



FCC RF Test Report

APPLICANT : Dell Inc.
EQUIPMENT : Tablet PC
BRAND NAME : DELL
MODEL NAME : T02E002
FCC ID : E2K-T02E002
STANDARD : 47 CFR Part 2, 22(H), 24(E), 27
CLASSIFICATION : PCS Licensed Transmitter (PCB)

The product was received on Jan. 06, 2015 and completely tested on Feb. 05, 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
FG481209-09B	Rev. 01	Initial issue of report	Mar. 13, 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	-
	§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	EIRP < 2Watt		
	§27.50(d)(4)	RSS-139 (6.4) SRSP-513(5.1.2)	Equivalent Isotropic Radiated Power	EIRP < 1Watt		



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	-
	§2.1053 §27.53(m)(4)	RSS-GEN(4.9) RSS-199 (4.5)	Conducted Spurious Emission (Band 7)	< 55+10log10(P[Watts])		
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	§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+10log10(P[Watts])	PASS	Under limit 10.89 dB at 10260.000 MHz
	§2.1053 §27.53(m)(4)	RSS-GEN(4.9) RSS-199 (4.5)	Radiated Spurious Emission (Band 7)	< 55+10log10(P[Watts])		

Remark: The EUT is tablet PC which supported LTE band 29 (717MHz ~728MHz), and this band falls in frequency range , 698MHz~746MHz , which is used for base station as per FCC part 27. The EUT won't design as base station, therefore it's not necessary to assess test of FCC part 27 for EUT.



1 General Description

1.1 Applicant

Dell Inc.
One Dell Way, Round Rock, Texas 78682, USA

1.2 Manufacturer

Dell Inc.
One Dell Way, Round Rock, Texas 78682, USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Tablet PC
Brand Name	DELL
Model Name	T02E002
FCC ID	E2K-T02E002
Integrated WWAN Chip	Brand Name: Intel Model Name: X-GOLD 726G
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth v4.0 EDR/LE
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 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 17 : 736.5 MHz ~ 743.5 MHz LTE Band 29 : 718.5 MHz ~ 726.5 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 LTE Band 29 : 3MHz / 5MHz / 10MHz
Maximum Output Power to Antenna	LTE Band 2 : 23.48 dBm LTE Band 4 : 23.60 dBm LTE Band 5 : 22.55 dBm LTE Band 7 : 22.97 dBm LTE Band 17 : 23.02 dBm
Antenna Gain	LTE Band 2 : 1.50 dBi LTE Band 4 : 1.00 dBi LTE Band 5 : -1.50 dBi LTE Band 7 : 2.00 dBi LTE Band 17 : -2.50 dBi
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	-	0.3006	1M10W7D	-	0.2506	
3	2M72G7D	-	0.2999	2M72W7D	-	0.2523	
5	4M50G7D	-	0.2944	4M50W7D	-	0.2472	
10	9M10G7D	0.0094	0.3006	9M08W7D	-	0.2518	
15	13M5G7D	-	0.2985	13M5W7D	-	0.2541	
20	18M6G7D	-	0.3148	18M6W7D	-	0.2761	
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	-	0.2780	1M10W7D	-	0.2477	
3	2M72G7D	-	0.2871	2M72W7D	-	0.2432	
5	4M49G7D	-	0.2679	4M50W7D	-	0.2259	
10	9M14G7D	0.0080	0.2754	9M10W7D	-	0.2339	
15	13M6G7D	-	0.2630	13M5W7D	-	0.2270	
20	18M6G7D	-	0.2884	18M6W7D	-	0.2460	
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	-	0.0773	1M10W7D	-	0.0653	
3	2M72G7D	-	0.0769	2M72W7D	-	0.0652	
5	4M49G7D	-	0.0766	4M50W7D	-	0.0649	
10	9M12G7D	0.0093	0.0776	9M08W7D	-	0.0664	



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	-	0.3020	4M50W7D	-	0.2500	
10	9M12G7D	0.0139	0.3133	9M08W7D	-	0.2500	
15	13M5G7D	-	0.3034	13M5W7D	-	0.2500	
20	18M6G7D	-	0.3141	18M6W7D	-	0.2500	
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	-	0.0675	4M50W7D	-	0.0561	
10	9M10G7D	0.0082	0.0687	9M06W7D	-	0.0587	



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 1 st 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
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01

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.

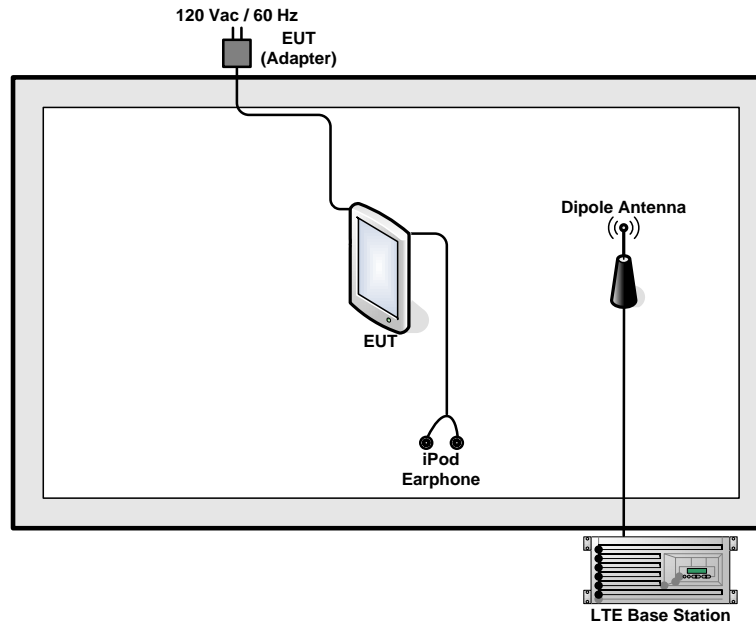
Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

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	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	5	✓	✓	✓	✓	-	-	✓	✓	✓	✓	✓	✓	✓	✓
	7	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	17	-	-	✓	✓	-	-	✓	✓	✓	✓	✓	✓	✓	✓
Peak-to-Average Ratio	2						✓	✓	✓	✓		✓	✓	✓	✓
	4						✓	✓	✓	✓		✓	✓	✓	✓
	5				✓	-	-	✓	✓	✓		✓	✓	✓	✓
	7	-	-				✓	✓	✓	✓		✓	✓	✓	✓
	17	-	-		✓	-	-	✓	✓	✓		✓	✓	✓	✓
26dB and 99% Bandwidth	2	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓
	4	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓
	5	✓	✓	✓	✓	-	-	✓	✓			✓	✓	✓	✓
	7	-	-	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓
	17	-	-	✓	✓	-	-	✓	✓			✓	✓	✓	✓
Conducted Band Edge	2	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓
	4	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓
	5	✓	✓	✓	✓	-	-	✓	✓	✓		✓	✓		✓
	7	-	-	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓
	17	-	-	✓	✓	-	-	✓	✓	✓		✓	✓		✓



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	
	17	-	-		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	<p>1. The mark “v” means that this configuration is chosen for testing</p> <p>2. The mark “-” means that this bandwidth is not supported.</p> <p>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.</p>														

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.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A

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 :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 4.2 + 10 = 14.2 \text{ (dB)} \end{aligned}$$

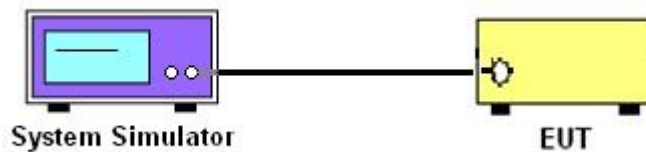
3 Conducted Test Items

3.1 Measuring Instruments

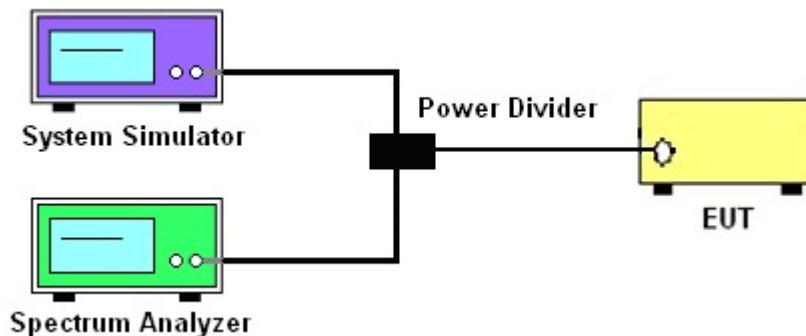
See list of measuring instruments of this test report.

3.2 Test Setup

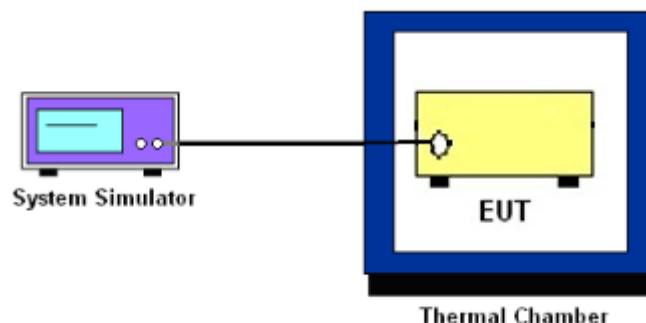
3.2.1 Conducted Output Power



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.

The ERP of mobile transmitters must not exceed 7 Watts for LTE Band 5.

The ERP of mobile transmitters must not exceed 3 Watts for LTE Band 12, Band 13 and Band 17.
(FCC Only)

The EIRP of mobile transmitters must not exceed 5 Watts for LTE Band 12, Band 13 and Band 17.
(IC Only)

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 2 and Band 25 and Band 7 and Band 41.

The EIRP of mobile transmitters must not exceed 1 Watts for LTE Band 4.

According to KDB 412172 D01 Power Approach,

$EIRP = P_T + G_T - L_C$, $ERP = EIRP - 2.15$, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

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 $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ 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 $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ 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 $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ 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 $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ 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 $\geq 1\%$ 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 $43 + 10\log(P)$ dB below the transmitter power P(Watts)
= $P(W) - [43 + 10\log(P)]$ (dB)
= $[30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (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 10th 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 $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
 $= -13$ dBm.
9. For Band 7
The limit line is derived from $55 + 10\log(P)$ 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 $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) 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 $25\pm 5^{\circ}\text{C}$ 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.

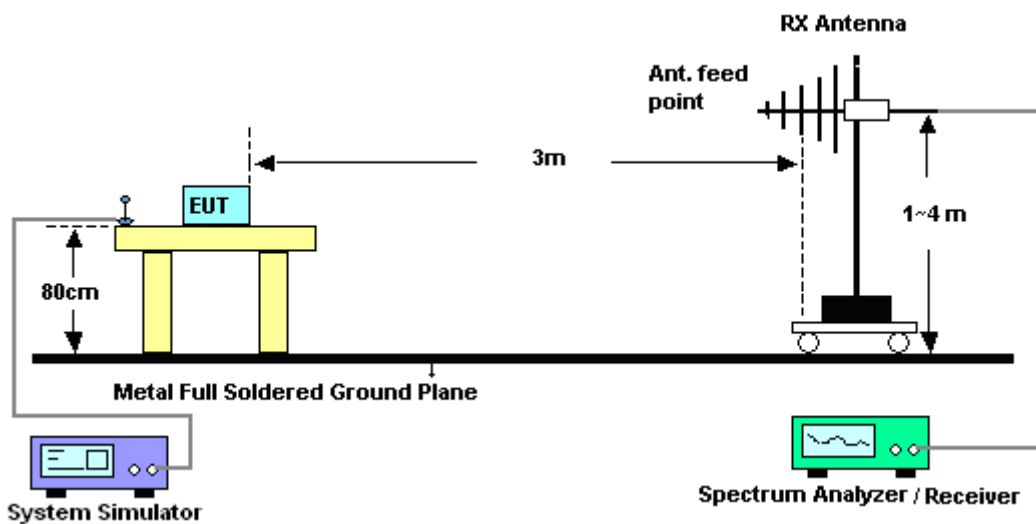
4 Radiated Test Items

4.1 Measuring Instruments

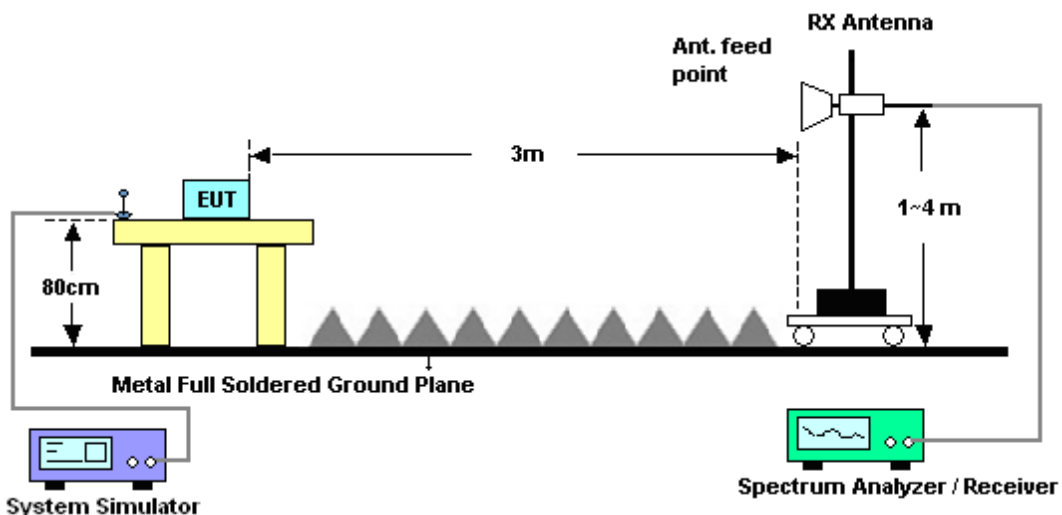
See list of measuring instruments of this test report.

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 Radiated Spurious Emission

4.4.1 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

The -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.

4.4.2 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 $43 + 10\log(P)$ 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:

12. The limit line is derived from $55 + 10\log(P)$ dB below the transmitter power P(Watts)
13. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
14. 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	FSP40	100055	9kHz~40GHz	Jun. 09, 2014	Jan. 19, 2015~ Jan. 29, 2015	Jun. 08, 2015	Conducted (TH02-HY)
Thermal Chamber	Ten Billion	TTH-D3SP	TBN-930701	N/A	Jul. 17, 2014	Jan. 19, 2015~ Jan. 29, 2015	Jul. 16, 2015	Conducted (TH02-HY)
LTE Base Station	Anritsu	MT8820C	6201026480	30MHz~2.7GHz SISO	Jan. 08, 2015	Jan. 19, 2015~ Jan. 29, 2015	Jan. 07, 2016	Conducted (TH02-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV30	101749	10Hz ~ 30GHz	Feb. 10, 2014	Jan. 17, 2015 ~ Feb. 05, 2015	Feb. 09, 2015	Radiation (03CH07-HY)
Bilog Antenna	Schaffner	CBL6111C	2726	30MHz ~ 1GHz	Sep. 27, 2014	Jan. 17, 2015 ~ Feb. 05, 2015	Sep. 26, 2015	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	75962	1GHz~18GHz	Aug. 19, 2014	Jan. 17, 2015 ~ Feb. 05, 2015	Aug. 18, 2015	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10 MHz ~ 1000MHz	Mar. 17, 2014	Jan. 17, 2015 ~ Feb. 05, 2015	Mar. 16, 2015	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1 GHz~26.5 GHz	Oct. 21, 2014	Jan. 17, 2015 ~ Feb. 05, 2015	Oct. 20, 2015	Radiation (03CH07-HY)
Turn Table	ChainTek	ChainTek 3000	N/A	0 ~ 360 degree	N/A	Jan. 17, 2015 ~ Feb. 05, 2015	N/A	Radiation (03CH07-HY)
Antenna Mast	ChainTek	M-400-0	114/8000604/L	N/A	N/A	Jan. 17, 2015 ~ Feb. 05, 2015	N/A	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz~40GHz	Oct. 02, 2014	Jan. 17, 2015 ~ Feb. 05, 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))	2.54
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.72
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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	23.24	23.25	23.28
1.4	1	2		22.79	22.80	22.88
1.4	1	5		23.23	23.21	23.27
1.4	3	0		23.11	23.11	23.12
1.4	3	1		22.99	22.97	22.99
1.4	3	2		23.00	23.01	23.01
1.4	6	0		22.07	22.06	22.08
1.4	1	0	16-QAM	22.44	22.49	22.45
1.4	1	2		22.04	22.06	22.04
1.4	1	5		22.43	22.44	22.40
1.4	3	0		22.16	22.21	22.17
1.4	3	1		22.01	22.06	22.03
1.4	3	2		21.98	22.03	22.00
1.4	6	0		21.18	21.23	21.26
3	1	0	QPSK	23.21	23.27	23.26
3	1	7		23.16	23.18	23.20
3	1	14		23.09	23.15	23.14
3	8	0		22.09	22.15	22.16
3	8	4		22.08	22.14	22.14
3	8	7		22.07	22.13	22.12
3	15	0		22.05	22.13	22.11
3	1	0	16-QAM	22.48	22.52	22.50
3	1	7		22.44	22.45	22.44
3	1	14		22.27	22.33	22.31
3	8	0		21.20	21.28	21.27
3	8	4		21.15	21.20	21.21
3	8	7		21.17	21.22	21.26
3	15	0		21.17	21.23	21.27



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.11	23.19	23.06
5	1	12		23.10	23.15	23.00
5	1	24		22.97	23.06	22.88
5	12	0		22.16	22.23	22.08
5	12	6		22.13	22.19	22.04
5	12	11		22.14	22.21	22.04
5	25	0		22.16	22.22	22.05
5	1	0	16-QAM	22.36	22.43	22.28
5	1	12		22.29	22.37	22.24
5	1	24		22.20	22.29	22.11
5	12	0		21.30	21.33	21.19
5	12	6		21.26	21.28	21.14
5	12	11		21.30	21.30	21.14
5	25	0		21.29	21.27	21.14
10	1	0	QPSK	23.28	23.24	23.18
10	1	24		23.21	23.19	23.07
10	1	49		23.06	23.07	22.94
10	25	0		22.24	22.23	22.15
10	25	12		22.17	22.15	22.07
10	25	24		22.13	22.13	22.01
10	50	0		22.20	22.20	22.10
10	1	0	16-QAM	22.51	22.47	22.37
10	1	24		22.45	22.40	22.29
10	1	49		22.31	22.29	22.12
10	25	0		21.32	21.28	21.21
10	25	12		21.25	21.22	21.13
10	25	24		21.22	21.19	21.09
10	50	0		21.26	21.24	21.16



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.19	23.25	22.98
15	1	37		23.18	23.22	22.94
15	1	74		22.85	22.95	22.65
15	36	0		22.48	22.51	22.30
15	36	18		22.30	22.31	22.08
15	36	37		22.29	22.35	22.11
15	75	0		22.36	22.39	22.18
15	1	0	16-QAM	22.48	22.55	22.32
15	1	37		22.46	22.49	22.25
15	1	74		22.24	22.26	21.97
15	36	0		21.57	21.58	21.37
15	36	18		21.35	21.39	21.16
15	36	37		21.37	21.41	21.19
15	75	0		21.41	21.48	21.24
20	1	0	QPSK	23.48	23.39	23.33
20	1	49		23.45	23.38	23.31
20	1	99		23.02	22.96	22.92
20	50	0		22.99	22.92	22.90
20	50	24		22.83	22.79	22.74
20	50	49		22.74	22.72	22.67
20	100	0		22.81	22.74	22.73
20	1	0	16-QAM	22.91	22.84	22.86
20	1	49		22.76	22.63	22.60
20	1	99		22.34	22.22	22.16
20	50	0		22.00	22.00	21.94
20	50	24		21.86	21.80	21.79
20	50	49		21.82	21.79	21.71
20	100	0		21.86	21.81	21.78



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.41	23.27	23.47
1.4	1	2		22.98	22.94	23.04
1.4	1	5		23.26	23.16	23.44
1.4	3	0		22.96	22.99	23.34
1.4	3	1		23.27	23.03	23.21
1.4	3	2		23.22	23.10	23.21
1.4	6	0		22.28	22.25	22.36
1.4	1	0	16-QAM	22.94	22.80	22.76
1.4	1	2		22.48	22.43	22.36
1.4	1	5		22.72	22.48	22.75
1.4	3	0		22.40	22.37	22.49
1.4	3	1		22.07	22.31	22.32
1.4	3	2		22.41	22.30	22.28
1.4	6	0		21.41	21.34	21.37
3	1	0	QPSK	23.58	23.38	23.45
3	1	7		23.48	23.37	23.36
3	1	14		23.43	23.32	23.34
3	8	0		22.50	22.37	22.39
3	8	4		22.45	22.35	22.37
3	8	7		22.44	22.35	22.35
3	15	0		22.47	22.35	22.34
3	1	0	16-QAM	22.86	22.72	22.78
3	1	7		22.80	22.71	22.71
3	1	14		22.69	22.55	22.58
3	8	0		21.50	21.39	21.37
3	8	4		21.45	21.34	21.33
3	8	7		21.45	21.34	21.34
3	15	0		21.45	21.33	21.34



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.28	23.11	23.15
5	1	12		23.19	23.10	23.12
5	1	24		23.08	23.00	23.02
5	12	0		22.36	22.27	22.29
5	12	6		22.33	22.23	22.23
5	12	11		22.32	22.23	22.23
5	25	0		22.31	22.20	22.24
5	1	0	16-QAM	22.54	22.45	22.48
5	1	12		22.50	22.38	22.47
5	1	24		22.39	22.31	22.31
5	12	0		21.36	21.26	21.28
5	12	6		21.31	21.21	21.21
5	12	11		21.30	21.24	21.21
5	25	0		21.28	21.20	21.18
10	1	0	QPSK	23.40	23.26	23.28
10	1	24		23.33	23.20	23.20
10	1	49		23.11	23.01	23.01
10	25	0		22.37	22.23	22.26
10	25	12		22.30	22.21	22.21
10	25	24		22.24	22.13	22.13
10	50	0		22.40	22.25	22.30
10	1	0	16-QAM	22.69	22.55	22.59
10	1	24		22.63	22.50	22.51
10	1	49		22.43	22.32	22.29
10	25	0		21.32	21.22	21.24
10	25	12		21.27	21.19	21.16
10	25	24		21.23	21.16	21.12
10	50	0		21.36	21.24	21.27



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.20	23.03	23.09
15	1	37		23.19	23.02	23.03
15	1	74		22.79	22.73	22.70
15	36	0		22.53	22.43	22.48
15	36	18		22.32	22.23	22.29
15	36	37		22.33	22.22	22.29
15	75	0		22.37	22.29	22.31
15	1	0	16-QAM	22.56	22.41	22.47
15	1	37		22.47	22.38	22.42
15	1	74		22.19	22.15	22.07
15	36	0		21.47	21.39	21.45
15	36	18		21.30	21.19	21.26
15	36	37		21.27	21.19	21.25
15	75	0		21.34	21.21	21.28
20	1	0	QPSK	23.43	23.60	23.58
20	1	49		23.42	23.40	23.37
20	1	99		22.90	22.95	22.88
20	50	0		22.98	23.00	22.97
20	50	24		22.81	22.83	22.82
20	50	49		22.73	22.76	22.76
20	100	0		22.73	22.80	22.79
20	1	0	16-QAM	22.90	22.67	22.91
20	1	49		22.78	22.90	22.72
20	1	99		22.26	22.23	22.20
20	50	0		21.95	21.92	21.94
20	50	24		21.78	21.77	21.74
20	50	49		21.70	21.70	21.70
20	100	0		21.73	21.75	21.71



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.53	22.52	22.51
1.4	1	2		22.10	22.09	22.09
1.4	1	5		22.52	22.51	22.19
1.4	3	0		22.41	22.39	22.41
1.4	3	1		22.27	22.26	22.26
1.4	3	2		22.30	22.30	22.30
1.4	6	0		21.38	21.38	21.40
1.4	1	0	16-QAM	21.80	21.79	21.74
1.4	1	2		21.37	21.33	21.35
1.4	1	5		21.75	21.74	21.73
1.4	3	0		21.51	21.51	21.52
1.4	3	1		21.36	21.39	21.38
1.4	3	2		21.38	21.38	21.35
1.4	6	0		20.54	20.52	20.48
3	1	0	QPSK	22.50	22.50	22.51
3	1	7		22.39	22.38	22.45
3	1	14		22.36	22.33	22.36
3	8	0		21.35	21.31	21.43
3	8	4		21.34	21.33	21.37
3	8	7		21.33	21.31	21.36
3	15	0		21.33	21.32	21.37
3	1	0	16-QAM	21.79	21.72	21.77
3	1	7		21.67	21.64	21.76
3	1	14		21.63	21.58	21.59
3	8	0		20.51	20.44	20.50
3	8	4		20.47	20.40	20.45
3	8	7		20.47	20.42	20.42
3	15	0		20.47	20.42	20.43



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.49	22.43	22.35
5	1	12		22.46	22.38	22.34
5	1	24		22.37	22.35	22.20
5	12	0		21.55	21.47	21.45
5	12	6		21.52	21.44	21.38
5	12	11		21.51	21.46	21.37
5	25	0		21.50	21.47	21.39
5	1	0	16-QAM	21.77	21.70	21.67
5	1	12		21.67	21.61	21.64
5	1	24		21.62	21.62	21.41
5	12	0		20.64	20.55	20.53
5	12	6		20.59	20.51	20.46
5	12	11		20.61	20.54	20.43
5	25	0		20.57	20.52	20.44
10	1	0	QPSK	22.55	22.52	22.45
10	1	24		22.53	22.47	22.45
10	1	49		22.41	22.46	22.26
10	25	0		21.61	21.49	21.47
10	25	12		21.60	21.44	21.44
10	25	24		21.54	21.47	21.38
10	50	0		21.54	21.48	21.43
10	1	0	16-QAM	21.87	21.79	21.76
10	1	24		21.85	21.72	21.69
10	1	49		21.70	21.74	21.46
10	25	0		20.70	20.51	20.53
10	25	12		20.64	20.47	20.49
10	25	24		20.59	20.49	20.42
10	50	0		20.63	20.49	20.48



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.64	22.80	22.80
5	1	12		22.56	22.71	22.78
5	1	24		22.54	22.68	22.66
5	12	0		21.74	21.86	21.89
5	12	6		21.72	21.83	21.86
5	12	11		21.74	21.85	21.87
5	25	0		21.75	21.87	21.86
5	1	0	16-QAM	21.98	21.96	21.95
5	1	12		21.89	21.95	21.93
5	1	24		21.85	21.94	21.91
5	12	0		20.76	20.90	20.92
5	12	6		20.74	20.87	20.88
5	12	11		20.79	20.91	20.89
5	25	0		20.73	20.88	20.90
10	1	0	QPSK	22.78	22.91	22.96
10	1	24		22.75	22.90	22.94
10	1	49		22.66	22.79	22.77
10	25	0		21.82	21.95	21.97
10	25	12		21.78	21.96	21.96
10	25	24		21.77	21.90	21.90
10	50	0		21.82	22.00	21.92
10	1	0	16-QAM	21.94	21.98	21.92
10	1	24		21.91	21.97	21.86
10	1	49		21.88	21.92	21.83
10	25	0		20.84	20.97	20.81
10	25	12		20.81	20.97	20.95
10	25	24		20.78	20.93	20.89
10	50	0		20.83	20.99	20.96



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.69	22.82	22.78
15	1	37		22.51	22.65	22.75
15	1	74		22.31	22.49	22.45
15	36	0		22.00	21.97	21.95
15	36	18		21.86	21.94	21.94
15	36	37		21.86	21.97	21.96
15	75	0		21.88	21.98	21.98
15	1	0	16-QAM	21.92	21.98	21.96
15	1	37		21.86	21.94	21.93
15	1	74		21.67	21.82	21.76
15	36	0		20.92	20.93	20.92
15	36	18		20.89	20.90	20.91
15	36	37		20.88	20.94	20.88
15	75	0		20.88	20.89	20.84
20	1	0	QPSK	22.73	22.97	22.86
20	1	49		22.72	22.94	22.85
20	1	99		22.52	22.73	22.57
20	50	0		21.94	21.96	21.91
20	50	24		21.84	21.94	21.87
20	50	49		21.81	21.86	21.87
20	100	0		21.80	21.83	21.78
20	1	0	16-QAM	21.69	21.97	21.98
20	1	49		21.55	21.84	21.72
20	1	99		21.34	21.60	21.43
20	50	0		20.97	20.97	20.93
20	50	24		20.85	20.90	20.86
20	50	49		20.83	20.86	20.88
20	100	0		20.80	20.89	20.87



LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.94	22.91	22.91
5	1	12		22.88	22.88	22.85
5	1	24		22.76	22.83	22.82
5	12	0		21.82	21.83	21.84
5	12	6		21.80	21.79	21.78
5	12	11		21.77	21.77	21.78
5	25	0		21.87	21.88	21.89
5	1	0	16-QAM	22.06	22.14	22.10
5	1	12		22.11	22.05	22.04
5	1	24		21.92	21.97	21.97
5	12	0		20.82	20.84	20.85
5	12	6		20.82	20.81	20.80
5	12	11		20.78	20.78	20.77
5	25	0		20.87	20.90	20.91
10	1	0	QPSK	23.00	23.02	23.01
10	1	24		22.98	23.00	23.00
10	1	49		22.99	22.98	22.99
10	25	0		22.11	22.17	22.16
10	25	12		22.07	22.14	22.08
10	25	24		22.10	22.13	22.07
10	50	0		22.03	22.11	22.09
10	1	0	16-QAM	22.30	22.32	22.34
10	1	24		22.21	22.27	22.32
10	1	49		22.22	22.20	22.22
10	25	0		21.14	21.19	21.24
10	25	12		21.12	21.14	21.14
10	25	24		21.15	21.16	21.16
10	50	0		21.08	21.09	21.11



Effective Radiated Power and Effective Isotropic Radiated

Power

LTE Band 2 (GT - LC = 1.50dB)						
Modes	LTE Band 2 (QPSK,BW=1.4M)			LTE Band 2 (16QAM,BW=1.4M)		
Channel	18607 (Low)	18900 (Mid)	19193 (High)	18607 (Low)	18900 (Mid)	19193 (High)
Frequency (MHz)	1850.7	1880	1909.3	1850.7	1880	1909.3
Conducted Power P _T (dBm)	23.24	23.25	23.28	22.44	22.49	22.45
Conducted Power P _T (Watts)	0.21	0.21	0.21	0.18	0.18	0.18
EIRP(dBm)	24.74	24.75	24.78	23.94	23.99	23.95
EIRP(Watts)	0.2979	0.2985	0.3006	0.2477	0.2506	0.2483

LTE Band 2 (GT - LC = 1.50dB)						
Modes	LTE Band 2 (QPSK,BW=3M)			LTE Band 2 (16QAM,BW=3M)		
Channel	18615 (Low)	18900 (Mid)	19185 (High)	18615 (Low)	18900 (Mid)	19185 (High)
Frequency (MHz)	1851.5	1880	1908.5	1851.5	1880	1908.5
Conducted Power P _T (dBm)	23.21	23.27	23.26	22.48	22.52	22.50
Conducted Power P _T (Watts)	0.21	0.21	0.21	0.18	0.18	0.18
EIRP(dBm)	24.71	24.77	24.76	23.98	24.02	24.00
EIRP(Watts)	0.2958	0.2999	0.2992	0.2500	0.2523	0.2512



LTE Band 2 (GT - LC = 1.50dB)						
Modes	LTE Band 2(QPSK,BW=5M)			LTE Band 2 (16QAM,BW=5M)		
Channel	18625 (Low)	18900 (Mid)	19175 (High)	18625 (Low)	18900 (Mid)	19175 (High)
Frequency (MHz)	1852.5	1880	1907.5	1852.5	1880	1907.5
Conducted Power P _T (dBm)	23.11	23.19	23.06	22.36	22.43	22.28
Conducted Power P _T (Watts)	0.20	0.21	0.20	0.17	0.17	0.17
EIRP(dBm)	24.61	24.69	24.56	23.86	23.93	23.78
EIRP(Watts)	0.2891	0.2944	0.2858	0.2432	0.2472	0.2388

LTE Band 2 (GT - LC = 1.50B)						
Modes	LTE Band 2 (QPSK,BW=10M)			LTE Band 2 (16QAM,BW=10M)		
Channel	18650 (Low)	18900 (Mid)	19150 (High)	18650 (Low)	18900 (Mid)	19150 (High)
Frequency (MHz)	1855	1880	1905	1855	1880	1905
Conducted Power P _T (dBm)	23.28	23.24	23.18	22.51	22.47	22.37
Conducted Power P _T (Watts)	0.21	0.21	0.21	0.18	0.18	0.17
EIRP(dBm)	24.78	24.74	24.68	24.01	23.97	23.87
EIRP(Watts)	0.3006	0.2979	0.2938	0.2518	0.2495	0.2438



LTE Band 2 (GT - LC = 1.50dB)						
Modes	LTE Band 2(QPSK,BW=15M)			LTE Band 2 (16QAM,BW=15M)		
Channel	18675 (Low)	18900 (Mid)	19125 (High)	18675 (Low)	18900 (Mid)	19125 (High)
Frequency (MHz)	1857.5	1880	1902.5	1857.5	1880	1902.5
Conducted Power P _T (dBm)	23.19	23.25	22.98	22.48	22.55	22.32
Conducted Power P _T (Watts)	0.21	0.21	0.20	0.18	0.18	0.17
EIRP(dBm)	24.69	24.75	24.48	23.98	24.05	23.82
EIRP(Watts)	0.2944	0.2985	0.2805	0.2500	0.2541	0.2410

LTE Band 2 (GT - LC = 1.50dB)						
Modes	LTE Band 2 (QPSK,BW=20M)			LTE Band 2 (16QAM,BW=20M)		
Channel	18700 (Low)	18900 (Mid)	19100 (High)	18700 (Low)	18900 (Mid)	19100 (High)
Frequency (MHz)	1860	1880	1900	1860	1880	1900
Conducted Power P _T (dBm)	23.48	23.39	23.33	22.91	22.84	22.86
Conducted Power P _T (Watts)	0.22	0.22	0.22	0.20	0.19	0.19
EIRP(dBm)	24.98	24.89	24.83	24.41	24.34	24.36
EIRP(Watts)	0.3148	0.3083	0.3041	0.2761	0.2716	0.2729



LTE Band 4 (GT - LC = 1.00dB)						
Modes	LTE Band 4 (QPSK,BW=1.4M)			LTE Band 4 (16QAM,BW=1.4M)		
Channel	19957 (Low)	20175 (Mid)	20393 (High)	19957 (Low)	20175 (Mid)	20393 (High)
Frequency (MHz)	1710.7	1732.5	1754.3	1710.7	1732.5	1754.3
Conducted Power P _T (dBm)	23.26	23.16	23.44	22.94	22.80	22.76
Conducted Power P _T (Watts)	0.21	0.21	0.22	0.20	0.19	0.19
EIRP(dBm)	24.26	24.16	24.44	23.94	23.80	23.76
EIRP(Watts)	0.2667	0.2606	0.2780	0.2477	0.2399	0.2377

LTE Band 4 (GT - LC = 1.00dB)						
Modes	LTE Band 4 (QPSK,BW=3M)			LTE Band 4 (16QAM,BW=3M)		
Channel	19965 (Low)	20175 (Mid)	20385 (High)	19965 (Low)	20175 (Mid)	20385 (High)
Frequency (MHz)	1711.5	1732.5	1753.5	1711.5	1732.5	1753.5
Conducted Power P _T (dBm)	23.58	23.38	23.45	22.86	22.72	22.78
Conducted Power P _T (Watts)	0.23	0.22	0.22	0.19	0.19	0.19
EIRP(dBm)	24.58	24.38	24.45	23.86	23.72	23.78
EIRP(Watts)	0.2871	0.2742	0.2786	0.2432	0.2355	0.2388



LTE Band 4 (GT - LC = 1.00dB)						
Modes	LTE Band 4 (QPSK,BW=5M)			LTE Band 4 (16QAM,BW=5M)		
Channel	19975 (Low)	20175 (Mid)	20375 (High)	19975 (Low)	20175 (Mid)	20375 (High)
Frequency (MHz)	1712.5	1732.5	1752.5	1712.5	1732.5	1752.5
Conducted Power P _T (dBm)	23.28	23.11	23.15	22.54	22.45	22.48
Conducted Power P _T (Watts)	0.21	0.20	0.21	0.18	0.18	0.18
EIRP(dBm)	24.28	24.11	24.15	23.54	23.45	23.48
EIRP(Watts)	0.2679	0.2576	0.2600	0.2259	0.2213	0.2228

LTE Band 4 (GT - LC = 1.00dB)						
Modes	LTE Band 4 (QPSK,BW=10)			LTE Band 4 (16QAM,BW=10M)		
Channel	20000 (Low)	20175 (Mid)	20350 (High)	20000 (Low)	20175 (Mid)	20350 (High)
Frequency (MHz)	1715	1732.5	1750	1715	1732.5	1750
Conducted Power P _T (dBm)	23.40	23.26	23.28	22.69	22.55	22.59
Conducted Power P _T (Watts)	0.22	0.21	0.21	0.19	0.18	0.18
EIRP(dBm)	24.40	24.26	24.28	23.69	23.55	23.59
EIRP(Watts)	0.2754	0.2667	0.2679	0.2339	0.2265	0.2286



LTE Band 4 (GT - LC = 1.00dB)						
Modes	LTE Band 4 (QPSK,BW=15M)			LTE Band 4 (16QAM,BW=15M)		
Channel	20025 (Low)	20175 (Mid)	20325 (High)	20025 (Low)	20175 (Mid)	20325 (High)
Frequency (MHz)	1717.5	1732.5	1747.5	1717.5	1732.5	1747.5
Conducted Power P _T (dBm)	23.20	23.03	23.09	22.56	22.41	22.47
Conducted Power P _T (Watts)	0.21	0.20	0.20	0.18	0.17	0.18
EIRP(dBm)	24.20	24.03	24.09	23.56	23.41	23.47
EIRP(Watts)	0.2630	0.2529	0.2564	0.2270	0.2193	0.2223

LTE Band 4 (GT - LC = 1.00dB)						
Modes	LTE Band 4 (QPSK,BW=20M)			LTE Band 4 (16QAM,BW=20M)		
Channel	20050 (Low)	20175 (Mid)	20300 (High)	20050 (Low)	20175 (Mid)	20300 (High)
Frequency (MHz)	1720	1732.5	1745	1720	1732.5	1745
Conducted Power P _T (dBm)	23.43	23.60	23.58	22.90	22.67	22.91
Conducted Power P _T (Watts)	0.22	0.23	0.23	0.19	0.18	0.20
EIRP(dBm)	24.43	24.60	24.58	23.90	23.67	23.91
EIRP(Watts)	0.2773	0.2884	0.2871	0.2455	0.2328	0.2460



LTE Band 5 (GT - LC = -1.50dB)						
Modes	LTE Band 5 (QPSK,BW=1.4M)			LTE Band 5V (16QAM,BW=1.4M)		
Channel	20407 (Low)	20525 (Mid)	20643 (High)	20407 (Low)	20525 (Mid)	20643 (High)
Frequency (MHz)	824.7	836.5	848.3	824.7	836.5	848.3
Conducted Power P _T (dBm)	22.53	22.52	22.51	21.80	21.79	21.74
Conducted Power P _T (Watts)	0.18	0.18	0.18	0.15	0.15	0.15
ERP(dBm)	18.88	18.87	18.86	18.15	18.14	18.09
ERP(Watts)	0.0773	0.0771	0.0769	0.0653	0.0652	0.0644

LTE Band 5 (GT - LC = -1.50dB)						
Modes	LTE Band 5 (QPSK,BW=3M)			LTE Band 5 (16QAM,BW=3M)		
Channel	20415 (Low)	20525 (Mid)	20635 (High)	20415 (Low)	20525 (Mid)	20635 (High)
Frequency (MHz)	825.5	836.5	847.5	825.5	836.5	847.5
Conducted Power P _T (dBm)	22.50	22.50	22.51	21.79	21.72	21.77
Conducted Power P _T (Watts)	0.18	0.18	0.18	0.15	0.15	0.15
ERP(dBm)	18.85	18.85	18.86	18.14	18.07	18.12
ERP(Watts)	0.0767	0.0767	0.0769	0.0652	0.0641	0.0649



LTE Band 5 (GT - LC = -1.50dB)						
Modes	LTE Band 5 (QPSK,BW=5M)			LTE Band 5 (16QAM,BW=5M)		
Channel	20425 (Low)	20525 (Mid)	20625 (High)	20425 (Low)	20525 (Mid)	20625 (High)
Frequency (MHz)	826.5	836.5	846.5	826.5	836.5	846.5
Conducted Power P _T (dBm)	22.49	22.43	22.35	21.77	21.70	21.67
Conducted Power P _T (Watts)	0.18	0.17	0.17	0.15	0.15	0.15
ERP(dBm)	18.84	18.78	18.70	18.12	18.05	18.02
ERP(Watts)	0.0766	0.0755	0.0741	0.0649	0.0638	0.0634

LTE Band 5 (GT - LC = -1.50dB)						
Modes	LTE Band 5 (QPSK,BW=10M)			LTE Band 5 (16QAM,BW=10M)		
Channel	20450 (Low)	20525 (Mid)	20600 (High)	20450 (Low)	20525 (Mid)	20600 (High)
Frequency (MHz)	829	836.5	844	829	836.5	844
Conducted Power P _T (dBm)	22.55	22.52	22.45	21.87	21.79	21.76
Conducted Power P _T (Watts)	0.18	0.18	0.18	0.15	0.15	0.15
ERP(dBm)	18.90	18.87	18.80	18.22	18.14	18.11
ERP(Watts)	0.0776	0.0771	0.0759	0.0664	0.0652	0.0647



LTE Band 7 (GT - LC = 2.00dB)						
Modes	LTE Band 7(QPSK,BW=5M)			LTE Band 7 (16QAM,BW=5M)		
Channel	20775 (Low)	21100 (Mid)	21425 (High)	20775 (Low)	21100 (Mid)	21425 (High)
Frequency (MHz)	2502.5	2535	2567.5	2502.5	2535	2567.5
Conducted Power P _T (dBm)	22.64	22.80	22.80	21.98	21.96	21.95
Conducted Power P _T (Watts)	0.18	0.19	0.19	0.16	0.16	0.16
EIRP(dBm)	24.64	24.80	24.80	23.98	23.96	23.95
EIRP(Watts)	0.2911	0.3020	0.3020	0.2500	0.2489	0.2483

LTE Band 7 (GT - LC = 2.00dB)						
Modes	LTE Band 7 (QPSK,BW=10M)			LTE Band 7 (16QAM,BW=10M)		
Channel	20800 (Low)	21100 (Mid)	21400 (High)	20800 (Low)	21100 (Mid)	21400 (High)
Frequency (MHz)	2505	2535	2565	2505	2535	2565
Conducted Power P _T (dBm)	22.78	22.91	22.96	21.94	21.98	21.92
Conducted Power P _T (Watts)	0.19	0.20	0.20	0.16	0.16	0.16
EIRP(dBm)	24.78	24.91	24.96	23.94	23.98	23.92
EIRP(Watts)	0.3006	0.3097	0.3133	0.2477	0.2500	0.2466



LTE Band 7 (GT - LC = 2.00dB)						
Modes	LTE Band 7 (QPSK,BW=15M)			LTE Band 7 (16QAM,BW=15M)		
Channel	20825 (Low)	21100 (Mid)	21375 (High)	20825 (Low)	21100 (Mid)	21375 (High)
Frequency (MHz)	2507.5	2535	2562.5	2507.5	2535	2562.5
Conducted Power P _T (dBm)	22.69	22.82	22.78	21.92	21.98	21.96
Conducted Power P _T (Watts)	0.19	0.19	0.19	0.16	0.16	0.16
EIRP(dBm)	24.69	24.82	24.78	23.92	23.98	23.96
EIRP(Watts)	0.2944	0.3034	0.3006	0.2466	0.2500	0.2489

LTE Band 7 (GT - LC = 2.00dB)						
Modes	LTE Band 7 (QPSK,BW=20M)			LTE Band 7 (16QAM,BW=20M)		
Channel	20850 (Low)	21100 (Mid)	21350 (High)	20850 (Low)	21100 (Mid)	21350 (High)
Frequency (MHz)	2510	2535	2560	2510	2535	2560
Conducted Power P _T (dBm)	22.73	22.97	22.86	21.69	21.97	21.98
Conducted Power P _T (Watts)	0.19	0.20	0.19	0.15	0.16	0.16
EIRP(dBm)	24.73	24.97	24.86	23.69	23.97	23.98
EIRP(Watts)	0.2972	0.3141	0.3062	0.2339	0.2495	0.2500



LTE Band 17 (GT - LC = -2.50dB)						
Modes	LTE Band 17 (QPSK,BW=5M)			LTE Band 17 (16QAM,BW=5M)		
Channel	23755 (Low)	23790 (Mid)	23825 (High)	23755 (Low)	23790 (Mid)	23825 (High)
Frequency (MHz)	706.5	710	713.5	706.5	710	713.5
Conducted Power P _T (dBm)	22.94	22.91	22.91	22.06	22.14	22.10
Conducted Power P _T (Watts)	0.20	0.20	0.20	0.16	0.16	0.16
ERP(dBm)	18.29	18.26	18.26	17.41	17.49	17.45
ERP(Watts)	0.0675	0.0670	0.0670	0.0551	0.0561	0.0556

LTE Band 17 (GT - LC = -2.50dB)						
Modes	LTE Band 17 (QPSK,BW=10M)			LTE Band 17 (16QAM,BW=10M)		
Channel	23780 (Low)	23790 (Mid)	23800 (High)	23780 (Low)	23790 (Mid)	23800 (High)
Frequency (MHz)	709	710	711	709	710	711
Conducted Power P _T (dBm)	23.00	23.02	23.01	22.30	22.32	22.34
Conducted Power P _T (Watts)	0.20	0.20	0.20	0.17	0.17	0.17
ERP(dBm)	18.35	18.37	18.36	17.65	17.67	17.69
ERP(Watts)	0.0684	0.0687	0.0685	0.0582	0.0585	0.0587

$EIRP = P_T + G_T - L_C$, $ERP = EIRP - 2.15$, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB



Appendix B. Test Results of Radiated Test

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	-59.01	-13	-46.01	-78.02	-65.58	1.67	8.24	H
	5550	-54.36	-13	-41.36	-78.82	-61.43	2.65	9.72	H
	7400	-53.71	-13	-40.71	-79.43	-62.85	2.46	11.60	H
	3700	-57.95	-13	-44.95	-77.91	-64.52	1.67	8.24	V
	5550	-53.35	-13	-40.35	-78.55	-60.42	2.65	9.72	V
	7400	-51.23	-13	-38.23	-79.44	-60.37	2.46	11.60	V
Middle	3756	-56.96	-13	-43.96	-76.37	-63.58	1.68	8.31	H
	5637	-54.37	-13	-41.37	-78.47	-61.42	2.70	9.75	H
	7517	-53.15	-13	-40.15	-79.43	-62.54	2.42	11.81	H
	3756	-56.96	-13	-43.96	-76.97	-63.58	1.68	8.31	V
	5637	-53.37	-13	-40.37	-78.65	-60.42	2.70	9.75	V
	7517	-51.10	-13	-38.10	-79.56	-60.49	2.42	11.81	V
Highest	3819	-56.79	-13	-43.79	-77.45	-61.32	1.70	8.38	H
	5725	-53.73	-13	-40.73	-78.49	-58.62	2.75	9.79	H
	7634	-51.97	-13	-38.97	-79.16	-59.31	2.39	11.88	H
	3819	-55.79	-13	-42.79	-77.13	-60.32	1.70	8.38	V
	5725	-52.97	-13	-39.97	-78.67	-57.86	2.75	9.79	V
	7634	-50.45	-13	-37.45	-79.19	-57.79	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	-58.89	-13	-45.89	-78.02	-65.46	1.67	8.24	H
	5550	-53.65	-13	-40.65	-78.43	-60.72	2.65	9.72	H
	7400	-53.34	-13	-40.34	-79.16	-62.48	2.46	11.60	H
	3700	-58.01	-13	-45.01	-77.94	-64.58	1.67	8.24	V
	5550	-53.94	-13	-40.94	-79	-61.01	2.65	9.72	V
	7400	-51.84	-13	-38.84	-79.43	-60.98	2.46	11.60	V
Middle	3757	-56.96	-13	-43.96	-76.29	-63.58	1.68	8.31	H
	5635	-54.76	-13	-41.76	-78.66	-61.81	2.70	9.75	H
	7514	-52.93	-13	-39.93	-79.19	-62.31	2.42	11.81	H
	3757	-56.79	-13	-43.79	-76.79	-63.41	1.68	8.31	V
	5635	-53.76	-13	-40.76	-78.72	-60.81	2.70	9.75	V
	7514	-51.04	-13	-38.04	-79.3	-60.42	2.42	11.81	V
Highest	3814	-57.00	-13	-44.00	-77.46	-61.52	1.70	8.38	H
	5721	-53.50	-13	-40.50	-78.6	-58.39	2.75	9.79	H
	7628	-52.09	-13	-39.09	-79.19	-59.43	2.39	11.88	H
	3814	-56.62	-13	-43.62	-77.53	-61.14	1.70	8.38	V
	5721	-53.43	-13	-40.43	-78.92	-58.32	2.75	9.79	V
	7628	-50.65	-13	-37.65	-79.23	-57.99	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	-59.06	-13	-46.06	-77.9	-65.63	1.67	8.24	H
	5550	-54.78	-13	-41.78	-78.82	-61.85	2.65	9.72	H
	7400	-53.33	-13	-40.33	-79.39	-62.47	2.46	11.60	H
	3700	-58.01	-13	-45.01	-77.96	-64.58	1.67	8.24	V
	5550	-53.34	-13	-40.34	-78.73	-60.41	2.65	9.72	V
	7400	-51.88	-13	-38.88	-79.52	-61.02	2.46	11.60	V
Middle	3755	-57.59	-13	-44.59	-76.71	-64.21	1.68	8.31	H
	5632	-54.83	-13	-41.83	-78.76	-61.88	2.70	9.75	H
	7510	-52.76	-13	-39.76	-79.33	-62.14	2.43	11.81	H
	3755	-56.72	-13	-43.72	-76.9	-63.34	1.68	8.31	V
	5632	-53.37	-13	-40.37	-78.67	-60.42	2.70	9.75	V
	7510	-51.30	-13	-38.30	-79.57	-60.68	2.43	11.81	V
Highest	3810	-56.84	-13	-43.84	-77.23	-61.36	1.70	8.37	H
	5715	-53.65	-13	-40.65	-78.77	-58.54	2.75	9.79	H
	7620	-52.35	-13	-39.35	-79.41	-59.68	2.39	11.87	H
	3810	-56.06	-13	-43.06	-77.28	-60.58	1.70	8.37	V
	5715	-53.07	-13	-40.07	-78.79	-57.96	2.75	9.79	V
	7620	-50.88	-13	-37.88	-79.44	-58.21	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	-51.99	-13	-38.99	-76.82	-58.56	1.67	8.24	H
	5550	-54.50	-13	-41.50	-78.73	-61.57	2.65	9.72	H
	7400	-53.25	-13	-40.25	-79.36	-62.39	2.46	11.60	H
	3700	-57.82	-13	-44.82	-77.47	-64.39	1.67	8.24	V
	5550	-53.24	-13	-40.24	-78.53	-60.31	2.65	9.72	V
	7400	-51.43	-13	-38.43	-79.31	-60.57	2.46	11.60	V
Middle	3750	-57.40	-13	-44.40	-76.6	-64.02	1.68	8.30	H
	5625	-54.38	-13	-41.38	-78.42	-61.43	2.70	9.75	H
	7500	-53.20	-13	-40.20	-79.6	-62.57	2.43	11.80	H
	3750	-56.62	-13	-43.62	-76.9	-63.24	1.68	8.30	V
	5625	-53.29	-13	-40.29	-78.65	-60.34	2.70	9.75	V
	7500	-51.05	-13	-38.05	-79.55	-60.42	2.43	11.80	V
Highest	3800	-56.73	-13	-43.73	-77.16	-61.24	1.70	8.36	H
	5700	-53.80	-13	-40.80	-78.8	-58.69	2.74	9.78	H
	7600	-52.36	-13	-39.36	-79.44	-59.67	2.40	11.86	H
	3800	-56.91	-13	-43.91	-77.47	-61.42	1.70	8.36	V
	5700	-53.07	-13	-40.07	-78.66	-57.96	2.74	9.78	V
	7600	-50.68	-13	-37.68	-79.62	-57.99	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	-59.06	-13	-46.06	-77.96	-65.63	1.67	8.24	H
	5550	-54.41	-13	-41.41	-78.54	-61.48	2.65	9.72	H
	7400	-53.44	-13	-40.44	-79.38	-62.58	2.46	11.60	H
	3700	-57.95	-13	-44.95	-77.89	-64.52	1.67	8.24	V
	5550	-53.77	-13	-40.77	-78.81	-60.84	2.65	9.72	V
	7400	-51.87	-13	-38.87	-79.59	-61.01	2.46	11.60	V
Middle	3745	-58.72	-13	-45.72	-77.82	-65.33	1.68	8.29	H
	5617	-54.79	-13	-41.79	-78.77	-61.84	2.69	9.75	H
	7490	-53.13	-13	-40.13	-79.6	-62.48	2.43	11.78	H
	3745	-57.40	-13	-44.40	-77.42	-64.01	1.68	8.29	V
	5617	-53.79	-13	-40.79	-78.81	-60.84	2.69	9.75	V
	7490	-51.77	-13	-38.77	-79.58	-61.12	2.43	11.78	V
Highest	3790	-57.42	-13	-44.42	-77.33	-61.92	1.70	8.35	H
	5685	-54.51	-13	-41.51	-78.71	-59.4	2.73	9.77	H
	7580	-52.82	-13	-39.82	-79.61	-60.11	2.40	11.85	H
	3790	-56.79	-13	-43.79	-77.27	-61.29	1.70	8.35	V
	5685	-52.96	-13	-39.96	-78.79	-57.85	2.73	9.77	V
	7580	-51.35	-13	-38.35	-79.64	-58.64	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	-58.70	-13	-45.70	-77.83	-65.27	1.67	8.24	H
	5550	-54.79	-13	-41.79	-78.83	-61.86	2.65	9.72	H
	7400	-53.40	-13	-40.40	-79.36	-62.54	2.46	11.60	H
	3700	-57.82	-13	-44.82	-77.84	-64.39	1.67	8.24	V
	5550	-53.20	-13	-40.20	-78.36	-60.27	2.65	9.72	V
	7400	-51.82	-13	-38.82	-79.38	-60.96	2.46	11.60	V
Middle	3740	-56.97	-13	-43.97	-75.22	-63.58	1.68	8.29	H
	5610	-54.43	-13	-41.43	-78.77	-61.49	2.69	9.74	H
	7480	-53.26	-13	-40.26	-79.47	-62.58	2.44	11.76	H
	3740	-56.60	-13	-43.60	-76.5	-63.21	1.68	8.29	V
	5610	-53.21	-13	-40.21	-78.38	-60.27	2.69	9.74	V
	7480	-51.96	-13	-38.96	-79.66	-61.28	2.44	11.76	V
Highest	3780	-56.75	-13	-43.75	-77.56	-61.24	1.69	8.34	H
	5670	-53.79	-13	-40.79	-78.79	-58.69	2.72	9.77	H
	7560	-53.04	-13	-40.04	-79.58	-60.32	2.41	11.84	H
	3780	-57.09	-13	-44.09	-77.36	-61.58	1.69	8.34	V
	5670	-53.73	-13	-40.73	-78.86	-58.63	2.72	9.77	V
	7560	-51.35	-13	-38.35	-79.81	-58.63	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	-59.69	-13	-46.69	-76.86	-65.76	1.58	7.65	H
	5130	-45.85	-13	-32.85	-69.02	-53.14	2.41	9.70	H
	6840	-52.17	-13	-39.17	-78.69	-60.14	2.64	10.61	H
	3420	-58.50	-13	-45.50	-76.96	-64.57	1.58	7.65	V
	5130	-46.45	-13	-33.45	-70.59	-53.74	2.41	9.70	V
	6840	-50.99	-13	-37.99	-78.56	-58.96	2.64	10.61	V
Middle	3462	-59.81	-13	-46.81	-76.98	-66.05	1.59	7.83	H
	5195	-51.93	-13	-38.93	-74.97	-59.18	2.45	9.70	H
	6927	-53.24	-13	-40.24	-78.98	-61.34	2.61	10.71	H
	3462	-58.11	-13	-45.11	-76.64	-64.35	1.59	7.83	V
	5195	-48.14	-13	-35.14	-72.27	-55.39	2.45	9.70	V
	6927	-52.04	-13	-39.04	-78.93	-60.14	2.61	10.71	V
Highest	3504	-59.42	-13	-46.42	-76.73	-65.82	1.61	8.00	H
	5260	-54.13	-13	-41.13	-78.56	-61.34	2.49	9.70	H
	7014	-53.01	-13	-40.01	-78.99	-61.25	2.59	10.83	H
	3504	-57.99	-13	-44.99	-76.69	-64.39	1.61	8.00	V
	5260	-51.15	-13	-38.15	-75.75	-58.36	2.49	9.70	V
	7014	-52.00	-13	-39.00	-79.02	-60.24	2.59	10.83	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	-59.76	-13	-46.76	-77	-65.83	1.58	7.65	H
	5130	-45.96	-13	-32.96	-69.1	-53.25	2.41	9.70	H
	6840	-52.17	-13	-39.17	-78.73	-60.14	2.64	10.61	H
	3420	-58.32	-13	-45.32	-76.86	-64.39	1.58	7.65	V
	5130	-46.89	-13	-33.89	-70.83	-54.18	2.41	9.70	V
	6840	-51.79	-13	-38.79	-78.74	-59.76	2.64	10.61	V
Middle	3462	-58.97	-13	-45.97	-76.53	-65.21	1.59	7.83	H
	5193	-52.09	-13	-39.09	-74.77	-59.34	2.45	9.70	H
	6924	-53.32	-13	-40.32	-78.87	-61.41	2.62	10.71	H
	3462	-58.77	-13	-45.77	-77.13	-65.01	1.59	7.83	V
	5193	-49.94	-13	-36.94	-73.72	-57.19	2.45	9.70	V
	6924	-52.18	-13	-39.18	-78.92	-60.27	2.62	10.71	V
Highest	3504	-57.99	-13	-44.99	-75.56	-64.39	1.61	8.00	H
	5256	-54.86	-13	-41.86	-78.51	-62.08	2.48	9.70	H
	7008	-53.26	-13	-40.26	-79	-61.49	2.59	10.82	H
	3504	-57.78	-13	-44.78	-76.46	-64.18	1.61	8.00	V
	5256	-53.57	-13	-40.57	-78.48	-60.79	2.48	9.70	V
	7008	-52.29	-13	-39.29	-79.05	-60.52	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	-60.11	-13	-47.11	-77.15	-66.18	1.58	7.65	H
	5130	-46.98	-13	-33.98	-70.27	-54.27	2.41	9.70	H
	6840	-52.24	-13	-39.24	-78.57	-60.21	2.64	10.61	H
	3420	-57.92	-13	-44.92	-77.02	-63.99	1.58	7.65	V
	5130	-47.53	-13	-34.53	-72.04	-54.82	2.41	9.70	V
	6840	-51.45	-13	-38.45	-78.67	-59.42	2.64	10.61	V
Middle	3460	-59.89	-13	-46.89	-76.89	-66.12	1.59	7.82	H
	5190	-50.77	-13	-37.77	-73.87	-58.02	2.45	9.70	H
	6920	-52.77	-13	-39.77	-78.65	-60.86	2.62	10.70	H
	3460	-58.35	-13	-45.35	-77.02	-64.58	1.59	7.82	V
	5190	-50.94	-13	-37.94	-75.02	-58.19	2.45	9.70	V
	6920	-52.12	-13	-39.12	-78.88	-60.21	2.62	10.70	V
Highest	3500	-59.71	-13	-46.71	-76.93	-66.11	1.60	8.00	H
	5250	-53.03	-13	-40.03	-76.57	-60.25	2.48	9.70	H
	7000	-52.22	-13	-39.22	-78.36	-60.43	2.59	10.80	H
	3500	-58.12	-13	-45.12	-76.96	-64.52	1.60	8.00	V
	5250	-50.07	-13	-37.07	-74.47	-57.29	2.48	9.70	V
	7000	-51.40	-13	-38.40	-78.23	-59.61	2.59	10.80	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	-60.08	-13	-47.08	-77.02	-66.15	1.58	7.65	H
	5130	-46.20	-13	-33.20	-69.52	-53.49	2.41	9.70	H
	6840	-52.36	-13	-39.36	-78.68	-60.33	2.64	10.61	H
	3420	-59.05	-13	-46.05	-77.24	-65.12	1.58	7.65	V
	5130	-46.85	-13	-33.85	-70.7	-54.14	2.41	9.70	V
	6840	-51.45	-13	-38.45	-78.6	-59.42	2.64	10.61	V
Middle	3455	-59.97	-13	-46.97	-77.07	-66.18	1.59	7.80	H
	5184	-50.95	-13	-37.95	-73.99	-58.21	2.44	9.70	H
	6910	-52.92	-13	-39.92	-78.64	-60.99	2.62	10.69	H
	3455	-58.31	-13	-45.31	-76.93	-64.52	1.59	7.80	V
	5184	-51.10	-13	-38.10	-75.02	-58.36	2.44	9.70	V
	6910	-52.10	-13	-39.10	-78.89	-60.17	2.62	10.69	V
Highest	3490	-58.93	-13	-45.93	-76.59	-65.28	1.60	7.96	H
	5235	-53.20	-13	-40.20	-76.98	-60.43	2.47	9.70	H
	6980	-52.63	-13	-39.63	-78.42	-60.81	2.60	10.78	H
	3490	-58.23	-13	-45.23	-77.02	-64.58	1.60	7.96	V
	5235	-52.98	-13	-39.98	-77.96	-60.21	2.47	9.70	V
	6980	-51.45	-13	-38.45	-78.3	-59.63	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	-59.76	-13	-46.76	-76.81	-65.83	1.58	7.65	H
	5135	-48.34	-13	-35.34	-71.3	-55.63	2.41	9.70	H
	6840	-52.21	-13	-39.21	-78.79	-60.18	2.64	10.61	H
	3420	-58.45	-13	-45.45	-76.92	-64.52	1.58	7.65	V
	5135	-49.90	-13	-36.90	-73.88	-57.19	2.41	9.70	V
	6840	-51.66	-13	-38.66	-78.99	-59.63	2.64	10.61	V
Middle	3450	-59.83	-13	-46.83	-76.82	-66.02	1.59	7.78	H
	5175	-50.89	-13	-37.89	-73.86	-58.15	2.44	9.70	H
	6900	-53.37	-13	-40.37	-78.92	-61.43	2.62	10.68	H
	3450	-58.08	-13	-45.08	-76.81	-64.27	1.59	7.78	V
	5175	-50.97	-13	-37.97	-74.67	-58.23	2.44	9.70	V
	6900	-51.63	-13	-38.63	-78.76	-59.69	2.62	10.68	V
Highest	3483	-57.95	-13	-44.95	-75.35	-64.28	1.60	7.93	H
	5220	-53.79	-13	-40.79	-76.94	-61.03	2.46	9.70	H
	6960	-53.08	-13	-40.08	-78.84	-61.23	2.60	10.75	H
	3483	-58.06	-13	-45.06	-76.68	-64.39	1.60	7.93	V
	5220	-52.10	-13	-39.10	-76.58	-59.34	2.46	9.70	V
	6960	-51.92	-13	-38.92	-78.77	-60.07	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	-60.11	-13	-47.11	-77.06	-66.18	1.58	7.65	H
	5130	-49.20	-13	-36.20	-72.07	-56.49	2.41	9.70	H
	6840	-52.35	-13	-39.35	-78.57	-60.32	2.64	10.61	H
	3420	-58.50	-13	-45.50	-76.87	-64.57	1.58	7.65	V
	5130	-49.90	-13	-36.90	-74.01	-57.19	2.41	9.70	V
	6840	-51.35	-13	-38.35	-78.63	-59.32	2.64	10.61	V
Middle	3448	-59.78	-13	-46.78	-76.72	-65.96	1.59	7.77	H
	5167	-51.16	-13	-38.16	-74.21	-58.43	2.43	9.70	H
	6890	-53.14	-13	-40.14	-78.66	-61.18	2.63	10.67	H
	3448	-58.67	-13	-45.67	-77.03	-64.85	1.59	7.77	V
	5167	-49.92	-13	-36.92	-74.63	-57.19	2.43	9.70	V
	6890	-52.13	-13	-39.13	-78.87	-60.17	2.63	10.67	V
Highest	3470	-58.96	-13	-45.96	-76.49	-65.23	1.59	7.87	H
	5205	-53.83	-13	-40.83	-76.7	-61.07	2.46	9.70	H
	6940	-53.11	-13	-40.11	-78.8	-61.23	2.61	10.73	H
	3470	-57.91	-13	-44.91	-76.46	-64.18	1.59	7.87	V
	5205	-53.25	-13	-40.25	-77.33	-60.49	2.46	9.70	V
	6940	-52.06	-13	-39.06	-78.78	-60.18	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	-64.82	-13	-51.82	-75.7	-66.58	0.98	4.89	H
	2472	-60.48	-13	-47.48	-76.69	-62.36	1.28	5.32	H
	3296	-60.45	-13	-47.45	-77.46	-63.86	1.54	7.10	H
	1648	-63.96	-13	-50.96	-75.48	-65.72	0.98	4.89	V
	2472	-59.60	-13	-46.60	-76.6	-61.48	1.28	5.32	V
	3296	-59.07	-13	-46.07	-77.64	-62.48	1.54	7.10	V
Middle	1672	-65.28	-13	-52.28	-76.25	-66.96	0.99	4.82	H
	2507	-60.93	-13	-47.93	-77.1	-62.89	1.29	5.41	H
	3343	-60.41	-13	-47.41	-77.67	-64.01	1.56	7.31	H
	1672	-64.27	-13	-51.27	-75.95	-65.95	0.99	4.82	V
	2507	-59.25	-13	-46.25	-76.96	-61.21	1.29	5.41	V
	3343	-58.87	-13	-45.87	-77.85	-62.47	1.56	7.31	V
Highest	1696	-64.72	-13	-51.72	-76.15	-66.32	1.00	4.75	H
	2542	-60.56	-13	-47.56	-77	-62.54	1.30	5.43	H
	3390	-60.29	-13	-47.29	-77.93	-64.09	1.57	7.52	H
	1696	-63.68	-13	-50.68	-75.95	-65.28	1.00	4.75	V
	2542	-59.34	-13	-46.34	-76.98	-61.32	1.30	5.43	V
	3390	-59.06	-13	-46.06	-77.88	-62.86	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	-64.76	-13	-51.76	-75.7	-66.52	0.98	4.89	H
	2472	-60.70	-13	-47.70	-77	-62.58	1.28	5.32	H
	3296	-60.77	-13	-47.77	-77.81	-64.18	1.54	7.10	H
	1648	-64.20	-13	-51.20	-75.87	-65.96	0.98	4.89	V
	2472	-58.91	-13	-45.91	-76.84	-60.79	1.28	5.32	V
	3296	-59.07	-13	-46.07	-77.52	-62.48	1.54	7.10	V
Middle	1672	-65.01	-13	-52.01	-76.19	-66.69	0.99	4.82	H
	2505	-59.79	-13	-46.79	-77.08	-61.75	1.29	5.40	H
	3340	-60.39	-13	-47.39	-77.72	-63.98	1.55	7.30	H
	1672	-64.39	-13	-51.39	-76.07	-66.07	0.99	4.82	V
	2505	-59.02	-13	-46.02	-76.85	-60.98	1.29	5.40	V
	3340	-59.06	-13	-46.06	-77.97	-62.65	1.55	7.30	V
Highest	1692	-64.96	-13	-51.96	-76.21	-66.58	1.00	4.76	H
	2538	-60.98	-13	-47.98	-77.19	-62.96	1.30	5.43	H
	3384	-60.08	-13	-47.08	-77.73	-63.85	1.57	7.49	H
	1692	-64.23	-13	-51.23	-75.91	-65.85	1.00	4.76	V
	2538	-58.49	-13	-45.49	-77.1	-60.47	1.30	5.43	V
	3384	-59.04	-13	-46.04	-77.83	-62.81	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	-64.82	-13	-51.82	-75.8	-66.58	0.98	4.89	H
	2472	-60.70	-13	-47.70	-76.75	-62.58	1.28	5.32	H
	3296	-60.34	-13	-47.34	-77.54	-63.75	1.54	7.10	H
	1648	-64.59	-13	-51.59	-76.07	-66.35	0.98	4.89	V
	2472	-59.51	-13	-46.51	-77.07	-61.39	1.28	5.32	V
	3296	-58.57	-13	-45.57	-77.4	-61.98	1.54	7.10	V
Middle	1672	-65.27	-13	-52.27	-76.16	-66.95	0.99	4.82	H
	2502	-60.56	-13	-47.56	-77.02	-62.52	1.29	5.40	H
	3336	-60.17	-13	-47.17	-77.47	-63.75	1.55	7.28	H
	1672	-64.37	-13	-51.37	-75.95	-66.05	0.99	4.82	V
	2502	-59.36	-13	-46.36	-77.08	-61.32	1.29	5.40	V
	3336	-58.98	-13	-45.98	-77.76	-62.56	1.55	7.28	V
Highest	1672	-65.07	-13	-52.07	-75.94	-66.75	0.99	4.82	H
	2532	-60.87	-13	-47.87	-77.21	-62.84	1.30	5.43	H
	3376	-59.47	-13	-46.47	-77.71	-63.21	1.57	7.45	H
	1688	-64.46	-13	-51.46	-76.12	-66.09	1.00	4.77	V
	2532	-59.40	-13	-46.40	-77.2	-61.37	1.30	5.43	V
	3376	-58.82	-13	-45.82	-77.72	-62.56	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	-64.82	-13	-51.82	-75.74	-66.58	0.98	4.89	H
	2472	-60.43	-13	-47.43	-76.82	-62.31	1.28	5.32	H
	3296	-60.61	-13	-47.61	-77.61	-64.02	1.54	7.10	H
	1648	-64.03	-13	-51.03	-75.79	-65.79	0.98	4.89	V
	2472	-58.97	-13	-45.97	-76.72	-60.85	1.28	5.32	V
	3296	-59.20	-13	-46.20	-77.72	-62.61	1.54	7.10	V
Middle	1663	-64.81	-13	-51.81	-75.68	-66.52	0.98	4.84	H
	2496	-60.52	-13	-47.52	-76.71	-62.47	1.29	5.39	H
	3328	-60.64	-13	-47.64	-77.62	-64.18	1.55	7.24	H
	1663	-63.87	-13	-50.87	-75.63	-65.58	0.98	4.84	V
	2496	-59.19	-13	-46.19	-76.83	-61.14	1.29	5.39	V
	3328	-58.93	-13	-45.93	-77.68	-62.47	1.55	7.24	V
Highest	1680	-64.93	-13	-51.93	-75.88	-66.58	0.99	4.80	H
	2517	-60.77	-13	-47.77	-77.06	-62.74	1.30	5.41	H
	3356	-60.18	-13	-47.18	-77.52	-63.84	1.56	7.37	H
	1680	-64.16	-13	-51.16	-75.79	-65.81	0.99	4.80	V
	2517	-59.26	-13	-46.26	-76.97	-61.23	1.30	5.41	V
	3356	-59.01	-13	-46.01	-77.92	-62.67	1.56	7.37	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	4998	-44.74	-25	-19.74	-68.32	-52.1	2.34	9.70	H
	7500	-45.43	-25	-20.43	-72.39	-54.8	2.43	11.80	H
	10002	-43.00	-25	-18.00	-71.19	-52.5	2.70	12.20	H
	4998	-45.44	-25	-20.44	-70.19	-52.8	2.34	9.70	V
	7500	-47.73	-25	-22.73	-76.51	-57.1	2.43	11.80	V
	10002	-43.60	-25	-18.60	-74.2	-53.1	2.70	12.20	V
Middle	5064	-48.57	-25	-23.57	-72.48	-55.9	2.37	9.70	H
	7596	-47.74	-25	-22.74	-75.53	-57.2	2.40	11.86	H
	10128	-40.64	-25	-15.64	-68.86	-50.2	2.70	12.25	H
	5064	-52.27	-25	-27.27	-77.13	-59.6	2.37	9.70	V
	7596	-47.94	-25	-22.94	-77.96	-57.4	2.40	11.86	V
	10128	-43.64	-25	-18.64	-74.71	-53.2	2.70	12.25	V
Highest	5130	-46.41	-25	-21.41	-70.22	-53.7	2.41	9.70	H
	7698	-46.75	-25	-21.75	-74.42	-56.3	2.37	11.92	H
	10260	-35.89	-25	-10.89	-64.64	-45.5	2.69	12.30	H
	5130	-47.91	-25	-22.91	-72.64	-55.2	2.41	9.70	V
	7698	-46.75	-25	-21.75	-76.24	-56.3	2.37	11.92	V
	10260	-41.19	-25	-16.19	-72.83	-50.8	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	4998	-44.14	-25	-19.14	-67.77	-51.5	2.34	9.70	H
	7500	-46.13	-25	-21.13	-73.53	-55.5	2.43	11.80	H
	10002	-41.40	-25	-16.40	-69.71	-50.9	2.70	12.20	H
	4998	-45.84	-25	-20.84	-70.41	-53.2	2.34	9.70	V
	7500	-47.73	-25	-22.73	-76.52	-57.1	2.43	11.80	V
	10002	-44.10	-25	-19.10	-74.74	-53.6	2.70	12.20	V
Middle	5058	-46.77	-25	-21.77	-70.57	-54.1	2.37	9.70	H
	7590	-46.65	-25	-21.65	-74.36	-56.1	2.40	11.85	H
	10122	-46.65	-25	-21.65	-75.32	-56.2	2.70	12.25	H
	5058	-49.27	-25	-24.27	-73.75	-56.6	2.37	9.70	V
	7590	-46.05	-25	-21.05	-75.41	-55.5	2.40	11.85	V
	10122	-40.65	-25	-15.65	-71.63	-50.2	2.70	12.25	V
Highest	5118	-42.70	-25	-17.70	-72.68	-50	2.40	9.70	H
	7680	-46.36	-25	-21.36	-74.16	-55.9	2.37	11.91	H
	10242	-37.90	-25	-12.90	-67.24	-47.5	2.69	12.30	H
	5118	-48.30	-25	-23.30	-72.77	-55.6	2.40	9.70	V
	7680	-45.36	-25	-20.36	-74.93	-54.9	2.37	11.91	V
	10242	-42.90	-25	-17.90	-74.35	-52.5	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	5000	-49.84	-25	-24.84	-73.49	-57.2	2.34	9.70	H
	7500	-50.33	-25	-25.33	-77.44	-59.7	2.43	11.80	H
	10004	-51.30	-25	-26.30	-79.43	-60.8	2.70	12.20	H
	5000	-47.94	-25	-22.94	-72.62	-55.3	2.34	9.70	V
	7500	-47.53	-25	-22.53	-78.16	-56.9	2.43	11.80	V
	10004	-47.70	-25	-22.70	-78.27	-57.2	2.70	12.20	V
Middle	5056	-53.67	-25	-28.67	-77.27	-61	2.37	9.70	H
	7584	-51.65	-25	-26.65	-79.19	-61.1	2.40	11.85	H
	10116	-48.75	-25	-23.75	-77.27	-58.3	2.70	12.25	H
	5056	-53.87	-25	-28.87	-78.49	-61.2	2.37	9.70	V
	7584	-50.85	-25	-25.85	-80.07	-60.3	2.40	11.85	V
	10116	-49.65	-25	-24.65	-80.45	-59.2	2.70	12.25	V
Highest	5112	-52.50	-25	-27.50	-76.11	-59.8	2.40	9.70	H
	7668	-50.07	-25	-25.07	-77.99	-59.6	2.38	11.90	H
	10224	-51.71	-25	-26.71	-80.57	-61.3	2.69	12.29	H
	51128	-49.34	-25	-24.34	-74.11	-59.5	3.74	13.90	V
	7668	-49.27	-25	-24.27	-78.65	-58.8	2.38	11.90	V
	10224	-47.51	-25	-22.51	-78.93	-57.1	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	-45.26	-25	-20.26	-68.2	-52.62	2.34	9.70	H
	7500	-49.90	-25	-24.90	-76.26	-59.27	2.43	11.80	H
	10002	-48.46	-25	-23.46	-75.96	-57.96	2.70	12.20	H
	5004	-43.45	-25	-18.45	-67.35	-50.81	2.34	9.70	V
	7500	-46.99	-25	-21.99	-75.06	-56.36	2.43	11.80	V
	10002	-42.07	-25	-17.07	-72.16	-51.57	2.70	12.20	V
Middle	5052	-49.46	-25	-24.46	-72.37	-56.79	2.37	9.70	H
	7578	-50.77	-25	-25.77	-77.73	-60.21	2.40	11.85	H
	10104	-49.98	-25	-24.98	-77.88	-59.53	2.70	12.24	H
	5052	-46.61	-25	-21.61	-70.52	-53.94	2.37	9.70	V
	7578	-48.24	-25	-23.24	-76.93	-57.68	2.40	11.85	V
	10104	-44.76	-25	-19.76	-75.24	-54.31	2.70	12.24	V
Highest	5100	-47.21	-25	-22.21	-70.1	-54.52	2.39	9.70	H
	7656	-47.81	-25	-22.81	-74.95	-57.32	2.38	11.89	H
	10206	-49.75	-25	-24.75	-77.95	-59.34	2.70	12.28	H
	5100	-43.68	-25	-18.68	-67.6	-50.99	2.39	9.70	V
	7656	-46.61	-25	-21.61	-75.25	-56.12	2.38	11.89	V
	10206	-43.30	-25	-18.30	-74.12	-52.89	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	-62.19	-13	-49.19	-72.70	-63.90	0.87	4.73	H
	2112	-62.18	-13	-49.18	-76.55	-63.10	1.17	4.24	H
	2816	-59.99	-13	-46.99	-77.03	-62.10	1.39	5.65	H
	1408	-62.39	-13	-49.39	-72.92	-64.10	0.87	4.73	V
	2112	-60.78	-13	-47.78	-76.72	-61.70	1.17	4.24	V
	2816	-58.69	-13	-45.69	-77.18	-60.80	1.39	5.65	V
Middle	1415	-62.75	-13	-49.75	-73.06	-64.50	0.87	4.77	H
	2122	-62.26	-13	-49.26	-76.45	-63.20	1.17	4.27	H
	2830	-60.08	-13	-47.08	-77.15	-62.20	1.39	5.66	H
	1416	-62.35	-13	-49.35	-72.58	-64.10	0.87	4.78	V
	2122	-60.46	-13	-47.46	-76.36	-61.40	1.17	4.27	V
	2830	-58.38	-13	-45.38	-77.07	-60.50	1.39	5.66	V
Highest	1424	-62.30	-13	-49.30	-72.76	-64.10	0.88	4.83	H
	2133	-62.73	-13	-49.73	-76.70	-63.70	1.18	4.30	H
	2844	-60.17	-13	-47.17	-77.23	-62.30	1.40	5.68	H
	1424	-61.50	-13	-48.50	-72.40	-63.30	0.88	4.83	V
	2133	-61.13	-13	-48.13	-76.73	-62.10	1.18	4.30	V
	2844	-58.67	-13	-45.67	-76.65	-60.80	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	-64.19	-13	-51.19	-74.61	-65.90	0.87	4.73	H
	2112	-62.88	-13	-49.88	-76.56	-63.80	1.17	4.24	H
	2816	-60.11	-13	-47.11	-77.15	-62.22	1.39	5.65	H
	1408	-64.89	-13	-51.89	-74.84	-66.60	0.87	4.73	V
	2112	-61.18	-13	-48.18	-76.57	-62.10	1.17	4.24	V
	2816	-58.69	-13	-45.69	-77.02	-60.80	1.39	5.65	V
Middle	1416	-62.95	-13	-49.95	-73.29	-64.70	0.87	4.78	H
	2130	-62.53	-13	-49.53	-76.68	-63.50	1.17	4.29	H
	2840	-60.58	-13	-47.58	-77.20	-62.70	1.40	5.67	H
	1416	-63.55	-13	-50.55	-73.51	-65.30	0.87	4.78	V
	2130	-61.13	-13	-48.13	-76.77	-62.10	1.17	4.29	V
	2840	-59.08	-13	-46.08	-77.08	-61.20	1.40	5.67	V
Highest	1418	-63.33	-13	-50.33	-73.32	-65.10	0.88	4.79	H
	2133	-62.93	-13	-49.93	-76.81	-63.90	1.18	4.30	H
	2844	-60.57	-13	-47.57	-77.15	-62.70	1.40	5.68	H
	1418	-62.93	-13	-49.93	-73.38	-64.70	0.88	4.79	V
	2133	-60.93	-13	-47.93	-76.49	-61.90	1.18	4.30	V
	2844	-58.77	-13	-45.77	-77.13	-60.90	1.40	5.68	V

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