

# FCC RF Test Report

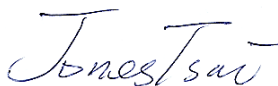
APPLICANT : Bandrich Inc.  
EQUIPMENT : E5812P LTE Outdoor CPE  
BRAND NAME : BandLuxe  
MODEL NAME : E5812P  
FCC ID : UZI-35M168  
STANDARD : 47 CFR Part 2, 22(H), 24(E), 27  
CLASSIFICATION : PCS Licensed Transmitter (PCB)

This is a partial report. The product was received on Oct. 14, 2016 and completely tested on Nov. 02, 2016. 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-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 INC., the test report shall not be reproduced except in full.



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Reviewed by: Joseph Lin / Supervisor

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Approved by: Jones Tsai / Manager

## SPORTON INTERNATIONAL INC.

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## REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG6O1409	Rev. 01	Initial issue of report	Nov. 07, 2016

**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)(2)	Effective Radiated Power (Band 5)	ERP < 7 Watt		
	§27.50(c)(10)	Effective Radiated Power (Band 12)	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		
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12)	< 43+10log <sub>10</sub> (P[Watts])	PASS	Under limit 10.66 dB at 3700.000 MHz



# 1 General Description

## 1.1 Applicant

**Bandrich Inc.**

6F-2., No. 71, Zhouzi St., Neihu Dist., Taipei City 11493, Taiwan (R.O.C)

## 1.2 Manufacturer

**FAIR GOAL ELECTRONIC CO.**

1F., No. 97-1, Haihu, Luzhu Township, Taoyuan County 338, Taiwan (R.O.C.)

## 1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	E5812P LTE Outdoor CPE
Brand Name	BandLuxe
Model Name	E5812P
FCC ID	UZI-35M168
EUT supports Radios application	LTE
HW Version	1
SW Version	AR_0_00000000_5_001_0210
EUT Stage	Identical Prototype

## 1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
<b>Tx Frequency</b>	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 12 : 699.7 MHz ~ 715.3 MHz
<b>Rx Frequency</b>	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 12 : 729.7 MHz ~ 745.3 MHz
<b>Bandwidth</b>	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 12 : 1.4MHz / 3MHz / 5MHz / 10MHz
<b>Maximum Output Power to Antenna</b>	LTE Band 2 : 22.84 dBm LTE Band 4 : 22.88 dBm LTE Band 5 : 23.01 dBm LTE Band 12 : 22.69 dBm
<b>Antenna Gain</b>	LTE Band 2 : 6.00 dBi LTE Band 4 : 5.00 dBi LTE Band 5 : 5.00 dBi LTE Band 12 : 8.50 dBi
<b>Type of Modulation</b>	QPSK / 16QAM / 64QAM

## 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)	Frequency Range (MHz)	Maximum EIRP(W)	Maximum EIRP(W)
1.4	1850.7 ~ 1909.3	0.7568	0.6823
3	1851.5 ~ 1908.5	0.7551	0.6761
5	1852.5 ~ 1907.5	0.7638	0.6776
10	1855.0 ~ 1905.0	0.7586	0.6792
15	1857.5 ~ 1902.5	0.7656	0.6839
20	1860.0 ~ 1900.0	0.7586	0.6730
LTE Band 4		QPSK	16QAM
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Maximum ERP(W)
1.4	1710.7 ~ 1754.3	0.5943	0.5370
3	1711.5 ~ 1753.5	0.5998	0.5321
5	1712.5 ~ 1752.5	0.6138	0.5495
10	1715.0 ~ 1750.0	0.6124	0.5470
15	1717.5 ~ 1747.5	0.5984	0.5470
20	1720.0 ~ 1745.0	0.5929	0.5358
LTE Band 5		QPSK	16QAM
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Maximum ERP(W)
1.4	824.7 ~ 848.3	0.3724	0.3365
3	825.5 ~ 847.5	0.3715	0.3311
5	826.5 ~ 846.5	0.3855	0.3381
10	829.0 ~ 844.0	0.3837	0.3412
LTE Band 12		QPSK	16QAM
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Maximum ERP(W)
1.4	699.7 ~ 715.3	0.7998	0.7194
3	700.5 ~ 714.5	0.7980	0.7079
5	701.5 ~ 713.5	0.8017	0.7112
10	704.0 ~ 711.0	0.7998	0.7096

## 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.

<b>Test Site</b>	SPORTON INTERNATIONAL INC.
<b>Test Site Location</b>	No. 52, Hwa Ya 1 <sup>st</sup> 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
<b>Test Site No.</b>	<b>Sporton Site No.</b>
	TH05-HY

<b>Test Site</b>	SPORTON INTERNATIONAL INC.
<b>Test Site Location</b>	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd. Guishan Dist, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
<b>Test Site No.</b>	<b>Sporton Site No.</b>
	03CH11-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-D-2010
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v02r02
- ♦ 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

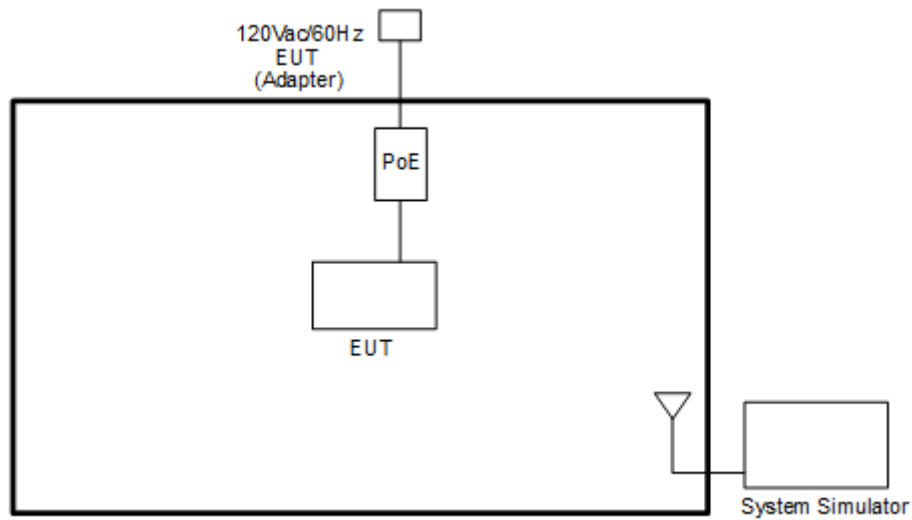
### 2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems 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	✓	✓	✓	✓	-	-	✓	✓	✓	✓	✓	✓	✓	✓
	12	✓	✓	✓	✓	-	-	✓	✓	✓	✓	✓	✓	✓	✓
E.R.P./ E.I.R.P.	2	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
	4	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
	5	✓	✓	✓	✓	-	-	✓	✓	✓			✓	✓	✓
	12	✓	✓	✓	✓	-	-	✓	✓	✓			✓	✓	✓
Radiated Spurious Emission	2	✓	✓	✓	✓	✓	✓	✓		✓			✓	✓	✓
	4	✓	✓	✓	✓	✓	✓	✓		✓			✓	✓	✓
	5	✓	✓	✓	✓	-	-	✓		✓			✓	✓	✓
	12	✓	✓	✓	✓	-	-	✓		✓			✓	✓	✓
Note	<ol style="list-style-type: none"> <li>The mark "✓" means that this configuration is chosen for testing</li> <li>The mark "-" means that this bandwidth is not supported.</li> <li>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.</li> </ol>														

## 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 12 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	23060	23095	23130
	Frequency	704	707.5	711
5	Channel	23035	23095	23155
	Frequency	701.5	707.5	713.5
3	Channel	23025	23095	23165
	Frequency	700.5	707.5	714.5
1.4	Channel	23017	23095	23173
	Frequency	699.7	707.5	715.3

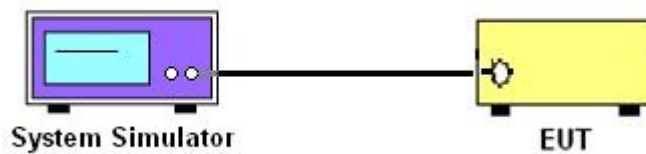
### 3 Conducted Test Items

#### 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 12.

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 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.

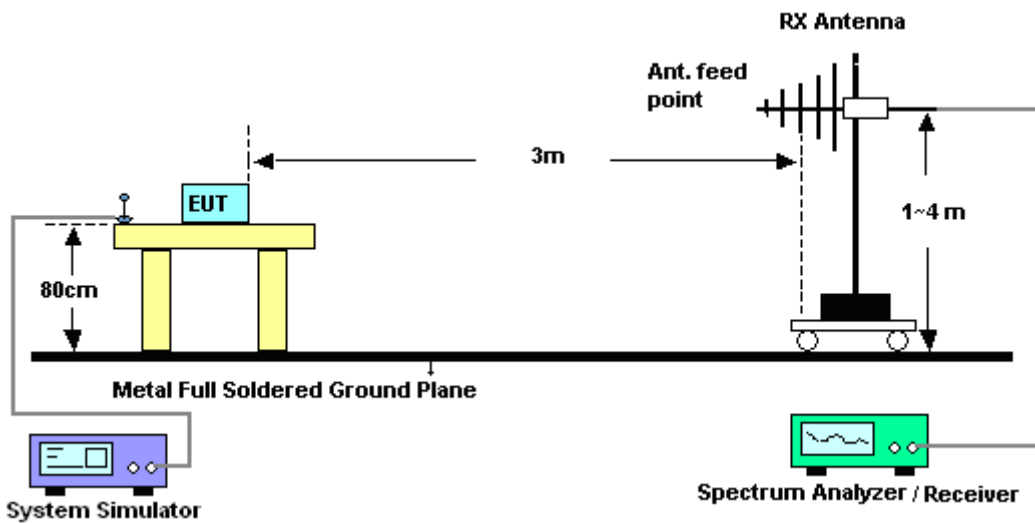
## 4 Radiated Test Items

### 4.1 Measuring Instruments

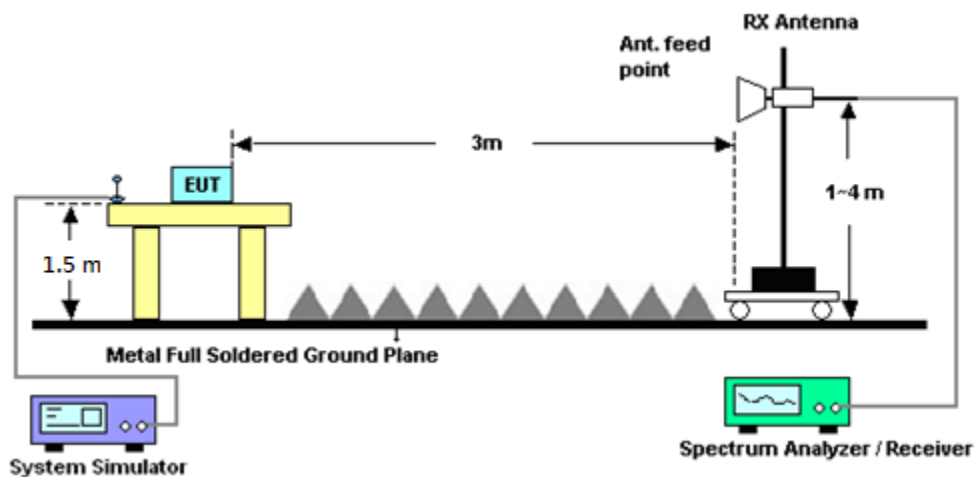
See list of measuring instruments of this test report.

### 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 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-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 12

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.

### 4.4.2 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 turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively 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.





## 5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
LTE Base Station	Anritsu	MT8820C	6201432821	GSM/GPRS /WCDMA/LTE	Oct. 11, 2016	Oct. 26, 2016	Oct. 10, 2017	Conducted (TH05-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Nov. 20, 2015	Oct. 31, 2016 ~ Nov. 02, 2016	Nov. 19, 2016	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D	35414	30MHz~1GHz	Oct. 15, 2016	Oct. 31, 2016 ~ Nov. 02, 2016	Oct. 14, 2017	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1522	1GHz ~ 18GHz	Mar. 30, 2016	Oct. 31, 2016 ~ Nov. 02, 2016	Mar. 29, 2017	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 19, 2015	Oct. 31, 2016 ~ Nov. 02, 2016	Nov. 18, 2016	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY52350276	10Hz ~ 44GHZ	Mar. 21, 2016	Oct. 31, 2016 ~ Nov. 02, 2016	Mar. 20, 2017	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-450 0-B	N/A	1~4m	N/A	Oct. 31, 2016 ~ Nov. 02, 2016	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Oct. 31, 2016 ~ Nov. 02, 2016	N/A	Radiation (03CH11-HY)
Preamplifier	MITEQ	TTA0204	1872107	2GHz~40GHz	Feb. 15, 2016	Oct. 31, 2016 ~ Nov. 02, 2016	Feb. 14, 2017	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz- 40GHz	Apr. 15, 2016	Oct. 31, 2016 ~ Nov. 02, 2016	Apr. 14, 2017	Radiation (03CH11-HY)



## 6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.2
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.5
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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	22.77	22.79	22.65
20	1	49		22.80	22.77	22.70
20	1	99		22.65	22.69	22.37
20	50	0		22.14	22.06	22.06
20	50	24		22.16	22.12	22.04
20	50	50		22.14	22.01	22.03
20	100	0		22.13	22.12	21.98
20	1	0	16-QAM	22.28	22.24	22.14
20	1	49		22.23	22.26	22.16
20	1	99		22.10	22.12	21.87
20	50	0		21.11	21.09	21.05
20	50	24		21.11	21.09	21.03
20	50	50		21.06	21.01	21.10
20	100	0		21.11	21.13	21.05
15	1	0	QPSK	22.72	22.80	22.67
15	1	37		22.84	22.80	22.80
15	1	74		22.77	22.71	22.41
15	36	0		22.22	22.06	22.12
15	36	20		22.14	22.13	22.07
15	36	39		22.10	22.11	22.02
15	75	0		22.10	22.04	22.07
15	1	0	16-QAM	22.18	22.29	22.13
15	1	37		22.35	22.32	22.22
15	1	74		22.20	22.15	21.88
15	36	0		21.20	21.07	21.09
15	36	20		21.21	21.16	21.08
15	36	39		21.11	21.12	21.08
15	75	0		21.11	21.00	21.07



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.64	22.74	22.72
10	1	25		22.71	22.80	22.75
10	1	49		22.70	22.63	22.30
10	25	0		22.28	22.24	22.24
10	25	12		22.17	22.20	22.16
10	25	25		22.27	22.25	22.08
10	50	0		22.06	22.08	22.05
10	1	0	16-QAM	22.15	22.22	22.15
10	1	25		22.20	22.32	22.27
10	1	49		22.19	22.11	21.83
10	25	0		21.25	21.13	21.17
10	25	12		21.19	21.22	21.23
10	25	25		21.24	21.21	21.10
10	50	0		21.05	21.10	21.08
5	1	0	QPSK	22.69	22.81	22.71
5	1	12		22.76	22.73	22.63
5	1	24		22.75	22.83	22.30
5	12	0		22.19	22.25	22.10
5	12	7		22.25	22.28	22.15
5	12	13		22.25	22.30	21.99
5	25	0		22.21	22.23	22.02
5	1	0	16-QAM	22.14	22.31	22.17
5	1	12		22.23	22.25	22.09
5	1	24		22.21	22.29	21.79
5	12	0		21.28	21.26	21.18
5	12	7		21.28	21.30	21.17
5	12	13		21.27	21.32	21.02
5	25	0		21.24	21.22	21.06



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.67	22.75	22.64
3	1	8		22.72	22.77	22.52
3	1	14		22.74	22.78	22.34
3	8	0		22.16	22.34	22.09
3	8	4		22.25	22.26	22.05
3	8	7		22.22	22.27	21.98
3	15	0		22.21	22.29	21.97
3	1	0	16-QAM	22.15	22.26	22.08
3	1	8		22.25	22.30	21.96
3	1	14		22.23	22.30	21.72
3	8	0		21.17	21.23	21.11
3	8	4		21.17	21.21	20.99
3	8	7		21.22	21.15	20.92
3	15	0		21.23	21.26	21.10
1.4	1	0	QPSK	22.68	22.78	22.48
1.4	1	3		22.69	22.79	22.36
1.4	1	5		22.69	22.78	22.30
1.4	3	0		22.66	22.75	22.39
1.4	3	1		22.67	22.76	22.37
1.4	3	3		22.71	22.74	22.32
1.4	6	0		22.25	22.31	21.92
1.4	1	0	16-QAM	22.16	22.27	21.91
1.4	1	3		22.15	22.24	21.83
1.4	1	5		22.17	22.23	21.72
1.4	3	0		22.16	22.32	21.91
1.4	3	1		22.20	22.33	21.84
1.4	3	3		22.21	22.34	21.85
1.4	6	0		21.24	21.32	20.97



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.59	22.70	22.73
20	1	49		22.66	22.67	22.72
20	1	99		22.62	22.63	22.55
20	50	0		21.96	22.03	22.17
20	50	24		21.97	21.99	22.03
20	50	50		21.97	22.04	22.04
20	100	0		22.08	22.06	22.09
20	1	0	16-QAM	22.29	22.23	22.24
20	1	49		22.15	22.20	22.26
20	1	99		22.13	22.18	22.08
20	50	0		20.94	21.04	21.10
20	50	24		20.94	21.01	21.03
20	50	50		20.95	20.98	21.04
20	100	0		21.06	21.05	21.09
15	1	0	QPSK	22.59	22.68	22.76
15	1	37		22.70	22.75	22.77
15	1	74		22.70	22.67	22.64
15	36	0		22.03	22.16	22.17
15	36	20		22.04	22.02	22.24
15	36	39		22.09	22.05	22.12
15	75	0		21.93	21.99	22.08
15	1	0	16-QAM	22.17	22.17	22.25
15	1	37		22.15	22.21	22.27
15	1	74		22.38	22.13	22.09
15	36	0		21.02	21.10	21.16
15	36	20		21.01	21.08	21.17
15	36	39		21.09	21.08	21.11
15	75	0		20.93	21.00	20.98



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.59	22.75	22.84
10	1	25		22.65	22.72	22.87
10	1	49		22.67	22.71	22.68
10	25	0		22.09	22.16	22.31
10	25	12		22.10	22.13	22.32
10	25	25		22.11	22.16	22.22
10	50	0		21.98	22.01	22.20
10	1	0	16-QAM	22.10	22.29	22.32
10	1	25		22.22	22.24	22.38
10	1	49		22.15	22.19	22.12
10	25	0		21.09	21.19	21.30
10	25	12		21.10	21.16	21.29
10	25	25		21.11	21.17	21.14
10	50	0		20.97	21.03	21.12
5	1	0	QPSK	22.55	22.73	22.88
5	1	12		22.58	22.73	22.70
5	1	24		22.62	22.65	22.60
5	12	0		22.12	22.27	22.40
5	12	7		22.20	22.20	22.33
5	12	13		22.17	22.20	22.21
5	25	0		22.13	22.14	22.18
5	1	0	16-QAM	22.03	22.19	22.40
5	1	12		22.12	22.20	22.25
5	1	24		22.13	22.20	22.10
5	12	0		21.13	21.24	21.39
5	12	7		21.15	21.24	21.28
5	12	13		21.12	21.24	21.14
5	25	0		21.06	21.17	21.14





LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.55	22.71	22.78
3	1	8		22.60	22.72	22.64
3	1	14		22.65	22.74	22.67
3	8	0		22.11	22.30	22.29
3	8	4		22.16	22.27	22.15
3	8	7		22.13	22.20	22.20
3	15	0		22.10	22.22	22.17
3	1	0	16-QAM	22.08	22.23	22.26
3	1	8		22.13	22.26	22.18
3	1	14		22.10	22.24	22.16
3	8	0		21.07	21.18	21.18
3	8	4		21.01	21.18	21.10
3	8	7		21.04	21.18	21.10
3	15	0		21.14	21.26	21.19
1.4	1	0	QPSK	22.55	22.71	22.69
1.4	1	3		22.61	22.74	22.69
1.4	1	5		22.56	22.70	22.67
1.4	3	0		22.56	22.71	22.68
1.4	3	1		22.60	22.73	22.68
1.4	3	3		22.52	22.73	22.66
1.4	6	0		22.16	22.21	22.17
1.4	1	0	16-QAM	22.02	22.17	22.15
1.4	1	3		22.09	22.19	22.18
1.4	1	5		22.04	22.20	22.16
1.4	3	0		22.10	22.25	22.24
1.4	3	1		22.10	22.24	22.24
1.4	3	3		22.15	22.30	22.24
1.4	6	0		21.08	21.32	21.23



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.82	22.90	22.74
10	1	25		22.85	22.80	22.99
10	1	49		22.83	22.80	22.70
10	25	0		22.22	22.36	22.30
10	25	12		22.31	22.24	22.36
10	25	25		22.40	22.21	22.28
10	50	0		22.25	22.16	22.18
10	1	0	16-QAM	22.34	22.40	22.27
10	1	25		22.41	22.29	22.48
10	1	49		22.28	22.33	22.17
10	25	0		21.21	21.31	21.34
10	25	12		21.36	21.30	21.39
10	25	25		21.39	21.27	21.27
10	50	0		21.20	21.15	21.14
5	1	0	QPSK	22.81	22.76	23.01
5	1	12		22.72	22.77	22.85
5	1	24		22.86	22.79	22.68
5	12	0		22.36	22.34	22.34
5	12	7		22.33	22.32	22.42
5	12	13		22.37	22.33	22.35
5	25	0		22.32	22.28	22.31
5	1	0	16-QAM	22.31	22.27	22.44
5	1	12		22.26	22.32	22.33
5	1	24		22.42	22.33	22.19
5	12	0		21.43	21.42	21.44
5	12	7		21.29	21.39	21.42
5	12	13		21.42	21.36	21.35
5	25	0		21.28	21.29	21.28



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.78	22.78	22.85
3	1	8		22.78	22.75	22.79
3	1	14		22.77	22.82	22.71
3	8	0		22.42	22.35	22.38
3	8	4		22.32	22.32	22.28
3	8	7		22.30	22.31	22.28
3	15	0		22.24	22.34	22.37
3	1	0	16-QAM	22.28	22.29	22.35
3	1	8		22.28	22.33	22.26
3	1	14		22.31	22.28	22.15
3	8	0		21.33	21.31	21.35
3	8	4		21.25	21.31	21.30
3	8	7		21.31	21.31	21.23
3	15	0		21.31	21.32	21.32
1.4	1	0	QPSK	22.80	22.83	22.77
1.4	1	3		22.86	22.79	22.76
1.4	1	5		22.81	22.77	22.71
1.4	3	0		22.80	22.83	22.81
1.4	3	1		22.82	22.85	22.70
1.4	3	3		22.81	22.81	22.63
1.4	6	0		22.39	22.33	22.25
1.4	1	0	16-QAM	22.29	22.30	22.25
1.4	1	3		22.32	22.26	22.20
1.4	1	5		22.24	22.25	22.20
1.4	3	0		22.39	22.35	22.30
1.4	3	1		22.41	22.33	22.29
1.4	3	3		22.42	22.33	22.28
1.4	6	0		21.42	21.38	21.31



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.50	22.43	22.57
10	1	25		22.61	22.68	22.48
10	1	49		22.65	22.42	22.53
10	25	0		21.90	21.88	21.89
10	25	12		21.96	22.02	21.87
10	25	25		21.96	22.00	21.86
10	50	0		21.80	21.80	21.67
10	1	0	16-QAM	21.95	21.93	22.08
10	1	25		22.01	22.16	21.98
10	1	49		21.99	21.98	22.07
10	25	0		20.93	20.95	20.96
10	25	12		20.98	20.96	20.95
10	25	25		21.00	21.04	20.94
10	50	0		20.77	20.82	20.84
5	1	0	QPSK	22.65	22.45	22.42
5	1	12		22.69	22.69	22.49
5	1	24		22.66	22.60	22.57
5	12	0		22.02	22.13	21.92
5	12	7		22.06	22.12	22.03
5	12	13		22.04	22.10	22.00
5	25	0		21.93	22.00	21.90
5	1	0	16-QAM	22.07	21.97	21.91
5	1	12		22.15	22.17	21.96
5	1	24		22.12	22.12	22.06
5	12	0		21.06	21.10	20.99
5	12	7		21.15	21.21	21.07
5	12	13		21.09	21.10	21.05
5	25	0		20.92	21.02	20.90



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.65	22.62	22.46
3	1	8		22.53	22.60	22.46
3	1	14		22.67	22.59	22.49
3	8	0		21.89	22.11	21.86
3	8	4		21.94	22.03	21.90
3	8	7		22.11	22.02	21.85
3	15	0		21.94	22.00	21.82
3	1	0	16-QAM	21.96	22.15	21.84
3	1	8		21.86	22.13	21.85
3	1	14		22.05	22.11	21.92
3	8	0		20.84	21.03	20.78
3	8	4		20.87	21.14	20.93
3	8	7		21.01	21.08	20.94
3	15	0		20.97	21.11	21.01
1.4	1	0	QPSK	22.68	22.57	22.53
1.4	1	3		22.49	22.58	22.54
1.4	1	5		22.31	22.54	22.48
1.4	3	0		22.48	22.57	22.43
1.4	3	1		22.43	22.59	22.40
1.4	3	3		22.35	22.55	22.44
1.4	6	0		21.92	22.11	21.96
1.4	1	0	16-QAM	21.93	22.02	21.92
1.4	1	3		21.88	22.07	21.95
1.4	1	5		21.79	22.14	21.96
1.4	3	0		22.03	22.16	21.92
1.4	3	1		21.90	22.19	21.93
1.4	3	3		21.87	22.22	22.01
1.4	6	0		20.97	21.23	21.11