FCC RF Test Report

APPLICANT	:	ASUSTeK COMPUTER INC.
EQUIPMENT	:	ASUS Phone
BRAND NAME	:	ASUS
MODEL NAME	:	ASUS_Z00AD
FCC ID	:	MSQZ00AD
STANDARD	:	47 CFR Part 2, 22(H), 24(E), 27
CLASSIFICATION	:	PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Feb. 02, 2015 and completely tested on Feb. 19, 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

Testing Laboratory 1190

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG520232B	Rev. 01	Initial issue of report	Mar. 09, 2015
FG520232B	Rev. 02	Revising maximum ERP/ERIP summary table for LTE Band 17 in section 1.6.	Mar. 12, 2015

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.4	§2.1046	RSS-Gen(4.8) 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 §22.917(b) §24.238(b) §27.53(h)(3) §27.53(m)(6)	RSS-GEN(4.6.1) RSS-132 (3.1) RSS-133 (3.1) RSS-139 (3.1) RSS-130 (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-GEN(4.9) 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 17)(Band 7)	< 43+10log10(P[Watts])	PASS	-
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(g)	RSS-GEN(4.9) 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 17)	< 43+10log10(P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	RSS-GEN(4.9) 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(4.7) 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 17)	ERP < 3 Watt		
	N/A	RSS-130(4.4)	Equivalent Isotropic Radiated Power (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-GEN(4.9) 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 17)	< $43+10\log_{10}$(P[Watts])	PASS	Under limit 2.10 dB at 10002.000 MHz
	§2.1053 §27.53(m)(4)	RSS-GEN(4.9) RSS-199 (4.5)	Radiated Spurious Emission (Band 7)	< $55+10\log_{10}$(P[Watts])		

1 General Description

1.1 Applicant

ASUSTeK COMPUTER INC.
4F, No. 150, LI-TE RD., PEITOU, TAIPEI, TAIWAN

1.2 Manufacturer

QM (Shanghai) Technology Co., Ltd.
Building 7, No. 1-8, Alley 18, Sanzhuang Road, Songjiang Export Zone, Shanghai 201613, P.R. China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	ASUS Phone
Brand Name	ASUS
Model Name	ASUS_Z00AD
FCC ID	MSQZ00AD
Sample 1	EUT with SKU 1
Sample 2	EUT with SKU 2
Sample 3	EUT with SKU 3
Sample 4	EUT with SKU 4
Sample 5	EUT with SKU 5
Sample 6	EUT with SKU 6
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE/NFC WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth v4.0 EDR/LE
EUT Stage	Production Unit

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. All tests were performed with sample 1.

SKU	SKU 1	SKU 2	SKU 3	SKU 4	SKU 5	SKU 6
CPU	2.3GHz					
Memory	Samsung 2G	Hynix 4G				
EMMC	Hynix 16G	Sandisk 32G	Hynix 64G	Hynix 32G	Samsung 64G	Sandisk 64G
NFC	GEMALTO					
Front Camera	Liteon		Chicony			Chicony
Rear Camera	CHICONY			LITEON		
Battery	NVT	CPT	SMP			

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 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 : 2622.5 MHz ~ 2687.5 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 17 : 5MHz / 10MHz
Maximum Output Power to Antenna	LTE Band 2 : 23.04 dBm LTE Band 4: 23.98 dBm LTE Band 5: 22.36 dBm LTE Band 7: 20.82 dBm LTE Band 17: 22.44 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	1.11	-	0.1466	1.11	-	0.1247
3	2.74	-	0.1459	2.74	-	0.1219
5	4.50	-	0.1535	4.52	-	0.1285
10	9.12	0.0227	0.1416	9.10	-	0.1194
15	13.56	-	0.1656	13.59	-	0.1324
20	18.76	-	0.1442	18.76	-	0.1300
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	1.11	-	0.1545	1.12	-	0.1297
3	2.73	-	0.1542	2.74	-	0.1285
5	4.50	-	0.1600	4.50	-	0.1355
10	9.12	0.0172	0.1524	9.08	-	0.1315
15	13.56	-	0.1710	13.56	-	0.1340
20	18.68	-	0.1462	18.72	-	0.1216
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	1.11	-	0.0638	1.11	-	0.0546
3	2.74	-	0.0621	2.72	-	0.0531
5	4.51	-	0.0643	4.51	-	0.0555
10	9.12	0.188	0.0607	9.10	-	0.0516

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	4.50	-	0.1033	4.50	-	0.0869
10	9.12	-	0.0933	9.08	-	0.0787
15	13.53	-	0.1030	13.56	-	0.0847
20	18.68	0.0164	0.0920	18.68	-	0.0805

LTE Band 17	QPSK				16QAM			
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP/EIRP(W)		Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP/EIRP(W)	
			ERP	EIRP			ERP	EIRP
5	4.55	-	0.0196	0.0322	4.51	-	0.0171	0.0280
10	9.06	0.0027	0.0181	0.0296	9.04	-	0.0156	0.0255

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

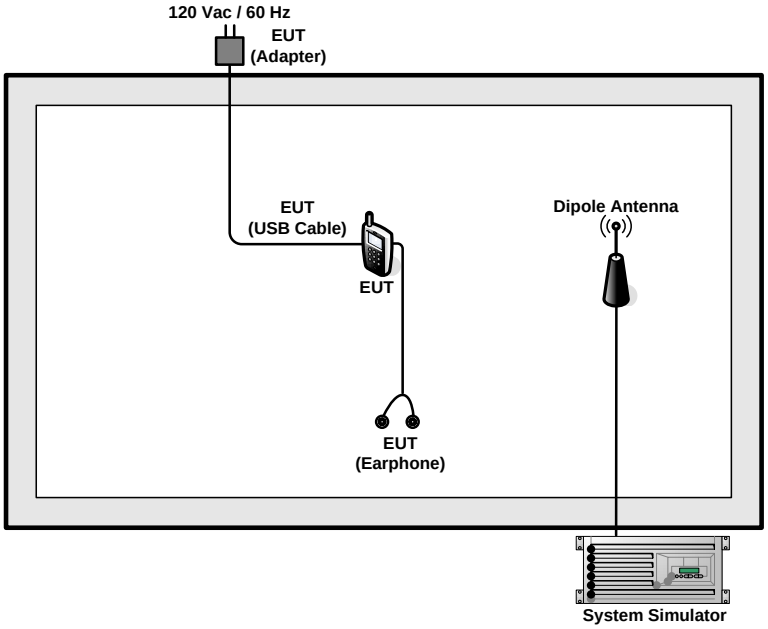
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v02r02 with maximum output power.

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
	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
	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
	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
	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
	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		v	
	17	-	-	v	v	-	-	v				v		v	
E.R.P./ E.I.R.P.	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
	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
	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. 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)

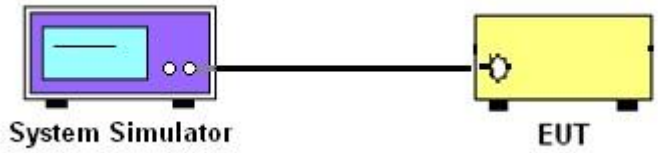
3 Conducted Test Items

3.1 Measuring Instruments

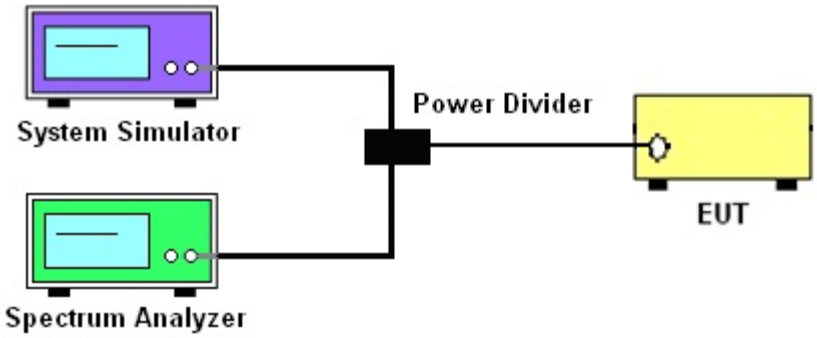
See list of measuring instruments of this test report.

3.2 Test Setup

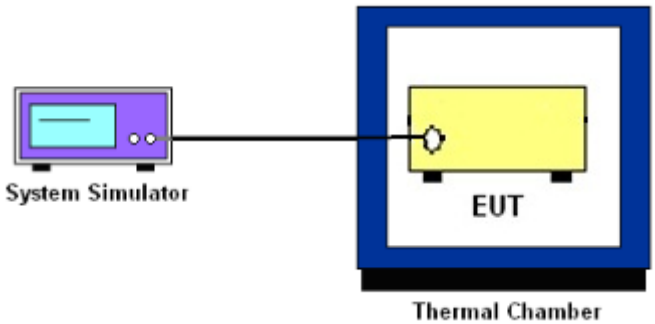
3.2.1 Conducted Output Power



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

3.4.1 Description of the Conducted Output Power 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 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 2502.5 MHz ~ 2567.5 MHz and 706.5 MHz ~ 713.5 MHz.

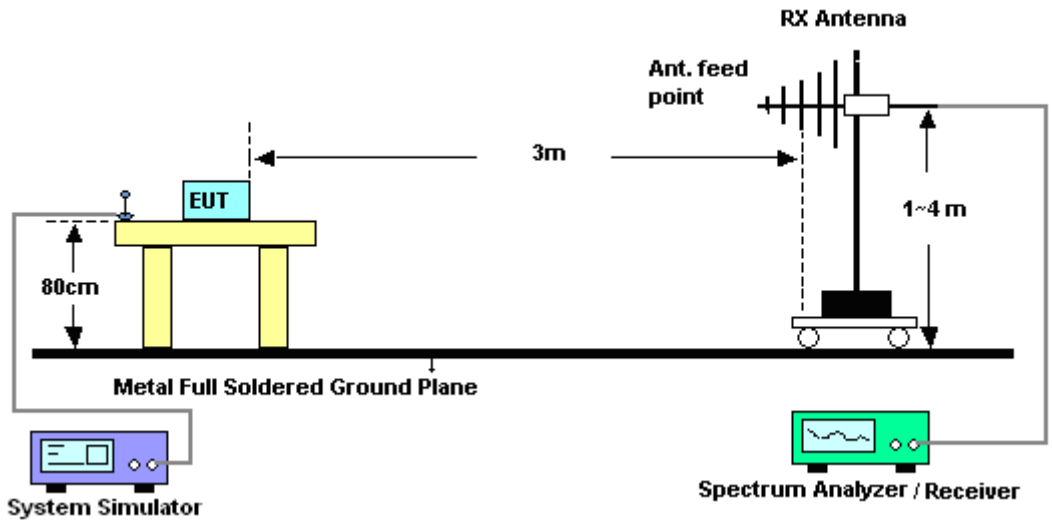
4 Radiated Test Items

4.1 Measuring Instruments

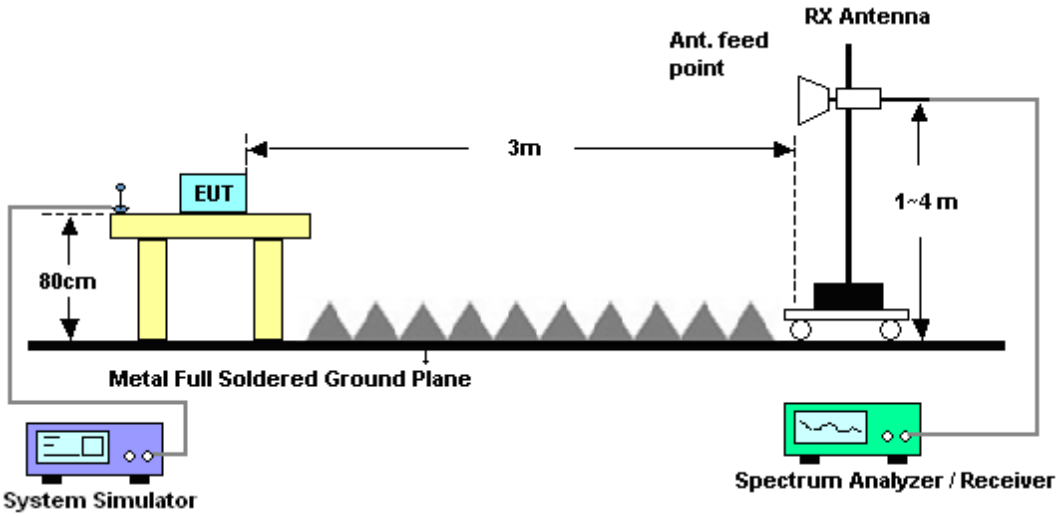
See list of measuring instruments of this test report.

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 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					
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

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 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
LTE Base Station	Anritsu	MT8820C	6201026480	30MHz~2.7GHz SISO	Jan. 08, 2015	Feb. 12, 2015 ~ Feb. 16, 2015	Jan. 07, 2016	Conducted (TH02-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz~40GHz	Jun. 09, 2014	Feb. 12, 2015 ~ Feb. 16, 2015	Jun. 08, 2015	Conducted (TH02-HY)
Thermal Chamber	Ten Billion	TTH-D3SP	TBN-930701	N/A	Jul. 17, 2014	Feb. 12, 2015 ~ Feb. 16, 2015	Jul. 16, 2015	Conducted (TH02-HY)
Signal Analyzer	Rohde & Schwarz	FSV 30	100895	9kHz~30GHz	Apr. 11, 2014	Feb. 10, 2015 ~ Feb. 19, 2015	Apr. 10, 2015	Radiation (03CH07-HY)
Bilog Antenna	Schaffner	CBL6111C	2726	30MHz ~ 1GHz	Sep. 27, 2014	Feb. 10, 2015 ~ Feb. 19, 2015	Sep. 26, 2015	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	75962	1GHz~18GHz	Aug. 19, 2014	Feb. 10, 2015 ~ Feb. 19, 2015	Aug. 18, 2015	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10 MHz ~ 1000MHz	Mar. 17, 2014	Feb. 10, 2015 ~ Feb. 19, 2015	Mar. 16, 2015	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1 GHz~26.5 GHz	Oct. 21, 2014	Feb. 10, 2015 ~ Feb. 19, 2015	Oct. 20, 2015	Radiation (03CH07-HY)
Turn Table	ChainTek	ChainTek 3000	N/A	0 ~ 360 degree	N/A	Feb. 10, 2015 ~ Feb. 19, 2015	N/A	Radiation (03CH07-HY)
Antenna Mast	ChainTek	M-400-0	114/8000604/L	N/A	N/A	Feb. 10, 2015 ~ Feb. 19, 2015	N/A	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz~40GHz	Oct. 02, 2014	Feb. 10, 2015 ~ Feb. 19, 2015	Oct. 01, 2015	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))	**4.50**

Appendix A. Test Results of Conducted Test

LTE Band 2, 4, 5, 7, and 17

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	22.61	22.51	**22.67**
1.4	1	2		22.59	22.48	22.65
1.4	1	5		22.58	22.49	22.64
1.4	3	0		22.62	22.50	**22.67**
1.4	3	1		22.61	22.50	**22.67**
1.4	3	2		22.62	22.50	**22.67**
1.4	6	0		21.57	21.45	21.61
1.4	1	0	16-QAM	21.88	21.75	21.86
1.4	1	2		21.84	21.73	21.83
1.4	1	5		21.84	21.74	21.83
1.4	3	0		21.60	21.48	21.65
1.4	3	1		21.59	21.48	21.65
1.4	3	2		21.57	21.46	21.63
1.4	6	0		20.96	20.84	21.01
3	1	0	QPSK	22.58	22.44	**22.61**
3	1	7		22.50	22.43	22.60
3	1	14		22.47	22.42	22.54
3	8	0		21.60	21.48	21.66
3	8	4		21.55	21.42	21.62
3	8	7		21.54	21.44	21.63
3	15	0		21.56	21.46	21.64
3	1	0	16-QAM	21.82	21.65	21.81
3	1	7		21.76	21.63	21.77
3	1	14		21.68	21.61	21.71
3	8	0		20.93	20.77	20.97
3	8	4		20.87	20.76	20.91
3	8	7		20.88	20.76	20.94
3	15	0		20.90	20.78	20.94

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.82	22.82	**22.83**
5	1	12		22.37	22.37	22.49
5	1	24		22.66	22.66	22.75
5	12	0		21.64	21.64	21.69
5	12	6		21.44	21.44	21.53
5	12	11		21.46	21.46	21.58
5	25	0		21.54	21.54	21.62
5	1	0	16-QAM	22.09	22.09	22.08
5	1	12		21.65	21.65	21.68
5	1	24		21.89	21.89	21.91
5	12	0		20.95	20.95	20.99
5	12	6		20.77	20.77	20.82
5	12	11		20.78	20.78	20.85
5	25	0		20.86	20.86	20.91
10	1	0	QPSK	**22.76**	22.47	22.60
10	1	24		22.50	22.43	22.58
10	1	49		22.41	22.47	22.46
10	25	0		21.60	21.53	21.67
10	25	12		21.51	21.46	21.62
10	25	24		21.46	21.47	21.61
10	50	0		21.53	21.51	21.62
10	1	0	16-QAM	21.93	21.81	21.84
10	1	24		21.74	21.70	21.84
10	1	49		21.51	21.64	21.70
10	25	0		20.93	20.80	20.95
10	25	12		20.81	20.75	20.91
10	25	24		20.76	20.74	20.90
10	50	0		20.85	20.77	20.93

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.87	**22.91**	22.88
15	1	37		22.38	22.44	22.30
15	1	74		22.55	22.70	22.72
15	36	0		21.54	21.47	21.62
15	36	18		21.25	21.22	21.35
15	36	37		21.32	21.36	21.56
15	75	0		21.42	21.38	21.57
15	1	0	16-QAM	22.29	22.09	22.33
15	1	37		21.36	21.40	21.43
15	1	74		21.73	21.92	22.09
15	36	0		20.87	20.76	20.94
15	36	18		20.57	20.52	20.65
15	36	37		20.59	20.66	20.85
15	75	0		20.71	20.69	20.88
20	1	0	QPSK	**23.04**	22.82	22.81
20	1	49		22.57	22.41	22.43
20	1	99		22.41	22.44	22.41
20	50	0		21.67	21.58	21.63
20	50	24		21.51	21.42	21.47
20	50	49		21.47	21.44	21.44
20	100	0		21.52	21.50	21.46
20	1	0	16-QAM	21.98	21.73	21.76
20	1	49		21.47	21.54	21.65
20	1	99		21.50	21.46	21.44
20	50	0		20.97	20.89	20.94
20	50	24		20.70	20.72	20.82
20	50	49		20.64	20.74	20.82
20	100	0		20.79	20.78	20.86

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.20	**23.65**	23.49
1.4	1	2		23.19	23.63	23.45
1.4	1	5		23.54	23.61	23.45
1.4	3	0		23.25	23.62	23.47
1.4	3	1		23.10	23.60	23.46
1.4	3	2		23.20	23.60	23.47
1.4	6	0		22.13	22.56	22.41
1.4	1	0	16-QAM	22.75	22.88	22.69
1.4	1	2		22.77	22.85	22.67
1.4	1	5		22.53	22.82	22.67
1.4	3	0		22.18	22.63	22.48
1.4	3	1		22.37	22.61	22.47
1.4	3	2		22.41	22.59	22.46
1.4	6	0		21.66	21.56	21.46
3	1	0	QPSK	**23.85**	23.60	23.42
3	1	7		23.82	23.55	23.42
3	1	14		23.81	23.53	23.36
3	8	0		22.90	22.62	22.42
3	8	4		22.85	22.58	22.38
3	8	7		22.86	22.56	22.42
3	15	0		22.85	22.57	22.43
3	1	0	16-QAM	23.08	22.84	22.61
3	1	7		23.10	22.83	22.64
3	1	14		23.06	22.73	22.61
3	8	0		21.86	21.56	21.43
3	8	4		21.84	21.52	21.40
3	8	7		21.83	21.52	21.41
3	15	0		21.83	21.55	21.39

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.91	23.83	23.59
5	1	12		23.66	23.39	23.27
5	1	24		23.90	23.71	23.55
5	12	0		22.92	22.66	22.46
5	12	6		22.72	22.48	22.30
5	12	11		22.76	22.51	22.36
5	25	0		22.81	22.59	22.40
5	1	0	16-QAM	23.29	23.15	22.87
5	1	12		22.94	22.73	22.48
5	1	24		23.22	22.93	22.79
5	12	0		21.86	21.58	21.41
5	12	6		21.69	21.39	21.23
5	12	11		21.72	21.41	21.26
5	25	0		21.77	21.49	21.34
10	1	0	QPSK	23.94	23.76	23.47
10	1	24		23.83	23.60	23.38
10	1	49		23.68	23.37	23.29
10	25	0		22.94	22.64	22.44
10	25	12		22.87	22.55	22.39
10	25	24		22.80	22.48	22.36
10	50	0		22.87	22.56	22.42
10	1	0	16-QAM	23.15	22.96	22.72
10	1	24		23.10	22.82	22.65
10	1	49		22.89	22.62	22.54
10	25	0		21.83	21.58	21.40
10	25	12		21.76	21.48	21.35
10	25	24		21.72	21.41	21.33
10	50	0		21.80	21.49	21.37

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.95	23.84	23.81
15	1	37		23.51	23.34	23.12
15	1	74		23.93	23.64	23.77
15	36	0		22.93	22.68	22.55
15	36	18		22.59	22.35	22.22
15	36	37		22.72	22.42	22.40
15	75	0		22.80	22.52	22.44
15	1	0	16-QAM	23.48	23.46	23.33
15	1	37		22.74	22.57	22.36
15	1	74		23.28	22.94	22.97
15	36	0		21.86	21.64	21.46
15	36	18		21.50	21.29	21.11
15	36	37		21.62	21.34	21.26
15	75	0		21.72	21.43	21.37
20	1	0	QPSK	23.98	23.87	23.64
20	1	49		23.65	23.48	23.26
20	1	99		23.46	23.38	23.29
20	50	0		22.88	22.71	22.49
20	50	24		22.68	22.51	22.32
20	50	49		22.53	22.36	22.25
20	100	0		22.68	22.52	22.36
20	1	0	16-QAM	22.99	22.95	22.70
20	1	49		22.90	22.73	22.51
20	1	99		22.39	22.24	22.17
20	50	0		21.78	21.62	21.40
20	50	24		21.60	21.43	21.22
20	50	49		21.45	21.28	21.14
20	100	0		21.59	21.41	21.24

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.15	**22.25**	22.19
1.4	1	2		22.08	22.18	21.99
1.4	1	5		22.11	22.19	21.98
1.4	3	0		22.08	22.24	22.12
1.4	3	1		22.03	22.13	22.08
1.4	3	2		22.09	22.08	22.03
1.4	6	0		21.13	21.29	21.07
1.4	1	0	16-QAM	21.43	21.71	21.47
1.4	1	2		21.30	21.68	21.41
1.4	1	5		21.36	21.69	21.27
1.4	3	0		21.16	21.38	21.20
1.4	3	1		21.31	21.43	21.14
1.4	3	2		21.29	21.44	21.15
1.4	6	0		20.28	20.45	20.22
3	1	0	QPSK	22.19	**22.24**	22.11
3	1	7		22.10	22.23	22.05
3	1	14		22.11	22.22	21.93
3	8	0		21.16	21.33	21.18
3	8	4		21.16	21.32	21.12
3	8	7		21.17	21.31	21.09
3	15	0		21.16	21.33	21.12
3	1	0	16-QAM	21.37	21.66	21.40
3	1	7		21.36	21.57	21.38
3	1	14		21.36	21.51	21.18
3	8	0		20.24	20.45	20.27
3	8	4		20.23	20.40	20.21
3	8	7		20.26	20.42	20.17
3	15	0		20.23	20.43	20.22

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.30	**22.35**	22.25
5	1	12		21.90	22.01	21.88
5	1	24		22.26	22.34	22.04
5	12	0		21.09	21.26	21.15
5	12	6		20.96	21.13	20.98
5	12	11		21.02	21.18	20.97
5	25	0		21.07	21.20	21.04
5	1	0	16-QAM	21.56	21.76	21.53
5	1	12		21.19	21.39	21.20
5	1	24		21.55	21.64	21.32
5	12	0		20.16	20.38	20.22
5	12	6		20.02	20.22	20.05
5	12	11		20.08	20.26	20.05
5	25	0		20.13	20.28	20.11
10	1	0	QPSK	22.32	**22.36**	22.35
10	1	24		22.29	22.35	22.28
10	1	49		22.31	22.24	21.99
10	25	0		21.34	21.40	21.38
10	25	12		21.36	21.37	21.34
10	25	24		21.39	21.38	21.28
10	50	0		21.36	21.41	21.34
10	1	0	16-QAM	21.61	21.71	21.66
10	1	24		21.52	21.70	21.54
10	1	49		21.57	21.52	21.35
10	25	0		20.39	20.48	20.45
10	25	12		20.43	20.49	20.37
10	25	24		20.46	20.49	20.33
10	50	0		20.44	20.51	20.38

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	20.52	20.72	**20.80**
5	1	12		20.38	20.62	20.61
5	1	24		20.47	20.71	20.71
5	12	0		19.24	19.47	19.44
5	12	6		19.07	19.31	19.30
5	12	11		19.10	19.35	19.34
5	25	0		19.13	19.40	19.38
5	1	0	16-QAM	19.69	19.93	19.87
5	1	12		19.56	19.81	19.76
5	1	24		19.65	19.87	19.85
5	12	0		18.35	18.55	18.52
5	12	6		18.20	18.40	18.37
5	12	11		18.24	18.43	18.40
5	25	0		18.28	18.48	18.48
10	1	0	QPSK	20.61	**20.77**	**20.77**
10	1	24		20.59	20.76	20.72
10	1	49		20.37	20.58	20.59
10	25	0		19.39	19.62	19.57
10	25	12		19.36	19.60	19.54
10	25	24		19.33	19.56	19.52
10	50	0		19.38	19.58	19.53
10	1	0	16-QAM	19.80	19.99	19.90
10	1	24		19.77	19.98	19.89
10	1	49		19.58	19.78	19.79
10	25	0		18.49	18.70	18.67
10	25	12		18.47	18.68	18.65
10	25	24		18.45	18.65	18.65
10	50	0		18.48	18.67	18.66

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	20.51	**20.76**	20.75
15	1	37		20.30	20.16	20.10
15	1	74		20.41	20.60	20.61
15	36	0		19.10	19.31	19.27
15	36	18		19.00	19.09	19.05
15	36	37		19.01	19.23	19.18
15	75	0		19.04	19.26	19.20
15	1	0	16-QAM	19.82	19.93	19.83
15	1	37		19.17	19.39	19.26
15	1	74		19.57	19.82	19.76
15	36	0		18.20	18.38	18.31
15	36	18		18.10	18.14	18.07
15	36	37		18.09	18.30	18.21
15	75	0		18.10	18.30	18.23
20	1	0	QPSK	20.54	20.79	**20.82**
20	1	49		20.51	20.72	20.74
20	1	99		20.24	20.35	20.42
20	50	0		19.56	19.67	19.68
20	50	24		19.50	19.65	19.59
20	50	49		19.44	19.57	19.58
20	100	0		19.51	19.61	19.64
20	1	0	16-QAM	19.80	19.92	19.87
20	1	49		19.76	19.86	19.84
20	1	99		19.38	19.47	19.60
20	50	0		18.65	18.73	18.78
20	50	24		18.57	18.71	18.67
20	50	49		18.52	18.65	18.63
20	100	0		18.53	18.69	18.68

LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.39	22.31	22.35
5	1	12		21.99	21.83	21.96
5	1	24		22.21	22.23	22.27
5	12	0		21.10	21.08	21.06
5	12	6		20.92	20.91	20.99
5	12	11		21.29	20.89	21.08
5	25	0		21.10	20.93	21.09
5	1	0	16-QAM	21.72	21.41	21.53
5	1	12		21.25	20.93	21.20
5	1	24		21.39	21.34	21.49
5	12	0		20.39	20.07	20.08
5	12	6		20.20	19.90	20.01
5	12	11		20.20	19.93	20.11
5	25	0		20.18	20.13	20.12
10	1	0	QPSK	22.40	22.39	22.44
10	1	24		22.23	22.24	22.26
10	1	49		22.26	22.38	22.41
10	25	0		21.32	21.30	21.39
10	25	12		21.25	21.27	21.29
10	25	24		21.27	21.32	21.38
10	50	0		21.35	21.35	21.36
10	1	0	16-QAM	21.76	21.68	21.71
10	1	24		21.44	21.38	21.41
10	1	49		21.58	21.66	21.68
10	25	0		20.45	20.35	20.37
10	25	12		20.26	20.27	20.32
10	25	24		20.33	20.33	20.38
10	50	0		20.41	20.36	20.38

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	19.47	0.0885	21.66	0.1466
Middle		1	0	19.06	0.0805	21.51	0.1416
Highest		1	0	19.27	0.0845	21.63	0.1455
Lowest	16QAM	1	0	18.77	0.0753	20.96	0.1247
Middle		1	0	18.39	0.0690	20.80	0.1202
Highest		1	0	18.58	0.0721	20.90	0.1230
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	19.41	0.0873	21.57	0.1435
Middle		1	0	19.10	0.0813	21.52	0.1419
Highest		1	0	19.33	0.0857	21.64	0.1459
Lowest	16QAM	1	0	18.66	0.0735	20.82	0.1208
Middle		1	0	18.34	0.0682	20.75	0.1189
Highest		1	0	18.56	0.0718	20.86	0.1219
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	19.70	0.0933	21.81	0.1517
Middle		1	0	19.31	0.0853	21.71	0.1483
Highest		1	0	19.45	0.0881	21.86	0.1535
Lowest	16QAM	1	0	18.99	0.0793	21.09	0.1285
Middle		1	0	18.55	0.0716	20.98	0.1253
Highest		1	0	18.66	0.0735	21.09	0.1285
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	19.54	0.0899	21.50	0.1413
Middle		1	0	19.15	0.0822	21.34	0.1361
Highest		1	0	19.09	0.0811	21.51	0.1416
Lowest	16QAM	1	0	18.79	0.0757	20.77	0.1194
Middle		1	0	18.43	0.0697	20.62	0.1153
Highest		1	0	18.24	0.0667	20.66	0.1164
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	19.82	0.0959	22.08	0.1614
Middle		1	0	19.42	0.0875	21.81	0.1517
Highest		1	0	19.57	0.0906	22.19	0.1656
Lowest	16QAM	1	0	18.89	0.0774	21.15	0.1303
Middle		1	0	18.61	0.0726	20.98	0.1253
Highest		1	0	18.63	0.0729	21.22	0.1324
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	19.11	0.0815	21.45	0.1396
Middle		1	0	18.88	0.0773	21.23	0.1327
Highest		1	0	19.05	0.0804	21.59	0.1442
Lowest	16QAM	1	0	18.37	0.0687	20.75	0.1189
Middle		1	0	18.05	0.0638	20.42	0.1102
Highest		1	0	18.58	0.0721	21.14	0.1300
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	18.58	0.0721	21.53	0.1422
Middle		1	0	18.53	0.0713	21.50	0.1413
Highest		1	0	18.91	0.0778	21.89	0.1545
Lowest	16QAM	1	0	17.84	0.0608	20.76	0.1191
Middle		1	0	17.76	0.0597	20.74	0.1186
Highest		1	0	18.15	0.0653	21.13	0.1297
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	18.66	0.0735	21.62	0.1452
Middle		1	0	18.45	0.0700	21.52	0.1419
Highest		1	0	18.81	0.0760	21.88	0.1542
Lowest	16QAM	1	0	17.87	0.0612	20.85	0.1216
Middle		1	0	17.66	0.0583	20.76	0.1191
Highest		1	0	18.02	0.0634	21.09	0.1285
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	18.97	0.0789	21.99	0.1581
Middle		1	0	18.65	0.0733	21.76	0.1500
Highest		1	0	19.07	0.0807	22.04	0.1600
Lowest	16QAM	1	0	18.33	0.0681	21.32	0.1355
Middle		1	0	17.89	0.0615	21.00	0.1259
Highest		1	0	18.27	0.0671	21.27	0.1340
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	18.85	0.0767	21.83	0.1524
Middle		1	0	18.53	0.0713	21.58	0.1439
Highest		1	0	18.82	0.0762	21.26	0.1337
Lowest	16QAM	1	0	18.25	0.0668	21.19	0.1315
Middle		1	0	17.85	0.0610	20.89	0.1227
Highest		1	0	18.03	0.0635	20.48	0.1117
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	19.23	0.0838	21.95	0.1567
Middle		1	0	18.68	0.0738	21.65	0.1462
Highest		1	0	19.60	0.0912	22.33	0.1710
Lowest	16QAM	1	0	18.38	0.0689	21.08	0.1282
Middle		1	0	17.92	0.0619	20.89	0.1227
Highest		1	0	18.57	0.0719	21.27	0.1340
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	18.90	0.0776	21.65	0.1462
Middle		1	0	18.32	0.0679	21.19	0.1315
Highest		1	0	18.39	0.0690	21.20	0.1318
Lowest	16QAM	1	0	17.71	0.0590	20.60	0.1148
Middle		1	0	17.49	0.0561	20.38	0.1091
Highest		1	0	18.04	0.0637	20.85	0.1216
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	6.11	0.0041	18.05	0.0638
Middle		1	0	6.37	0.0043	17.84	0.0608
Highest		1	0	6.66	0.0046	17.35	0.0543
Lowest	16QAM	1	0	5.42	0.0035	17.37	0.0546
Middle		1	0	5.61	0.0036	17.06	0.0508
Highest		1	0	5.96	0.0039	16.65	0.0462
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	6.01	0.0040	17.93	0.0621
Middle		1	0	6.21	0.0042	17.71	0.0590
Highest		1	0	6.60	0.0046	17.46	0.0557
Lowest	16QAM	1	0	5.33	0.0034	17.25	0.0531
Middle		1	0	5.47	0.0035	16.97	0.0498
Highest		1	0	5.83	0.0038	16.68	0.0466
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	6.14	0.0041	18.08	0.0643
Middle		1	0	6.37	0.0043	17.92	0.0619
Highest		1	0	6.82	0.0048	17.80	0.0603
Lowest	16QAM	1	0	5.49	0.0035	17.44	0.0555
Middle		1	0	5.69	0.0037	17.22	0.0527
Highest		1	0	6.09	0.0041	17.08	0.0511
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	6.09	0.0041	17.83	0.0607
Middle		1	0	6.37	0.0043	17.78	0.0600
Highest		1	0	6.65	0.0046	17.65	0.0582
Lowest	16QAM	1	0	5.36	0.0034	17.13	0.0516
Middle		1	0	5.62	0.0036	17.04	0.0506
Highest		1	0	6.05	0.0040	17.05	0.0507
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	19.86	0.0968	19.55	0.0902
Middle		1	0	20.14	0.1033	19.09	0.0811
Highest		1	0	20.04	0.1009	19.47	0.0885
Lowest	16QAM	1	0	19.15	0.0822	18.87	0.0771
Middle		1	0	19.39	0.0869	18.38	0.0689
Highest		1	0	19.25	0.0841	18.68	0.0738
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	19.70	0.0933	19.42	0.0875
Middle		1	0	19.62	0.0916	18.86	0.0769
Highest		1	0	19.70	0.0933	19.50	0.0891
Lowest	16QAM	1	0	18.96	0.0787	18.70	0.0741
Middle		1	0	18.87	0.0771	18.09	0.0644
Highest		1	0	18.93	0.0782	18.66	0.0735
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	20.13	0.1030	19.94	0.0986
Middle		1	0	20.00	0.1000	19.23	0.0838
Highest		1	0	19.92	0.0982	19.61	0.0914
Lowest	16QAM	1	0	19.28	0.0847	19.13	0.0818
Middle		1	0	19.21	0.0834	18.45	0.0700
Highest		1	0	19.26	0.0843	18.91	0.0778
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	19.64	0.0920	19.15	0.0822
Middle		1	0	19.47	0.0885	18.75	0.0750
Highest		1	0	19.41	0.0873	18.96	0.0787
Lowest	16QAM	1	0	19.06	0.0805	18.60	0.0724
Middle		1	0	18.75	0.0750	18.05	0.0638
Highest		1	0	18.80	0.0759	18.36	0.0685
Limit	EIRP < 2W			Result		PASS	

LTE Band 17 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	-4.86	0.0003	12.40	0.0174
Middle		1	0	-3.12	0.0005	12.72	0.0187
Highest		1	0	-3.71	0.0004	12.93	0.0196
Lowest	16QAM	1	0	-5.36	0.0003	11.90	0.0155
Middle		1	0	-3.77	0.0004	12.08	0.0161
Highest		1	0	-4.33	0.0004	12.32	0.0171
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	-4.18	0.0004	12.47	0.0177
Middle		1	0	-3.69	0.0004	12.57	0.0181
Highest		1	0	-3.51	0.0004	12.43	0.0175
Lowest	16QAM	1	0	-4.75	0.0003	11.86	0.0153
Middle		1	0	-4.32	0.0004	11.92	0.0156
Highest		1	0	-4.05	0.0004	11.89	0.0155
Limit	ERP < 3W			Result		PASS	

LTE Band 17 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP (W)	EIRP(dBm)	EIRP (W)
Lowest	QPSK	1	0	-2.71	0.0005	14.55	0.0285
Middle		1	0	-0.97	0.0008	14.87	0.0307
Highest		1	0	-1.56	0.0007	15.08	0.0322
Lowest	16QAM	1	0	-3.21	0.0005	14.05	0.0254
Middle		1	0	-1.62	0.0007	14.23	0.0265
Highest		1	0	-2.18	0.0006	14.47	0.0280
Limit	EIRP < 5W			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	-2.03	0.0006	14.62	0.0290
Middle		1	0	-1.54	0.0007	14.72	0.0296
Highest		1	0	-1.36	0.0007	14.58	0.0287
Lowest	16QAM	1	0	-2.60	0.0005	14.01	0.0252
Middle		1	0	-2.17	0.0006	14.07	0.0255
Highest		1	0	-1.90	0.0006	14.04	0.0254
Limit	EIRP < 5W			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	-43.11	-13	-30.11	-61.94	-49.68	1.67	8.24	H
	5548	-33.16	-13	-20.16	-57.1	-40.23	2.65	9.72	H
	7403	-43.56	-13	-30.56	-69.33	-52.71	2.46	11.61	H
	9521	-47.67	-13	-34.67	-74.74	-57.56	2.59	12.49	H
	11102	-44.19	-13	-31.19	-75.28	-53.96	2.69	12.46	H
	12954	-46.28	-13	-33.28	-79.48	-56.31	2.92	12.94	H
	14797	-42.31	-13	-29.31	-75.4	-52.15	3.51	13.36	H
	3700	-40.42	-13	-27.42	-60.22	-46.99	1.67	8.24	V
	5548	-35.70	-13	-22.70	-60.74	-42.77	2.65	9.72	V
	7403	-44.27	-13	-31.27	-71.79	-53.42	2.46	11.61	V
	9521	-43.53	-13	-30.53	-76.56	-53.42	2.59	12.49	V
	11102	-43.04	-13	-30.04	-76.51	-52.81	2.69	12.46	V
	12954	-43.81	-13	-30.81	-78.96	-53.84	2.92	12.94	V
	14797	-40.85	-13	-27.85	-75.19	-50.69	3.51	13.36	V
Middle	3756	-44.51	-13	-31.51	-63.52	-51.13	1.68	8.31	H
	5639	-30.87	-13	-17.87	-54.77	-37.92	2.71	9.76	H
	7515	-49.01	-13	-36.01	-75.52	-58.39	2.42	11.81	H
	9398	-46.39	-13	-33.39	-75.98	-56.36	2.57	12.54	H
	11273	-44.17	-13	-31.17	-75.72	-53.88	2.68	12.39	H
	13154	-45.46	-13	-32.46	-78.44	-55.71	2.97	13.22	H
	15035	-43.94	-13	-30.94	-75.59	-53.98	3.61	13.65	H
	3756	-45.83	-13	-32.83	-65.81	-52.45	1.68	8.31	V
	5639	-33.54	-13	-20.54	-58.97	-40.59	2.71	9.76	V
	7515	-47.49	-13	-34.49	-75.71	-56.87	2.42	11.81	V
	9398	-47.59	-13	-34.59	-77.32	-57.56	2.57	12.54	V
	11273	-43.12	-13	-30.12	-77.14	-52.83	2.68	12.39	V
	13154	-42.72	-13	-29.72	-77.67	-52.97	2.97	13.22	V
	15035	-41.81	-13	-28.81	-74.87	-51.85	3.61	13.65	V
Highest	3819	-35.61	-13	-22.61	-55.96	-40.14	1.70	8.38	H
	5723	-29.23	-13	-16.23	-53.63	-34.12	2.75	9.79	H
	7634	-46.20	-13	-33.20	-73.18	-53.54	2.39	11.88	H
	9545	-49.03	-13	-36.03	-76.4	-56.75	2.60	12.47	H
	11453	-44.13	-13	-31.13	-75.93	-51.62	2.68	12.32	H
	13363	-46.24	-13	-33.24	-78.95	-54.58	3.02	13.51	H
	15272	-42.30	-13	-29.30	-75.21	-50.42	3.71	13.98	H
	3819	-38.07	-13	-25.07	-58.98	-42.6	1.70	8.38	V
	5723	-29.46	-13	-16.46	-54.95	-34.35	2.75	9.79	V
	7634	-45.47	-13	-32.47	-74.1	-52.81	2.39	11.88	V
	9545	-46.04	-13	-33.04	-75.82	-53.76	2.60	12.47	V
	11453	-43.70	-13	-30.70	-78.05	-51.19	2.68	12.32	V
	13363	-41.97	-13	-28.97	-76.65	-50.31	3.02	13.51	V
	15272	-41.72	-13	-28.72	-75.37	-49.84	3.71	13.98	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	-43.34	-13	-30.34	-62.16	-49.91	1.67	8.24	H
	5548	-33.34	-13	-20.34	-57.28	-40.41	2.65	9.72	H
	7403	-44.39	-13	-31.39	-70.17	-53.54	2.46	11.61	H
	9251	-48.30	-13	-35.30	-75.25	-58.36	2.54	12.60	H
	11102	-44.04	-13	-31.04	-75.12	-53.81	2.69	12.46	H
	12954	-46.61	-13	-33.61	-79.81	-56.64	2.92	12.94	H
	14797	-43.45	-13	-30.45	-76.54	-53.29	3.51	13.36	H
	3700	-41.42	-13	-28.42	-61.22	-47.99	1.67	8.24	V
	5548	-36.07	-13	-23.07	-61.39	-43.14	2.65	9.72	V
	7403	-43.41	-13	-30.41	-70.93	-52.56	2.46	11.61	V
	9251	-47.89	-13	-34.89	-76.78	-57.95	2.54	12.60	V
	11102	-42.35	-13	-29.35	-75.71	-52.12	2.69	12.46	V
	12954	-43.38	-13	-30.38	-78.53	-53.41	2.92	12.94	V
	14797	-40.34	-13	-27.34	-74.58	-50.18	3.51	13.36	V
Middle	3756	-45.51	-13	-32.51	-64.62	-52.13	1.68	8.31	H
	5639	-30.89	-13	-17.89	-54.79	-37.94	2.71	9.76	H
	7515	-48.95	-13	-35.95	-75.46	-58.33	2.42	11.81	H
	9391	-50.01	-13	-37.01	-77.16	-59.99	2.57	12.54	H
	11273	-44.94	-13	-31.94	-76.49	-54.65	2.68	12.39	H
	13154	-46.18	-13	-33.18	-79.17	-56.43	2.97	13.22	H
	15025	-43.59	-13	-30.59	-75.61	-53.62	3.61	13.64	H
	3756	-47.34	-13	-34.34	-67.32	-53.96	1.68	8.31	V
	5639	-32.74	-13	-19.74	-57.67	-39.79	2.71	9.76	V
	7515	-47.15	-13	-34.15	-75.37	-56.53	2.42	11.81	V
	9391	-48.66	-13	-35.66	-78.18	-58.64	2.57	12.54	V
	11273	-42.45	-13	-29.45	-76.47	-52.16	2.68	12.39	V
	13154	-42.88	-13	-29.88	-77.73	-53.13	2.97	13.22	V
	15025	-41.44	-13	-28.44	-75.08	-51.47	3.61	13.64	V
Highest	3812	-44.97	-13	-31.97	-65.36	-49.49	1.70	8.37	H
	5716	-27.95	-13	-14.95	-52.47	-32.84	2.75	9.79	H
	7620	-49.35	-13	-36.35	-76.33	-56.68	2.39	11.87	H
	9524	-50.17	-13	-37.17	-77.53	-57.91	2.59	12.49	H
	11425	-45.19	-13	-32.19	-76.91	-52.69	2.68	12.33	H
	13334	-46.81	-13	-33.81	-79.44	-55.11	3.01	13.47	H
	15234	-42.46	-13	-29.46	-75.21	-50.54	3.70	13.93	H
	3812	-46.60	-13	-33.60	-67.31	-51.12	1.70	8.37	V
	5716	-29.48	-13	-16.48	-55.21	-34.37	2.75	9.79	V
	7620	-47.82	-13	-34.82	-76.49	-55.15	2.39	11.87	V
	9524	-46.02	-13	-33.02	-75.87	-53.76	2.59	12.49	V
	11425	-44.43	-13	-31.43	-78.68	-51.93	2.68	12.33	V
	13334	-43.31	-13	-30.31	-78.01	-51.61	3.01	13.47	V
	15234	-41.06	-13	-28.06	-74.59	-49.14	3.70	13.93	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	-43.30	-13	-30.30	-62.13	-49.87	1.67	8.24	H
	5548	-33.62	-13	-20.62	-57.56	-40.69	2.65	9.72	H
	7403	-44.02	-13	-31.02	-69.8	-53.17	2.46	11.61	H
	9251	-49.53	-13	-36.53	-75.77	-59.59	2.54	12.60	H
	11102	-44.39	-13	-31.39	-75.38	-54.16	2.69	12.46	H
	12954	-45.83	-13	-32.83	-79.03	-55.86	2.92	12.94	H
	14807	-43.31	-13	-30.31	-76.31	-53.16	3.52	13.37	H
	3700	-41.64	-13	-28.64	-61.47	-48.21	1.67	8.24	V
	5548	-37.09	-13	-24.09	-62.13	-44.16	2.65	9.72	V
	7403	-44.19	-13	-31.19	-71.71	-53.34	2.46	11.61	V
	9251	-47.48	-13	-34.48	-76.37	-57.54	2.54	12.60	V
	11102	-42.78	-13	-29.78	-76.26	-52.55	2.69	12.46	V
	12954	-42.16	-13	-29.16	-77.21	-52.19	2.92	12.94	V
	14797	-40.15	-13	-27.15	-74.49	-49.99	3.51	13.36	V
Middle	3756	-45.24	-13	-32.24	-64.35	-51.86	1.68	8.31	H
	5632	-30.10	-13	-17.10	-54	-37.15	2.70	9.75	H
	7508	-49.25	-13	-36.25	-75.62	-58.63	2.43	11.80	H
	9391	-48.65	-13	-35.65	-76.34	-58.63	2.57	12.54	H
	11263	-43.92	-13	-30.92	-75.42	-53.63	2.69	12.39	H
	13144	-43.89	-13	-30.89	-78.77	-54.13	2.97	13.20	H
	15025	-43.88	-13	-30.88	-75.89	-53.91	3.61	13.64	H
	3756	-45.01	-13	-32.01	-64.99	-51.63	1.68	8.31	V
	5632	-33.38	-13	-20.38	-58.31	-40.43	2.70	9.75	V
	7508	-47.38	-13	-34.38	-75.46	-56.76	2.43	11.80	V
	9391	-48.00	-13	-35.00	-77.56	-57.98	2.57	12.54	V
	11263	-42.95	-13	-29.95	-76.91	-52.66	2.69	12.39	V
	13144	-42.38	-13	-29.38	-77.32	-52.62	2.97	13.20	V
	15025	-41.59	-13	-28.59	-74.6	-51.62	3.61	13.64	V
Highest	3812	-40.64	-13	-27.64	-60.92	-45.16	1.70	8.37	H
	5716	-27.09	-13	-14.09	-51.67	-31.98	2.75	9.79	H
	7620	-49.32	-13	-36.32	-76.3	-56.65	2.39	11.87	H
	9524	-49.71	-13	-36.71	-77.07	-57.45	2.59	12.49	H
	1434	-44.75	-13	-31.75	-76.47	-46.61	0.88	4.89	H
	13334	-46.35	-13	-33.35	-79.08	-54.65	3.01	13.47	H
	15244	-41.73	-13	-28.73	-74.53	-49.82	3.70	13.94	H
	3812	-41.67	-13	-28.67	-62.38	-46.19	1.70	8.37	V
	5716	-28.68	-13	-15.68	-54.24	-33.57	2.75	9.79	V
	7620	-46.78	-13	-33.78	-75.35	-54.11	2.39	11.87	V
	9524	-46.05	-13	-33.05	-75.81	-53.79	2.59	12.49	V
	1434	-44.01	-13	-31.01	-78.41	-45.87	0.88	4.89	V
	13334	-42.88	-13	-29.88	-77.49	-51.18	3.01	13.47	V
	15244	-40.54	-13	-27.54	-74.51	-48.63	3.70	13.94	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	-43.56	-13	-30.56	-62.29	-50.13	1.67	8.24	H
	5548	-33.82	-13	-20.82	-57.76	-40.89	2.65	9.72	H
	7403	-44.83	-13	-31.83	-70.61	-53.98	2.46	11.61	H
	9251	-44.92	-13	-31.92	-76.44	-54.98	2.54	12.60	H
	11102	-43.77	-13	-30.77	-74.86	-53.54	2.69	12.46	H
	12954	-46.09	-13	-33.09	-79.29	-56.12	2.92	12.94	H
	14807	-43.79	-13	-30.79	-76.4	-53.64	3.52	13.37	H
	3700	-41.78	-13	-28.78	-61.58	-48.35	1.67	8.24	V
	5548	-36.89	-13	-23.89	-61.93	-43.96	2.65	9.72	V
	7403	-44.77	-13	-31.77	-72.3	-53.92	2.46	11.61	V
	9251	-47.10	-13	-34.10	-75.99	-57.16	2.54	12.60	V
	11102	-41.02	-13	-28.02	-74.5	-50.79	2.69	12.46	V
	12954	-43.63	-13	-30.63	-78.78	-53.66	2.92	12.94	V
	14807	-40.33	-13	-27.33	-74.68	-50.18	3.52	13.37	V
Middle	3749	-47.22	-13	-34.22	-66.33	-53.84	1.68	8.30	H
	5625	-29.29	-13	-16.29	-53.17	-36.34	2.70	9.75	H
	7501	-48.90	-13	-35.90	-75.26	-58.27	2.43	11.80	H
	9377	-49.22	-13	-36.22	-76.15	-59.21	2.56	12.55	H
	11254	-44.60	-13	-31.60	-76.1	-54.31	2.69	12.40	H
	13125	-44.96	-13	-31.96	-78.11	-55.17	2.96	13.18	H
	15006	-44.87	-13	-31.87	-76.83	-54.88	3.60	13.61	H
	3749	-46.89	-13	-33.89	-66.87	-53.51	1.68	8.30	V
	5625	-33.27	-13	-20.27	-58.15	-40.32	2.70	9.75	V
	7501	-47.05	-13	-34.05	-75.12	-56.42	2.43	11.80	V
	9377	-47.37	-13	-34.37	-77.69	-57.36	2.56	12.55	V
	11254	-43.47	-13	-30.47	-77.33	-53.18	2.69	12.40	V
	13125	-41.90	-13	-28.90	-76.76	-52.11	2.96	13.18	V
	15006	-42.51	-13	-29.51	-75.52	-52.52	3.60	13.61	V
Highest	3798	-49.41	-13	-36.41	-69.79	-53.92	1.70	8.36	H
	5702	-37.65	-13	-24.65	-62.46	-42.54	2.74	9.78	H
	7599	-51.41	-13	-38.41	-78.38	-58.72	2.40	11.86	H
	9503	-52.42	-13	-39.42	-79.68	-60.18	2.59	12.50	H
	11406	-44.88	-13	-31.88	-76.55	-52.38	2.68	12.34	H
	13306	-47.11	-13	-34.11	-79.84	-55.38	3.01	13.43	H
	15206	-41.87	-13	-28.87	-74.54	-49.92	3.68	13.89	H
	3798	-44.88	-13	-31.88	-65.68	-49.39	1.70	8.36	V
	5702	-30.78	-13	-17.78	-56.38	-35.67	2.74	9.78	V
	7599	-46.96	-13	-33.96	-75.66	-54.27	2.40	11.86	V
	9503	-47.67	-13	-34.67	-77.53	-55.43	2.59	12.50	V
	11406	-43.64	-13	-30.64	-77.73	-51.14	2.68	12.34	V
	13306	-42.86	-13	-29.86	-77.57	-51.13	3.01	13.43	V
	15206	-40.16	-13	-27.16	-73.62	-48.21	3.68	13.89	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	-46.16	-13	-33.16	-64.99	-52.73	1.67	8.24	H
	5555	-33.22	-13	-20.22	-57.26	-40.29	2.66	9.72	H
	7403	-45.06	-13	-32.06	-70.84	-54.21	2.46	11.61	H
	9251	-50.25	-13	-37.25	-76.49	-60.31	2.54	12.60	H
	11102	-44.34	-13	-31.34	-75.43	-54.11	2.69	12.46	H
	12954	-46.88	-13	-33.88	-80.08	-56.91	2.92	12.94	H
	14807	-45.10	-13	-32.10	-78.2	-54.95	3.52	13.37	H
	3700	-49.62	-13	-36.62	-69.42	-56.19	1.67	8.24	V
	5555	-38.08	-13	-25.08	-63.12	-45.15	2.66	9.72	V
	7403	-45.34	-13	-32.34	-72.86	-54.49	2.46	11.61	V
	9251	-47.50	-13	-34.50	-76.39	-57.56	2.54	12.60	V
	11102	-43.79	-13	-30.79	-77.27	-53.56	2.69	12.46	V
	12954	-43.68	-13	-30.68	-78.82	-53.71	2.92	12.94	V
	14807	-40.36	-13	-27.36	-74.46	-50.21	3.52	13.37	V
Middle	3749	-47.67	-13	-34.67	-66.78	-54.29	1.68	8.30	H
	5618	-30.51	-13	-17.51	-54.39	-37.56	2.69	9.75	H
	7494	-49.21	-13	-36.21	-75.43	-58.57	2.43	11.79	H
	9370	-48.90	-13	-35.90	-75.85	-58.89	2.56	12.55	H
	11235	-44.40	-13	-31.40	-75.77	-54.12	2.69	12.41	H
	13116	-46.13	-13	-33.13	-79.16	-56.33	2.96	13.16	H
	14987	-43.92	-13	-30.92	-76.55	-53.91	3.59	13.58	H
	3749	-46.13	-13	-33.13	-66.11	-52.75	1.68	8.30	V
	5618	-32.86	-13	-19.86	-57.73	-39.91	2.69	9.75	V
	7494	-48.27	-13	-35.27	-76.19	-57.63	2.43	11.79	V
	9370	-47.99	-13	-34.99	-77.81	-57.98	2.56	12.55	V
	11235	-41.97	-13	-28.97	-75.89	-51.69	2.69	12.41	V
	13116	-43.07	-13	-30.07	-78.06	-53.27	2.96	13.16	V
	14987	-41.64	-13	-28.64	-74.88	-51.63	3.59	13.58	V
Highest	3791	-43.64	-13	-30.64	-63.45	-48.14	1.70	8.35	H
	5688	-31.64	-13	-18.64	-56.44	-36.53	2.73	9.78	H
	7585	-49.43	-13	-36.43	-76.26	-56.73	2.40	11.85	H
	9482	-51.02	-13	-38.02	-78.36	-58.79	2.59	12.51	H
	11377	-46.12	-13	-33.12	-77.71	-53.64	2.68	12.35	H
	13268	-47.14	-13	-34.14	-79.89	-55.37	3.00	13.38	H
	15168	-44.62	-13	-31.62	-77.53	-52.64	3.67	13.84	H
	3791	-50.28	-13	-37.28	-70.76	-54.78	1.70	8.35	V
	5688	-33.50	-13	-20.50	-59.18	-38.39	2.73	9.78	V
	7585	-47.56	-13	-34.56	-76.11	-54.86	2.40	11.85	V
	9482	-47.09	-13	-34.09	-76.94	-54.86	2.59	12.51	V
	11377	-45.16	-13	-32.16	-79.26	-52.68	2.68	12.35	V
	13268	-44.48	-13	-31.48	-79.21	-52.71	3.00	13.38	V
	15168	-42.57	-13	-29.57	-75.88	-50.59	3.67	13.84	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	-47.30	-13	-34.30	-66.13	-53.87	1.67	8.24	H
	5555	-34.15	-13	-21.15	-58.09	-41.22	2.66	9.72	H
	7403	-44.50	-13	-31.50	-70.28	-53.65	2.46	11.61	H
	9258	-51.57	-13	-38.57	-77.84	-61.63	2.54	12.60	H
	11102	-45.42	-13	-32.42	-76.41	-55.19	2.69	12.46	H
	14807	-45.93	-13	-32.93	-78.75	-55.78	3.52	13.37	H
	3700	-49.54	-13	-36.54	-69.24	-56.11	1.67	8.24	V
	5555	-38.89	-13	-25.89	-63.93	-45.96	2.66	9.72	V
	7403	-45.20	-13	-32.20	-72.72	-54.35	2.46	11.61	V
	9258	-48.27	-13	-35.27	-77.19	-58.33	2.54	12.60	V
	11102	-44.75	-13	-31.75	-78.23	-54.52	2.69	12.46	V
	14807	-41.80	-13	-28.80	-76.15	-51.65	3.52	13.37	V
Middle	3742	-51.95	-13	-38.95	-71.05	-58.56	1.68	8.29	H
	5611	-49.49	-13	-36.49	-56.55	-56.55	2.69	9.74	H
	7487	-66.29	-13	-53.29	-75.63	-75.63	2.43	11.77	H
	9356	-66.86	-13	-53.86	-76.86	-76.86	2.56	12.56	H
	11225	-46.09	-13	-33.09	-77.46	-55.81	2.69	12.41	H
	13097	-47.07	-13	-34.07	-80.11	-57.25	2.95	13.14	H
	14968	-46.91	-13	-33.91	-79.16	-56.89	3.58	13.56	H
	3742	-54.47	-13	-41.47	-74.44	-61.08	1.68	8.29	V
	5611	-36.23	-13	-23.23	-61.12	-43.29	2.69	9.74	V
	7487	-48.17	-13	-35.17	-76.07	-57.51	2.43	11.77	V
	9356	-47.98	-13	-34.98	-77.6	-57.98	2.56	12.56	V
	11225	-45.24	-13	-32.24	-79.05	-54.96	2.69	12.41	V
	13097	-44.03	-13	-31.03	-79.03	-54.21	2.95	13.14	V
	14968	-42.41	-13	-29.41	-76.47	-52.39	3.58	13.56	V
Highest	3784	-44.96	-13	-31.96	-64.87	-49.46	1.69	8.34	H
	5674	-32.60	-13	-19.60	-57.38	-37.49	2.73	9.77	H
	7564	-50.71	-13	-37.71	-77.38	-57.99	2.41	11.84	H
	9454	-49.76	-13	-36.76	-77.06	-57.55	2.58	12.52	H
	3784	-50.26	-13	-37.26	-70.74	-54.76	1.69	8.34	V
	5674	-33.64	-13	-20.64	-59.44	-38.53	2.73	9.77	V
	7564	-48.06	-13	-35.06	-76.45	-55.34	2.41	11.84	V
	9454	-47.02	-13	-34.02	-76.88	-54.81	2.58	12.52	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	-53.53	-13	-40.53	-71.04	-59.6	1.58	7.65	H
	5128	-43.61	-13	-30.61	-66.84	-50.9	2.41	9.70	H
	6843	-40.03	-13	-27.03	-66.29	-48	2.64	10.61	H
	8551	-40.57	-13	-27.57	-67.32	-50.7	2.39	12.52	H
	10264	-45.09	-13	-32.09	-73.99	-54.7	2.69	12.31	H
	11968	-42.58	-13	-29.58	-75.68	-52.2	2.68	12.30	H
	13680	-41.52	-13	-28.52	-75.17	-52.3	3.10	13.88	H
	15392	-39.71	-13	-26.71	-73.71	-50.1	3.76	14.15	H
	3420	-52.03	-13	-39.03	-70.81	-58.1	1.58	7.65	V
	5128	-39.81	-13	-26.81	-64.28	-47.1	2.41	9.70	V
	6843	-36.93	-13	-23.93	-64.42	-44.9	2.64	10.61	V
	8551	-38.27	-13	-25.27	-66.98	-48.4	2.39	12.52	V
	10264	-43.49	-13	-30.49	-74.91	-53.1	2.69	12.31	V
	11968	-41.28	-13	-28.28	-76.74	-50.9	2.68	12.30	V
Middle	3462	-51.56	-13	-38.56	-69.22	-57.8	1.59	7.83	H
	5198	-45.25	-13	-32.25	-69.01	-52.5	2.45	9.70	H
	6927	-44.20	-13	-31.20	-70.61	-52.3	2.61	10.71	H
	8663	-43.65	-13	-30.65	-70.29	-53.8	2.41	12.57	H
	10392	-45.34	-13	-32.34	-74.66	-55	2.69	12.36	H
	12120	-44.18	-13	-31.18	-77.39	-53.8	2.71	12.32	H
	13856	-43.79	-13	-30.79	-77.73	-54.7	3.15	14.06	H
	3462	-51.56	-13	-38.56	-70.44	-57.8	1.59	7.83	V
	5198	-39.65	-13	-26.65	-4.27	-46.9	2.45	9.70	V
	6927	-40.80	-13	-27.80	-68.16	-48.9	2.61	10.71	V
	8663	-41.95	-13	-28.95	-70.46	-52.1	2.41	12.57	V
	10392	-43.44	-13	-30.44	-75.51	-53.1	2.69	12.36	V
	12120	-41.58	-13	-28.58	-77.14	-51.2	2.71	12.32	V
Highest	3504	-55.80	-13	-42.80	-73.81	-62.2	1.61	8.00	H
	5261	-43.29	-13	-30.29	-67.78	-50.5	2.49	9.70	H
	7018	-42.55	-13	-29.55	-68.97	-50.8	2.58	10.84	H
	8768	-45.03	-13	-32.03	-71.52	-55.2	2.43	12.61	H
	10520	-44.79	-13	-31.79	-74.47	-54.5	2.69	12.40	H
	12280	-43.49	-13	-30.49	-77.93	-53.1	2.75	12.36	H
	14032	-41.87	-13	-28.87	-76.41	-52.8	3.20	14.12	H
	3504	-53.20	-13	-40.20	-72.38	-59.6	1.61	8.00	V
	5261	-37.29	-13	-24.29	-62.56	-44.5	2.49	9.70	V
	7018	-40.05	-13	-27.05	-67.5	-48.3	2.58	10.84	V
	8768	-43.63	-13	-30.63	-72.99	-53.8	2.43	12.61	V
	10520	-43.49	-13	-30.49	-75.82	-53.2	2.69	12.40	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	-52.13	-13	-39.13	-69.95	-58.2	1.58	7.65	H
	5128	-42.31	-13	-29.31	-66.04	-49.6	2.41	9.70	H
	6843	-41.23	-13	-28.23	-67.52	-49.2	2.64	10.61	H
	8551	-40.67	-13	-27.67	-67.66	-50.8	2.39	12.52	H
	10264	-44.69	-13	-31.69	-73.56	-54.3	2.69	12.31	H
	11968	-42.88	-13	-29.88	-75.76	-52.5	2.68	12.30	H
	13680	-42.12	-13	-29.12	-75.97	-52.9	3.10	13.88	H
	15392	-39.51	-13	-26.51	-73.65	-49.9	3.76	14.15	H
	3420	-52.13	-13	-39.13	-71.16	-58.2	1.58	7.65	V
	5128	-39.61	-13	-26.61	-64.5	-46.9	2.41	9.70	V
	6843	-36.43	-13	-23.43	-63.99	-44.4	2.64	10.61	V
	8551	-38.77	-13	-25.77	-67.24	-48.9	2.39	12.52	V
	10264	-43.79	-13	-30.79	-75.21	-53.4	2.69	12.31	V
	11968	-41.28	-13	-28.28	-76.54	-50.9	2.68	12.30	V
Middle	3462	-52.56	-13	-39.56	-70.01	-58.8	1.59	7.83	H
	5191	-46.85	-13	-33.85	-70.36	-54.1	2.45	9.70	H
	6927	-44.50	-13	-31.50	-70.98	-52.6	2.61	10.71	H
	8656	-44.45	-13	-31.45	-71.26	-54.6	2.41	12.56	H
	10384	-45.84	-13	-32.84	-75.15	-55.5	2.69	12.35	H
	12120	-43.68	-13	-30.68	-77.12	-53.3	2.71	12.32	H
	13848	-43.40	-13	-30.40	-77.22	-54.3	3.14	14.05	H
	3462	-51.46	-13	-38.46	-70.51	-57.7	1.59	7.83	V
	5191	-39.85	-13	-26.85	-64.41	-47.1	2.45	9.70	V
	6927	-40.80	-13	-27.80	-67.99	-48.9	2.61	10.71	V
	8656	-43.45	-13	-30.45	-72.4	-53.6	2.41	12.56	V
	10384	-44.44	-13	-31.44	-76.26	-54.1	2.69	12.35	V
	12120	-41.28	-13	-28.28	-77.86	-50.9	2.71	12.32	V
Highest	3504	-55.40	-13	-42.40	-73.31	-61.8	1.61	8.00	H
	5254	-42.58	-13	-29.58	-66.96	-49.8	2.48	9.70	H
	7004	-42.58	-13	-29.58	-68.93	-50.8	2.59	10.81	H
	8754	-44.53	-13	-31.53	-71.37	-54.7	2.43	12.60	H
	10504	-44.69	-13	-31.69	-74.38	-54.4	2.69	12.40	H
	12256	-43.59	-13	-30.59	-78.12	-53.2	2.74	12.35	H
	14008	-42.80	-13	-29.80	-77.14	-53.8	3.19	14.18	H
	3504	-52.90	-13	-39.90	-72.14	-59.3	1.61	8.00	V
	5254	-36.88	-13	-23.88	-62.22	-44.1	2.48	9.70	V
	7004	-39.58	-13	-26.58	-67.42	-47.8	2.59	10.81	V
	8754	-43.93	-13	-30.93	-73.09	-54.1	2.43	12.60	V
	10504	-43.19	-13	-30.19	-75.75	-52.9	2.69	12.40	V
	12256	-42.59	-13	-29.59	-78.82	-52.2	2.74	12.35	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	-53.03	-13	-40.03	-70.75	-59.1	1.58	7.65	H
	5128	-44.21	-13	-31.21	-67.87	-51.5	2.41	9.70	H
	6843	-42.73	-13	-29.73	-69.07	-50.7	2.64	10.61	H
	8551	-43.07	-13	-30.07	-69.68	-53.2	2.39	12.52	H
	3420	-55.43	-13	-42.43	-74.28	-61.5	1.58	7.65	V
	5128	-40.11	-13	-27.11	-65.08	-47.4	2.41	9.70	V
	6843	-39.33	-13	-26.33	-67.13	-47.3	2.64	10.61	V
	8551	-39.17	-13	-26.17	-67.85	-49.3	2.39	12.52	V
	10264	-45.69	-13	-32.69	-77.33	-55.3	2.69	12.31	V
	11968	-42.78	-13	-29.78	-78.13	-52.4	2.68	12.30	V
	13680	-42.22	-13	-29.22	-77.65	-53	3.10	13.88	V
Middle	3462	-50.36	-13	-37.36	-68.14	-56.6	1.59	7.83	H
	5191	-46.85	-13	-33.85	-70.29	-54.1	2.45	9.70	H
	6920	-47.41	-13	-34.41	-73.7	-55.5	2.62	10.70	H
	8649	-46.75	-13	-33.75	-73.67	-56.9	2.41	12.56	H
	3462	-52.96	-13	-39.96	-71.63	-59.2	1.59	7.83	V
	5191	-45.35	-13	-32.35	-69.86	-52.6	2.45	9.70	V
	6920	-44.11	-13	-31.11	-71.58	-52.2	2.62	10.70	V
	8649	-42.95	-13	-29.95	-71.73	-53.1	2.41	12.56	V
	10384	-45.84	-13	-32.84	-77.78	-55.5	2.69	12.35	V
	12112	-42.58	-13	-29.58	-78.25	-52.2	2.71	12.32	V
Highest	3497	-52.12	-13	-39.12	-69.96	-58.5	1.60	7.99	H
	5247	-42.48	-13	-29.48	-66.28	-49.7	2.48	9.70	H
	7004	-42.58	-13	-29.58	-69.07	-50.8	2.59	10.81	H
	8754	-43.93	-13	-30.93	-70.78	-54.1	2.43	12.60	H
	10504	-44.49	-13	-31.49	-74.29	-54.2	2.69	12.40	H
	12248	-44.09	-13	-31.09	-78.31	-53.7	2.74	12.35	H
	14000	-42.78	-13	-29.78	-76.68	-53.8	3.18	14.20	H
	3497	-53.42	-13	-40.42	-72.49	-59.8	1.60	7.99	V
	5254	-36.58	-13	-23.58	-61.87	-43.8	2.48	9.70	V
	7004	-37.88	-13	-24.88	-65.3	-46.1	2.59	10.81	V
	8754	-44.23	-13	-31.23	-73.22	-54.4	2.43	12.60	V
	10504	-43.29	-13	-30.29	-75.35	-53	2.69	12.40	V
	12248	-42.49	-13	-29.49	-78.58	-52.1	2.74	12.35	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	-52.73	-13	-39.73	-70.12	-58.8	1.58	7.65	H
	5128	-44.21	-13	-31.21	-68.1	-51.5	2.41	9.70	H
	6843	-43.43	-13	-30.43	-69.88	-51.4	2.64	10.61	H
	8551	-44.57	-13	-31.57	-71.28	-54.7	2.39	12.52	H
	3420	-54.43	-13	-41.43	-73.61	-60.5	1.58	7.65	V
	5128	-40.41	-13	-27.41	-65.06	-47.7	2.41	9.70	V
	6843	-40.53	-13	-27.53	-68.02	-48.5	2.64	10.61	V
	8551	-40.27	-13	-27.27	-69.01	-50.4	2.39	12.52	V
	10264	-44.89	-13	-31.89	-76.38	-54.5	2.69	12.31	V
	11976	-42.58	-13	-29.58	-77.64	-52.2	2.68	12.30	V
	13688	-43.02	-13	-30.02	-78.64	-53.8	3.10	13.89	V
Middle	3455	-50.89	-13	-37.89	-68.47	-57.1	1.59	7.80	H
	5184	-45.94	-13	-32.94	-69.47	-53.2	2.44	9.70	H
	6913	-46.32	-13	-33.32	-72.58	-54.4	2.62	10.70	H
	8642	-50.95	-13	-37.95	-77.6	-61.1	2.41	12.56	H
	3455	-54.19	-13	-41.19	-73.28	-60.4	1.59	7.80	V
	5184	-43.24	-13	-30.24	-67.85	-50.5	2.44	9.70	V
	6913	-41.02	-13	-28.02	-68.54	-49.1	2.62	10.70	V
	8642	-45.45	-13	-32.45	-74.4	-55.6	2.41	12.56	V
Highest	3490	-51.85	-13	-38.85	-69.65	-58.2	1.60	7.96	H
	5233	-43.97	-13	-30.97	-67.89	-51.2	2.47	9.70	H
	6983	-46.62	-13	-33.62	-72.95	-54.8	2.60	10.78	H
	8726	-46.83	-13	-33.83	-74.7	-57	2.42	12.59	H
	3490	-54.15	-13	-41.15	-73.45	-60.5	1.60	7.96	V
	5233	-41.87	-13	-28.87	-66.96	-49.1	2.47	9.70	V
	6983	-43.72	-13	-30.72	-71.49	-51.9	2.60	10.78	V
	8726	-43.73	-13	-30.73	-72.88	-53.9	2.42	12.59	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	-54.03	-13	-41.03	-71.51	-60.1	1.58	7.65	H
	5135	-41.41	-13	-28.41	-64.6	-48.7	2.41	9.70	H
	6843	-39.13	-13	-26.13	-65.76	-47.1	2.64	10.61	H
	8551	-39.77	-13	-26.77	-66.44	-49.9	2.39	12.52	H
	10264	-45.39	-13	-32.39	-74.21	-55	2.69	12.31	H
	11976	-41.28	-13	-28.28	-74.49	-50.9	2.68	12.30	H
	13688	-41.32	-13	-28.32	-75.77	-52.1	3.10	13.89	H
	15400	-38.40	-13	-25.40	-72.46	-48.8	3.76	14.16	H
	3420	-52.73	-13	-39.73	-71.31	-58.8	1.58	7.65	V
	5135	-39.81	-13	-26.81	-64.5	-47.1	2.41	9.70	V
	6843	-36.83	-13	-23.83	-64.08	-44.8	2.64	10.61	V
	8551	-36.97	-13	-23.97	-65.66	-47.1	2.39	12.52	V
	10264	-43.19	-13	-30.19	-74.33	-52.8	2.69	12.31	V
	11976	-40.48	-13	-27.48	-75.96	-50.1	2.68	12.30	V
	13688	-43.32	-13	-30.32	-79.23	-54.1	3.10	13.89	V
	15400	-39.50	-13	-26.50	-74.29	-49.9	3.76	14.16	V
Middle	3448	-51.62	-13	-38.62	-69.41	-57.8	1.59	7.77	H
	5177	-44.24	-13	-31.24	-67.9	-51.5	2.44	9.70	H
	6906	-42.63	-13	-29.63	-69.18	-50.7	2.62	10.69	H
	8628	-43.65	-13	-30.65	-70.08	-53.8	2.40	12.55	H
	10352	-46.45	-13	-33.45	-75.47	-56.1	2.69	12.34	H
	12080	-44.08	-13	-31.08	-77.49	-53.7	2.70	12.32	H
	13808	-42.63	-13	-29.63	-76.64	-53.5	3.13	14.01	H
	3448	-50.62	-13	-37.62	-69.61	-56.8	1.59	7.77	V
	5177	-40.44	-13	-27.44	-65.16	-47.7	2.44	9.70	V
	6906	-39.43	-13	-26.43	-66.61	-47.5	2.62	10.69	V
	8628	-42.35	-13	-29.35	-70.93	-52.5	2.40	12.55	V
	10352	-45.55	-13	-32.55	-76.94	-55.2	2.69	12.34	V
	12080	-42.68	-13	-29.68	-78.496	-52.3	2.70	12.32	V
Highest	3483	-50.77	-13	-37.77	-68.32	-57.1	1.60	7.93	H
	5219	-39.36	-13	-26.36	-62.93	-46.6	2.46	9.70	H
	6962	-42.35	-13	-29.35	-68.93	-50.5	2.60	10.75	H
	8705	-43.14	-13	-30.14	-69.94	-53.3	2.42	12.58	H
	10448	-45.01	-13	-32.01	-74.3	-54.7	2.69	12.38	H
	12184	-43.59	-13	-30.59	-77.64	-53.2	2.72	12.34	H
	13928	-42.04	-13	-29.04	-76.21	-53	3.16	14.13	H
	3483	-50.57	-13	-37.57	-69.69	-56.9	1.60	7.93	V
	5219	-37.86	-13	-24.86	-62.7	-45.1	2.46	9.70	V
	6962	-38.45	-13	-25.45	-66.28	-46.6	2.60	10.75	V
	8705	-42.94	-13	-29.94	-71.76	-53.1	2.42	12.58	V
	10448	-43.01	-13	-30.01	-74.89	-52.7	2.69	12.38	V
	12184	-41.09	-13	-28.09	-77.05	-50.7	2.72	12.34	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	-52.83	-13	-39.83	-70.29	-58.9	1.58	7.65	H
	5135	-42.31	-13	-29.31	-65.9	-49.6	2.41	9.70	H
	6843	-39.03	-13	-26.03	-65.64	-47	2.64	10.61	H
	8558	-40.56	-13	-27.56	-67.43	-50.7	2.39	12.52	H
	10264	-44.79	-13	-31.79	-73.86	-54.4	2.69	12.31	H
	11976	-42.48	-13	-29.48	-75.37	-52.1	2.68	12.30	H
	13688	-42.42	-13	-29.42	-76.04	-53.2	3.10	13.89	H
	15400	-38.20	-13	-25.20	-72.54	-48.6	3.76	14.16	H
	3420	-51.63	-13	-38.63	-70.61	-57.7	1.58	7.65	V
	5135	-40.31	-13	-27.31	-64.63	-47.6	2.41	9.70	V
	6843	-36.13	-13	-23.13	-63.54	-44.1	2.64	10.61	V
	8558	-38.76	-13	-25.76	-67.34	-48.9	2.39	12.52	V
	10264	-42.69	-13	-29.69	-74.17	-52.3	2.69	12.31	V
	11976	-40.18	-13	-27.18	-75.44	-49.8	2.68	12.30	V
	13688	-43.72	-13	-30.72	-79.01	-54.5	3.10	13.89	V
	15400	-39.20	-13	-26.20	-74.32	-49.6	3.76	14.16	V
Middle	3448	-52.52	-13	-39.52	-70.07	-58.7	1.59	7.77	H
	5170	-41.63	-13	-28.63	-65.39	-48.9	2.43	9.70	H
	6892	-42.65	-13	-29.65	-69.11	-50.7	2.63	10.67	H
	8617	-42.95	-13	-29.95	-69.67	-53.1	2.40	12.55	H
	10340	-45.46	-13	-32.46	-74.52	-55.1	2.69	12.34	H
	12060	-44.48	-13	-31.48	-77.37	-54.1	2.69	12.31	H
	13786	-43.34	-13	-30.34	-77.35	-54.2	3.13	13.99	H
	3448	-51.02	-13	-38.02	-70.2	-57.2	1.59	7.77	V
	5170	-41.33	-13	-28.33	-66.42	-48.6	2.43	9.70	V
	6892	-38.85	-13	-25.85	-66.35	-46.9	2.63	10.67	V
	8617	-41.35	-13	-28.35	-70.06	-51.5	2.40	12.55	V
	10340	-44.56	-13	-31.56	-76.44	-54.2	2.69	12.34	V
	12060	-42.48	-13	-29.48	-77.92	-52.1	2.69	12.31	V
Highest	3469	-51.33	-13	-38.33	-69.12	-57.6	1.59	7.86	H
	5205	-42.86	-13	-29.86	-66.35	-50.1	2.46	9.70	H
	6941	-41.98	-13	-28.98	-68.45	-50.1	2.61	10.73	H
	8677	-42.24	-13	-29.24	-69.42	-52.4	2.41	12.57	H
	10416	-45.03	-13	-32.03	-74.5	-54.7	2.69	12.37	H
	12152	-43.89	-13	-30.89	-77.42	-53.5	2.72	12.33	H
	13888	-42.87	-13	-29.87	-76.81	-53.8	3.15	14.09	H
	15624	-39.53	-13	-26.53	-74.41	-49.8	3.86	14.13	H
	3469	-51.33	-13	-38.33	-70.41	-57.6	1.59	7.86	V
	5205	-41.46	-13	-28.46	-66.54	-48.7	2.46	9.70	V
	6941	-38.98	-13	-25.98	-66.69	-47.1	2.61	10.73	V
	8677	-41.34	-13	-28.34	-70.8	-51.5	2.41	12.57	V
	10416	-43.53	-13	-30.53	-75.46	-53.2	2.69	12.37	V
	12152	-41.79	-13	-28.79	-77.79	-51.4	2.72	12.33	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)	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	1648	-63.69	-13	-50.69	-74.6	-65.45	0.98	4.89	H
	2472	-59.93	-13	-46.93	-76.25	-61.81	1.28	5.32	H
	3296	-60.21	-13	-47.21	-77.17	-63.62	1.54	7.10	H
	1648	-62.13	-13	-49.13	-73.8	-63.89	0.98	4.89	V
	2472	-58.83	-13	-45.83	-76.58	-60.71	1.28	5.32	V
	3296	-58.54	-13	-45.54	-77.06	-61.95	1.54	7.10	V
Middle	1672	-64.21	-13	-51.21	-75.19	-65.89	0.99	4.82	H
	2504	-60.36	-13	-47.36	-76.71	-62.32	1.29	5.40	H
	3344	-60.04	-13	-47.04	-77.26	-63.65	1.56	7.31	H
	1672	-61.36	-13	-48.36	-73.08	-63.04	0.99	4.82	V
	2504	-59.25	-13	-46.25	-76.61	-61.21	1.29	5.40	V
	3344	-58.60	-13	-45.60	-77.3	-62.21	1.56	7.31	V
Highest	1696	-63.12	-13	-50.12	-74.51	-64.72	1.00	4.75	H
	2544	-59.91	-13	-46.91	-76.49	-61.89	1.30	5.44	H
	3392	-59.67	-13	-46.67	-77.21	-63.47	1.57	7.52	H
	1696	-62.78	-13	-49.78	-74.89	-64.38	1.00	4.75	V
	2544	-58.71	-13	-45.71	-76.49	-60.69	1.30	5.44	V
	3392	-58.52	-13	-45.52	-77.34	-62.32	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	-64.20	-13	-51.20	-75.11	-65.96	0.98	4.89	H
	2472	-60.10	-13	-47.10	-76.42	-61.98	1.28	5.32	H
	3296	-60.44	-13	-47.44	-77.4	-63.85	1.54	7.10	H
	1648	-62.16	-13	-49.16	-73.83	-63.92	0.98	4.89	V
	2472	-60.71	-13	-47.71	-76.39	-62.59	1.28	5.32	V
	3296	-58.81	-13	-45.81	-77.33	-62.22	1.54	7.10	V
Middle	1672	-62.93	-13	-49.93	-73.9	-64.61	0.99	4.82	H
	2504	-60.36	-13	-47.36	-76.59	-62.32	1.29	5.40	H
	3336	-60.16	-13	-47.16	-77.35	-63.74	1.55	7.28	H
	1672	-60.98	-13	-47.98	-72.7	-62.66	0.99	4.82	V
	2504	-58.93	-13	-45.93	-76.57	-60.89	1.29	5.40	V
	3336	-59.05	-13	-46.05	-77.42	-62.63	1.55	7.28	V
Highest	1692	-63.00	-13	-50.00	-74.08	-64.62	1.00	4.76	H
	2538	-60.23	-13	-47.23	-76.81	-62.21	1.30	5.43	H
	3384	-59.86	-13	-46.86	-77.37	-63.63	1.57	7.49	H
	1692	-60.72	-13	-47.72	-72.5	-62.34	1.00	4.76	V
	2538	-58.91	-13	-45.91	-76.65	-60.89	1.30	5.43	V
	3384	-58.59	-13	-45.59	-77.38	-62.36	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	-63.46	-13	-50.46	-74.37	-65.22	0.98	4.89	H
	2472	-59.97	-13	-46.97	-76.29	-61.85	1.28	5.32	H
	3296	-60.28	-13	-47.28	-77.24	-63.69	1.54	7.10	H
	1648	-61.95	-13	-48.95	-73.61	-63.71	0.98	4.89	V
	2472	-58.66	-13	-45.66	-76.41	-60.54	1.28	5.32	V
	3296	-58.80	-13	-45.80	-77.12	-62.21	1.54	7.10	V
Middle	1672	-64.44	-13	-51.44	-75.42	-66.12	0.99	4.82	H
	2504	-60.25	-13	-47.25	-76.62	-62.21	1.29	5.40	H
	3336	-60.18	-13	-47.18	-77.31	-63.76	1.55	7.28	H
	1672	-61.00	-13	-48.00	-72.72	-62.68	0.99	4.82	V
	2504	-60.93	-13	-47.93	-76.62	-62.89	1.29	5.40	V
	3336	-58.67	-13	-45.67	-77.35	-62.25	1.55	7.28	V
Highest	1688	-61.71	-13	-48.71	-72.79	-63.34	1.00	4.77	H
	2536	-59.91	-13	-46.91	-76.46	-61.89	1.30	5.43	H
	3376	-60.09	-13	-47.09	-77.54	-63.83	1.57	7.45	H
	1688	-59.55	-13	-46.55	-71.26	-61.18	1.00	4.77	V
	2536	-58.65	-13	-45.65	-76.55	-60.63	1.30	5.43	V
	3376	-58.74	-13	-45.74	-77.47	-62.48	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	-64.05	-13	-51.05	-74.95	-65.81	0.98	4.89	H
	2472	-59.91	-13	-46.91	-76.54	-61.79	1.28	5.32	H
	3296	-60.30	-13	-47.30	-77.25	-63.71	1.54	7.10	H
	1648	-61.98	-13	-48.98	-73.65	-63.74	0.98	4.89	V
	2472	-59.10	-13	-46.10	-76.48	-60.98	1.28	5.32	V
	3296	-58.72	-13	-45.72	-77.14	-62.13	1.54	7.10	V
Middle	1664	-63.10	-13	-50.10	-74.1	-64.81	0.98	4.84	H
	2496	-60.01	-13	-47.01	-76.46	-61.96	1.29	5.39	H
	3328	-59.99	-13	-46.99	-77.14	-63.53	1.55	7.24	H
	1664	-61.96	-13	-48.96	-73.71	-63.67	0.98	4.84	V
	2496	-58.51	-13	-45.51	-76.45	-60.46	1.29	5.39	V
	3328	-58.72	-13	-45.72	-77.36	-62.26	1.55	7.24	V
Highest	1680	-63.04	-13	-50.04	-74.14	-64.69	0.99	4.80	H
	2520	-59.61	-13	-46.61	-76.29	-61.58	1.30	5.42	H
	3360	-59.85	-13	-46.85	-77.17	-63.52	1.56	7.38	H
	1680	-61.78	-13	-48.78	-73.59	-63.43	0.99	4.80	V
	2520	-58.81	-13	-45.81	-76.56	-60.78	1.30	5.42	V
	3360	-58.61	-13	-45.61	-77.38	-62.28	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)	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	4998	-46.14	-25	-21.14	-69.58	-53.5	2.34	9.70	H
	7500	-41.13	-25	-16.13	-68.27	-50.5	2.43	11.80	H
	10002	-30.70	-25	-5.70	-58.76	-40.2	2.70	12.20	H
	12504	-42.40	-25	-17.40	-77.95	-52	2.81	12.40	H
	4998	-44.44	-25	-19.44	-69.12	-51.8	2.34	9.70	V
	7500	-34.73	-25	-9.73	-63.41	-44.1	2.43	11.80	V
	10002	-27.40	-25	-2.40	-57.08	-36.9	2.70	12.20	V
	12504	-38.50	-25	-13.50	-76.2	-48.1	2.81	12.40	V
Middle	5064	-50.47	-25	-25.47	-73.98	-57.8	2.37	9.70	H
	7596	-41.24	-25	-16.24	-69.31	-50.7	2.40	11.86	H
	10128	-35.54	-25	-10.54	-63.92	-45.1	2.70	12.25	H
	5064	-45.47	-25	-20.47	-70.47	-52.8	2.37	9.70	V
	7596	-37.04	-25	-12.04	-66.7	-46.5	2.40	11.86	V
	10128	-32.24	-25	-7.24	-63.02	-41.8	2.70	12.25	V
Highest	5130	-50.21	-25	-25.21	-73.81	-57.5	2.41	9.70	H
	7698	-42.55	-25	-17.55	-70.27	-52.1	2.37	11.92	H
	10260	-38.49	-25	-13.49	-67.34	-48.1	2.69	12.30	H
	5130	-48.51	-25	-23.51	-73.25	-55.8	2.41	9.70	V
	7698	-38.65	-25	-13.65	-67.9	-48.2	2.37	11.92	V
	10260	-38.49	-25	-13.49	-69.64	-48.1	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	4998	-46.44	-25	-21.44	-69.92	-53.8	2.34	9.70	H
	7500	-42.63	-25	-17.63	-69.7	-52	2.43	11.80	H
	10002	-31.00	-25	-6.00	-59.15	-40.5	2.70	12.20	H
	12504	-42.70	-25	-17.70	-78.21	-52.3	2.81	12.40	H
	4998	-42.14	-25	-17.14	-66.83	-49.5	2.34	9.70	V
	7500	-35.83	-25	-10.83	-64.59	-45.2	2.43	11.80	V
	10002	-27.10	-25	-2.10	-56.77	-36.6	2.70	12.20	V
	12504	-41.30	-25	-16.30	-78.96	-50.9	2.81	12.40	V
Middle	5058	-49.17	-25	-24.17	-72.76	-56.5	2.37	9.70	H
	7590	-42.35	-25	-17.35	-70.08	-51.8	2.40	11.85	H
	10122	-35.55	-25	-10.55	-64.1	-45.1	2.70	12.25	H
	5058	-45.37	-25	-20.37	-69.97	-52.7	2.37	9.70	V
	7590	-37.75	-25	-12.75	-67.31	-47.2	2.40	11.85	V
	10122	-33.05	-25	-8.05	-63.34	-42.6	2.70	12.25	V
Highest	5120	-53.61	-25	-28.61	-77.28	-60.9	2.41	9.70	H
	7680	-47.26	-25	-22.26	-74.99	-56.8	2.37	11.91	H
	10244	-43.20	-25	-18.20	-72.16	-52.8	2.69	12.30	H
	5120	-52.31	-25	-27.31	-76.72	-59.6	2.41	9.70	V
	7680	-43.96	-25	-18.96	-73.17	-53.5	2.37	11.91	V
	10244	-40.70	-25	-15.70	-72.09	-50.3	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	-46.84	-25	-21.84	-70.32	-54.2	2.34	9.70	H
	7500	-41.13	-25	-16.13	-68.17	-50.5	2.43	11.80	H
	10002	-32.00	-25	-7.00	-60.07	-41.5	2.70	12.20	H
	12504	-42.70	-25	-17.70	-78.32	-52.3	2.81	12.40	H
	5004	-43.14	-25	-18.14	-67.79	-50.5	2.34	9.70	V
	7500	-35.13	-25	-10.13	-63.75	-44.5	2.43	11.80	V
	10002	-27.62	-25	-2.62	-57.39	-37.12	2.70	12.20	V
	12504	-40.60	-25	-15.60	-78.23	-50.2	2.81	12.40	V
Middle	5058	-48.57	-25	-23.57	-72.14	-55.9	2.37	9.70	H
	7584	-41.25	-25	-16.25	-68.89	-50.7	2.40	11.85	H
	10110	-35.35	-25	-10.35	-63.72	-44.9	2.70	12.24	H
	5058	-44.77	-25	-19.77	-69.41	-52.1	2.37	9.70	V
	7584	-35.65	-25	-10.65	-64.97	-45.1	2.40	11.85	V
	10110	-31.95	-25	-6.95	-63.09	-41.5	2.70	12.24	V
Highest	5112	-51.60	-25	-26.60	-75.27	-58.9	2.40	9.70	H
	7668	-41.17	-25	-16.17	-69	-50.7	2.38	11.90	H
	10224	-37.31	-25	-12.31	-66.06	-46.9	2.69	12.29	H
	5112	-48.50	-25	-23.50	-73.5	-55.8	2.40	9.70	V
	7668	-38.77	-25	-13.77	-67.89	-48.3	2.38	11.90	V
	10224	-36.21	-25	-11.21	-67.64	-45.8	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	-47.64	-25	-22.64	-71.23	-55	2.34	9.70	H
	7500	-41.43	-25	-16.43	-68.51	-50.8	2.43	11.80	H
	10002	-32.30	-25	-7.30	-60.38	-41.8	2.70	12.20	H
	12504	-42.90	-25	-17.90	-78.37	-52.5	2.81	12.40	H
	5004	-45.34	-25	-20.34	-69.8	-52.7	2.34	9.70	V
	7500	-35.13	-25	-10.13	-63.86	-44.5	2.43	11.80	V
	10002	-27.16	-25	-2.16	-56.75	-36.66	2.70	12.20	V
	12504	-41.90	-25	-16.90	-78.95	-51.5	2.81	12.40	V
Middle	5052	-48.57	-25	-23.57	-72.49	-55.9	2.37	9.70	H
	7578	-41.06	-25	-16.06	-68.79	-50.5	2.40	11.85	H
	10104	-35.95	-25	-10.95	-64.29	-45.5	2.70	12.24	H
	5052	-45.77	-25	-20.77	-70.43	-53.1	2.37	9.70	V
	7578	-37.16	-25	-12.16	-66.38	-46.6	2.40	11.85	V
	10104	-32.55	-25	-7.55	-63.49	-42.1	2.70	12.24	V
Highest	5100	-51.79	-25	-26.79	-75.32	-59.1	2.39	9.70	H
	7656	-44.29	-25	-19.29	-71.93	-53.8	2.38	11.89	H
	10206	-38.21	-25	-13.21	-66.97	-47.8	2.70	12.28	H
	5100	-48.49	-25	-23.49	-73.06	-55.8	2.39	9.70	V
	7656	-40.09	-25	-15.09	-69.26	-49.6	2.38	11.89	V
	10206	-37.51	-25	-12.51	-68.77	-47.1	2.70	12.28	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	-64.57	-13	-51.57	-74.41	-66.28	0.87	4.73	H
	2112	-62.25	-13	-49.25	-76.00	-63.17	1.17	4.24	H
	2816	-60.37	-13	-47.37	-76.49	-62.48	1.39	5.65	H
	1408	-64.40	-13	-51.40	-74.21	-66.11	0.87	4.73	V
	2112	-60.44	-13	-47.44	-75.80	-61.36	1.17	4.24	V
	2816	-59.28	-13	-46.28	-76.57	-61.39	1.39	5.65	V
Middle	1416	-64.43	-13	-51.43	-74.31	-66.18	0.87	4.78	H
	2120	-62.05	-13	-49.05	-75.98	-62.99	1.17	4.26	H
	2832	-60.31	-13	-47.31	-76.47	-62.43	1.39	5.67	H
	1416	-64.39	-13	-51.39	-74.34	-66.14	0.87	4.78	V
	2120	-60.68	-13	-47.68	-75.83	-61.62	1.17	4.26	V
	2832	-59.07	-13	-46.07	-76.35	-61.19	1.39	5.67	V
Highest	1424	-64.49	-13	-51.49	-74.46	-66.29	0.88	4.83	H
	2136	-62.23	-13	-49.23	-75.98	-63.21	1.18	4.31	H
	2848	-60.31	-13	-47.31	-76.51	-62.44	1.40	5.68	H
	1424	-64.33	-13	-51.33	-74.51	-66.13	0.88	4.83	V
	2136	-61.00	-13	-48.00	-76.08	-61.98	1.18	4.31	V
	2848	-59.12	-13	-46.12	-76.54	-61.25	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	-64.45	-13	-51.45	-74.26	-66.16	0.87	4.73	H
	2112	-62.07	-13	-49.07	-75.98	-62.99	1.17	4.24	H
	2816	-59.78	-13	-46.78	-76.51	-61.89	1.39	5.65	H
	1408	-64.45	-13	-51.45	-74.36	-66.16	0.87	4.73	V
	2112	-60.50	-13	-47.50	-75.74	-61.42	1.17	4.24	V
	2816	-59.38	-13	-46.38	-76.69	-61.49	1.39	5.65	V
Middle	1408	-48.42	-13	-35.42	-53.64	-50.13	0.87	4.73	H
	2120	-26.26	-13	-13.26	-35.72	-27.20	1.17	4.26	H
	2824	-54.45	-13	-41.45	-65.45	-56.57	1.39	5.66	H
	1408	-51.50	-13	-38.50	-55.64	-53.21	0.87	4.73	V
	2120	-32.30	-13	-19.30	-41.95	-33.24	1.17	4.26	V
	2824	-52.22	-13	-39.22	-63.59	-54.34	1.39	5.66	V
Highest	1416	-64.38	-13	-51.38	-74.26	-66.13	0.87	4.78	H
	2120	-62.74	-13	-49.74	-76.01	-63.68	1.17	4.26	H
	2824	-60.21	-13	-47.21	-76.34	-62.33	1.39	5.66	H
	1416	-63.98	-13	-50.98	-73.92	-65.73	0.87	4.78	V
	2120	-60.95	-13	-47.95	-76.12	-61.89	1.17	4.26	V
	2824	-59.25	-13	-46.25	-76.50	-61.37	1.39	5.66	V

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