FCC RF Test Report

APPLICANT	: Gosafe Company Limited
EQUIPMENT	: GPS tracker
BRAND NAME	: GOSAFE
MODEL NAME	: GAT1000
FCC ID	: RSRP-RI-ME
STANDARD	: 47 CFR Part 2, 22(H), 24(E), 27(L), 27(H)
CLASSIFICATION	: PCS Licensed Transmitter (PCB)

The product was received on Nov. 19, 2019 and completely tested on Jan. 19, 2020. We, Sporton International (ShenZhen) Inc., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

This product installed a RF module (Brand Name: AirPrime, Model Name: HL7688) during the test, only ERP/EIRP and RSE test items are tested in this report, all the other test results are quoted on module RF report.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (ShenZhen) Inc., the test report shall not be reproduced except in full.

Reviewed by: Derreck Chen / Supervisor

Approved by: Eric Shih / Manager

ACCREDITED Cert #5145.01

Sporton International (ShenZhen) Inc.

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People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG9N1902B	Rev. 01	Initial issue of report	Feb. 25, 2020

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(5)	Effective Radiated Power (Band 5)	ERP < 7 Watt	PASS	-
	§27.50(c)(10)	Effective Radiated Power (Band 17)	ERP < 3 Watt	PASS	-
	§24.232(c)	Equivalent Isotropic Radiated Power (Band 2)	EIRP < 2Watt	PASS	-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4)	EIRP < 1Watt	PASS	-
3.5	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	1
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	1
3.7	§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 17)	< 43+10log10(P[Watts])	PASS	1
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 17)	< 43+10log10(P[Watts])	PASS	1
3.9	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	1
	§2.1055 §24.235 §27.54		Within Authorized Band		
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 17)	< 43+10log$_{10}$(P[Watts])	PASS	Under limit 17.22 dB at 5177.52 MHz

Remark 1: The conducted test items were leverage from module RF report which can refer to Report No. "FG571601-01P22" for Band 5, Report No. "FG571601-01P24" for Band 2, Report No. "FG571601-01P27L" for Band 4, and Report No." FG571601-01P27" for Band 17.

1 General Description

1.1 Applicant

Gosafe Company Limited
RM 1105, the Innovation Building C1 No. 182 Kexue Avenue, Science City, Guangzhou.China

1.2 Manufacturer

DongGuan Smute Electronic & Technology co.,Ltd.
Huangzhou Industrial Park, Puxi Economic Joint Community, Huaqiang Road,Xincheng District, Shilong Town, Dongguan ,Guangdong, P.R. China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	GPS tracker
Brand Name	GOSAFE
Model Name	GAT1000
FCC ID	RSRP-RI-ME
EUT supports Radios application	WCDMA/LTE, Bluetooth LE
HW Version	V3.0.0
SW Version	V2.1.12
EUT Stage	Production Unit

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
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 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 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 17 : 5MHz / 10MHz
Maximum Output Power to Antenna	LTE Band 2 : 23.22 dBm LTE Band 4 : 22.78 dBm LTE Band 5 : 22.78 dBm LTE Band 17 : 22.81 dBm
Antenna Gain	LTE Band 2 : 3.00 dBi LTE Band 4 : 3.00 dBi LTE Band 5 : 3.00 dBi LTE Band 17 : 3.00 dBi
Type of Modulation	QPSK / 16QAM

1.5 Modification of EUT

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

1.6 Maximum ERP/EIRP Power, Frequency Tolerance, and Emission Designator

LTE Band 2		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1850.7 ~ 1909.3	-	-	0.3855	-	-	0.3273
3	1851.5 ~ 1908.5	-	-	0.3945	-	-	0.3365
5	1852.5 ~ 1907.5	-	-	0.3908	-	-	0.3373
10	1855.0 ~ 1905.0	-	-	0.3954	-	-	0.3381
15	1857.5 ~ 1902.5	-	-	0.3990	-	-	0.3436
20	1860.0 ~ 1900.0	-	-	0.4188	-	-	0.3614
LTE Band 4		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1710.7 ~ 1754.3	-	-	0.3639	-	-	0.2944
3	1711.5 ~ 1753.5	-	-	0.3648	-	-	0.3069
5	1712.5 ~ 1752.5	-	-	0.3673	-	-	0.2992
10	1715.0 ~ 1750.0	-	-	0.3556	-	-	0.2944
15	1717.5 ~ 1747.5	-	-	0.3622	-	-	0.3034
20	1720.0 ~ 1745.0	-	-	0.3784	-	-	0.3184
LTE Band 5		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	824.7 ~ 848.3	-	-	0.2065	-	-	0.1718
3	825.5 ~ 847.5	-	-	0.2275	-	-	0.1871
5	826.5 ~ 846.5	-	-	0.2296	-	-	0.1905
10	829.0 ~ 844.0	-	-	0.2307	-	-	0.1936
LTE Band 17		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
5	706.5 ~ 713.5	-	-	0.3304	-	-	0.2576
10	709.0 ~ 711.0	-	-	0.3334	-	-	0.2636

1.7 Testing Location

Sporton International (Shenzhen) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International (Shenzhen) Inc.		
Test Site Location	No. 3 Bldg the third floor of south, Shahe River west, Fengzeyuan Warehouse, Nanshan Shenzhen, 518055 People's Republic of China TEL: +86-755-33202398		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH01-SZ	CN1256	421272

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH01-SZ	AUDIX	E3	6.2009-8-24

1.9 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(L), 27(H)
- ANSI C63.26-2015
- FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

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

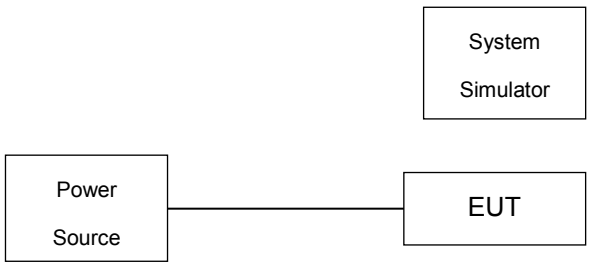
2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas License Digital Systems v03r01 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	64QAM	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
	17	-	-	v	v	-	-	v	v		v	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
	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
	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



This example is connection diagram of EUT test configurations.

. For detail, please refer to test mode configuration and setup photographs for each test item.

2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power Supply	GWINSTEK	PSS-2002	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m

2.4 Frequency List of Low/Middle/High Channels

LTE Band 2 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	18700	18900	19100
	Frequency	1860	1880	1900
15	Channel	18675	18900	19125
	Frequency	1857.5	1880	1902.5
10	Channel	18650	18900	19150
	Frequency	1855	1880	1905
5	Channel	18625	18900	19175
	Frequency	1852.5	1880	1907.5
3	Channel	18615	18900	19185
	Frequency	1851.5	1880	1908.5
1.4	Channel	18607	18900	19193
	Frequency	1850.7	1880	1909.3

LTE Band 4 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20050	20175	20300
	Frequency	1720	1732.5	1745
15	Channel	20025	20175	20325
	Frequency	1717.5	1732.5	1747.5
10	Channel	20000	20175	20350
	Frequency	1715	1732.5	1750
5	Channel	19975	20175	20375
	Frequency	1712.5	1732.5	1752.5
3	Channel	19965	20175	20385
	Frequency	1711.5	1732.5	1753.5
1.4	Channel	19957	20175	20393
	Frequency	1710.7	1732.5	1754.3

LTE Band 5 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	20450	20525	20600
	Frequency	829	836.5	844
5	Channel	20425	20525	20625
	Frequency	826.5	836.5	846.5
3	Channel	20415	20525	20635
	Frequency	825.5	836.5	847.5
1.4	Channel	20407	20525	20643
	Frequency	824.7	836.5	848.3

LTE Band 17 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	23780	23790	23800
	Frequency	709	710	711
5	Channel	23755	23790	23825
	Frequency	706.5	710	713.5

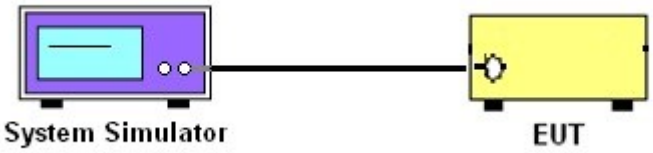
3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.2 Test Setup

3.2.1 Conducted Output Power



3.3 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 17.

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 2.

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 testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure and record the power level from the system simulator.

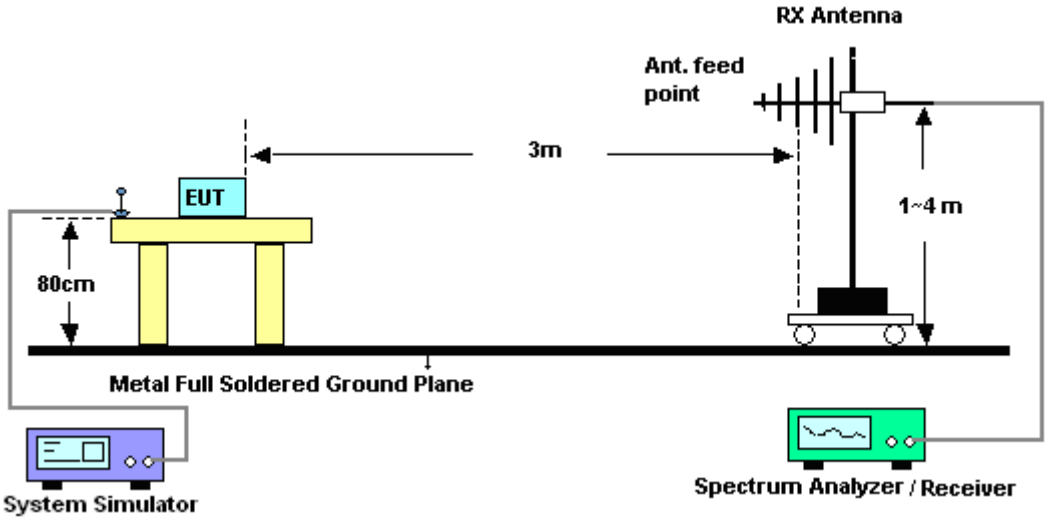
4 Radiated Test Items

4.1 Measuring Instruments

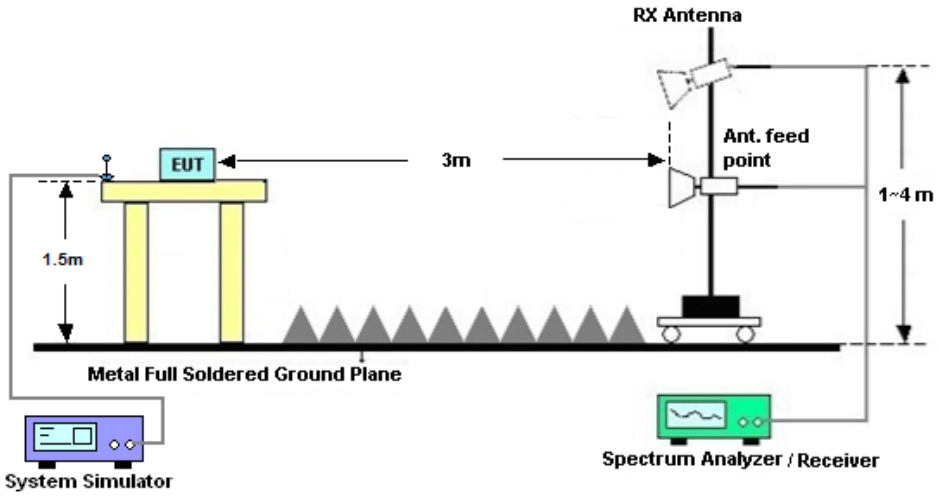
See list of measuring instruments of this test report.

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 C63.26. 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.

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

4.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
2. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna 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 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
10. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
11. ERP (dBm) = EIRP - 2.15
12. 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.

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Jul. 22, 2019	Jan. 19, 2020	Jul. 21, 2020	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Jul. 19, 2019	Jan. 19, 2020	Jul. 18, 2020	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Aug. 27, 2019	Jan. 19, 2020	Aug. 26, 2020	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 18, 2019	Jan. 19, 2020	Apr. 17, 2020	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 19, 2019	Jan. 19, 2020	Apr. 18, 2020	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 18, 2019	Jan. 19, 2020	Oct. 17, 2020	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270104	0.5GHz~26.5Ghz	Dec. 27, 2019	Jan. 19, 2020	Dec. 26, 2020	Radiation (03CH01-SZ
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 22, 2019	Jan. 19, 2020	Jul. 21, 2020	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Jan. 19, 2020	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jan. 19, 2020	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jan. 19, 2020	NCR	Radiation (03CH01-SZ)

NCR: No Calibration Required

6 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.5dB**

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.5dB**

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.0dB**

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
20	1	0	QPSK	23.01	23.10	23.22
20	1	49		22.89	22.91	22.99
20	1	99		22.78	22.86	23.01
20	50	0		22.45	22.42	22.56
20	50	24		22.48	22.43	22.59
20	50	50		22.23	22.32	22.39
20	100	0		22.01	22.09	22.10
20	1	0	16-QAM	22.37	22.48	22.58
20	1	49		22.25	22.29	22.35
20	1	99		22.14	22.24	22.37
20	50	0		21.81	21.80	21.92
20	50	24		21.82	21.79	21.93
20	50	50		21.55	21.66	21.73
20	100	0		21.31	21.41	21.42
15	1	0	QPSK	22.80	22.89	23.01
15	1	37		22.68	22.69	22.77
15	1	74		22.57	22.64	22.79
15	36	0		22.24	22.20	22.34
15	36	20		22.27	22.22	22.38
15	36	39		22.02	22.11	22.18
15	75	0		21.80	21.88	21.89
15	1	0	16-QAM	22.16	22.27	22.36
15	1	37		22.04	22.08	22.13
15	1	74		21.93	22.03	22.15
15	36	0		21.60	21.59	21.70
15	36	20		21.61	21.58	21.71
15	36	39		21.34	21.45	21.51
15	75	0		21.09	21.19	21.20

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.77	22.85	22.97
10	1	25		22.64	22.64	22.72
10	1	49		22.53	22.59	22.74
10	25	0		22.19	22.14	22.28
10	25	12		22.21	22.14	22.31
10	25	25		21.95	22.01	22.10
10	50	0		21.73	21.77	21.81
10	1	0	16-QAM	22.10	22.17	22.29
10	1	25		21.98	21.98	22.06
10	1	49		21.87	21.93	22.08
10	25	0		21.55	21.51	21.64
10	25	12		21.56	21.50	21.65
10	25	25		21.29	21.38	21.46
10	50	0		21.06	21.15	21.17
5	1	0	QPSK	22.71	22.80	22.92
5	1	12		22.59	22.61	22.70
5	1	24		22.47	22.55	22.72
5	12	0		22.14	22.11	22.27
5	12	7		22.17	22.13	22.31
5	12	13		21.91	22.02	22.10
5	25	0		21.69	21.79	21.81
5	1	0	16-QAM	22.05	22.18	22.28
5	1	12		21.92	21.98	22.05
5	1	24		21.81	21.93	22.07
5	12	0		21.48	21.49	21.62
5	12	7		21.50	21.46	21.61
5	12	13		21.23	21.33	21.41
5	25	0		20.99	21.08	21.10

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.77	22.84	22.96
3	1	8		22.63	22.61	22.70
3	1	14		22.52	22.56	22.72
3	8	0		22.18	22.11	22.26
3	8	4		22.20	22.11	22.29
3	8	7		21.93	21.97	22.09
3	15	0		21.70	21.72	21.80
3	1	0	16-QAM	22.07	22.11	22.27
3	1	8		21.95	21.92	22.04
3	1	14		21.84	21.87	22.06
3	8	0		21.53	21.46	21.63
3	8	4		21.54	21.45	21.63
3	8	7		21.29	21.36	21.45
3	15	0		21.07	21.16	21.18
1.4	1	0	QPSK	22.66	22.75	22.86
1.4	1	3		22.53	22.54	22.61
1.4	1	5		22.41	22.48	22.63
1.4	3	0		22.07	22.03	22.17
1.4	3	1		22.09	22.01	22.18
1.4	3	3		21.82	21.87	21.97
1.4	6	0		21.60	21.63	21.68
1.4	1	0	16-QAM	21.96	22.01	22.15
1.4	1	3		21.83	21.80	21.91
1.4	1	5		21.72	21.75	21.93
1.4	3	0		21.40	21.34	21.50
1.4	3	1		21.41	21.34	21.52
1.4	3	3		21.16	21.24	21.33
1.4	6	0		20.93	21.02	21.05

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.68	22.78	22.63
20	1	49		22.57	22.73	22.66
20	1	99		22.62	22.75	22.70
20	50	0		22.21	22.22	22.08
20	50	24		22.17	22.16	22.02
20	50	50		22.03	22.12	22.03
20	100	0		21.90	21.92	21.86
20	1	0	16-QAM	21.95	22.03	21.89
20	1	49		21.83	21.95	21.90
20	1	99		21.87	21.97	21.95
20	50	0		21.45	21.43	21.33
20	50	24		21.41	21.35	21.25
20	50	50		21.28	21.34	21.28
20	100	0		21.17	21.17	21.12
15	1	0	QPSK	22.51	22.59	22.44
15	1	37		22.40	22.54	22.47
15	1	74		22.45	22.56	22.51
15	36	0		22.05	22.05	21.91
15	36	20		22.00	21.99	21.86
15	36	39		21.85	21.94	21.87
15	75	0		21.70	21.73	21.70
15	1	0	16-QAM	21.74	21.82	21.72
15	1	37		21.61	21.73	21.73
15	1	74		21.65	21.74	21.77
15	36	0		21.23	21.22	21.17
15	36	20		21.20	21.14	21.08
15	36	39		21.10	21.17	21.12
15	75	0		20.99	21.00	20.96

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.43	22.51	22.36
10	1	25		22.31	22.45	22.39
10	1	49		22.29	22.40	22.43
10	25	0		21.89	21.88	21.82
10	25	12		21.85	21.83	21.78
10	25	25		21.70	21.78	21.79
10	50	0		21.55	21.57	21.62
10	1	0	16-QAM	21.58	21.65	21.64
10	1	25		21.53	21.63	21.64
10	1	49		21.57	21.65	21.69
10	25	0		21.16	21.14	21.09
10	25	12		21.13	21.06	20.99
10	25	25		21.02	21.08	21.03
10	50	0		20.92	20.93	20.88
5	1	0	QPSK	22.55	22.65	22.50
5	1	12		22.45	22.61	22.53
5	1	24		22.50	22.55	22.49
5	12	0		22.09	22.02	21.87
5	12	7		22.05	21.96	21.81
5	12	13		21.83	21.84	21.82
5	25	0		21.70	21.64	21.65
5	1	0	16-QAM	21.75	21.76	21.69
5	1	12		21.63	21.68	21.70
5	1	24		21.67	21.70	21.75
5	12	0		21.24	21.15	21.13
5	12	7		21.21	21.16	21.14
5	12	13		21.08	21.15	21.17
5	25	0		21.04	21.04	20.99

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.54	22.62	22.47
3	1	8		22.43	22.57	22.50
3	1	14		22.47	22.60	22.56
3	8	0		22.07	22.09	21.96
3	8	4		22.02	22.04	21.92
3	8	7		21.87	21.99	21.93
3	15	0		21.72	21.78	21.76
3	1	0	16-QAM	21.76	21.87	21.78
3	1	8		21.63	21.78	21.79
3	1	14		21.69	21.80	21.82
3	8	0		21.27	21.28	21.22
3	8	4		21.24	21.20	21.13
3	8	7		21.15	21.23	21.16
3	15	0		21.02	21.04	21.00
1.4	1	0	QPSK	22.51	22.61	22.48
1.4	1	3		22.41	22.59	22.53
1.4	1	5		22.46	22.53	22.49
1.4	3	0		22.07	22.02	21.87
1.4	3	1		22.03	21.96	21.81
1.4	3	3		21.77	21.78	21.80
1.4	6	0		21.64	21.54	21.59
1.4	1	0	16-QAM	21.69	21.66	21.63
1.4	1	3		21.55	21.56	21.62
1.4	1	5		21.61	21.62	21.69
1.4	3	0		21.20	21.09	21.07
1.4	3	1		21.17	21.10	21.08
1.4	3	3		21.06	21.09	21.11
1.4	6	0		21.04	21.02	20.95

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.69	22.78	22.76
10	1	25		22.57	22.63	22.61
10	1	49		22.49	22.67	22.58
10	25	0		21.47	21.56	21.48
10	25	12		21.34	21.49	21.43
10	25	25		21.45	21.52	21.60
10	50	0		21.27	21.38	21.20
10	1	0	16-QAM	21.92	22.02	21.99
10	1	25		21.79	21.86	21.84
10	1	49		21.71	21.90	21.81
10	25	0		20.69	20.78	20.70
10	25	12		20.56	20.71	20.65
10	25	25		20.67	20.76	20.84
10	50	0		20.49	20.60	20.42
5	1	0	QPSK	22.67	22.76	22.74
5	1	12		22.54	22.59	22.58
5	1	24		22.46	22.63	22.55
5	12	0		21.44	21.52	21.45
5	12	7		21.31	21.45	21.40
5	12	13		21.41	21.47	21.57
5	25	0		21.24	21.33	21.17
5	1	0	16-QAM	21.88	21.95	21.95
5	1	12		21.74	21.77	21.79
5	1	24		21.66	21.81	21.76
5	12	0		20.64	20.68	20.64
5	12	7		20.53	20.63	20.59
5	12	13		20.64	20.70	20.80
5	25	0		20.48	20.56	20.38

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.63	22.72	22.70
3	1	8		22.48	22.51	22.52
3	1	14		22.40	22.55	22.49
3	8	0		21.38	21.44	21.39
3	8	4		21.24	21.36	21.33
3	8	7		21.34	21.38	21.50
3	15	0		21.17	21.24	21.10
3	1	0	16-QAM	21.81	21.85	21.87
3	1	8		21.67	21.67	21.71
3	1	14		21.61	21.73	21.70
3	8	0		20.59	20.60	20.58
3	8	4		20.48	20.56	20.53
3	8	7		20.59	20.63	20.74
3	15	0		20.45	20.52	20.34
1.4	1	0	QPSK	22.21	22.30	22.30
1.4	1	3		22.09	22.13	22.13
1.4	1	5		21.99	22.15	22.10
1.4	3	0		20.98	21.05	21.01
1.4	3	1		20.85	20.96	20.94
1.4	3	3		20.96	20.99	21.11
1.4	6	0		20.78	20.85	20.71
1.4	1	0	16-QAM	21.43	21.49	21.50
1.4	1	3		21.31	21.35	21.36
1.4	1	5		21.22	21.39	21.33
1.4	3	0		20.20	20.27	20.22
1.4	3	1		20.10	20.24	20.18
1.4	3	3		20.21	20.29	20.37
1.4	6	0		20.03	20.12	19.94

LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.72	22.81	22.78
10	1	25		22.66	22.73	22.70
10	1	49		22.44	22.61	22.45
10	25	0		21.87	21.93	21.91
10	25	12		21.72	21.80	21.84
10	25	25		21.57	21.60	21.63
10	50	0		21.44	21.50	21.42
10	1	0	16-QAM	21.65	21.78	21.78
10	1	25		21.58	21.69	21.70
10	1	49		21.36	21.57	21.45
10	25	0		20.82	20.90	20.89
10	25	12		20.69	20.75	20.80
10	25	25		20.50	20.51	20.57
10	50	0		20.43	20.47	20.38
5	1	0	QPSK	22.71	22.77	22.77
5	1	12		22.67	22.69	22.67
5	1	24		22.43	22.55	22.44
5	12	0		21.86	21.85	21.88
5	12	7		21.71	21.72	21.81
5	12	13		21.56	21.52	21.60
5	25	0		21.38	21.39	21.37
5	1	0	16-QAM	21.56	21.62	21.71
5	1	12		21.44	21.48	21.63
5	1	24		21.24	21.38	21.38
5	12	0		20.71	20.72	20.82
5	12	7		20.64	20.63	20.73
5	12	13		20.45	20.41	20.52
5	25	0		20.39	20.42	20.37

ERP/EIRP

LTE Band 2 (GT - LC = 3.00 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	18607	18900	19193	18615	18900	19185	18625	18900	19175
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5
Conducted Power (dBm)	22.66	22.75	22.86	22.77	22.84	22.96	22.71	22.80	22.92
Conducted Power (Watts)	0.1845	0.1884	0.1932	0.1892	0.1923	0.1977	0.1866	0.1905	0.1959
EIRP(dBm)	25.66	25.75	25.86	25.77	25.84	25.96	25.71	25.80	25.92
EIRP(Watts)	0.3681	0.3758	0.3855	0.3776	0.3837	0.3945	0.3724	0.3802	0.3908

LTE Band 2 (GT - LC = 3.00 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	18650	18900	19150	18675	18900	19125	18650	18900	19100
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
Conducted Power (dBm)	22.77	22.85	22.97	22.80	22.89	23.01	23.01	23.10	23.22
Conducted Power (Watts)	0.1892	0.1928	0.1982	0.1905	0.1945	0.2000	0.2000	0.2042	0.2099
EIRP(dBm)	25.77	25.85	25.97	25.80	25.89	26.01	26.01	26.10	26.22
EIRP(Watts)	0.3776	0.3846	0.3954	0.3802	0.3882	0.3990	0.3990	0.4074	0.4188

LTE Band 2 (GT - LC = 3.00 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	18607	18900	19193	18615	18900	19185	18625	18900	19175
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5
Conducted Power (dBm)	21.96	22.01	22.15	22.07	22.11	22.27	22.05	22.18	22.28
Conducted Power (Watts)	0.1570	0.1589	0.1641	0.1611	0.1626	0.1687	0.1603	0.1652	0.1690
EIRP(dBm)	24.96	25.01	25.15	25.07	25.11	25.27	25.05	25.18	25.28
EIRP(Watts)	0.3133	0.3170	0.3273	0.3214	0.3243	0.3365	0.3199	0.3296	0.3373

LTE Band 2 (GT - LC = 3.00 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	18650	18900	19150	18675	18900	19125	18650	18900	19100
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
Conducted Power (dBm)	22.10	22.17	22.29	22.16	22.27	22.36	22.37	22.48	22.58
Conducted Power (Watts)	0.1622	0.1648	0.1694	0.1644	0.1687	0.1722	0.1726	0.1770	0.1811
EIRP(dBm)	25.10	25.17	25.29	25.16	25.27	25.36	25.37	25.48	25.58
EIRP(Watts)	0.3236	0.3289	0.3381	0.3281	0.3365	0.3436	0.3443	0.3532	0.3614

LTE Band 4 (GT - LC = 3.00 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	19957	20175	20393	19965	20175	20385	19975	20175	20375
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1732.5	1754.3	1711.5	1732.5	1753.5	1712.5	1732.5	1752.5
Conducted Power (dBm)	22.51	22.61	22.48	22.54	22.62	22.47	22.55	22.65	22.50
Conducted Power (Watts)	0.1782	0.1824	0.1770	0.1795	0.1828	0.1766	0.1799	0.1841	0.1778
EIRP(dBm)	25.51	25.61	25.48	25.54	25.62	25.47	25.55	25.65	25.50
EIRP(Watts)	0.3556	0.3639	0.3532	0.3581	0.3648	0.3524	0.3589	0.3673	0.3548

LTE Band 4 (GT - LC = 3.00 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	20000	20175	20350	20025	20175	20325	20050	20175	20300
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1715	1732.5	1750	1717.5	1732.5	1747.5	1720	1732.5	1745
Conducted Power (dBm)	22.43	22.51	22.36	22.51	22.59	22.44	22.68	22.78	22.63
Conducted Power (Watts)	0.1750	0.1782	0.1722	0.1782	0.1816	0.1754	0.1854	0.1897	0.1832
EIRP(dBm)	25.43	25.51	25.36	25.51	25.59	25.44	25.68	25.78	25.63
EIRP(Watts)	0.3491	0.3556	0.3436	0.3556	0.3622	0.3499	0.3698	0.3784	0.3656

LTE Band 4 (GT - LC = 3.00 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	19957	20175	20393	19965	20175	20385	19975	20175	20375
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1732.5	1754.3	1711.5	1732.5	1753.5	1712.5	1732.5	1752.5
Conducted Power (dBm)	21.69	21.66	21.63	21.76	21.87	21.78	21.75	21.76	21.69
Conducted Power (Watts)	0.1476	0.1466	0.1455	0.1500	0.1538	0.1507	0.1496	0.1500	0.1476
EIRP(dBm)	24.69	24.66	24.63	24.76	24.87	24.78	24.75	24.76	24.69
EIRP(Watts)	0.2944	0.2924	0.2904	0.2992	0.3069	0.3006	0.2985	0.2992	0.2944

LTE Band 4 (GT - LC = 3.00 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	20000	20175	20350	20025	20175	20325	20050	20175	20300
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1715	1732.5	1750	1717.5	1732.5	1747.5	1720	1732.5	1745
Conducted Power (dBm)	21.57	21.65	21.69	21.74	21.82	21.72	21.95	22.03	21.89
Conducted Power (Watts)	0.1435	0.1462	0.1476	0.1493	0.1521	0.1486	0.1567	0.1596	0.1545
EIRP(dBm)	24.57	24.65	24.69	24.74	24.82	24.72	24.95	25.03	24.89
EIRP(Watts)	0.2864	0.2917	0.2944	0.2979	0.3034	0.2965	0.3126	0.3184	0.3083

LTE Band 5 (GT - LC = 3.00 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	20407	20525	20643	20415	20525	20635	20425	20525	20625
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	22.21	22.30	22.30	22.63	22.72	22.70	22.67	22.76	22.74
Conducted Power (Watts)	0.1663	0.1698	0.1698	0.1832	0.1871	0.1862	0.1849	0.1888	0.1879
ERP(dBm)	23.06	23.15	23.15	23.48	23.57	23.55	23.52	23.61	23.59
ERP(Watts)	0.2023	0.2065	0.2065	0.2228	0.2275	0.2265	0.2249	0.2296	0.2286

LTE Band 5 (GT - LC = 3.00 dB) QPSK			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	22.69	22.78	22.76
Conducted Power (Watts)	0.1858	0.1897	0.1888
ERP(dBm)	23.54	23.63	23.61
ERP(Watts)	0.2259	0.2307	0.2296

LTE Band 5 (GT - LC = 3.00 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	20407	20525	20643	20415	20525	20635	20425	20525	20625
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	21.43	21.49	21.50	21.81	21.85	21.87	21.88	21.95	21.95
Conducted Power (Watts)	0.1390	0.1409	0.1413	0.1517	0.1531	0.1538	0.1542	0.1567	0.1567
ERP(dBm)	22.28	22.34	22.35	22.66	22.70	22.72	22.73	22.80	22.80
ERP(Watts)	0.1690	0.1714	0.1718	0.1845	0.1862	0.1871	0.1875	0.1905	0.1905

LTE Band 5 (GT - LC = 3.00 dB) 16QAM			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	21.92	22.02	21.99
Conducted Power (Watts)	0.1556	0.1592	0.1581
ERP(dBm)	22.77	22.87	22.84
ERP(Watts)	0.1892	0.1936	0.1923

LTE Band 17 (GT - LC = 3.00 dB) QPSK						
Bandwidth	5M			10M		
Channel	23755	23790	23825	23780	23790	23800
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	706.5	710	713.5	709	710	711
Conducted Power (dBm)	24.28	24.34	24.32	24.28	24.38	24.36
Conducted Power (Watts)	0.2679	0.2716	0.2704	0.2679	0.2742	0.2729
ERP(dBm)	25.13	25.19	25.17	25.13	25.23	25.21
ERP(Watts)	0.3258	0.3304	0.3289	0.3258	0.3334	0.3319

LTE Band 17 (GT - LC = 3.00 dB) 16QAM						
Bandwidth	5M			10M		
Channel	23755	23790	23825	23780	23790	23800
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	706.5	710	713.5	709	710	711
Conducted Power (dBm)	23.12	23.18	23.26	23.22	23.36	23.36
Conducted Power (Watts)	0.2051	0.2080	0.2118	0.2099	0.2168	0.2168
ERP(dBm)	23.97	24.03	24.11	24.07	24.21	24.21
ERP(Watts)	0.2495	0.2529	0.2576	0.2553	0.2636	0.2636

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

LTE Band 2 / 1.4MHz / QPSK									
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)
Middle	3758.92	-45.17	-13	-32.17	-67.11	-52.92	4.85	12.60	H
	5638.38	-40.76	-13	-27.76	-64.38	-48.28	5.58	13.10	H
	7517.84	-55.52	-13	-42.52	-81.45	-60.26	6.56	11.30	H
	3758.92	-41.28	-13	-28.28	-66.38	-49.03	4.85	12.60	V
	5638.38	-44.13	-13	-31.13	-67.9	-51.65	5.58	13.10	V
	7517.84	-55.49	-13	-42.49	-81.41	-60.23	6.56	11.30	V

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

LTE Band 2 / 3MHz / QPSK									
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)
Middle	3757.48	-44.74	-13	-31.74	-66.68	-52.49	4.85	12.60	H
	5636.22	-40.71	-13	-27.71	-64.33	-48.23	5.58	13.10	H
	7514.96	-55.82	-13	-42.82	-81.76	-60.56	6.56	11.30	H
	3757.48	-44.93	-13	-31.93	-70.03	-52.68	4.85	12.60	V
	5636.22	-43.67	-13	-30.67	-67.44	-51.19	5.58	13.10	V
	7514.96	-55.63	-13	-42.63	-81.56	-60.37	6.56	11.30	V

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

LTE Band 2 / 5MHz / QPSK									
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)
Middle	3755.68	-43.08	-13	-30.08	-65.02	-50.83	4.85	12.60	H
	5633.52	-40.56	-13	-27.56	-64.18	-48.08	5.58	13.10	H
	7511.36	-55.92	-13	-42.92	-81.86	-60.66	6.56	11.30	H
	3755.68	-44.43	-13	-31.43	-69.53	-52.18	4.85	12.60	V
	5633.52	-43.36	-13	-30.36	-67.13	-50.88	5.58	13.10	V
	7511.36	-55.74	-13	-42.74	-81.67	-60.48	6.56	11.30	V

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

LTE Band 2 / 10MHz / QPSK									
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)
Middle	3751.18	-44.40	-13	-31.40	-66.34	-52.15	4.85	12.60	H
	5626.77	-41.21	-13	-28.21	-64.91	-48.73	5.58	13.10	H
	7502	-55.94	-13	-42.94	-81.94	-60.68	6.56	11.30	H
	3751.18	-43.30	-13	-30.30	-68.4	-51.05	4.85	12.60	V
	5626.77	-42.99	-13	-29.99	-67.19	-50.51	5.58	13.10	V
	7502	-55.71	-13	-42.71	-81.7	-60.45	6.56	11.30	V

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

LTE Band 2 / 15MHz / QPSK									
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)
Middle	3746.68	-44.50	-13	-31.50	-66.44	-52.25	4.85	12.60	H
	5620.02	-41.12	-13	-28.12	-64.82	-48.64	5.58	13.10	H
	7493.36	-55.75	-13	-42.75	-81.75	-60.49	6.56	11.30	H
	3746.68	-42.63	-13	-29.63	-67.73	-50.38	4.85	12.60	V
	5620.02	-42.87	-13	-29.87	-67.07	-50.39	5.58	13.10	V
	7493.36	-55.86	-13	-42.86	-81.85	-60.60	6.56	11.30	V

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

LTE Band 2 / 20MHz / QPSK									
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)
Middle	3742.18	-43.05	-13	-30.05	-65.54	-50.80	4.85	12.60	H
	5613.27	-41.23	-13	-28.23	-65.01	-48.75	5.58	13.10	H
	7484.36	-55.84	-13	-42.84	-81.91	-60.58	6.56	11.30	H
	3742.18	-41.15	-13	-28.15	-65.65	-48.90	4.85	12.60	V
	5613.27	-43.20	-13	-30.20	-67.83	-50.72	5.58	13.10	V
	7484.36	-55.77	-13	-42.77	-81.82	-60.51	6.56	11.30	V

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

LTE Band 4 / 1.4MHz / QPSK									
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)
Middle	3463.74	-41.06	-13	-28.06	-62.60	-49.29	4.37	12.60	H
	5195.61	-30.55	-13	-17.55	-54.15	-38.31	4.94	12.70	H
	6927.48	-56.52	-13	-43.52	-81.67	-61.90	6.32	11.70	H
	3463.74	-45.56	-13	-32.56	-66.9	-53.79	4.37	12.60	V
	5195.61	-34.09	-13	-21.09	-57.96	-41.85	4.94	12.70	V
	6927.48	-55.62	-13	-42.62	-81.69	-61.00	6.32	11.70	V

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

LTE Band 4 / 3MHz / QPSK									
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)
Middle	3462.48	-41.67	-13	-28.67	-63.21	-49.90	4.37	12.60	H
	5193.72	-30.75	-13	-17.75	-54.35	-38.51	4.94	12.70	H
	6924.96	-56.28	-13	-43.28	-81.43	-61.66	6.32	11.70	H
	3462.48	-43.85	-13	-30.85	-65.19	-52.08	4.37	12.60	V
	5193.72	-34.69	-13	-21.69	-58.56	-42.45	4.94	12.70	V
	6924.96	-54.94	-13	-41.94	-81.01	-60.32	6.32	11.70	V

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

LTE Band 4 / 5MHz / QPSK									
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)
Middle	3460.68	-42.38	-13	-29.38	-63.92	-50.61	4.37	12.60	H
	5191.02	-31.07	-13	-18.07	-54.67	-38.83	4.94	12.70	H
	6921.36	-56.26	-13	-43.26	-81.37	-61.64	6.32	11.70	H
	3460.68	-42.64	-13	-29.64	-63.98	-50.87	4.37	12.60	V
	5191.02	-35.28	-13	-22.28	-59.15	-43.04	4.94	12.70	V
	6921.36	-55.71	-13	-42.71	-81.92	-61.09	6.32	11.70	V

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

LTE Band 4 / 10MHz / QPSK									
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)
Middle	3456.18	-39.61	-13	-26.61	-60.35	-47.84	4.37	12.60	H
	5184.27	-32.64	-13	-19.64	-56.12	-40.40	4.94	12.70	H
	6912.36	-56.35	-13	-43.35	-81.46	-61.73	6.32	11.70	H
	3456.18	-44.97	-13	-31.97	-66.65	-53.20	4.37	12.60	V
	5184.27	-35.76	-13	-22.76	-59.63	-43.52	4.94	12.70	V
	6912.36	-55.28	-13	-42.28	-81.49	-60.66	6.32	11.70	V

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

LTE Band 4 / 15MHz / QPSK									
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)
Middle	3451.68	-41.99	-13	-28.99	-62.73	-50.22	4.37	12.60	H
	5177.52	-30.22	-13	-17.22	-53.70	-37.98	4.94	12.70	H
	6903.36	-56.44	-13	-43.44	-81.52	-61.82	6.32	11.70	H
	3451.68	-43.54	-13	-30.54	-65.22	-51.77	4.37	12.60	V
	5177.52	-35.01	-13	-22.01	-58.88	-42.77	4.94	12.70	V
	6903.36	-55.30	-13	-42.30	-81.66	-60.68	6.32	11.70	V

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

LTE Band 4 / 20MHz / QPSK									
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)
Middle	3447.18	-40.82	-13	-27.82	-61.56	-49.05	4.37	12.60	H
	5170.77	-30.63	-13	-17.63	-53.99	-38.39	4.94	12.70	H
	6894.36	-56.41	-13	-43.41	-81.50	-61.79	6.32	11.70	H
	3447.18	-42.80	-13	-29.80	-64.48	-51.03	4.37	12.60	V
	5170.77	-33.36	-13	-20.36	-57.22	-41.12	4.94	12.70	V
	6894.36	-55.00	-13	-42.00	-81.37	-60.38	6.32	11.70	V

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

LTE Band 5 / 1.4MHz / QPSK									
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)
Middle	1671.92	-53.44	-13	-40.44	-64.38	-56.69	4.00	9.40	H
	2507.88	-60.22	-13	-47.22	-78.82	-63.79	4.88	10.60	H
	3343.84	-59.65	-13	-46.65	-80.26	-64.58	5.52	12.60	H
	1671.92	-59.42	-13	-46.42	-71.07	-62.67	4.00	9.40	V
	2507.88	-60.25	-13	-47.25	-79.06	-63.82	4.88	10.60	V
	3343.84	-59.24	-13	-46.24	-80.15	-64.17	5.52	12.60	V

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

LTE Band 5 / 3MHz / QPSK									
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)
Middle	1670.48	-54.40	-13	-41.40	-65.28	-57.65	4.00	9.40	H
	2505.72	-59.87	-13	-46.87	-78.47	-63.44	4.88	10.60	H
	3340.96	-59.45	-13	-46.45	-80.06	-64.38	5.52	12.60	H
	1670.48	-59.49	-13	-46.49	-71.04	-62.74	4.00	9.40	V
	2505.72	-60.11	-13	-47.11	-78.92	-63.68	4.88	10.60	V
	3340.96	-59.08	-13	-46.08	-79.99	-64.01	5.52	12.60	V

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

LTE Band 5 / 5MHz / QPSK									
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)
Middle	1668.68	-53.83	-13	-40.83	-64.71	-57.08	4.00	9.40	H
	2503.02	-60.46	-13	-47.46	-78.93	-64.03	4.88	10.60	H
	3337.36	-59.61	-13	-46.61	-80.12	-64.54	5.52	12.60	H
	1668.68	-59.00	-13	-46.00	-70.55	-62.25	4.00	9.40	V
	2503.02	-59.82	-13	-46.82	-78.55	-63.39	4.88	10.60	V
	3337.36	-59.16	-13	-46.16	-80.17	-64.09	5.52	12.60	V

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

LTE Band 5 / 10MHz / QPSK									
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)
Middle	1664.18	-53.09	-13	-40.09	-63.97	-56.34	4.00	9.40	H
	2496.27	-57.78	-13	-44.78	-76.25	-61.35	4.88	10.60	H
	3328.36	-58.08	-13	-45.08	-78.59	-63.01	5.52	12.60	H
	1664.18	-57.80	-13	-44.80	-69.35	-61.05	4.00	9.40	V
	2496.27	-58.31	-13	-45.31	-77.04	-61.88	4.88	10.60	V
	3328.36	-53.49	-13	-40.49	-74.50	-58.42	5.52	12.60	V

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

LTE Band 17 / 5MHz / QPSK									
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)
Middle	1415.68	-51.54	-13	-38.54	-61.46	-54.79	4.00	9.40	H
	2123.58	-61.33	-13	-48.33	-78.59	-64.90	4.88	10.60	H
	2831.36	-60.26	-13	-47.26	-78.91	-65.19	5.52	12.60	H
	1415.68	-55.76	-13	-42.76	-66.74	-59.01	4.00	9.40	V
	2123.58	-61.54	-13	-48.54	-78.57	-65.11	4.88	10.60	V
	2831.36	-59.31	-13	-46.31	-78.83	-64.24	5.52	12.60	V

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

LTE Band 17 / 10MHz / QPSK									
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)
Middle	1411.18	-50.42	-13	-37.42	-60.34	-53.67	4.00	9.40	H
	2116.77	-61.51	-13	-48.51	-78.77	-65.08	4.88	10.60	H
	2822.36	-60.09	-13	-47.09	-78.69	-65.02	5.52	12.60	H
	1411.18	-54.72	-13	-41.72	-65.70	-57.97	4.00	9.40	V
	2116.77	-61.76	-13	-48.76	-78.79	-65.33	4.88	10.60	V
	2822.36	-59.27	-13	-46.27	-78.68	-64.20	5.52	12.60	V

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