	1	24		22.47	22.56	22.52
5	12	0		21.12	21.28	21.17
5	12	6		21.18	21.25	21.23
5	12	11		21.11	21.21	21.16
5	25	0		21.36	21.30	21.30
10	1	0	QPSK	23.31	23.49	23.30
10	1	24		23.60	23.51	23.35
10	1	49		23.18	23.26	23.26
10	25	0		22.35	22.36	22.31
10	25	12		22.33	22.30	22.30
10	25	24		22.18	22.31	22.30
10	50	0		22.19	22.41	22.25
10	1	0	16-QAM	22.55	22.66	22.68
10	1	24		22.76	22.57	22.58
10	1	49		22.60	22.58	22.65
10	25	0		21.24	21.25	21.20
10	25	12		21.20	21.38	21.33
10	25	24		21.16	21.35	21.25
10	50	0		21.12	21.16	21.20

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.32	23.43	23.29
15	1	37		23.34	23.65	23.53
15	1	74		23.15	23.29	23.05
15	36	0		22.31	22.36	22.41
15	36	18		22.19	22.35	22.38
15	36	37		22.18	22.25	22.25
15	75	0		22.27	22.29	22.35
15	1	0	16-QAM	22.59	22.64	22.68
15	1	37		22.56	22.51	22.64
15	1	74		22.50	22.49	22.46
15	36	0		21.24	21.31	21.33
15	36	18		21.16	21.22	21.33
15	36	37		21.13	21.30	21.21
15	75	0		21.19	21.36	21.34
20	1	0	QPSK	23.58	**23.67**	23.64
20	1	49		23.54	23.50	23.48
20	1	99		23.33	23.36	23.23
20	50	0		22.69	22.70	22.68
20	50	24		22.43	22.49	22.56
20	50	49		22.34	22.39	22.47
20	100	0		22.53	22.55	22.52
20	1	0	16-QAM	22.98	22.88	22.95
20	1	49		22.62	23.00	22.68
20	1	99		22.57	22.66	22.67
20	50	0		21.50	21.57	21.58
20	50	24		21.45	21.38	21.57
20	50	49		21.34	21.45	21.51
20	100	0		21.31	21.41	21.52

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.42	23.37	23.59
1.4	1	2		23.50	23.40	23.60
1.4	1	5		23.43	23.32	23.56
1.4	3	0		23.42	23.46	23.62
1.4	3	1		23.58	23.63	23.64
1.4	3	2		23.52	23.52	23.61
1.4	6	0		22.37	22.47	22.61
1.4	1	0	16-QAM	22.75	22.72	22.67
1.4	1	2		22.66	22.60	22.78
1.4	1	5		22.69	22.47	22.88
1.4	3	0		22.68	22.50	22.85
1.4	3	1		22.74	22.59	22.83
1.4	3	2		22.66	22.72	22.85
1.4	6	0		21.36	21.34	21.48
3	1	0	QPSK	23.50	23.51	23.53
3	1	7		23.47	23.31	23.61
3	1	14		23.47	23.29	23.58
3	8	0		22.42	22.50	22.58
3	8	4		22.43	22.44	22.53
3	8	7		22.42	22.44	22.56
3	15	0		22.43	22.38	22.52
3	1	0	16-QAM	22.73	22.79	22.87
3	1	7		22.74	22.72	22.79
3	1	14		22.73	22.72	22.83
3	8	0		21.35	21.61	21.56
3	8	4		21.15	21.38	21.67
3	8	7		21.28	21.37	21.60
3	15	0		21.20	21.27	21.44

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.46	23.37	23.58
5	1	12		23.39	23.55	23.62
5	1	24		23.42	23.45	23.48
5	12	0		22.41	22.44	22.57
5	12	6		22.41	22.43	22.58
5	12	11		22.42	22.36	22.60
5	25	0		22.43	22.38	22.60
5	1	0	16-QAM	22.63	22.72	22.86
5	1	12		22.61	22.67	22.80
5	1	24		22.57	22.61	22.76
5	12	0		21.19	21.33	21.38
5	12	6		21.41	21.21	21.27
5	12	11		21.22	21.35	21.40
5	25	0		21.42	21.36	21.49
10	1	0	QPSK	23.47	23.49	23.60
10	1	24		23.59	23.51	23.58
10	1	49		23.38	23.31	23.40
10	25	0		22.63	22.52	22.68
10	25	12		22.63	22.50	22.76
10	25	24		22.52	22.36	22.54
10	50	0		22.58	22.41	22.57
10	1	0	16-QAM	22.84	22.77	22.85
10	1	24		22.79	22.68	22.87
10	1	49		22.66	22.66	22.69
10	25	0		21.62	21.50	21.60
10	25	12		21.61	21.48	21.60
10	25	24		21.50	21.34	21.54
10	50	0		21.68	21.39	21.56

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.64	23.33	23.53
15	1	37		23.43	23.13	23.55
15	1	74		23.40	23.36	23.43
15	36	0		22.63	22.34	22.64
15	36	18		22.42	22.23	22.58
15	36	37		22.43	22.25	22.51
15	75	0		22.60	22.30	22.69
15	1	0	16-QAM	22.83	22.60	22.86
15	1	37		22.78	22.47	22.82
15	1	74		22.37	22.64	22.79
15	36	0		21.47	21.19	21.57
15	36	18		21.26	21.09	21.50
15	36	37		21.27	21.12	21.39
15	75	0		21.47	21.26	21.52
20	1	0	QPSK	23.58	**23.67**	23.65
20	1	49		23.55	23.43	23.58
20	1	99		23.25	23.50	23.45
20	50	0		22.50	22.75	22.60
20	50	24		22.47	22.68	22.59
20	50	49		22.34	22.66	22.53
20	100	0		22.35	22.67	22.58
20	1	0	16-QAM	22.78	22.80	22.87
20	1	49		22.64	22.78	22.79
20	1	99		22.14	22.81	22.78
20	50	0		21.59	21.64	21.44
20	50	24		21.49	21.63	21.52
20	50	49		21.26	21.57	21.54
20	100	0		21.31	21.73	21.61

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.40	23.38	23.43
1.4	1	2		23.48	23.47	23.44
1.4	1	5		23.47	23.43	23.45
1.4	3	0		23.40	23.34	23.40
1.4	3	1		23.43	23.42	23.44
1.4	3	2		23.34	23.41	23.42
1.4	6	0		22.75	22.67	22.59
1.4	1	0	16-QAM	22.97	22.93	22.95
1.4	1	2		22.89	22.90	22.69
1.4	1	5		22.99	22.78	22.99
1.4	3	0		22.84	22.87	22.71
1.4	3	1		22.85	22.87	22.93
1.4	3	2		22.86	22.84	22.45
1.4	6	0		21.49	21.46	21.48
3	1	0	QPSK	23.43	23.51	23.44
3	1	7		23.35	23.47	23.52
3	1	14		23.33	23.54	23.38
3	8	0		22.61	22.58	22.83
3	8	4		22.80	22.61	22.69
3	8	7		22.62	22.72	22.74
3	15	0		22.57	22.54	22.70
3	1	0	16-QAM	22.89	22.93	22.96
3	1	7		22.93	22.89	22.91
3	1	14		22.96	22.96	22.95
3	8	0		21.49	21.43	21.70
3	8	4		21.50	21.73	21.58
3	8	7		21.47	21.52	21.63
3	15	0		21.52	21.45	21.45

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.41	23.39	23.48
5	1	12		23.38	23.38	23.52
5	1	24		23.46	23.41	23.47
5	12	0		22.58	22.56	22.65
5	12	6		22.64	22.46	22.71
5	12	11		22.56	22.55	22.69
5	25	0		22.56	22.51	22.66
5	1	0	16-QAM	22.89	22.78	22.97
5	1	12		22.86	22.86	22.89
5	1	24		22.88	22.78	22.84
5	12	0		21.51	21.43	21.58
5	12	6		21.47	21.31	21.52
5	12	11		21.43	21.41	21.42
5	25	0		21.71	21.46	21.62
10	1	0	QPSK	23.41	**23.57**	23.55
10	1	24		23.32	23.42	23.52
10	1	49		23.11	23.26	23.27
10	25	0		22.31	22.37	22.35
10	25	12		22.30	22.14	22.22
10	25	24		22.23	22.28	22.33
10	50	0		22.24	22.33	22.30
10	1	0	16-QAM	22.49	22.42	22.45
10	1	24		22.49	22.48	22.64
10	1	49		22.36	22.45	22.07
10	25	0		21.28	21.13	21.22
10	25	12		21.20	21.09	21.21
10	25	24		21.14	21.14	21.21
10	50	0		21.16	21.11	21.21

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.31	23.14	23.51
5	1	12		23.18	23.32	23.61
5	1	24		23.19	23.10	23.52
5	12	0		22.23	22.15	22.53
5	12	6		22.30	22.10	22.55
5	12	11		22.23	22.14	22.62
5	25	0		22.22	22.07	22.56
5	1	0	16-QAM	22.61	22.42	22.83
5	1	12		22.36	22.29	22.72
5	1	24		22.47	22.32	22.80
5	12	0		21.26	21.18	21.60
5	12	6		21.14	21.17	21.62
5	12	11		21.15	21.18	21.61
5	25	0		21.19	21.37	21.61
10	1	0	QPSK	23.24	23.14	23.57
10	1	24		23.45	23.36	23.60
10	1	49		23.22	23.20	23.56
10	25	0		22.21	22.16	22.61
10	25	12		22.32	22.26	22.67
10	25	24		22.33	22.22	22.72
10	50	0		22.30	22.17	22.66
10	1	0	16-QAM	22.24	22.31	22.70
10	1	24		22.45	22.31	22.77
10	1	49		22.44	22.61	22.93
10	25	0		21.40	21.25	21.65
10	25	12		21.31	21.38	21.73
10	25	24		21.45	21.41	21.70
10	50	0		21.29	21.17	21.58

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.14	23.01	23.47
15	1	37		23.33	23.11	23.39
15	1	74		23.19	23.08	23.41
15	36	0		22.24	22.14	22.55
15	36	18		22.26	22.12	22.52
15	36	37		22.19	22.06	22.51
15	75	0		22.30	22.14	22.55
15	1	0	16-QAM	22.23	22.45	22.70
15	1	37		22.36	22.27	22.73
15	1	74		22.53	22.34	22.83
15	36	0		21.19	21.20	21.56
15	36	18		21.24	21.08	21.58
15	36	37		21.27	21.17	21.65
15	75	0		21.30	21.18	21.45
20	1	0	QPSK	23.41	23.34	**23.64**
20	1	49		23.36	23.21	23.50
20	1	99		23.01	23.16	23.50
20	50	0		22.27	22.17	22.54
20	50	24		22.19	22.05	22.44
20	50	49		22.23	22.15	22.41
20	100	0		22.14	22.04	22.52
20	1	0	16-QAM	22.21	22.33	22.67
20	1	49		22.51	22.20	22.29
20	1	99		22.01	22.23	22.33
20	50	0		21.34	21.09	21.57
20	50	24		21.28	21.08	21.31
20	50	49		21.16	21.17	21.35
20	100	0		21.23	21.15	21.48

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.97	23.31	23.24
1.4	1	2		23.14	**23.42**	23.26
1.4	1	5		23.06	23.37	23.31
1.4	3	0		23.05	23.24	23.34
1.4	3	1		23.07	23.41	23.28
1.4	3	2		23.14	23.39	23.24
1.4	6	0		22.14	22.38	22.23
1.4	1	0	16-QAM	22.49	22.80	22.61
1.4	1	2		22.49	22.77	22.71
1.4	1	5		22.54	22.83	22.83
1.4	3	0		22.57	22.55	22.77
1.4	3	1		22.42	22.63	22.86
1.4	3	2		22.59	22.78	22.80
1.4	6	0		21.07	21.55	21.12
3	1	0	QPSK	23.24	23.32	23.14
3	1	7		23.38	23.25	23.31
3	1	14		23.21	23.41	23.22
3	8	0		22.34	22.47	22.37
3	8	4		22.28	22.51	22.30
3	8	7		22.35	22.57	22.25
3	15	0		22.28	22.49	22.20
3	1	0	16-QAM	22.57	22.72	22.84
3	1	7		22.59	22.80	22.73
3	1	14		22.71	22.71	22.91
3	8	0		21.27	21.23	21.48
3	8	4		21.24	21.47	21.47
3	8	7		21.27	21.55	21.41
3	15	0		21.34	21.23	21.53

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.13	23.24	23.15
5	1	12		23.40	23.36	23.39
5	1	24		23.35	23.37	23.17
5	12	0		22.30	22.48	22.17
5	12	6		22.14	22.53	22.22
5	12	11		22.07	22.55	22.24
5	25	0		22.11	22.45	22.22
5	1	0	16-QAM	22.98	22.64	22.61
5	1	12		22.61	22.72	22.75
5	1	24		22.67	22.70	22.77
5	12	0		21.21	21.40	21.35
5	12	6		21.27	21.34	21.45
5	12	11		21.26	21.53	21.39
5	25	0		21.35	21.46	21.46
10	1	0	QPSK	23.08	**23.42**	23.36
10	1	24		23.06	23.29	23.23
10	1	49		23.00	23.16	23.31
10	25	0		22.26	22.32	22.29
10	25	12		22.13	22.30	22.25
10	25	24		22.24	22.19	22.28
10	50	0		22.14	22.28	22.21
10	1	0	16-QAM	22.06	22.25	22.68
10	1	24		22.18	22.51	22.50
10	1	49		22.35	22.39	22.64
10	25	0		21.15	21.14	21.23
10	25	12		21.08	21.25	21.28
10	25	24		21.32	21.31	21.27
10	50	0		21.07	21.02	21.26

LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.29	23.32	23.36
5	1	12		23.39	23.37	23.33
5	1	24		23.28	23.31	23.38
5	12	0		22.21	22.24	22.18
5	12	6		22.25	22.31	22.33
5	12	11		22.27	22.36	22.33
5	25	0		22.31	22.32	22.33
5	1	0	16-QAM	22.50	22.52	22.49
5	1	12		22.50	22.58	22.56
5	1	24		22.38	22.57	22.43
5	12	0		21.20	21.15	21.14
5	12	6		21.22	21.20	21.24
5	12	11		21.17	21.16	21.27
5	25	0		21.31	21.20	21.25
10	1	0	QPSK	23.33	**23.44**	23.34
10	1	24		23.31	23.36	23.31
10	1	49		23.10	23.21	23.23
10	25	0		22.24	22.26	22.21
10	25	12		22.15	22.07	22.05
10	25	24		22.18	22.16	22.18
10	50	0		22.18	22.19	22.15
10	1	0	16-QAM	21.99	22.35	22.44
10	1	24		22.36	22.40	22.45
10	1	49		22.36	22.55	22.47
10	25	0		21.25	21.34	21.13
10	25	12		21.26	21.13	21.02
10	25	24		21.24	21.27	21.30
10	50	0		21.08	21.13	21.07

Appendix B. Test Results of Radiated Test

ERP/EIRP

LTE Band 2 / 1.4MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	19.09	0.0811	18.88	0.0773
Middle		1	0	19.95	0.0989	19.57	0.0906
Highest		1	0	20.50	0.1122	19.85	0.0966
Lowest	16QAM	1	0	17.88	0.0614	17.71	0.0590
Middle		1	0	19.20	0.0832	18.85	0.0767
Highest		1	0	19.91	0.0979	19.13	0.0818
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 3MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	18.87	0.0771	18.80	0.0759
Middle		1	0	20.07	0.1016	19.58	0.0908
Highest		1	0	20.13	0.1030	19.53	0.0897
Lowest	16QAM	1	0	18.46	0.0701	18.28	0.0673
Middle		1	0	19.23	0.0838	18.75	0.0750
Highest		1	0	19.62	0.0916	19.09	0.0811
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	19.24	0.0839	19.06	0.0805
Middle		1	0	19.90	0.0977	19.39	0.0869
Highest		1	0	20.57	0.1140	19.90	0.0977
Lowest	16QAM	1	0	18.49	0.0706	18.22	0.0664
Middle		1	0	19.12	0.0817	18.73	0.0746
Highest		1	0	19.52	0.0895	18.97	0.0789
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	19.29	0.0849	19.23	0.0838
Middle		1	0	20.17	0.1040	19.68	0.0929
Highest		1	0	20.40	0.1096	19.83	0.0962
Lowest	16QAM	1	0	18.26	0.0670	18.22	0.0664
Middle		1	0	19.13	0.0818	18.72	0.0745
Highest		1	0	19.75	0.0944	19.23	0.0838
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 15MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	19.46	0.0883	19.42	0.0875
Middle		1	0	20.26	0.1062	19.76	0.0946
Highest		1	0	20.31	0.1074	19.89	0.0975
Lowest	16QAM	1	0	18.50	0.0708	18.35	0.0684
Middle		1	0	18.68	0.0738	18.37	0.0687
Highest		1	0	19.04	0.0802	18.57	0.0719
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 20MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	19.25	0.0841	19.06	0.0805
Middle		1	0	19.92	0.0982	19.57	0.0906
Highest		1	0	20.30	0.1072	19.80	0.0955
Lowest	16QAM	1	0	17.76	0.0597	17.79	0.0601
Middle		1	0	19.20	0.0832	18.70	0.0741
Highest		1	0	18.70	0.0741	18.29	0.0675
Limit	EIRP < 2W			Result		PASS	

LTE Band 4 / 1.4MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.52	0.1419	19.25	0.0841
Middle		1	0	20.86	0.1219	18.48	0.0705
Highest		1	0	20.52	0.1127	19.12	0.0817
Lowest	16QAM	1	0	20.60	0.1148	17.83	0.0607
Middle		1	0	19.88	0.0973	17.61	0.0577
Highest		1	0	19.45	0.0881	17.61	0.0577
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 3MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.44	0.1393	19.01	0.0796
Middle		1	0	20.86	0.1219	18.56	0.0718
Highest		1	0	20.38	0.1091	18.78	0.0755
Lowest	16QAM	1	0	20.64	0.1159	18.27	0.0671
Middle		1	0	20.37	0.1089	17.93	0.0621
Highest		1	0	19.48	0.0887	17.55	0.0569
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.26	0.1337	18.78	0.0755
Middle		1	0	20.92	0.1236	18.63	0.0729
Highest		1	0	20.63	0.1156	19.05	0.0804
Lowest	16QAM	1	0	20.41	0.1099	18.02	0.0634
Middle		1	0	19.98	0.0995	17.42	0.0552
Highest		1	0	19.62	0.0916	17.52	0.0565
Limit	EIRP < 1W			Result		PASS	

LTE Band 4/ 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.10	0.1288	18.67	0.0736
Middle		1	0	21.20	0.1318	18.72	0.0745
Highest		1	0	20.86	0.1219	19.03	0.0800
Lowest	16QAM	1	0	20.29	0.1069	17.91	0.0618
Middle		1	0	19.91	0.0979	17.69	0.0587
Highest		1	0	19.71	0.0935	17.55	0.0569
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 15MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.22	0.1324	18.92	0.0780
Middle		1	0	21.16	0.1306	18.67	0.0736
Highest		1	0	21.04	0.1271	19.03	0.0800
Lowest	16QAM	1	0	20.76	0.1191	18.36	0.0685
Middle		1	0	20.48	0.1117	18.12	0.0649
Highest		1	0	20.01	0.1002	17.65	0.0582
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 20MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.49	0.1409	19.06	0.0805
Middle		1	0	21.19	0.1315	18.72	0.0745
Highest		1	0	20.91	0.1233	18.73	0.0746
Lowest	16QAM	1	0	20.57	0.1140	18.32	0.0679
Middle		1	0	20.52	0.1127	18.10	0.0646
Highest		1	0	19.89	0.0975	17.44	0.0555
Limit	EIRP < 1W			Result		PASS	

LTE Band 5 / 1.4MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	17.77	0.0598	4.59	0.0029
Middle		1	0	18.15	0.0653	3.83	0.0024
Highest		1	0	18.17	0.0656	5.49	0.0035
Lowest	16QAM	1	0	16.79	0.0478	3.64	0.0023
Middle		1	0	17.18	0.0522	3.24	0.0021
Highest		1	0	16.82	0.0481	1.88	0.0015
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 3MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	17.83	0.0607	4.37	0.0027
Middle		1	0	18.38	0.0689	3.61	0.0023
Highest		1	0	18.01	0.0632	4.10	0.0026
Lowest	16QAM	1	0	16.99	0.0500	3.94	0.0025
Middle		1	0	17.51	0.0564	3.94	0.0025
Highest		1	0	17.66	0.0583	2.72	0.0019
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	17.88	0.0614	4.50	0.0028
Middle		1	0	18.23	0.0665	3.61	0.0023
Highest		1	0	18.34	0.0682	3.94	0.0025
Lowest	16QAM	1	0	17.10	0.0513	4.11	0.0026
Middle		1	0	17.10	0.0513	3.73	0.0024
Highest		1	0	17.36	0.0545	3.48	0.0022
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	17.76	0.0597	4.70	0.0030
Middle		1	0	18.08	0.0643	4.44	0.0028
Highest		1	0	18.15	0.0653	3.83	0.0024
Lowest	16QAM	1	0	17.29	0.0536	4.46	0.0028
Middle		1	0	17.37	0.0546	3.95	0.0025
Highest		1	0	17.79	0.0601	3.45	0.0022
Limit	ERP < 7W			Result		PASS	

LTE Band 7 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	19.74	0.0942	18.14	0.0652
Middle		1	0	20.10	0.1023	18.68	0.0738
Highest		1	0	20.37	0.1089	18.98	0.0791
Lowest	16QAM	1	0	18.98	0.0791	17.35	0.0543
Middle		1	0	19.16	0.0824	17.63	0.0579
Highest		1	0	19.63	0.0918	18.32	0.0679
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	19.89	0.0975	18.23	0.0665
Middle		1	0	20.15	0.1035	18.40	0.0692
Highest		1	0	20.94	0.1242	19.23	0.0838
Lowest	16QAM	1	0	19.01	0.0796	17.29	0.0536
Middle		1	0	19.27	0.0845	17.50	0.0562
Highest		1	0	19.75	0.0944	18.01	0.0632
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 15MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	20.01	0.1002	18.15	0.0653
Middle		1	0	20.36	0.1086	18.64	0.0731
Highest		1	0	21.11	0.1291	19.37	0.0865
Lowest	16QAM	1	0	19.69	0.0931	17.90	0.0617
Middle		1	0	19.19	0.0830	17.48	0.0560
Highest		1	0	19.54	0.0899	17.81	0.0604
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 20MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	19.99	0.0998	17.67	0.0585
Middle		1	0	20.50	0.1122	18.17	0.0656
Highest		1	0	21.12	0.1294	18.85	0.0767
Lowest	16QAM	1	0	19.37	0.0865	17.45	0.0556
Middle		1	0	19.77	0.0948	17.94	0.0622
Highest		1	0	19.90	0.0977	18.22	0.0664
Limit	EIRP < 2W			Result		PASS	

<For IC>

LTE Band 7 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	24.61	0.2891	23.13	0.2056
Middle		1	0	24.81	0.3027	23.38	0.2178
Highest		1	0	25.01	0.3170	23.64	0.2312
Lowest	16QAM	1	0	23.94	0.2477	22.22	0.1667
Middle		1	0	24.30	0.2692	22.52	0.1786
Highest		1	0	24.92	0.3105	23.34	0.2158
Limit	EIRP < 1W			Result		PASS	

LTE Band 7 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	24.72	0.2965	23.00	0.1995
Middle		1	0	24.95	0.3126	23.17	0.2075
Highest		1	0	25.71	0.3724	23.97	0.2495
Lowest	16QAM	1	0	23.94	0.2477	22.17	0.1648
Middle		1	0	24.31	0.2698	22.52	0.1786
Highest		1	0	24.68	0.2938	22.88	0.1941
Limit	EIRP < 1W			Result		PASS	

LTE Band 7 / 15MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	24.59	0.2877	22.89	0.1945
Middle		1	0	25.13	0.3258	23.34	0.2158
Highest		1	0	25.80	0.3802	24.11	0.2576
Lowest	16QAM	1	0	24.53	0.2838	22.69	0.1858
Middle		1	0	24.28	0.2679	22.51	0.1782
Highest		1	0	23.71	0.2350	21.93	0.1560
Limit	EIRP < 1W			Result		PASS	

LTE Band 7 / 20MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	24.83	0.3041	22.42	0.1746
Middle		1	0	25.35	0.3428	23.03	0.2009
Highest		1	0	25.86	0.3855	23.61	0.2296
Lowest	16QAM	1	0	24.35	0.2723	22.39	0.1734
Middle		1	0	24.73	0.2972	22.84	0.1923
Highest		1	0	24.98	0.3148	23.21	0.2094
Limit	EIRP < 1W			Result		PASS	

LTE Band 12 / 1.4MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	2	13.57	0.0228	-7.48	0.0002
Middle		1	2	14.01	0.0252	-7.22	0.0002
Highest		1	2	14.27	0.0267	-6.61	0.0002
Lowest	16QAM	3	1	13.03	0.0201	-8.11	0.0002
Middle		3	1	13.34	0.0216	-7.68	0.0002
Highest		3	1	13.59	0.0229	-6.56	0.0002
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 3MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	14	13.4	0.0219	-7.52	0.0002
Middle		1	14	13.53	0.0225	-7.72	0.0002
Highest		1	14	14.18	0.0262	-6.47	0.0002
Lowest	16QAM	1	14	12.94	0.0197	-8.03	0.0002
Middle		1	14	12.94	0.0197	-8.37	0.0001
Highest		1	14	13.25	0.0211	-7.42	0.0002
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	12	13.57	0.0228	-7.39	0.0002
Middle		1	12	13.72	0.0236	-7.25	0.0002
Highest		1	12	13.88	0.0244	-7.29	0.0002
Lowest	16QAM	1	0	12.16	0.0164	-8.76	0.0001
Middle		1	0	13.08	0.0203	-7.86	0.0002
Highest		1	0	12.92	0.0196	-7.83	0.0002
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	13.07	0.0203	-7.96	0.0002
Middle		1	0	13.61	0.0230	-7.32	0.0002
Highest		1	0	14.19	0.0262	-7.02	0.0002
Lowest	16QAM	1	0	12.55	0.0180	-8.35	0.0001
Middle		1	0	12.55	0.0180	-8.27	0.0001
Highest		1	0	13.11	0.0205	-8.08	0.0002
Limit	ERP < 3W			Result		PASS	

<For IC>

LTE Band 12 / 1.4MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	2	15.72	0.0373	-5.33	0.0003
Middle		1	2	16.16	0.0413	-5.07	0.0003
Highest		1	2	16.42	0.0439	-4.46	0.0004
Lowest	16QAM	3	1	15.18	0.0330	-5.96	0.0003
Middle		3	1	15.49	0.0354	-5.53	0.0003
Highest		3	1	15.74	0.0375	-4.41	0.0004
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 3MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	14	15.55	0.0359	-5.37	0.0003
Middle		1	14	15.68	0.0370	-5.57	0.0003
Highest		1	14	16.33	0.0430	-4.32	0.0004
Lowest	16QAM	1	14	15.09	0.0323	-5.88	0.0003
Middle		1	14	15.09	0.0323	-6.22	0.0002
Highest		1	14	15.4	0.0347	-5.27	0.0003
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	15.72	0.0373	-5.24	0.0003
Middle		1	12	15.87	0.0386	-5.1	0.0003
Highest		1	12	16.03	0.0401	-5.14	0.0003
Lowest	16QAM	1	0	14.31	0.0270	-6.61	0.0002
Middle		1	0	15.23	0.0333	-5.71	0.0003
Highest		1	0	15.07	0.0321	-5.68	0.0003
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	15.22	0.0333	-5.81	0.0003
Middle		1	0	15.76	0.0377	-5.17	0.0003
Highest		1	0	16.34	0.0431	-4.87	0.0003
Lowest	16QAM	1	0	14.7	0.0295	-6.2	0.0002
Middle		1	0	14.7	0.0295	-6.12	0.0002
Highest		1	0	15.26	0.0336	-5.93	0.0003
Limit	ERP < 3W			Result		PASS	

LTE Band 17 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	12	13.97	0.0249	-7.41	0.0002
Middle		1	12	13.96	0.0249	-7.62	0.0002
Highest		1	12	14.36	0.0273	-6.96	0.0002
Lowest	16QAM	1	12	12.93	0.0196	-7.68	0.0002
Middle		1	12	13.04	0.0201	-7.37	0.0002
Highest		1	12	13.35	0.0216	-7.01	0.0002
Limit	ERP < 3W			Result		PASS	

LTE Band 17 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	14.02	0.0252	-7.1	0.0002
Middle		1	0	13.95	0.0248	-7.31	0.0002
Highest		1	0	13.95	0.0248	-6.71	0.0002
Lowest	16QAM	1	49	13.15	0.0207	-7.17	0.0002
Middle		1	49	13.39	0.0218	-6.4	0.0002
Highest		1	49	13.35	0.0216	-6.57	0.0002
Limit	ERP < 3W			Result		PASS	

<For IC>

LTE Band 17 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	16.12	0.0409	-5.26	0.0003
Middle		1	12	16.11	0.0408	-5.47	0.0003
Highest		1	12	16.51	0.0448	-4.81	0.0003
Lowest	16QAM	1	12	15.08	0.0322	-5.53	0.0003
Middle		1	12	15.19	0.0330	-5.22	0.0003
Highest		1	12	15.5	0.0355	-4.86	0.0003
Limit	ERP < 3W			Result		PASS	

LTE Band 17 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	16.17	0.0414	-4.95	0.0003
Middle		1	0	16.1	0.0407	-5.16	0.0003
Highest		1	0	16.1	0.0407	-4.56	0.0003
Lowest	16QAM	1	49	15.3	0.0339	-5.02	0.0003
Middle		1	49	15.54	0.0358	-4.25	0.0004
Highest		1	49	15.5	0.0355	-4.42	0.0004
Limit	ERP < 3W			Result		PASS	

Radiated Spurious Emission

LTE Band 2 / 1.4MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-47.72	-13	-34.72	-66.93	-54.29	1.67	8.24	H
	5548	-40.32	-13	-27.32	-65.05	-47.39	2.65	9.72	H
	7400	-40.97	-13	-27.97	-67.5	-50.11	2.46	11.60	H
	3700	-41.02	-13	-28.02	-61.14	-47.59	1.67	8.24	V
	5548	-33.26	-13	-20.26	-59.13	-40.33	2.65	9.72	V
	7400	-40.88	-13	-27.88	-68.99	-50.02	2.46	11.60	V
Middle	3759	-44.39	-13	-31.39	-63.73	-51.02	1.69	8.31	H
	5639	-38.03	-13	-25.03	-62.72	-45.08	2.71	9.76	H
	7517	-42.72	-13	-29.72	-69.81	-52.11	2.42	11.81	H
	3759	-37.76	-13	-24.76	-57.96	-44.39	1.69	8.31	V
	5639	-32.03	-13	-19.03	-57.77	-39.08	2.71	9.76	V
	7517	-36.42	-13	-23.42	-65.18	-45.81	2.42	11.81	V
Highest	3819	-43.28	-13	-30.28	-64.11	-47.81	1.70	8.38	H
	5726	-37.92	-13	-24.92	-62.57	-42.81	2.76	9.79	H
	7634	-45.05	-13	-32.05	-72.56	-52.39	2.39	11.88	H
	3819	-36.58	-13	-23.58	-57.86	-41.11	1.70	8.38	V
	5726	-30.38	-13	-17.38	-56.09	-35.27	2.76	9.79	V
	7634	-37.85	-13	-24.85	-67	-45.19	2.39	11.88	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 2 / 3MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-48.24	-13	-35.24	-67.26	-54.81	1.67	8.24	H
	5550	-39.95	-13	-26.95	-65.58	-47.02	2.65	9.72	H
	7400	-41.57	-13	-28.57	-68.06	-50.71	2.46	11.60	H
	3700	-41.64	-13	-28.64	-61.78	-48.21	1.67	8.24	V
	5550	-34.01	-13	-21.01	-59.88	-41.08	2.65	9.72	V
	7400	-40.52	-13	-27.52	-68.51	-49.66	2.46	11.60	V
Middle	3757	-44.82	-13	-31.82	-64.21	-51.44	1.68	8.31	H
	5636	-37.06	-13	-24.06	-61.77	-44.11	2.70	9.75	H
	7514	-42.33	-13	-29.33	-69.14	-51.71	2.42	11.81	H
	3757	-37.77	-13	-24.77	-58.02	-44.39	1.68	8.31	V
	5636	-30.76	-13	-17.76	-56.33	-37.81	2.70	9.75	V
	7514	-35.91	-13	-22.91	-64.71	-45.29	2.42	11.81	V
Highest	3812	-43.29	-13	-30.29	-64.06	-47.81	1.70	8.37	H
	5721	-38.62	-13	-25.62	-63.51	-43.51	2.75	9.79	H
	7628	-45.43	-13	-32.43	-72.78	-52.77	2.39	11.88	H
	3812	-36.67	-13	-23.67	-57.82	-41.19	1.70	8.37	V
	5721	-31.43	-13	-18.43	-57.12	-36.32	2.75	9.79	V
	7628	-37.47	-13	-24.47	-66.32	-44.81	2.39	11.88	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 2 / 5MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-48.44	-13	-35.44	-67.54	-55.01	1.67	8.24	H
	5548	-40.74	-13	-27.74	-65.44	-47.81	2.65	9.72	H
	7403	-41.23	-13	-28.23	-67.79	-50.38	2.46	11.61	H
	3700	-42.44	-13	-29.44	-62.28	-49.01	1.67	8.24	V
	5548	-33.59	-13	-20.59	-59.27	-40.66	2.65	9.72	V
	7403	-40.54	-13	-27.54	-68.65	-49.69	2.46	11.61	V
Middle	3756	-49.41	-13	-36.41	-68.52	-56.03	1.68	8.31	H
	5636	-42.76	-13	-29.76	-67.32	-49.81	2.70	9.75	H
	7508	-48.43	-13	-35.43	-75.05	-57.81	2.43	11.80	H
	3756	-42.49	-13	-29.49	-62.82	-49.11	1.68	8.31	V
	5636	-36.03	-13	-23.03	-61.87	-43.08	2.70	9.75	V
	7508	-42.43	-13	-29.43	-71.09	-51.81	2.43	11.80	V
Highest	3812	-40.87	-13	-27.87	-61.61	-45.39	1.70	8.37	H
	5716	-36.92	-13	-23.92	-61.58	-41.81	2.75	9.79	H
	7620	-43.75	-13	-30.75	-71.16	-51.08	2.39	11.87	H
	3812	-21.59	-13	-8.59	-55.67	-26.11	1.70	8.37	V
	5716	-16.62	-13	-3.62	-55.41	-21.51	2.75	9.79	V
	7620	-35.48	-13	-22.48	-64.62	-42.81	2.39	11.87	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 2 / 10MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-46.62	-13	-33.62	-65.79	-53.19	1.67	8.24	H
	5548	-40.74	-13	-27.74	-65.43	-47.81	2.65	9.72	H
	7403	-42.51	-13	-29.51	-68.81	-51.66	2.46	11.61	H
	3700	-40.54	-13	-27.54	-60.71	-47.11	1.67	8.24	V
	5548	-33.01	-13	-20.01	-58.78	-40.08	2.65	9.72	V
	7403	-41.07	-13	-28.07	-69.35	-50.22	2.46	11.61	V
Middle	3749	-43.77	-13	-30.77	-63.13	-50.39	1.68	8.30	H
	5625	-36.66	-13	-23.66	-61.19	-43.71	2.70	9.75	H
	7501	-42.44	-13	-29.44	-69.33	-51.81	2.43	11.80	H
	3749	-36.77	-13	-23.77	-57.04	-43.39	1.68	8.30	V
	5625	-29.06	-13	-16.06	-54.53	-36.11	2.70	9.75	V
	7501	-37.65	-13	-24.65	-66.17	-47.02	2.43	11.80	V
Highest	3798	-42.51	-13	-29.51	-63.17	-47.02	1.70	8.36	H
	5702	-40.82	-13	-27.82	-65.52	-45.71	2.74	9.78	H
	7599	-45.08	-13	-32.08	-72.63	-52.39	2.40	11.86	H
	3798	-35.60	-13	-22.60	-56.75	-40.11	1.70	8.36	V
	5702	-31.40	-13	-18.40	-57.12	-36.29	2.74	9.78	V
	7599	-35.74	-13	-22.74	-64.92	-43.05	2.40	11.86	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 2 / 15MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-46.94	-13	-33.94	-66.14	-53.51	1.67	8.24	H
	5555	-40.84	-13	-27.84	-65.64	-47.91	2.66	9.72	H
	7403	-42.97	-13	-29.97	-69.44	-52.12	2.46	11.61	H
	3700	-41.72	-13	-28.72	-61.88	-48.29	1.67	8.24	V
	5555	-21.54	-13	-8.54	-60.35	-28.61	2.66	9.72	V
	7403	-28.21	-13	-15.21	-69.56	-37.36	2.46	11.61	V
Middle	3742	-41.98	-13	-28.98	-61.29	-48.59	1.68	8.29	H
	5618	-38.03	-13	-25.03	-62.82	-45.08	2.69	9.75	H
	7490	-42.34	-13	-29.34	-68.97	-51.69	2.43	11.78	H
	3742	-36.78	-13	-23.78	-57	-43.39	1.68	8.29	V
	5618	-30.97	-13	-17.97	-56.5	-38.02	2.69	9.75	V
	7490	-37.76	-13	-24.76	-65.99	-47.11	2.43	11.78	V
Highest	3790	-45.01	-13	-32.01	-65.38	-49.51	1.70	8.35	H
	5685	-42.23	-13	-29.23	-67.11	-47.12	2.73	9.77	H
	7580	-46.52	-13	-33.52	-73.9	-53.81	2.40	11.85	H
	3790	-39.89	-13	-26.89	-60.46	-44.39	1.70	8.35	V
	5685	-35.32	-13	-22.32	-61.14	-40.21	2.73	9.77	V
	7580	-39.42	-13	-26.42	-68.46	-46.71	2.40	11.85	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 2 / 20MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-46.48	-13	-33.48	-65.67	-53.05	1.67	8.24	H
	5555	-39.94	-13	-26.94	-64.64	-47.01	2.66	9.72	H
	7403	-41.56	-13	-28.56	-67.84	-50.71	2.46	11.61	H
	3700	-40.44	-13	-27.44	-60.49	-47.01	1.67	8.24	V
	5555	-33.74	-13	-20.74	-59.4	-40.81	2.66	9.72	V
	7403	-41.56	-13	-28.56	-69.64	-50.71	2.46	11.61	V
Middle	3742	-42.01	-13	-29.01	-61.23	-48.62	1.68	8.29	H
	5610	-38.96	-13	-25.96	-63.61	-46.02	2.69	9.74	H
	7480	-40.89	-13	-27.89	-67.7	-50.21	2.44	11.76	H
	3742	-36.58	-13	-23.58	-56.89	-43.19	1.68	8.29	V
	5610	-31.43	-13	-18.43	-57.03	-38.49	2.69	9.74	V
	7480	-36.69	-13	-23.69	-65.15	-46.01	2.44	11.76	V
Highest	3777	-47.84	-13	-34.84	-68.19	-52.33	1.69	8.33	H
	5670	-39.61	-13	-26.61	-64.39	-44.51	2.72	9.77	H
	7560	-47.53	-13	-34.53	-74.73	-54.81	2.41	11.84	H
	3777	-41.42	-13	-28.42	-62.29	-45.91	1.69	8.33	V
	5670	-32.99	-13	-19.99	-58.79	-37.89	2.72	9.77	V
	7560	-40.05	-13	-27.05	-69.03	-47.33	2.41	11.84	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 4 / 1.4MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-54.95	-13	-41.95	-72.49	-61.02	1.58	7.65	H
	5128	-44.73	-13	-31.73	-68.18	-52.02	2.41	9.70	H
	6843	-39.34	-13	-26.34	-65.66	-47.31	2.64	10.61	H
	3420	-53.74	-13	-40.74	-72.49	-59.81	1.58	7.65	V
	5128	-41.92	-13	-28.92	-66.49	-49.21	2.41	9.70	V
	6843	-33.52	-13	-20.52	-61	-41.49	2.64	10.61	V
Middle	3462	-51.78	-13	-38.78	-69.41	-58.02	1.59	7.83	H
	5198	-46.56	-13	-33.56	-69.93	-53.81	2.45	9.70	H
	6927	-34.82	-13	-21.82	-60.89	-42.92	2.61	10.71	H
	3462	-49.57	-13	-36.57	-68.21	-55.81	1.59	7.83	V
	5198	-39.96	-13	-26.96	-64.48	-47.21	2.45	9.70	V
	6927	-30.51	-13	-17.51	-57.71	-38.61	2.61	10.71	V
Highest	3504	-55.41	-13	-42.41	-72.82	-61.81	1.61	8.00	H
	5261	-47.48	-13	-34.48	-71.51	-54.69	2.49	9.70	H
	7018	-41.04	-13	-28.04	-67.44	-49.29	2.58	10.84	H
	3504	-53.71	-13	-40.71	-72.83	-60.11	1.61	8.00	V
	5261	-39.48	-13	-26.48	-64.37	-46.69	2.49	9.70	V
	7018	-37.56	-13	-24.56	-64.88	-45.81	2.58	10.84	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 4 / 3MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-54.95	-13	-41.95	-72.43	-61.02	1.58	7.65	H
	5128	-46.12	-13	-33.12	-69.62	-53.41	2.41	9.70	H
	6843	-27.02	-13	-14.02	66.32	-34.99	2.64	10.61	H
	3420	-53.01	-13	-40.01	-72	-59.08	1.58	7.65	V
	5128	-41.82	-13	-28.82	-66.38	-49.11	2.41	9.70	V
	6843	-33.95	-13	-20.95	-61.5	-41.92	2.64	10.61	V
Middle	3462	-51.87	-13	-38.87	-69.3	-58.11	1.59	7.83	H
	5191	-45.66	-13	-32.66	-69.13	-52.91	2.45	9.70	H
	6927	-33.71	-13	-20.71	-60.01	-41.81	2.61	10.71	H
	3462	-52.57	-13	-39.57	-68.35	-58.81	1.59	7.83	V
	5191	-39.44	-13	-26.44	-63.85	-46.69	2.45	9.70	V
	6927	-29.56	-13	-16.56	-56.79	-37.66	2.61	10.71	V
Highest	3504	-55.41	-13	-42.41	-72.98	-61.81	1.61	8.00	H
	5254	-47.17	-13	-34.17	-71.39	-54.39	2.48	9.70	H
	7011	-40.78	-13	-27.78	-67.07	-49.02	2.59	10.82	H
	3504	-53.09	-13	-40.09	-72.16	-59.49	1.61	8.00	V
	5254	-37.49	-13	-24.49	-62.26	-44.71	2.48	9.70	V
	7011	-38.15	-13	-25.15	-65.39	-46.39	2.59	10.82	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 4 / 5MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-55.64	-13	-42.64	-73.13	-61.71	1.58	7.65	H
	5128	-46.32	-13	-33.32	-69.66	-53.61	2.41	9.70	H
	6843	-39.22	-13	-26.22	-65.58	-47.19	2.64	10.61	H
	3420	-54.64	-13	-41.64	-73.4	-60.71	1.58	7.65	V
	5128	-41.73	-13	-28.73	-66.18	-49.02	2.41	9.70	V
	6843	-33.96	-13	-20.96	-61.49	-41.93	2.64	10.61	V
Middle	3462	-51.05	-13	-38.05	-68.7	-57.29	1.59	7.83	H
	5191	-45.56	-13	-32.56	-68.91	-52.81	2.45	9.70	H
	6920	-34.27	-13	-21.27	-60.49	-42.36	2.62	10.70	H
	3462	-49.15	-13	-36.15	-68.11	-55.39	1.59	7.83	V
	5191	-39.56	-13	-26.56	-64.11	-46.81	2.45	9.70	V
	6920	-29.93	-13	-16.93	-57.39	-38.02	2.62	10.70	V
Highest	3505	-53.91	-13	-40.91	-71.71	-60.31	1.61	8.01	H
	5257.5	-47.98	-13	-34.98	-71.88	-55.19	2.49	9.70	H
	7015	-40.37	-13	-27.37	-66.55	-48.61	2.59	10.83	H
	3505	-52.81	-13	-39.81	-71.88	-59.21	1.61	8.01	V
	5257.5	-37.91	-13	-24.91	-62.81	-45.12	2.49	9.70	V
	7015	-35.97	-13	-22.97	-63.34	-44.21	2.59	10.83	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 4 / 10MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-57.82	-13	-44.82	-74.81	-63.89	1.58	7.65	H
	5128	-46.38	-13	-33.38	-69.25	-53.67	2.41	9.70	H
	6843	-40.76	-13	-27.76	-66.76	-48.73	2.64	10.61	H
	3420	-54.84	-13	-41.84	-73.16	-60.91	1.58	7.65	V
	5128	-40.82	-13	-27.82	-64.66	-48.11	2.41	9.70	V
	6843	-36.85	-13	-23.85	-63.9	-44.82	2.64	10.61	V
Middle	3455	-56.67	-13	-43.67	-73.67	-62.88	1.59	7.80	H
	5184	-45.38	-13	-32.38	-68.22	-52.64	2.44	9.70	H
	6913	-35.31	-13	-22.31	-60.81	-43.39	2.62	10.70	H
	3455	-50.48	-13	-37.48	-68.8	-56.69	1.59	7.80	V
	5184	-39.31	-13	-26.31	-63.24	-46.57	2.44	9.70	V
	6913	-31.10	-13	-18.10	-57.74	-39.18	2.62	10.70	V
Highest	3490	-56.47	-13	-43.47	-73.64	-62.82	1.60	7.96	H
	5233	-44.71	-13	-31.71	-68.01	-51.94	2.47	9.70	H
	6983	-35.36	-13	-22.36	-60.98	-43.54	2.60	10.78	H
	3490	-51.44	-13	-38.44	-69.95	-57.79	1.60	7.96	V
	5233	-36.74	-13	-23.74	-61.02	-43.97	2.47	9.70	V
	6983	-34.01	-13	-21.01	-60.69	-42.19	2.60	10.78	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 4 / 15MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-55.64	-13	-42.64	-74.08	-61.71	1.58	7.65	H
	5135	-46.63	-13	-33.63	-70.03	-53.92	2.41	9.70	H
	6843	-40.75	-13	-27.75	-66.99	-48.72	2.64	10.61	H
	3420	-55.29	-13	-42.29	-74.22	-61.36	1.58	7.65	V
	5135	-39.83	-13	-26.83	-64.42	-47.12	2.41	9.70	V
	6843	-35.34	-13	-22.34	-62.91	-43.31	2.64	10.61	V
Middle	3448	-52.84	-13	-39.84	-70.51	-59.02	1.59	7.77	H
	5177	-47.55	-13	-34.55	-70.94	-54.81	2.44	9.70	H
	6906	-33.19	-13	-20.19	-59.5	-41.26	2.62	10.69	H
	3448	-52.84	-13	-39.84	-71.7	-59.02	1.59	7.77	V
	5177	-40.82	-13	-27.82	-65.33	-48.08	2.44	9.70	V
	6906	-29.22	-13	-16.22	-56.71	-37.29	2.62	10.69	V
Highest	3486	-50.47	-13	-37.47	-68.3	-56.81	1.60	7.94	H
	5219	-47.68	-13	-34.68	-71.22	-54.92	2.46	9.70	H
	6962	-35.46	-13	-22.46	-61.54	-43.61	2.60	10.75	H
	3486	-48.97	-13	-35.97	-68	-55.313	1.60	7.94	V
	5219	-39.78	-13	-26.78	-64.38	-47.02	2.46	9.70	V
	6962	-30.96	-13	-17.96	-58.31	-39.11	2.60	10.75	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 4 / 20MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-56.64	-13	-43.64	-74.13	-62.71	1.58	7.65	H
	5135	-44.42	-13	-31.42	-67.8	-51.71	2.41	9.70	H
	6843	-40.82	-13	-27.82	-67.17	-48.79	2.64	10.61	H
	3420	-56.34	-13	-43.34	-75.16	-62.41	1.58	7.65	V
	5135	-40.92	-13	-27.92	-65.52	-48.21	2.41	9.70	V
	6843	-35.58	-13	-22.58	-63.03	-43.55	2.64	10.61	V
Middle	3448	-52.13	-13	-39.13	-69.79	-58.31	1.59	7.77	H
	5170	-45.55	-13	-32.55	-68.94	-52.82	2.43	9.70	H
	6892	-32.96	-13	-19.96	-59.29	-41.01	2.63	10.67	H
	3448	-51.93	-13	-38.93	-70.96	-58.11	1.59	7.77	V
	5170	-38.85	-13	-25.85	-63.5	-46.12	2.43	9.70	V
	6892	-29.14	-13	-16.14	-56.68	-37.19	2.63	10.67	V
Highest	3469	-53.84	-13	-40.84	-71.57	-60.11	1.59	7.86	H
	5205	-45.37	-13	-32.37	-68.83	-52.61	2.46	9.70	H
	6941	-34.69	-13	-21.69	-61.01	-42.81	2.61	10.73	H
	3469	-53.34	-13	-40.34	-72.32	-59.61	1.59	7.86	V
	5205	-40.17	-13	-27.17	-64.73	-47.41	2.46	9.70	V
	6941	-29.29	-13	-16.29	-56.67	-37.41	2.61	10.73	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 5 / 1.4MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-57.20	-13	-44.20	-67.81	-58.96	0.98	4.89	H
	2472	-55.90	-13	-42.90	-71.86	-57.78	1.28	5.32	H
	3296	-55.22	-13	-42.22	-72.18	-58.63	1.54	7.10	H
	1648	-53.95	-13	-40.95	-65.62	-55.71	0.98	4.89	V
	2472	-55.01	-13	-42.01	-72.44	-56.89	1.28	5.32	V
	3296	-54.45	-13	-41.45	-72.97	-57.86	1.54	7.10	V
Middle	1672	-59.78	-13	-46.78	-70.76	-61.46	0.99	4.82	H
	2504	-58.15	-13	-45.15	-73.98	-60.11	1.29	5.40	H
	3344	-58.67	-13	-45.67	-75.43	-62.28	1.56	7.31	H
	1672	-57.63	-13	-44.63	-69.15	-59.31	0.99	4.82	V
	2504	-53.79	-13	-40.79	-71.84	-55.75	1.29	5.40	V
	3344	-55.71	-13	-42.71	-74.1	-59.32	1.56	7.31	V
Highest	1696	-59.79	-13	-46.79	-71.18	-61.39	1.00	4.75	H
	2544	-58.36	-13	-45.36	-75.07	-60.34	1.30	5.44	H
	3392	-59.01	-13	-46.01	-75.92	-62.81	1.57	7.52	H
	1696	-58.58	-13	-45.58	-70.59	-60.18	1.00	4.75	V
	2544	-54.97	-13	-41.97	-72.95	-56.95	1.30	5.44	V
	3392	-56.35	-13	-43.35	-75.07	-60.15	1.57	7.52	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 5 / 3MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-56.85	-13	-43.85	-67.46	-58.61	0.98	4.89	H
	2472	-54.11	-13	-41.11	-70.43	-55.99	1.28	5.32	H
	3296	-56.70	-13	-43.70	-73.54	-60.11	1.54	7.10	H
	1648	-52.18	-13	-39.18	-63.85	-53.94	0.98	4.89	V
	2472	-52.33	-13	-39.33	-69.62	-54.21	1.28	5.32	V
	3296	-53.98	-13	-40.98	-72.5	-57.39	1.54	7.10	V
Middle	1672	-59.57	-13	-46.57	-70.55	-61.25	0.99	4.82	H
	2504	-50.73	-13	-37.73	-67.39	-52.69	1.29	5.40	H
	3336	-60.03	-13	-47.03	-77.22	-63.61	1.55	7.28	H
	1672	-57.25	-13	-44.25	-68.97	-58.93	0.99	4.82	V
	2504	-53.93	-13	-40.93	-71.61	-55.89	1.29	5.40	V
	3336	-57.97	-13	-44.97	-76.65	-61.55	1.55	7.28	V
Highest	1688	-62.91	-13	-49.91	-73.53	-64.54	1.00	4.77	H
	2536	-54.68	-13	-41.68	-70.93	-56.66	1.30	5.43	H
	3384	-56.82	-13	-43.82	-74.33	-60.59	1.57	7.49	H
	1688	-58.19	-13	-45.19	-69.98	-59.82	1.00	4.77	V
	2536	-52.80	-13	-39.80	-70.97	-54.78	1.30	5.43	V
	3384	-53.64	-13	-40.64	-72.15	-57.41	1.57	7.49	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 5 / 5MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-56.64	-13	-43.64	-67.85	-58.4	0.98	4.89	H
	2472	-50.92	-13	-37.92	-67.3	-52.8	1.28	5.32	H
	3296	-55.79	-13	-42.79	-73.18	-59.2	1.54	7.10	H
	1648	-54.14	-13	-41.14	-66.3	-55.9	0.98	4.89	V
	2472	-52.02	-13	-39.02	-69.96	-53.9	1.28	5.32	V
	3296	-54.19	-13	-41.19	-73.15	-57.6	1.54	7.10	V
Middle	1664	-60.79	-13	-47.79	-72.03	-62.5	0.98	4.84	H
	2504	-50.04	-13	-37.04	-66.94	-52	1.29	5.40	H
	3336	-58.52	-13	-45.52	-76.15	-62.1	1.55	7.28	H
	1664	-58.79	-13	-45.79	-70.71	-60.5	0.98	4.84	V
	2504	-41.74	-13	-28.74	-60.04	-43.7	1.29	5.40	V
	3336	-55.22	-13	-42.22	-74.27	-58.8	1.55	7.28	V
Highest	1688	-62.17	-13	-49.17	-73.24	-63.8	1.00	4.77	H
	2536	-54.72	-13	-41.72	-71.56	-56.7	1.30	5.43	H
	3376	-56.36	-13	-43.36	-73.91	-60.1	1.57	7.45	H
	1688	-57.97	-13	-44.97	-70.32	-59.6	1.00	4.77	V
	2536	-50.22	-13	-37.22	-68.3	-52.2	1.30	5.43	V
	3376	-52.16	-13	-39.16	-71.18	-55.9	1.57	7.45	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 5 / 10MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-56.44	-13	-43.44	-67.81	-58.2	0.98	4.89	H
	2472	-54.52	-13	-41.52	-71.3	-56.4	1.28	5.32	H
	3296	-56.19	-13	-43.19	-73.62	-59.6	1.54	7.10	H
	1648	-53.74	-13	-40.74	-65.88	-55.5	0.98	4.89	V
	2472	-51.32	-13	-38.32	-69.45	-53.2	1.28	5.32	V
	3296	59.81	-13	72.81	-72.07	56.4	1.54	7.10	V
Middle	1664	-60.69	-13	-47.69	-71.87	-62.4	0.98	4.84	H
	2496	-51.65	-13	-38.65	-68.15	-53.6	1.29	5.39	H
	3328	-58.66	-13	-45.66	-76.34	-62.2	1.55	7.24	H
	1664	-58.39	-13	-45.39	-70.41	-60.1	0.98	4.84	V
	2496	-48.25	-13	-35.25	-66.12	-50.2	1.29	5.39	V
	3328	-54.86	-13	-41.86	-74	-58.4	1.55	7.24	V
Highest	1680	-58.55	-13	-45.55	-70.07	-60.2	0.99	4.80	H
	2520	-53.93	-13	-40.93	-70.85	-55.9	1.30	5.42	H
	3360	-57.03	-13	-44.03	-74.68	-60.7	1.56	7.38	H
	1680	-55.45	-13	-42.45	-67.56	-57.1	0.99	4.80	V
	2520	-47.53	-13	-34.53	-65.69	-49.5	1.30	5.42	V
	3360	-54.43	-13	-41.43	-73.55	-58.1	1.56	7.38	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 7 / 5MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	5004	-44.44	-25	-19.44	-67.92	-51.8	2.34	9.70	H
	7500	-39.73	-25	-14.73	-66.78	-49.1	2.43	11.80	H
	9996	-39.39	-25	-14.39	-67.69	-48.9	2.70	12.20	H
	5004	-40.24	-25	-15.24	-64.58	-47.6	2.34	9.70	V
	7500	-35.13	-25	-10.13	-63.94	-44.5	2.43	11.80	V
	9996	-32.59	-25	-7.59	-63.3	-42.1	2.70	12.20	V
Middle	5064	-44.47	-25	-19.47	-68.24	-51.8	2.37	9.70	H
	7596	-40.04	-25	-15.04	-67.9	-49.5	2.40	11.86	H
	10128	-43.24	-25	-18.24	-71.79	-52.8	2.70	12.25	H
	5064	-37.77	-25	-12.77	-62.45	-45.1	2.37	9.70	V
	7596	-36.64	-25	-11.64	-66.08	-46.1	2.40	11.86	V
	10128	-34.54	-25	-9.54	-65.59	-44.1	2.70	12.25	V
Highest	5136	-41.82	-25	-16.82	-65.54	-49.1	2.42	9.70	H
	7692	59.35	-25	84.35	-67.96	49.8	2.37	11.92	H
	10260	-36.59	-25	-11.59	-65.35	-46.2	2.69	12.30	H
	5136	-35.12	-25	-10.12	-59.84	-42.4	2.42	9.70	V
	7692	-35.75	-25	-10.75	-65.13	-45.3	2.37	11.92	V
	10260	-31.19	-25	-6.19	-62.9	-40.8	2.69	12.30	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 7 / 10MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	5004	-43.34	-25	-18.34	-67.11	-50.7	2.34	9.70	H
	7500	-38.03	-25	-13.03	-65.18	-47.4	2.43	11.80	H
	10008	-38.09	-25	-13.09	-66.26	-47.6	2.70	12.20	H
	5004	-38.14	-25	-13.14	-62.89	-45.5	2.34	9.70	V
	7500	-30.33	-25	-5.33	-59.13	-39.7	2.43	11.80	V
	10008	-33.69	-25	-8.69	-63.94	-43.2	2.70	12.20	V
Middle	5064	-43.47	-25	-18.47	-67.03	-50.8	2.37	9.70	H
	7596	-41.14	-25	-16.14	-68.76	-50.6	2.40	11.86	H
	10128	-39.64	-25	-14.64	-68.38	-49.2	2.70	12.25	H
	5064	-36.17	-25	-11.17	-61.05	-43.5	2.37	9.70	V
	7596	-36.64	-25	-11.64	-66.03	-46.1	2.40	11.86	V
	10128	-35.14	-25	-10.14	-66.19	-44.7	2.70	12.25	V
Highest	5124	-46.21	-25	-21.21	-69.87	-53.5	2.41	9.70	H
	7680	-40.66	-25	-15.66	-68.21	-50.2	2.37	11.91	H
	10248	-34.60	-25	-9.60	-63.54	-44.2	2.69	12.30	H
	5124	-40.51	-25	-15.51	-65	-47.8	2.41	9.70	V
	7680	-37.96	-25	-12.96	-67.34	-47.5	2.37	11.91	V
	10248	-32.20	-25	-7.20	-63.61	-41.8	2.69	12.30	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 7 / 15MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	5004	-43.14	-25	-18.14	-66.84	-50.5	2.34	9.70	H
	7500	-39.83	-25	-14.83	-66.69	-49.2	2.43	11.80	H
	10008	-38.69	-25	-13.69	-66.85	-48.2	2.70	12.20	H
	5004	-38.84	-25	-13.84	-63.43	-46.2	2.34	9.70	V
	7500	-32.83	-25	-7.83	-61.69	-42.2	2.43	11.80	V
	10008	-34.29	-25	-9.29	-64.76	-43.8	2.70	12.20	V
Middle	5052	-44.77	-25	-19.77	-68.34	-52.1	2.37	9.70	H
	7584	-41.65	-25	-16.65	-69.22	-51.1	2.40	11.85	H
	10116	-41.05	-25	-16.05	-69.31	-50.6	2.70	12.25	H
	5052	-37.87	-25	-12.87	-62.42	-45.2	2.37	9.70	V
	7584	-34.75	-25	-9.75	-64.01	-44.2	2.40	11.85	V
	10116	-35.65	-25	-10.65	-66.82	-45.2	2.70	12.25	V
Highest	5112	-49.70	-25	-24.70	-73.36	-57	2.40	9.70	H
	7668	-45.07	-25	-20.07	-72.66	-54.6	2.38	11.90	H
	10224	-36.71	-25	-11.71	-65.43	-46.3	2.69	12.29	H
	5112	-43.10	-25	-18.10	-67.77	-50.4	2.40	9.70	V
	7668	-39.27	-25	-14.27	-68.43	-48.8	2.38	11.90	V
	10224	-31.21	-25	-6.21	-62.62	-40.8	2.69	12.29	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 7 / 20MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	5004	-43.24	-25	-18.24	-66.73	-50.6	2.34	9.70	H
	7500	-39.13	-25	-14.13	-66.11	-48.5	2.43	11.80	H
	10008	-39.19	-25	-14.19	-67.03	-48.7	2.70	12.20	H
	5004	-39.44	-25	-14.44	-63.88	-46.8	2.34	9.70	V
	7500	-32.03	-25	-7.03	-60.64	-41.4	2.43	11.80	V
	10008	-33.89	-25	-8.89	-64.52	-43.4	2.70	12.20	V
Middle	5052	-46.47	-25	-21.47	-70.09	-53.8	2.37	9.70	H
	7584	-42.25	-25	-17.25	-69.55	-51.7	2.40	11.85	H
	10104	-41.15	-25	-16.15	-69.7	-50.7	2.70	12.24	H
	5052	-40.37	-25	-15.37	-65	-47.7	2.37	9.70	V
	7584	-35.75	-25	-10.75	-65.24	-45.2	2.40	11.85	V
	10104	-33.95	-25	-8.95	-64.76	-43.5	2.70	12.24	V
Highest	5100	-45.49	-25	-20.49	-69.45	-52.8	2.39	9.70	H
	7656	-44.39	-25	-19.39	-71.94	-53.9	2.38	11.89	H
	10200	-36.72	-25	-11.72	-65.26	-46.3	2.70	12.28	H
	5100	-39.79	-25	-14.79	-64.36	-47.1	2.39	9.70	V
	7656	-39.69	-25	-14.69	-69.22	-49.2	2.38	11.89	V
	10200	-31.22	-25	-6.22	-62.04	-40.8	2.70	12.28	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 12 / 1.4MHz / 16QAM / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1400	-60.65	-13.00	-47.65	-70.22	-62.31	0.87	4.68	H
	2096	-57.85	-13.00	-44.85	-71.72	-58.72	1.16	4.19	H
	2800	-50.08	-13.00	-37.08	-66.07	-52.19	1.38	5.64	H
	1400	-58.45	-13.00	-45.45	-68.08	-60.11	0.87	4.68	V
	2096	-48.62	-13.00	-35.62	-64.13	-49.49	1.16	4.19	V
	2800	-45.62	-13.00	-32.62	-62.89	-47.73	1.38	5.64	V
Middle	1416	-56.89	-13.00	-43.89	-66.77	-58.64	0.87	4.78	H
	2120	-54.97	-13.00	-41.97	-68.89	-55.91	1.17	4.26	H
	2824	-44.77	-13.00	-31.77	-60.90	-46.89	1.39	5.66	H
	1416	-54.78	-13.00	-41.78	-64.54	-56.53	0.87	4.78	V
	2120	-44.81	-13.00	-31.81	-59.73	-45.75	1.17	4.26	V
	2824	-39.57	-13.00	-26.57	-56.89	-41.69	1.39	5.66	V
Highest	1432	-58.51	-13.00	-45.51	-68.23	-60.36	0.88	4.88	H
	2144	-54.68	-13.00	-41.68	-68.67	-55.68	1.18	4.33	H
	2856	-48.78	-13.00	-35.78	-64.98	-50.91	1.40	5.68	H
	1432	-54.56	-13.00	-41.56	-64.52	-56.41	0.88	4.88	V
	2144	-47.95	-13.00	-34.95	-63.25	-48.95	1.18	4.33	V
	2856	-45.51	-13.00	-32.51	-62.93	-47.64	1.40	5.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 12 / 3MHz / 16QAM / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1400	-59.71	-13.00	-46.71	-69.48	-61.37	0.87	4.68	H
	2096	-57.64	-13.00	-44.64	-71.30	-58.51	1.16	4.19	H
	2800	-50.40	-13.00	-37.40	-66.48	-52.51	1.38	5.64	H
	1400	-57.82	-13.00	-44.82	-67.67	-59.48	0.87	4.68	V
	2096	-48.54	-13.00	-35.54	-63.78	-49.41	1.16	4.19	V
	2800	-45.23	-13.00	-32.23	-62.50	-47.34	1.38	5.64	V
Middle	1408	-56.61	-13.00	-43.61	-66.36	-58.32	0.87	4.73	H
	2120	-57.38	-13.00	-44.38	-70.93	-58.32	1.17	4.26	H
	2824	-47.32	-13.00	-34.32	-63.45	-49.44	1.39	5.66	H
	1408	-54.40	-13.00	-41.40	-64.31	-56.11	0.87	4.73	V
	2120	-46.69	-13.00	-33.69	-61.40	-47.63	1.17	4.26	V
	2824	-41.33	-13.00	-28.33	-58.65	-43.45	1.39	5.66	V
Highest	1424	-62.41	-13.00	-49.41	-71.85	-64.21	0.88	4.83	H
	2136	-57.63	-13.00	-44.63	-71.10	-58.61	1.18	4.31	H
	2856	-52.76	-13.00	-39.76	-69.96	-54.89	1.40	5.68	H
	1424	-59.59	-13.00	-46.59	-69.35	-61.39	0.88	4.83	V
	2136	-50.84	-13.00	-37.84	-65.99	-51.82	1.18	4.31	V
	2856	-48.66	-13.00	-35.66	-65.99	-50.79	1.40	5.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 12 / 5MHz / 16QAM / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1400	-61.20	-13.00	-48.20	-70.65	-62.86	0.87	4.68	H
	2096	-58.05	-13.00	-45.05	-71.29	-58.92	1.16	4.19	H
	2800	-49.10	-13.00	-36.10	-65.19	-51.21	1.38	5.64	H
	1400	-59.20	-13.00	-46.20	-68.85	-60.86	0.87	4.68	V
	2096	-48.48	-13.00	-35.48	-63.65	-49.35	1.16	4.19	V
	2800	-45.81	-13.00	-32.81	-63.08	-47.92	1.38	5.64	V
Middle	1408	-58.65	-13.00	-45.65	-68.19	-60.36	0.87	4.73	H
	2112	-57.69	-13.00	-44.69	-71.20	-58.61	1.17	4.24	H
	2824	-47.67	-13.00	-34.67	-63.80	-49.79	1.39	5.66	H
	1408	-55.82	-13.00	-42.82	-65.73	-57.53	0.87	4.73	V
	2112	-47.57	-13.00	-34.57	-62.71	-48.49	1.17	4.24	V
	2824	-42.01	-13.00	-29.01	-59.23	-44.13	1.39	5.66	V
Highest	1424	-60.13	-13.00	-47.13	-70.00	-61.93	0.88	4.83	H
	2136	-54.78	-13.00	-41.78	-68.75	-55.76	1.18	4.31	H
	2848	-47.59	-13.00	-34.59	-64.79	-49.72	1.40	5.68	H
	1424	-57.59	-13.00	-44.59	-67.68	-59.39	0.88	4.83	V
	2136	-47.77	-13.00	-34.77	-62.72	-48.75	1.18	4.31	V
	2848	-44.99	-13.00	-31.99	-62.31	-47.12	1.40	5.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 12 / 10MHz / 16QAM / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1400	-60.62	-13.00	-47.62	-70.39	-62.28	0.87	4.68	H
	2096	-58.46	-13.00	-45.46	-72.00	-59.33	1.16	4.19	H
	2800	-50.38	-13.00	-37.38	-66.47	-52.49	1.38	5.64	H
	1400	-58.75	-13.00	-45.75	-68.60	-60.41	0.87	4.68	V
	2096	-49.72	-13.00	-36.72	-65.23	-50.59	1.16	4.19	V
	2800	-45.60	-13.00	-32.60	-62.86	-47.71	1.38	5.64	V
Middle	1408	-61.48	-13.00	-48.48	-71.22	-63.19	0.87	4.73	H
	2112	-61.49	-13.00	-48.49	-75.08	-62.41	1.17	4.24	H
	2808	-54.35	-13.00	-41.35	-70.47	-56.46	1.39	5.65	H
	1408	-58.50	-13.00	-45.50	-67.99	-60.21	0.87	4.73	V
	2112	-56.35	-13.00	-43.35	-71.44	-57.27	1.17	4.24	V
	2808	-48.80	-13.00	-35.80	-66.10	-50.91	1.39	5.65	V
Highest	1416	-39.48	-13.00	-26.48	-44.38	-41.23	0.87	4.78	H
	2120	-26.54	-13.00	-13.54	-35.60	-27.48	1.17	4.26	H
	3536	-48.40	-13.00	-35.40	-61.63	-52.68	1.62	8.04	H
	1416	-51.11	-13.00	-38.11	-56.01	-52.86	0.87	4.78	V
	2120	-33.30	-13.00	-20.30	-43.38	-34.24	1.17	4.26	V
	3536	-50.06	-13.00	-37.06	-64.10	-54.34	1.62	8.04	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 17 / 5MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1408	-58.83	-13	-45.83	-68.67	-60.54	0.87	4.73	H
	2112	-58.86	-13	-45.86	-72.47	-59.78	1.17	4.24	H
	2816	-48.24	-13	-35.24	-64.36	-50.35	1.39	5.65	H
	1408	-57.68	-13	-44.68	-67.59	-59.39	0.87	4.73	V
	2112	-52.00	-13	-39.00	-66.97	-52.92	1.17	4.24	V
	2816	-43.33	-13	-30.33	-60.64	-45.44	1.39	5.65	V
Middle	1416	-57.07	-13	-44.07	-66.93	-58.82	0.87	4.78	H
	2120	-55.84	-13	-42.84	-69.21	-56.78	1.17	4.26	H
	2832	-46.00	-13	-33.00	-62.12	-48.12	1.39	5.67	H
	1416	-55.76	-13	-42.76	-65.70	-57.51	0.87	4.78	V
	2120	-48.79	-13	-35.79	-63.71	-49.73	1.17	4.26	V
	3536	-42.19	-13	-29.19	-59.71	-46.47	1.62	8.04	V
Highest	1424	-60.51	-13	-47.51	-70.48	-62.31	0.88	4.83	H
	2136	-57.14	-13	-44.14	-70.43	-58.12	1.18	4.31	H
	2848	-50.40	-13	-37.40	-66.60	-52.53	1.40	5.68	H
	1424	-60.52	-13	-47.52	-70.38	-62.32	0.88	4.83	V
	2136	-50.76	-13	-37.76	-66.45	-51.74	1.18	4.31	V
	2848	-46.53	-13	-33.53	-63.95	-48.66	1.40	5.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 17 / 10MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1408	-58.62	-13	-45.62	-68.46	-60.33	0.87	4.73	H
	2112	-58.89	-13	-45.89	-72.30	-59.81	1.17	4.24	H
	2816	-47.71	-13	-34.71	-63.83	-49.82	1.39	5.65	H
	1408	-58.23	-13	-45.23	-67.74	-59.94	0.87	4.73	V
	2112	-52.29	-13	-39.29	-67.32	-53.21	1.17	4.24	V
	2816	-42.61	-13	-29.61	-59.92	-44.72	1.39	5.65	V
Middle	1408	-57.85	-13	-44.85	-67.69	-59.56	0.87	4.73	H
	2120	-59.27	-13	-46.27	-72.74	-60.21	1.17	4.26	H
	2824	-45.60	-13	-32.60	-61.73	-47.72	1.39	5.66	H
	1408	-58.01	-13	-45.01	-67.47	-59.72	0.87	4.73	V
	2120	-52.69	-13	-39.69	-67.63	-53.63	1.17	4.26	V
	2824	-41.09	-13	-28.09	-58.33	-43.21	1.39	5.66	V
Highest	1416	-57.47	-13	-44.47	-66.95	-59.22	0.87	4.78	H
	2120	-58.01	-13	-45.01	-71.47	-58.95	1.17	4.26	H
	2824	-44.69	-13	-31.69	-60.81	-46.81	1.39	5.66	H
	1416	-56.01	-13	-43.01	-65.96	-57.76	0.87	4.78	V
	2120	-50.00	-13	-37.00	-65.22	-50.94	1.17	4.26	V
	2824	-40.60	-13	-27.60	-57.92	-42.72	1.39	5.66	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

<For IC>

LTE Band 12 / 1.4MHz / 16QAM / RB Size 1 Offset 0									
Channel	**Frequency (MHz)**	**EIRP (dBm)**	**Limit (dBm)**	**Over Limit (dB)**	**SPA Reading (dBm)**	**S.G. Power (dBm)**	**TX Cable loss (dB)**	**TX Antenna Gain (dBi)**	**Polarization (H/V)**
Lowest	1400	-58.50	-13.00	-45.50	-70.22	-62.31	0.87	4.68	H
	2096	-55.70	-13.00	-42.70	-71.72	-58.72	1.16	4.19	H
	2800	-47.93	-13.00	-34.93	-66.07	-52.19	1.38	5.64	H
	1400	-56.30	-13.00	-43.30	-68.08	-60.11	0.87	4.68	V
	2096	-46.47	-13.00	-33.47	-64.13	-49.49	1.16	4.19	V
	2800	-43.47	-13.00	-30.47	-62.89	-47.73	1.38	5.64	V
Middle	1416	-54.74	-13.00	-41.74	-66.77	-58.64	0.87	4.78	H
	2120	-52.82	-13.00	-39.82	-68.89	-55.91	1.17	4.26	H
	2824	-42.62	-13.00	-29.62	-60.90	-46.89	1.39	5.66	H
	1416	-52.63	-13.00	-39.63	-64.54	-56.53	0.87	4.78	V
	2120	-42.66	-13.00	-29.66	-59.73	-45.75	1.17	4.26	V
	2824	-37.42	-13.00	-24.42	-56.89	-41.69	1.39	5.66	V
Highest	1432	-56.36	-13.00	-43.36	-68.23	-60.36	0.88	4.88	H
	2144	-52.53	-13.00	-39.53	-68.67	-55.68	1.18	4.33	H
	2856	-46.63	-13.00	-33.63	-64.98	-50.91	1.40	5.68	H
	1432	-52.41	-13.00	-39.41	-64.52	-56.41	0.88	4.88	V
	2144	-45.80	-13.00	-32.80	-63.25	-48.95	1.18	4.33	V
	2856	-43.36	-13.00	-30.36	-62.93	-47.64	1.40	5.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 12 / 3MHz / 16QAM / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1400	-57.56	-13.00	-44.56	-69.48	-61.37	0.87	4.68	H
	2096	-55.49	-13.00	-42.49	-71.30	-58.51	1.16	4.19	H
	2800	-48.25	-13.00	-35.25	-66.48	-52.51	1.38	5.64	H
	1400	-55.67	-13.00	-42.67	-67.67	-59.48	0.87	4.68	V
	2096	-46.39	-13.00	-33.39	-63.78	-49.41	1.16	4.19	V
	2800	-43.08	-13.00	-30.08	-62.50	-47.34	1.38	5.64	V
Middle	1408	-54.46	-13.00	-41.46	-66.36	-58.32	0.87	4.73	H
	2120	-55.23	-13.00	-42.23	-70.93	-58.32	1.17	4.26	H
	2824	-45.17	-13.00	-32.17	-63.45	-49.44	1.39	5.66	H
	1408	-52.25	-13.00	-39.25	-64.31	-56.11	0.87	4.73	V
	2120	-44.54	-13.00	-31.54	-61.40	-47.63	1.17	4.26	V
	2824	-39.18	-13.00	-26.18	-58.65	-43.45	1.39	5.66	V
Highest	1424	-60.26	-13.00	-47.26	-71.85	-64.21	0.88	4.83	H
	2136	-55.48	-13.00	-42.48	-71.10	-58.61	1.18	4.31	H
	2856	-50.61	-13.00	-37.61	-69.96	-54.89	1.40	5.68	H
	1424	-57.44	-13.00	-44.44	-69.35	-61.39	0.88	4.83	V
	2136	-48.69	-13.00	-35.69	-65.99	-51.82	1.18	4.31	V
	2856	-46.51	-13.00	-33.51	-65.99	-50.79	1.40	5.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 12 / 5MHz / 16QAM / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1400	-59.05	-13.00	-46.05	-70.65	-62.86	0.87	4.68	H
	2096	-55.90	-13.00	-42.90	-71.29	-58.92	1.16	4.19	H
	2800	-46.95	-13.00	-33.95	-65.19	-51.21	1.38	5.64	H
	1400	-57.05	-13.00	-44.05	-68.85	-60.86	0.87	4.68	V
	2096	-46.33	-13.00	-33.33	-63.65	-49.35	1.16	4.19	V
	2800	-43.66	-13.00	-30.66	-63.08	-47.92	1.38	5.64	V
Middle	1408	-56.50	-13.00	-43.50	-68.19	-60.36	0.87	4.73	H
	2112	-55.54	-13.00	-42.54	-71.20	-58.61	1.17	4.24	H
	2824	-45.52	-13.00	-32.52	-63.80	-49.79	1.39	5.66	H
	1408	-53.67	-13.00	-40.67	-65.73	-57.53	0.87	4.73	V
	2112	-45.42	-13.00	-32.42	-62.71	-48.49	1.17	4.24	V
	2824	-39.86	-13.00	-26.86	-59.23	-44.13	1.39	5.66	V
Highest	1424	-57.98	-13.00	-44.98	-70.00	-61.93	0.88	4.83	H
	2136	-52.63	-13.00	-39.63	-68.75	-55.76	1.18	4.31	H
	2848	-45.44	-13.00	-32.44	-64.79	-49.72	1.40	5.68	H
	1424	-55.44	-13.00	-42.44	-67.68	-59.39	0.88	4.83	V
	2136	-45.62	-13.00	-32.62	-62.72	-48.75	1.18	4.31	V
	2848	-42.84	-13.00	-29.84	-62.31	-47.12	1.40	5.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 12 / 10MHz / 16QAM / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1400	-58.47	-13.00	-45.47	-70.39	-62.28	0.87	4.68	H
	2096	-56.31	-13.00	-43.31	-72.00	-59.33	1.16	4.19	H
	2800	-48.23	-13.00	-35.23	-66.47	-52.49	1.38	5.64	H
	1400	-56.60	-13.00	-43.60	-68.60	-60.41	0.87	4.68	V
	2096	-47.57	-13.00	-34.57	-65.23	-50.59	1.16	4.19	V
	2800	-43.45	-13.00	-30.45	-62.86	-47.71	1.38	5.64	V
Middle	1408	-59.33	-13.00	-46.33	-71.22	-63.19	0.87	4.73	H
	2112	-59.34	-13.00	-46.34	-75.08	-62.41	1.17	4.24	H
	2808	-52.20	-13.00	-39.20	-70.47	-56.46	1.39	5.65	H
	1408	-56.35	-13.00	-43.35	-67.99	-60.21	0.87	4.73	V
	2112	-54.20	-13.00	-41.20	-71.44	-57.27	1.17	4.24	V
	2808	-46.65	-13.00	-33.65	-66.10	-50.91	1.39	5.65	V
Highest	1416	-37.33	-13.00	-24.33	-44.38	-41.23	0.87	4.78	H
	2120	-24.39	-13.00	-11.39	-35.60	-27.48	1.17	4.26	H
	3536	-46.25	-13.00	-33.25	-61.63	-52.68	1.62	8.04	H
	1416	-48.96	-13.00	-35.96	-56.01	-52.86	0.87	4.78	V
	2120	-31.15	-13.00	-18.15	-43.38	-34.24	1.17	4.26	V
	3536	-47.91	-13.00	-34.91	-64.10	-54.34	1.62	8.04	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

<For IC>

LTE Band 17 / 5MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1408	-56.68	-13	-43.68	-68.67	-60.54	0.87	4.73	H
	2112	-56.71	-13	-43.71	-72.47	-59.78	1.17	4.24	H
	2816	-46.09	-13	-33.09	-64.36	-50.35	1.39	5.65	H
	1408	-55.53	-13	-42.53	-67.59	-59.39	0.87	4.73	V
	2112	-49.85	-13	-36.85	-66.97	-52.92	1.17	4.24	V
	2816	-41.18	-13	-28.18	-60.64	-45.44	1.39	5.65	V
Middle	1416	-54.92	-13	-41.92	-66.93	-58.82	0.87	4.78	H
	2120	-53.69	-13	-40.69	-69.21	-56.78	1.17	4.26	H
	2832	-43.85	-13	-30.85	-62.12	-48.12	1.39	5.67	H
	1416	-55.76	-13	-42.76	-65.70	-57.51	0.87	4.78	V
	2120	-48.79	-13	-35.79	-63.71	-49.73	1.17	4.26	V
	3536	-42.19	-13	-29.19	-59.71	-46.47	1.62	8.04	V
Highest	1424	-58.36	-13	-45.36	-70.48	-62.31	0.88	4.83	H
	2136	-54.99	-13	-41.99	-70.43	-58.12	1.18	4.31	H
	2848	-48.25	-13	-35.25	-66.60	-52.53	1.40	5.68	H
	1424	-58.37	-13	-45.37	-70.38	-62.32	0.88	4.83	V
	2136	-48.61	-13	-35.61	-66.45	-51.74	1.18	4.31	V
	2848	-44.38	-13	-31.38	-63.95	-48.66	1.40	5.68	V

LTE Band 17 / 10MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1408	-56.47	-13	-43.47	-68.46	-60.33	0.87	4.73	H
	2112	-56.74	-13	-43.74	-72.30	-59.81	1.17	4.24	H
	2816	-45.56	-13	-32.56	-63.83	-49.82	1.39	5.65	H
	1408	-56.08	-13	-43.08	-67.74	-59.94	0.87	4.73	V
	2112	-50.14	-13	-37.14	-67.32	-53.21	1.17	4.24	V
	2816	-40.46	-13	-27.46	-59.92	-44.72	1.39	5.65	V
Middle	1408	-55.70	-13	-42.70	-67.69	-59.56	0.87	4.73	H
	2120	-57.12	-13	-44.12	-72.74	-60.21	1.17	4.26	H
	2824	-43.45	-13	-30.45	-61.73	-47.72	1.39	5.66	H
	1408	-55.86	-13	-42.86	-67.47	-59.72	0.87	4.73	V
	2120	-50.54	-13	-37.54	-67.63	-53.63	1.17	4.26	V
	2824	-38.94	-13	-25.94	-58.33	-43.21	1.39	5.66	V
Highest	1416	-55.32	-13	-42.32	-66.95	-59.22	0.87	4.78	H
	2120	-55.86	-13	-42.86	-71.47	-58.95	1.17	4.26	H
	2824	-42.54	-13	-29.54	-60.81	-46.81	1.39	5.66	H
	1416	-53.86	-13	-40.86	-65.96	-57.76	0.87	4.78	V
	2120	-47.85	-13	-34.85	-65.22	-50.94	1.17	4.26	V
	2824	-38.45	-13	-25.45	-57.92	-42.72	1.39	5.66	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.