



FCC RF Test Report

APPLICANT : PAX Technology Limited
EQUIPMENT : Mobile Payment Terminal
BRAND NAME : PAX
MODEL NAME : S920
MARKETING NAME : S920
FCC ID : V5PS920FDD-LTE
STANDARD : 47 CFR Part 2, 22(H), 24(E), 27(L), 27(H)
CLASSIFICATION : PCS Licensed Transmitter (PCB)

The product was received on Dec. 23, 2015 and completely tested on Jan. 11, 2016. We, SPORTON INTERNATIONAL (SHENZHEN) INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA / EIA-603-D-2010 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 (SHENZHEN) INC., the test report shall not be reproduced except in full.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG5D2302B	Rev. 01	The device integrates a WWAN module ME909u-523 with FCC ID: QISME909U-523, no hardware changes are made on the module and only disabled some LTE bands by software, test cases of conducted items for LTE band 2/4/5/17 were leveraged from module FCC report which can refer to No.SYBH(Z-RF)010032014-2001.	Jan. 21, 2016

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
4.4	§22.913(a)(2)	Effective Radiated Power (Band 5)	ERP < 7 Watt	PASS	-
	§27.50(c)(10)	Effective Radiated Power (Band 17)	ERP < 3 Watt		
	§24.232(c)	Equivalent Isotropic Radiated Power (Band 2)	EIRP < 2Watt		
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4)	EIRP < 1Watt		
4.5	§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 22.07 dB at 1415.680 MHz



1 General Description

1.1 Applicant

PAX Technology Limited

Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour Road, Wanchai, Hong Kong

1.2 Manufacturer

PAX Computer Technology (Shenzhen) Co., Ltd.

4/F, No.3 Building, Software Park, Second Central Science-Tech Road, High-Tech industrial Park, Shenzhen, Guangdong, P.R.C.

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Payment Terminal
Brand Name	PAX
Model Name	S920
Marketing Name	S920
FCC ID	V5PS920FDD-LTE
EUT supports Radios application	WCDMA/HSPA/HSPA+(16QAM uplink is not supported)/LTE/NFC WLAN2.4GHz 802.11b/g/n HT20 Bluetooth v3.0+EDR/Bluetooth v4.0 LE
MEID Code	Conducted: 864669020066004 Radiation:864669020067085 ERP/EIRP: 864669020067473
HW Version	v01.01.01
SW Version	14.00.02
EUT Stage	Production Unit

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 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 : 22.32 dBm LTE Band 4 : 22.28 dBm LTE Band 5 : 22.45 dBm LTE Band 17 : 23.09 dBm
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

LTE Band 2	QPSK	16QAM
BW(MHz)	Maximum EIRP(W)	Maximum EIRP(W)
1.4	0.3622	0.2710
3	0.3475	0.2564
5	0.3556	0.2679
10	0.3499	0.2667
15	0.3664	0.2698
20	0.3483	0.2673
LTE Band 4	QPSK	16QAM
BW(MHz)	Maximum EIRP(W)	Maximum EIRP(W)
1.4	0.2410	0.1959
3	0.2344	0.1528
5	0.2421	0.1897
10	0.2438	0.1774
15	0.2377	0.1849
20	0.2265	0.1687
LTE Band 5	QPSK	16QAM
BW(MHz)	Maximum ERP(W)	Maximum ERP(W)
1.4	0.0776	0.0618
3	0.0596	0.0693
5	0.0594	0.0655
10	0.0583	0.0658
LTE Band 17	QPSK	16QAM
BW(MHz)	Maximum ERP(W)	Maximum ERP(W)
5	0.0743	0.0594
10	0.0585	0.0583

1.7 Testing Location

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.	
Test Site Location	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P. R. China TEL: +86-755- 3320-2398	
Test Site No.	Sporton Site No.	FCC Registration No.
	03CH01-SZ	831040

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(L), 27(H)
- ANSI / TIA / EIA-603-D-2010
- FCC KDB 971168 D01 Power Meas. License Digital Systems v02r02

Remark:

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

2 Test Configuration of Equipment Under Test

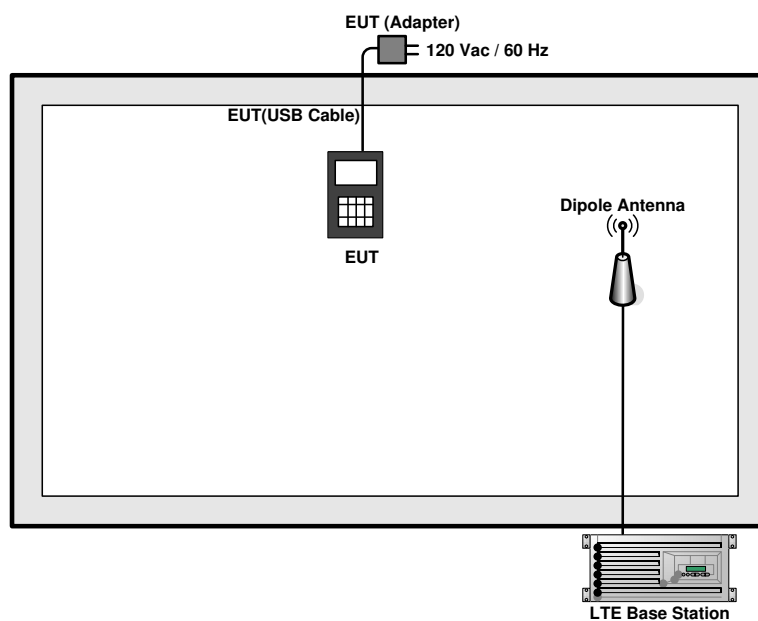
2.1 Test Mode

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

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

Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Max. Output Power	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	5	✓	✓	✓	✓	-	-	✓	✓	✓	✓	✓	✓	✓	✓
	17	-	-	✓	✓	-	-	✓	✓	✓	✓	✓	✓	✓	✓
E.R.P./ E.I.R.P.	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	5	✓	✓	✓	✓	-	-	✓	✓	✓			✓	✓	✓
	17	-	-	✓	✓	-	-	✓	✓	✓			✓	✓	✓
Radiated Spurious Emission	2	✓	✓	✓	✓	✓	✓	✓		✓				✓	
	4	✓	✓	✓	✓	✓	✓	✓		✓				✓	
	5	✓	✓	✓	✓	-	-	✓		✓				✓	
	17	-	-	✓	✓	-	-	✓		✓				✓	
Note	- The mark "✓" means that this configuration is chosen for testing - The mark "-" means that this bandwidth is not supported. - The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.														

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

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



2.4 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

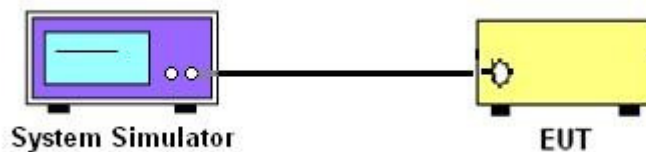
3 Conducted Test Items

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

3.4.1 Description of the Conducted Output Power Measurement

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

3.4.2 Test Procedures

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

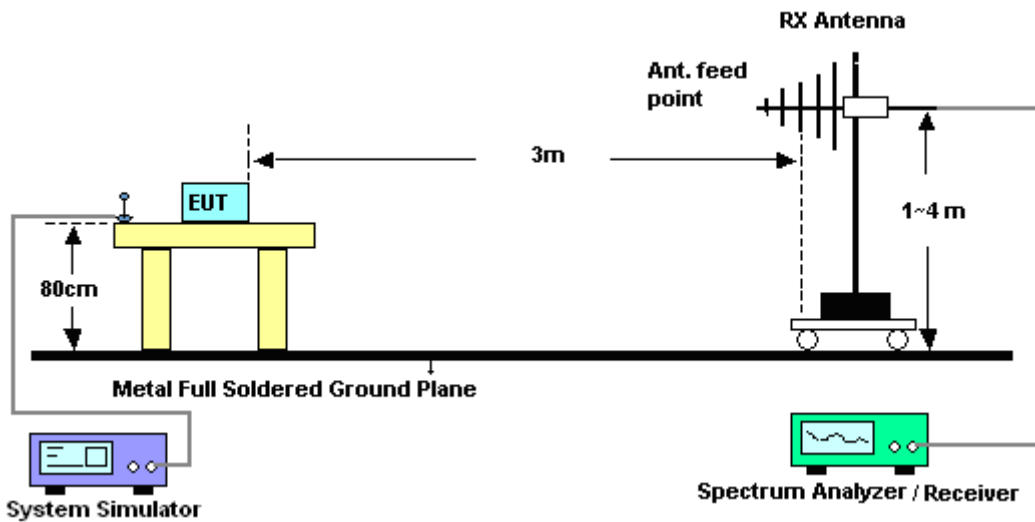
4 Radiated Test Items

4.1 Measuring Instruments

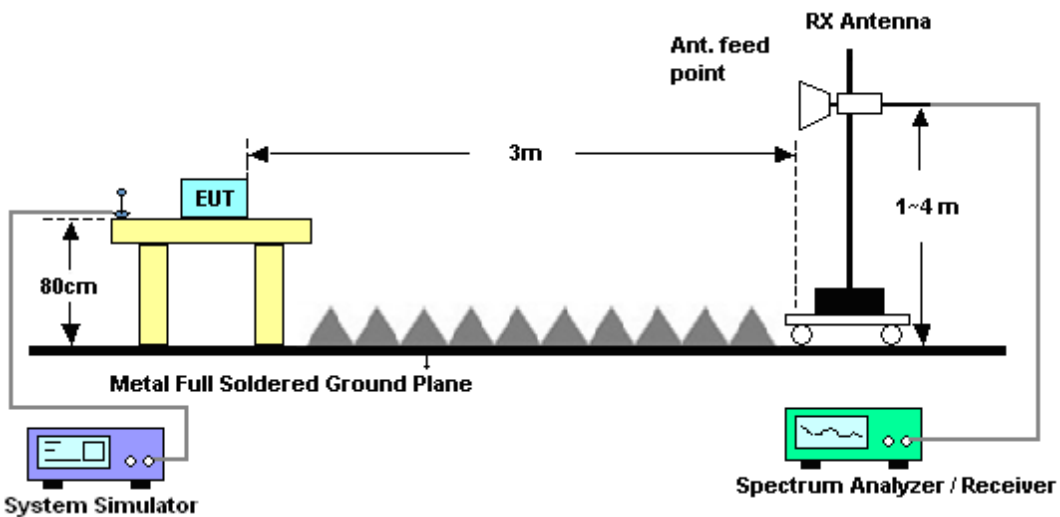
See list of measuring instruments of this test report.

4.2 Test Setup

4.2.1 For radiated test from 30MHz to 1GHz



4.2.2 For radiated test above 1GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

4.4 Effective Radiated Power and Effective Isotropic Radiated Power

4.4.1 Description of the ERP/EIRP Measurement

Effective radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-D-2010, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02r02. Mobile and portable (hand-held) stations operating are limited to average ERP of 7 watts with LTE band 5 and 3 watts with LTE band 17.

Equivalent isotropic radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-D-2010, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02r02. Mobile and portable (hand-held) stations operating are limited to average EIRP of 2 watts with LTE band 2 and 1 watt with LTE band 4.

4.4.2 Test Procedures

1. The EUT was placed on a non-conductive rotating platform 0.8 meters high in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with RMS detector per section 5. of KDB 971168 D01. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power. The maximum emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.
2. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to TIA/EIA-603-D. The EUT was replaced by the substitution antenna at same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. The correction factor (in dB) = S.G. - Tx Cable loss + Substitution antenna gain - Analyzer reading. Then the EUT's EIRP was calculated with the correction factor, $EIRP = LVL + \text{Correction factor}$ and $ERP = EIRP - 2.15$. Take the record of the output power at substitution antenna.



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

4.5 Radiated Spurious Emission

4.5.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI / TIA / EIA-603-D-2010. 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 LTE Band 17

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

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

4.5.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 5.8 and ANSI / TIA-603-D-2010 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)
 $= P(W) - [43 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
 $= -13$ dBm.

12. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
13. ERP (dBm) = EIRP - 2.15



5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz;Max 30dBm	Jun. 07, 2015	Jan. 07, 2016~ Jan. 11, 2016	Jun. 06, 2016	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	23188	30MHz-2GHz	Oct. 17, 2015	Jan. 07, 2016~ Jan. 11, 2016	Oct. 16, 2016	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1285	1GHz~18GHz	Jan. 20, 2015	Jan. 07, 2016~ Jan. 11, 2016	Jan. 19, 2016	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Aug. 19, 2015	Jan. 07, 2016~ Jan. 11, 2016	Aug. 18, 2016	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz ~3000MHz / 30 dB	Jan. 28, 2015	Jan. 07, 2016~ Jan. 11, 2016	Jan. 27, 2016	Radiation (03CH01-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Jan. 28, 2015	Jan. 07, 2016~ Jan. 11, 2016	Jan. 27, 2016	Radiation (03CH01-SZ)
Amplifier	Yiai	AV3860B	04030	2GHz~26.5GHz	May 05, 2015	Jan. 07, 2016~ Jan. 11, 2016	May 04, 2016	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Jan. 07, 2016~ Jan. 11, 2016	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jan. 07, 2016~ Jan. 11, 2016	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jan. 07, 2016~ Jan. 11, 2016	NCR	Radiation (03CH01-SZ)



6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	4.8 dB
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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
20	1	0	QPSK	22.01	22.08	22.01
20	1	49		22.27	22.26	22.29
20	1	99		22.25	22.24	22.04
20	50	0		21.12	21.24	21.10
20	50	24		21.27	21.17	21.32
20	50	50		21.34	21.25	21.39
20	100	0		21.27	21.18	21.28
20	1	0	16-QAM	21.29	21.42	21.06
20	1	49		21.56	21.38	21.18
20	1	99		21.54	21.46	21.05
20	50	0		20.15	20.17	20.20
20	50	24		20.18	20.14	20.31
20	50	50		20.25	20.11	20.34
20	100	0		20.43	20.13	20.40
15	1	0	QPSK	21.59	21.99	22.19
15	1	37		21.86	22.00	22.25
15	1	74		21.99	22.01	22.11
15	36	0		20.87	21.08	21.13
15	36	20		20.84	21.06	21.22
15	36	39		20.91	20.91	21.22
15	75	0		20.95	20.93	21.24
15	1	0	16-QAM	20.52	20.73	20.89
15	1	37		20.64	20.69	21.03
15	1	74		20.67	20.70	20.71
15	36	0		20.10	20.16	20.26
15	36	20		20.04	20.08	20.34
15	36	39		20.07	19.94	20.33
15	75	0		20.09	20.04	20.34



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	21.50	21.75	22.26
10	1	25		21.65	21.84	22.28
10	1	49		21.72	21.82	21.99
10	25	0		20.67	20.77	21.26
10	25	12		20.69	20.85	21.23
10	25	25		20.66	20.78	21.23
10	50	0		20.73	20.89	21.20
10	1	0	16-QAM	20.83	21.13	21.51
10	1	25		20.82	21.06	21.52
10	1	49		21.09	20.98	21.29
10	25	0		20.12	20.07	20.33
10	25	12		20.08	20.05	20.33
10	25	25		20.03	20.10	20.34
10	50	0		20.02	20.05	20.34
5	1	0	QPSK	21.37	21.67	22.32
5	1	12		21.57	21.86	22.30
5	1	24		21.37	21.98	22.04
5	12	0		20.48	20.84	21.43
5	12	7		20.56	20.91	21.27
5	12	13		20.53	20.98	21.22
5	25	0		20.60	20.98	21.39
5	1	0	16-QAM	20.70	21.17	21.59
5	1	12		20.76	21.20	21.49
5	1	24		20.65	21.17	21.29
5	12	0		20.01	20.00	20.45
5	12	7		20.05	20.07	20.30
5	12	13		20.02	20.01	20.24
5	25	0		20.05	20.07	20.26



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	21.20	21.57	22.16
3	1	8		21.33	21.76	22.15
3	1	14		21.40	21.84	21.96
3	8	0		20.45	20.91	21.30
3	8	4		20.58	20.92	21.29
3	8	7		20.57	20.89	21.18
3	15	0		20.60	20.93	21.17
3	1	0	16-QAM	20.48	20.86	21.24
3	1	8		20.53	20.80	21.25
3	1	14		20.59	20.82	20.97
3	8	0		20.01	20.12	20.31
3	8	4		20.02	20.10	20.28
3	8	7		20.06	20.04	20.16
3	15	0		20.12	20.04	20.21
1.4	1	0	QPSK	21.26	21.81	22.09
1.4	1	3		21.52	21.94	22.05
1.4	1	5		21.55	21.91	21.97
1.4	3	0		21.49	21.91	22.14
1.4	3	1		21.33	21.79	22.03
1.4	3	3		21.33	21.73	21.84
1.4	6	0		20.49	20.86	20.96
1.4	1	0	16-QAM	20.51	20.92	21.09
1.4	1	3		20.36	20.81	20.98
1.4	1	5		20.63	20.89	20.83
1.4	3	0		20.63	21.02	21.28
1.4	3	1		20.60	20.94	21.14
1.4	3	3		20.56	20.88	21.22
1.4	6	0		20.09	20.03	20.36



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	21.91	21.91	22.01
20	1	49		22.04	22.04	22.10
20	1	99		22.02	22.02	21.89
20	50	0		20.95	20.95	21.08
20	50	24		20.94	20.94	20.85
20	50	50		20.88	20.88	20.72
20	100	0		20.97	20.97	20.95
20	1	0	16-QAM	21.23	21.23	21.10
20	1	49		20.77	20.77	20.93
20	1	99		20.88	20.88	20.84
20	50	0		20.12	20.14	20.18
20	50	24		20.01	20.03	20.02
20	50	50		20.06	20.05	20.00
20	100	0		20.04	20.01	20.00
15	1	0	QPSK	22.05	21.91	22.12
15	1	37		22.06	22.17	21.80
15	1	74		22.10	21.93	21.81
15	36	0		21.08	21.13	20.90
15	36	20		20.92	21.02	20.71
15	36	39		20.92	21.00	20.78
15	75	0		21.00	21.00	20.77
15	1	0	16-QAM	20.74	20.74	20.90
15	1	37		20.71	20.82	20.55
15	1	74		20.75	20.74	20.63
15	36	0		20.13	20.11	20.01
15	36	20		20.04	20.10	20.07
15	36	39		20.03	20.13	20.03
15	75	0		20.09	20.07	20.02



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	21.91	22.09	21.84
10	1	25		22.27	22.21	21.93
10	1	49		22.01	22.23	21.95
10	25	0		21.02	21.17	20.76
10	25	12		21.08	21.06	20.84
10	25	25		20.96	21.02	20.82
10	50	0		20.88	20.94	20.74
10	1	0	16-QAM	21.20	21.18	21.19
10	1	25		21.42	21.36	21.13
10	1	49		21.19	21.32	21.19
10	25	0		20.12	20.08	20.07
10	25	12		20.10	20.03	20.02
10	25	25		20.10	20.08	20.03
10	50	0		20.06	20.01	20.01
5	1	0	QPSK	21.91	22.04	21.76
5	1	12		22.15	22.24	21.82
5	1	24		22.28	22.06	21.95
5	12	0		21.10	21.18	20.91
5	12	7		21.14	21.14	20.80
5	12	13		21.23	21.19	20.86
5	25	0		21.03	21.06	20.77
5	1	0	16-QAM	20.71	20.94	21.14
5	1	12		20.99	21.03	21.15
5	1	24		20.97	20.91	21.24
5	12	0		20.22	20.37	20.06
5	12	7		20.24	20.25	20.03
5	12	13		20.38	20.28	20.06
5	25	0		20.18	20.23	20.04



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	21.97	22.05	21.71
3	1	8		22.06	22.12	21.81
3	1	14		22.24	22.06	21.91
3	8	0		20.96	21.22	20.85
3	8	4		21.09	21.30	20.98
3	8	7		21.06	21.30	21.03
3	15	0		21.02	21.20	20.90
3	1	0	16-QAM	20.65	20.92	20.63
3	1	8		20.75	20.92	20.61
3	1	14		20.85	20.86	20.62
3	8	0		20.06	20.08	20.02
3	8	4		20.07	20.11	20.06
3	8	7		20.01	20.08	20.02
3	15	0		20.04	20.04	20.05
1.4	1	0	QPSK	21.91	22.09	21.79
1.4	1	3		22.05	22.13	21.96
1.4	1	5		21.95	22.14	21.89
1.4	3	0		21.98	22.22	22.00
1.4	3	1		22.00	22.16	21.90
1.4	3	3		22.00	22.13	21.82
1.4	6	0		20.86	21.14	20.85
1.4	1	0	16-QAM	20.64	21.03	20.74
1.4	1	3		20.77	21.01	20.79
1.4	1	5		20.60	21.11	20.83
1.4	3	0		21.12	21.27	21.11
1.4	3	1		21.01	21.29	21.02
1.4	3	3		21.00	21.35	21.15
1.4	6	0		20.15	20.27	20.17



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.10	22.12	22.33
10	1	25		22.19	22.45	22.35
10	1	49		22.18	22.28	21.82
10	25	0		21.15	21.15	21.11
10	25	12		21.05	21.38	21.00
10	25	25		21.16	21.40	21.18
10	50	0		21.00	21.27	21.08
10	1	0	16-QAM	21.38	21.44	21.36
10	1	25		21.31	21.73	21.05
10	1	49		21.37	21.47	21.07
10	25	0		20.15	20.22	20.19
10	25	12		20.14	20.34	20.09
10	25	25		20.13	20.32	19.98
10	50	0		20.02	20.33	20.21
5	1	0	QPSK	22.07	22.13	21.99
5	1	12		22.07	22.31	22.00
5	1	24		22.08	22.24	21.75
5	12	0		21.23	21.37	21.10
5	12	7		21.11	21.58	21.09
5	12	13		21.10	21.49	21.13
5	25	0		21.14	21.31	21.02
5	1	0	16-QAM	21.15	21.16	20.91
5	1	12		21.15	21.38	21.09
5	1	24		21.06	21.33	21.04
5	12	0		20.39	20.53	20.25
5	12	7		20.11	20.70	20.30
5	12	13		20.34	20.63	20.26
5	25	0		20.30	20.43	20.15



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.16	22.29	22.14
3	1	8		22.11	22.44	22.08
3	1	14		22.21	22.32	21.84
3	8	0		21.26	21.47	21.12
3	8	4		21.23	21.48	21.16
3	8	7		21.12	21.52	21.11
3	15	0		21.15	21.36	21.08
3	1	0	16-QAM	21.52	21.73	21.44
3	1	8		21.46	21.69	21.34
3	1	14		21.42	21.69	21.01
3	8	0		20.29	20.53	20.16
3	8	4		20.24	20.40	20.12
3	8	7		20.26	20.45	20.04
3	15	0		20.32	20.55	20.22
1.4	1	0	QPSK	22.21	22.40	22.13
1.4	1	3		22.15	22.25	22.02
1.4	1	5		22.09	22.24	21.98
1.4	3	0		22.21	22.27	22.12
1.4	3	1		22.09	22.23	22.04
1.4	3	3		22.13	22.20	22.03
1.4	6	0		21.14	21.20	21.04
1.4	1	0	16-QAM	21.46	21.54	21.29
1.4	1	3		21.53	21.63	21.29
1.4	1	5		21.38	21.62	21.22
1.4	3	0		21.24	21.40	21.19
1.4	3	1		21.08	21.48	21.12
1.4	3	3		21.07	21.41	21.08
1.4	6	0		20.31	20.48	20.26



LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.95	23.00	23.05
10	1	25		23.02	23.09	23.07
10	1	49		22.88	22.86	22.64
10	25	0		22.00	22.01	22.00
10	25	12		21.97	21.90	21.94
10	25	25		21.88	21.90	21.81
10	50	0		21.87	21.92	21.91
10	1	0	16-QAM	22.25	22.13	22.26
10	1	25		22.29	22.20	22.16
10	1	49		22.15	22.09	21.69
10	25	0		21.00	20.99	20.98
10	25	12		20.97	20.95	20.94
10	25	25		21.00	20.90	20.92
10	50	0		20.98	20.92	20.92
5	1	0	QPSK	23.07	22.89	22.97
5	1	12		23.08	23.06	22.98
5	1	24		23.02	22.96	22.44
5	12	0		22.09	22.07	21.99
5	12	7		22.09	22.02	21.98
5	12	13		22.16	22.08	21.73
5	25	0		22.14	21.99	21.78
5	1	0	16-QAM	22.29	22.07	22.13
5	1	12		22.44	22.26	22.22
5	1	24		22.40	22.22	21.70
5	12	0		21.21	21.12	21.14
5	12	7		21.14	21.07	21.03
5	12	13		21.19	21.15	20.79
5	25	0		21.13	20.99	20.89

Appendix B. Test Results of Radiated Test

ERP/EIRP

LTE Band 2 / 1.4MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	5	23.50	0.2239	23.83	0.2415
Middle		1	3	25.11	0.3243	25.59	0.3622
Highest		3	0	25.27	0.3365	25.51	0.3556
Lowest	16QAM	1	5	21.99	0.1581	22.41	0.1742
Middle		3	0	24.05	0.2541	24.33	0.2710
Highest		3	0	23.66	0.2323	23.91	0.2460
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 3MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	14	23.34	0.2158	23.92	0.2466
Middle		1	14	24.95	0.3126	25.35	0.3428
Highest		1	0	25.18	0.3296	25.41	0.3475
Lowest	16QAM	1	14	22.23	0.1671	22.72	0.1871
Middle		1	0	23.85	0.2427	24.09	0.2564
Highest		1	8	23.68	0.2333	23.87	0.2438
Limit	EIRP < 2W			Result		PASS	



LTE Band 2 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	23.40	0.2188	23.96	0.2489
Middle		1	24	25.05	0.3199	25.51	0.3556
Highest		1	0	25.07	0.3214	25.51	0.3556
Lowest	16QAM	1	12	22.24	0.1675	22.60	0.1820
Middle		1	12	24.12	0.2582	24.28	0.2679
Highest		1	0	23.87	0.2438	24.12	0.2582
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	23.94	0.2477	24.41	0.2761
Middle		1	25	25.02	0.3177	25.44	0.3499
Highest		1	25	25.11	0.3243	25.41	0.3475
Lowest	16QAM	1	49	23.02	0.2004	23.26	0.2118
Middle		1	0	23.91	0.2460	24.14	0.2594
Highest		1	25	24.04	0.2535	24.26	0.2667
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 15MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	74	23.80	0.2399	24.21	0.2636
Middle		1	74	25.11	0.3243	25.52	0.3565
Highest		1	37	25.28	0.3373	25.64	0.3664
Lowest	16QAM	1	74	22.75	0.1884	23.11	0.2046
Middle		1	0	23.54	0.2259	23.66	0.2323
Highest		1	37	24.07	0.2553	24.31	0.2698
Limit	EIRP < 2W			Result		PASS	



LTE Band 2 / 20MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	23.73	0.2360	24.15	0.2600
Middle		1	49	24.98	0.3148	25.30	0.3388
Highest		1	49	25.10	0.3236	25.42	0.3483
Lowest	16QAM	1	49	22.40	0.1738	22.85	0.1928
Middle		1	99	23.95	0.2483	24.27	0.2673
Highest		1	49	23.80	0.2399	24.08	0.2559
Limit	EIRP < 2W			Result		PASS	

LTE Band 4 / 1.4MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	3	23.25	0.2113	23.25	0.2113
Middle		3	0	23.66	0.2323	23.53	0.2254
Highest		3	0	23.82	0.2410	23.74	0.2366
Lowest	16QAM	3	0	22.92	0.1959	22.83	0.1919
Middle		3	3	22.67	0.1849	22.02	0.1592
Highest		3	3	22.17	0.1648	21.95	0.1567
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 3MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	14	23.44	0.2208	23.31	0.2143
Middle		1	8	23.65	0.2317	23.51	0.2244
Highest		1	14	23.70	0.2344	23.70	0.2344
Lowest	16QAM	1	14	21.46	0.1400	21.25	0.1334
Middle		1	8	21.48	0.1406	21.56	0.1432
Highest		1	0	21.84	0.1528	21.59	0.1442
Limit	EIRP < 1W			Result		PASS	



LTE Band 4 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	24	23.72	0.2355	23.64	0.2312
Middle		1	12	23.84	0.2421	23.64	0.2312
Highest		1	24	23.79	0.2393	23.72	0.2355
Lowest	16QAM	1	12	22.71	0.1866	22.05	0.1603
Middle		1	12	22.43	0.1750	22.78	0.1897
Highest		1	24	21.84	0.1528	21.72	0.1486
Limit	EIRP < 1W			Result		PASS	

LTE Band 4/ 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	25	23.73	0.2360	23.49	0.2234
Middle		1	49	23.87	0.2438	23.56	0.2270
Highest		1	49	23.82	0.2410	23.68	0.2333
Lowest	16QAM	1	25	22.45	0.1758	22.15	0.1641
Middle		1	25	22.33	0.1710	22.09	0.1618
Highest		1	49	22.49	0.1774	22.36	0.1722
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 15MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	74	23.67	0.2328	23.42	0.2198
Middle		1	37	23.76	0.2377	23.59	0.2286
Highest		1	0	23.52	0.2249	23.37	0.2173
Lowest	16QAM	1	74	22.05	0.1603	22.30	0.1698
Middle		1	37	22.67	0.1849	22.49	0.1774
Highest		1	0	22.08	0.1614	22.51	0.1782
Limit	EIRP < 1W			Result		PASS	



LTE Band 4 / 20MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	23.55	0.2265	23.26	0.2118
Middle		1	49	23.41	0.2193	23.22	0.2099
Highest		1	49	23.48	0.2228	23.23	0.2104
Lowest	16QAM	1	0	21.81	0.1517	21.76	0.1500
Middle		1	0	22.00	0.1585	21.81	0.1517
Highest		1	0	22.27	0.1687	22.22	0.1667
Limit	EIRP < 1W			Result		PASS	

LTE Band 5 / 1.4MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	18.90	0.0776	15.99	0.0397
Middle		1	0	17.25	0.0531	14.70	0.0295
Highest		1	0	16.01	0.0399	14.30	0.0269
Lowest	16QAM	1	3	17.91	0.0618	14.95	0.0313
Middle		1	3	16.29	0.0426	13.71	0.0235
Highest		1	3	14.87	0.0307	13.16	0.0207
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 3MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	14	17.75	0.0596	16.31	0.0428
Middle		1	8	16.57	0.0454	15.42	0.0348
Highest		1	0	16.27	0.0424	15.37	0.0344
Lowest	16QAM	1	0	18.41	0.0693	15.32	0.0340
Middle		1	0	16.70	0.0468	14.10	0.0257
Highest		1	0	15.27	0.0337	13.55	0.0226
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	24	17.74	0.0594	16.20	0.0417
Middle		1	12	16.58	0.0455	15.20	0.0331
Highest		1	12	16.05	0.0403	14.96	0.0313
Lowest	16QAM	1	12	18.16	0.0655	15.08	0.0322
Middle		1	12	16.72	0.0470	14.15	0.0260
Highest		1	12	15.10	0.0324	13.41	0.0219
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	25	17.66	0.0583	16.05	0.0403
Middle		1	25	16.55	0.0452	15.22	0.0333
Highest		1	25	16.46	0.0443	15.31	0.0340
Lowest	16QAM	1	0	18.18	0.0658	15.11	0.0324
Middle		1	25	16.67	0.0465	14.07	0.0255
Highest		1	0	16.78	0.0476	14.38	0.0274
Limit	ERP < 7W			Result		PASS	

LTE Band 17 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	12	18.71	0.0743	15.84	0.0384
Middle		1	12	17.90	0.0617	15.11	0.0324
Highest		1	12	18.10	0.0646	15.53	0.0357
Lowest	16QAM	1	12	17.74	0.0594	14.67	0.0293
Middle		1	12	16.74	0.0472	13.94	0.0248
Highest		1	12	17.11	0.0514	14.32	0.0270
Limit	ERP < 3W			Result		PASS	



LTE Band 17 / 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	25	17.56	0.0570	15.08	0.0322
Middle		1	25	17.67	0.0585	15.04	0.0319
Highest		1	25	17.49	0.0561	14.84	0.0305
Lowest	16QAM	1	25	16.99	0.0500	14.10	0.0257
Middle		1	25	16.98	0.0499	14.07	0.0255
Highest		1	0	17.66	0.0583	14.71	0.0296
Limit	ERP < 3W			Result		PASS	



Radiated Spurious Emission

LTE Band 2 / 1.4MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3758.92	-40.74	-13	-27.74	-55.95	-41.11	7.73	8.10	H
	5638.38	-49.27	-13	-36.27	-67.28	-50.17	9.5	10.40	H
	7517.84	-47.27	-13	-34.27	-67.68	-47.89	11.08	11.70	H
	3758.92	-40.81	-13	-27.81	-56.32	-41.18	7.73	8.1	V
	5638.38	-46.98	-13	-33.98	-65.25	-47.88	9.5	10.4	V
	7517.84	-46.96	-13	-33.96	-67.46	-47.58	11.08	11.7	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)
Middle	3757.48	-42.30	-13	-29.30	-56.80	-42.67	7.73	8.10	H
	5636.22	-48.93	-13	-35.93	-66.94	-49.83	9.5	10.40	H
	7514.96	-46.99	-13	-33.99	-67.40	-47.61	11.08	11.70	H
	3757.48	-39.01	-13	-26.01	-55	-39.38	7.73	8.1	V
	5636.22	-47.72	-13	-34.72	-65.99	-48.62	9.5	10.4	V
	7514.96	-47.14	-13	-34.14	-67.64	-47.76	11.08	11.7	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)
Middle	3755.68	-40.45	-13	-27.45	-55.73	-40.82	7.73	8.10	H
	5633.52	-49.54	-13	-36.54	-67.55	-50.44	9.5	10.40	H
	7511.36	-47.34	-13	-34.34	-67.75	-47.96	11.08	11.70	H
	3755.68	-43.67	-13	-30.67	-58.76	-44.04	7.73	8.1	V
	5633.52	-47.80	-13	-34.80	-66.07	-48.70	9.5	10.4	V
	7511.36	-45.78	-13	-32.78	-66.28	-46.40	11.08	11.7	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)
Middle	3751.18	-43.08	-13	-30.08	-57.58	-43.45	7.73	8.10	H
	5626.77	-48.79	-13	-35.79	-66.80	-49.69	9.5	10.40	H
	7502.36	-47.32	-13	-34.32	-67.73	-47.94	11.08	11.70	H
	3751.18	-44.29	-13	-31.29	-59.38	-44.66	7.73	8.1	V
	5626.77	-47.88	-13	-34.88	-66.15	-48.78	9.5	10.4	V
	7502.36	-47.12	-13	-34.12	-67.62	-47.74	11.08	11.7	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)
Middle	3746.68	-42.39	-13	-29.39	-56.89	-42.76	7.73	8.10	H
	5620.02	-49.66	-13	-36.66	-67.67	-50.56	9.5	10.40	H
	7493.36	-47.36	-13	-34.36	-67.77	-47.98	11.08	11.70	H
	3746.68	-44.41	-13	-31.41	-59.5	-44.78	7.73	8.1	V
	5620.02	-48.76	-13	-35.76	-67.03	-49.66	9.5	10.4	V
	7493.36	-47.86	-13	-34.86	-68.36	-48.48	11.08	11.7	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)
Middle	3742.18	-46.50	-13	-33.50	-61.00	-46.87	7.73	8.10	H
	5613.27	-50.03	-13	-37.03	-68.04	-50.93	9.5	10.40	H
	7484.36	-47.37	-13	-34.37	-67.78	-47.99	11.08	11.70	H
	3742.18	-45.56	-13	-32.56	-60.65	-45.93	7.73	8.1	V
	5613.27	-49.58	-13	-36.58	-67.85	-50.48	9.5	10.4	V
	7484.36	-47.41	-13	-34.41	-67.91	-48.03	11.08	11.7	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)
Middle	3463.74	-39.99	-13	-26.99	-54.74	-45.26	7.33	12.60	H
	5195.61	-49.43	-13	-36.43	-67.43	-52.98	9.15	12.70	H
	6927.48	-47.42	-13	-34.42	-66.23	-48.48	10.64	11.70	H
	3463.74	-42.91	-13	-29.91	-56.39	-48.18	7.33	12.60	V
	5195.61	-52.96	-13	-39.96	-66.71	-56.51	9.15	12.70	V
	6927.48	-48.55	-13	-35.55	-66.64	-49.61	10.64	11.70	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)
Middle	3462.48	-40.58	-13	-27.58	-55.33	-45.85	7.33	12.60	H
	5193.72	-49.46	-13	-36.46	-67.46	-53.01	9.15	12.70	H
	6924.96	-48.35	-13	-35.35	-67.16	-49.41	10.64	11.70	H
	3462.48	-41.61	-13	-28.61	-55.38	-46.88	7.33	12.60	V
	5193.72	-53.80	-13	-40.80	-67.55	-57.35	9.15	12.70	V
	6924.96	-48.99	-13	-35.99	-67.08	-50.05	10.64	11.70	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)
Middle	3460.68	-40.52	-13	-27.52	-55.27	-45.79	7.33	12.60	H
	5191.02	-50.03	-13	-37.03	-68.03	-53.58	9.15	12.70	H
	6921.36	-48.82	-13	-35.82	-67.63	-49.88	10.64	11.70	H
	3460.68	-42.09	-13	-29.09	-55.72	-47.36	7.33	12.60	V
	5191.02	-52.26	-13	-39.26	-66.01	-55.81	9.15	12.70	V
	6921.36	-49.08	-13	-36.08	-67.17	-50.14	10.64	11.70	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)
Middle	3456.18	-38.26	-13	-25.26	-53.37	-43.53	7.33	12.60	H
	5184.27	-49.89	-13	-36.89	-67.89	-53.44	9.15	12.70	H
	6912.36	-48.67	-13	-35.67	-67.48	-49.73	10.64	11.70	H
	3456.18	-42.14	-13	-29.14	-55.76	-47.41	7.33	12.60	V
	5184.27	-53.39	-13	-40.39	-67.14	-56.94	9.15	12.70	V
	6912.36	-49.33	-13	-36.33	-67.42	-50.39	10.64	11.70	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)
Middle	3451.68	-39.94	-13	-26.94	-54.70	-45.21	7.33	12.60	H
	5177.52	-49.43	-13	-36.43	-67.43	-52.98	9.15	12.70	H
	6903.36	-48.41	-13	-35.41	-67.22	-49.47	10.64	11.70	H
	3451.68	-41.19	-13	-28.19	-55.09	-46.46	7.33	12.60	V
	5177.52	-54.28	-13	-41.28	-68.03	-57.83	9.15	12.70	V
	6903.36	-49.40	-13	-36.40	-67.49	-50.46	10.64	11.70	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)
Middle	3447.18	-40.09	-13	-27.09	-54.84	-45.36	7.33	12.60	H
	5170.77	-49.53	-13	-36.53	-67.53	-53.08	9.15	12.70	H
	6894.36	-48.72	-13	-35.72	-67.53	-49.78	10.64	11.70	H
	3447.18	-40.41	-13	-27.41	-54.48	-45.68	7.33	12.60	V
	5170.77	-53.94	-13	-40.94	-67.69	-57.49	9.15	12.70	V
	6894.36	-49.64	-13	-36.64	-67.73	-50.70	10.64	11.70	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)
Middle	1671.92	-43.67	-13	-30.67	-49.00	-42.10	4.92	5.50	H
	2507.88	-51.06	-13	-38.06	-57.95	-48.60	6.11	5.80	H
	3343.84	-56.73	-13	-43.73	-65.45	-55.35	7.33	8.10	H
	1671.92	-41.15	-13	-28.15	-47.28	-39.58	4.92	5.50	V
	2507.88	-44.42	-13	-31.42	-52.88	-41.96	6.11	5.80	V
	3343.84	-57.80	-13	-44.80	-66.03	-56.42	7.33	8.10	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)
Middle	1670.48	-44.38	-13	-31.38	-49.60	-42.81	4.92	5.50	H
	2505.72	-53.44	-13	-40.44	-59.73	-50.98	6.11	5.80	H
	3340.96	-57.75	-13	-44.75	-66.47	-56.37	7.33	8.10	H
	1670.48	-43.31	-13	-30.31	-49.06	-41.74	4.92	5.50	V
	2505.72	-45.09	-13	-32.09	-53.42	-42.63	6.11	5.80	V
	3340.96	-57.77	-13	-44.77	-66.00	-56.39	7.33	8.10	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)
Middle	1668.68	-43.75	-13	-30.75	-49.05	-42.18	4.92	5.50	H
	2503.02	-54.67	-13	-41.67	-60.96	-52.21	6.11	5.80	H
	3337.36	-56.14	-13	-43.14	-64.86	-54.76	7.33	8.10	H
	1668.68	-43.79	-13	-30.79	-49.42	-42.22	4.92	5.50	V
	2503.02	-48.45	-13	-35.45	-55.69	-45.99	6.11	5.80	V
	3337.36	-58.07	-13	-45.07	-66.30	-56.69	7.33	8.10	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)
Middle	1664.18	-45.47	-13	-32.47	-50.59	-43.90	4.92	5.50	H
	2496.27	-54.08	-13	-41.08	-60.37	-51.62	6.11	5.80	H
	3328.36	-54.98	-13	-41.98	-63.70	-53.60	7.33	8.10	H
	1664.18	-47.63	-13	-34.63	-52.41	-46.06	4.92	5.50	V
	2496.27	-52.57	-13	-39.57	-58.23	-50.11	6.11	5.80	V
	3328.36	-57.04	-13	-44.04	-65.27	-55.66	7.33	8.10	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)
Middle	1415.68	-35.07	-13	-22.07	-41.48	-33.50	4.92	5.50	H
	2123.58	-44.91	-13	-31.91	-53.56	-42.45	6.11	5.80	H
	2831.36	-49.19	-13	-36.19	-57.91	-47.81	7.33	8.10	H
	1415.68	-38.07	-13	-25.07	-44.43	-36.50	4.92	5.50	V
	2123.58	-46.87	-13	-33.87	-54.82	-44.41	6.11	5.80	V
	2831.36	-46.73	-13	-33.73	-56.52	-45.35	7.33	8.10	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)
Middle	1411.18	-36.26	-13	-23.26	-42.50	-34.69	4.92	5.50	H
	2116.77	-44.32	-13	-31.32	-53.12	-41.86	6.11	5.80	H
	2822.36	-48.42	-13	-35.42	-57.14	-47.04	7.33	8.10	H
	1411.18	-38.32	-13	-25.32	-44.68	-36.75	4.92	5.50	V
	2116.77	-50.03	-13	-37.03	-56.86	-47.57	6.11	5.80	V
	2822.36	-46.58	-13	-33.58	-56.38	-45.20	7.33	8.10	V

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