FCC RADIO TEST REPORT

FCC ID : 2AJN7-TP00110A Equipment : Notebook Computer

Brand Name : Lenovo Model Name : TP00110A

Applicant : LC Future Center Limited Taiwan Branch

7F., No. 780, Bei'an Rd., Zhongshan Dist.,

Report No.: FG931313-02B

Taipei City 104, Taiwan (R.O.C.)

Manufacturer : LC Future Center Limited Taiwan Branch

7F., No. 780, Bei'an Rd., Zhongshan Dist.,

Taipei City 104, Taiwan (R.O.C.)

Standard : 47 CFR Part 2, 22(H), 24(E), 27

Equipment: Fibocom L850-GL and Intel 9560D2W tested inside of Lenovo Notebook Computer.

The product was received on Mar. 13, 2019 and testing was started from Apr. 05, 2019 and completed on Apr. 08, 2019. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP or any agency of government.

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

Approved by: James Huang / Manager

Sporton International (Kunshan) Inc.

No. 1098, Pengxi North Road, Kunshan Economic Development Zone, Jiangsu Province 215335, China

NVLAP LAB CODE 600155-0

TEL: +86-512-57900158 FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw

Report Template No.: BU5-FGLTE Version 2.4

Page Number : 1 of 20 Issued Date : May 03, 2019

Table of Contents

His	story o	of this test report	3
Su	mmar	y of Test Result	4
1	Gene	eral Description	5
	1.1	Product Feature of Equipment Under Test	5
	1.2	Product Specification of Equipment Under Test	6
	1.3	Modification of EUT	6
	1.4	Testing Location	7
	1.5	Applicable Standards	7
2	Test	Configuration of Equipment Under Test	8
	2.1	Test Mode	
	2.2	Connection Diagram of Test System	10
	2.3	Support Unit used in test configuration and system	10
	2.4	Frequency List of Low/Middle/High Channels	11
3	Cond	ducted Test Items	15
	3.1	Measuring Instruments	15
	3.2	Conducted Output Power and ERP/EIRP	16
4	Radi	ated Test Items	17
	4.1	Measuring Instruments	17
	4.2	Radiated Spurious Emission Measurement	18
5	List	of Measuring Equipment	19
6	Unce	ertainty of Evaluation	20
Ар	pendi	x A. Test Results of Conducted Test	
Аp	pendi	x B. Test Results of ERP/EIRP and Radiated Test	
Ар	pendi	x C. Test Setup Photographs	

TEL: +86-512-57900158 FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw

Report Template No.: BU5-FGLTE Version 2.4

Page Number Issued Date

: 2 of 20 : May 03, 2019

Report Version

: 01

History of this test report

Report No. : FG931313-02B

Report No.	Version	Description	Issued Date
FG931313-02B	01	Initial issue of report	May 03, 2019

 TEL: +86-512-57900158
 Page Number
 : 3 of 20

 FAX: +86-512-57900958
 Issued Date
 : May 03, 2019

 E-mail: Alex@sporton.com.tw
 Report Version
 : 01

Summary of Test Result

Report No.: FG931313-02B

Report Clause	Ref Std. Test Items		Result (PASS/FAIL)	Remark
	§2.1046	Conducted Output Power	Reporting only	
	§22.913 (a)(2)	Effective Radiated Power (Band 5) (Band 26)		
3.2	§27.50 (c)(10)	Effective Radiated Power (Band 12) (Band 17)	Pass	-
	§24.232 (c) §27.50 (h)(2)	Equivalent Isotropic Radiated Power (Band 2) (Band 7) (Band 41)	Fass	
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)		
	§2.1053			
	§22.917 (a)	Radiated Spurious Emission		
	§24.238 (a)	(Band 2) (Band 4) (Band 5)		Under limit
4.2	§27.53 (g)	(Band 12) (Band 17) (Band 26) (Band 66)	Pass	8.42 dB at
	§27.53 (h)			7704.000 MHz
	§2.1053	Radiated Spurious Emission		
	§27.53 (m)(4)	(Band 7) (Band 41)		

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Jason Jia Report Producer: Echo Wu

TEL: +86-512-57900158 Page Number : 4 of 20
FAX: +86-512-57900958 Issued Date : May 03, 2019

E-mail : Alex@sporton.com.tw Report Version : 01
Report Template No.: BU5-FGLTE Version 2.4

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature							
Equipment	Notebook Computer						
Brand Name	Lenovo						
Model Name	TP00110A						
FCC ID	2AJN7-TP00110A						
Sample 1	EUT with Amphenol Antenna						
Sample 2	EUT with SPEEDWIRE Antenna						
	WCDMA/HSPA/LTE/GNSS						
EUT supports Radios application	WLAN 11a/b/g/n HT20/HT40						
EOT Supports Radios application	WLAN 11ac VHT20/VHT40/VHT80/VHT160						
	Bluetooth BR/EDR/LE						
EUT Stage	Production Unit						

Report No.: FG931313-02B

Remark:

- 1. The above EUT's information was declared by manufacturer.
- 2. Equipment: Fibocom L850-GL and Intel 9560D2W tested inside of Lenovo Notebook Computer.
- 3. All test items were performed with Sample 1.

	Antenna Information									
WWAN	WWAN 3G<E (dBi)									
Antonno 4	Manufacturer	Amphenol	Peak gain	2.30						
Antenna 1	Part number	LX9865-16-000-C	Туре	PIFA						
Antonno 2	Manufacturer	SPEEDWIRE	Peak gain	2.07						
Antenna 2	Part number	F.0G.ZV-0008-001 -00	Туре	PIFA						

 TEL: +86-512-57900158
 Page Number
 : 5 of 20

 FAX: +86-512-57900958
 Issued Date
 : May 03, 2019

 E-mail: Alex@sporton.com.tw
 Report Version
 : 01

E-mail : Alex@sporton.com.tw

Report Template No.: BU5-FGLTE Version 2.4

1.2 Product Specification of Equipment Under Test

S	tandards-related Product Specification
	LTE Band 2: 1850.7 MHz ~ 1909.3 MHz
	LTE Band 4: 1710.7 MHz ~ 1754.3 MHz
	LTE Band 5: 824.7 MHz ~ 848.3 MHz
	LTE Band 7: 2502.5 MHz ~ 2567.5 MHz
Tx Frequency	LTE Band 12: 699.7 MHz ~ 715.3 MHz
	LTE Band 17: 706.5 MHz ~ 713.5 MHz
	LTE Band 26: 824.7 MHz ~ 848.3 MHz
	LTE Band 41: 2498.5 MHz ~ 2687.5 MHz
	LTE Band 66: 1710.7 MHz ~ 1779.3 MHz
	LTE Band 2: 1930.7 MHz ~ 1989.3 MHz
	LTE Band 4: 2110.7 MHz ~ 2154.3 MHz
	LTE Band 5: 869.7 MHz ~ 893.3 MHz
	LTE Band 7: 2622.5 MHz ~ 2687.5 MHz
Rx Frequency	LTE Band 12: 729.7 MHz ~ 745.3 MHz
. ,	LTE Band 17: 736.5 MHz ~ 743.5 MHz
	LTE Band 26: 869.7 MHz ~ 893.3 MHz
	LTE Band 41: 2498.5 MHz ~ 2687.5 MHz
	LTE Band 66: 2110.7 MHz ~ 2199.3 MHz
	LTE Band 2: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz
	LTE Band 4: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz
	LTE Band 5: 1.4MHz / 3MHz / 5MHz / 10MHz
	LTE Band 7: 5MHz/10MHz/15MHz/20MHz
Bandwidth	LTE Band 12: 1.4MHz/3MHz/5MHz/10MHz
	LTE Band 17: 5MHz / 10MHz
	LTE Band 26: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz
	LTE Band 41: 5MHz / 10MHz / 15MHz / 20MHz
	LTE Band 66: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz
	LTE Band 2: 22.87 dBm
	LTE Band 4: 22.99 dBm
	LTE Band 5: 22.45 dBm
	LTE Band 7: 22.85 dBm
Maximum Output Power to	LTE Band 12 : 22.48 dBm
Antenna	LTE Band 17 : 22.45 dBm
	LTE Band 26 : 22.45 dBm
	LTE Band 41 : 22.42 dBm
	LTE Band 66 : 22.85 dBm
Type of Modulation	QPSK / 16QAM
i ype or inodulation	WI OIV / TOWANI

Report No.: FG931313-02B

1.3 Modification of EUT

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

 TEL: +86-512-57900158
 Page Number
 : 6 of 20

 FAX: +86-512-57900958
 Issued Date
 : May 03, 2019

 E-mail: Alex@sporton.com.tw
 Report Version
 : 01

1.4 Testing Location

Sporton International (Kunshan) Inc. is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600155-0) and the FCC designation No. is CN5013.

Report No.: FG931313-02B

Test Site	Sporton International (Kunshan) Inc.							
Test Site Location	opment Zone,							
Test Site No.	Sporton Site No.	FCC Test Firm Registration No.						
	03CH06-KS							
Test Engineer	Lucas Xu and Level Zhao	630927						
Temperature	25.0~25.2 °C							
Relative Humidity	48~57 %							

Note: The test site complies with ANSI C63.4 2014 requirement.

1.5 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ANSI C63.26-2015
- ANSI / TIA-603-E
- 47 CFR Part 2, 22(H), 24(E), 27
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

TEL: +86-512-57900158 Page Number : 7 of 20
FAX: +86-512-57900958 Issued Date : May 03, 2019

E-mail : Alex@sporton.com.tw Report Version : 01
Report Template No.: BU5-FGLTE Version 2.4

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.

Report No.: FG931313-02B

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z for table mode and notebook mode. The worst cases (X plane for Band 26, Y plane for Band 2, 7, 12, 41, 66) were recorded in this report.

			В	andwi	dth (MH	łz)		ı	Modulatio	n		RB#		Test	t Chanı	nel
Test Items	Band	1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	М	Н
	2	v	v	٧	v	v	v	v	v	v	>	v	v	٧	v	v
	4	v	٧	>	v	v	v	v	v	v	>	v	v	>	v	v
	5	v	V	٧	V	-	-	v	v	v	>	v	v	٧	v	v
Max.	7	-	•	>	v	v	v	v	v	v	>	v	v	>	v	v
Output	12	v	٧	>	v	-	-	v	v	v	>	v	v	>	v	v
Power	17	-	•	>	v	-	-	v	v	v	>	v	v	>	v	v
	26	v	٧	>	v	v	-	v	v	v	>	v	v	>	v	v
	41	-	•	>	v	v	v	v	v	v	>	v	v	>	v	v
	66	v	٧	٧	v	v	v	v	v	v	٧	v	v	٧	v	v
	2	v	v	v	v	v	v	v	v	v	v			v	v	v
	4	٧	v	v	v	v	v	v	v	v	v			v	v	v
	5	v	٧	٧	v	•	•	v	v	v	٧			٧	v	v
	7	-	•	>	v	v	v	v	v	v	>			>	v	v
E.R.P / E.I.R.P	12	v	٧	>	v	•	-	v	v	v	>			>	v	v
	17	•	•	٧	v	-	•	v	v	v	٧			٧	v	v
	26	v	v	٧	v	v	-	v	v	v	٧			٧	v	v
	41	-	٠	٧	v	v	v	v	v	v	v			٧	v	v
	66	v	v	v	v	v	v	v	v	v	٧			v	v	v

 TEL: +86-512-57900158
 Page Number
 : 8 of 20

 FAX: +86-512-57900958
 Issued Date
 : May 03, 2019

 E-mail: Alex@sporton.com.tw
 Report Version
 : 01

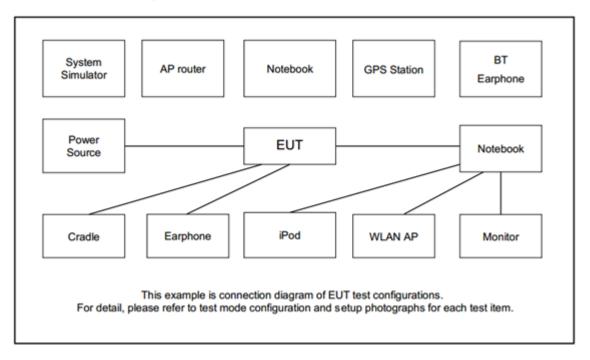
	_			Ва	andwid	th (MH	z)		N	/lodulatio	n		RB#		Tes	t Char	nel
Test Items	Ban	nd	1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	٦	М	Н
	2			Worst Case											٧	v	v
	4							Cover	ed by Bar	nd 66					٧	v	v
	5							Cover	ed by Bar	nd 26					٧	v	v
Radiated	7							W	orst Case	•					٧	v	v
Spurious	12	!		Worst Case									٧	v	v		
Emission	17	,	Covered by Band 12								V	٧	v				
	26	;	Worst Case								V	٧	v				
	41		Worst Case								v	v	v				
	66	;	Worst Case								٧	v	v				
	1. 2.						-		chosen fo	_							
	3.										l signal for	radiat	ed spu	rious er	missior	n test u	nder
Remark					-						equently, o						
		repo	orted.														
	4.	All t	he radi	ated te	st case	s were	perforr	ned wit	h Adapter	1.							
	5.	Wid	ler ope	rating r	ange ba	andwid	th cove	rs narro	ower one v	when the p	oower is hi	gher o	r the sa	ame.			

 TEL: +86-512-57900158
 Page Number
 : 9 of 20

 FAX: +86-512-57900958
 Issued Date
 : May 03, 2019

 E-mail: Alex@sporton.com.tw
 Report Version
 : 01

2.2 Connection Diagram of Test System



Report No.: FG931313-02B

2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord		
1.	System Simulator	Anritsu	8820C	N/A	N/A	Unshielded, 1.8 m		

 TEL: +86-512-57900158
 Page Number
 : 10 of 20

 FAX: +86-512-57900958
 Issued Date
 : May 03, 2019

 E-mail: Alex@sporton.com.tw
 Report Version
 : 01

2.4 Frequency List of Low/Middle/High Channels

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

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

TEL: +86-512-57900158 FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw

Report Template No.: BU5-FGLTE Version 2.4

Page Number : 11 of 20 Issued Date : May 03, 2019

Report No.: FG931313-02B

LTE Band 5 Channel and Frequency List					
BW [MHz]	Channel/Frequency(MHz)	Highest			
10	Channel	20450	20525	20600	
10	Frequency	829	836.5	844	
5	Channel	20425	20525	20625	
5	Frequency	826.5	836.5	846.5	
3	Channel	20415	20525	20635	
3	Frequency	825.5	836.5	847.5	
4 4	Channel	20407	20525	20643	
1.4	Frequency	824.7	836.5	848.3	

LTE Band 7 Channel and Frequency List							
BW [MHz]	Channel/Frequency(MHz) Lowest Middle Hig						
20	Channel	20850	21100	21350			
20	Frequency	2510	2535	2560			
15	Channel	20825	21100	21375			
15	Frequency	2507.5	2535	2562.5			
10	Channel	20800	21100	21400			
10	Frequency	2505	2535	2565			
_	Channel	20775	21100	21425			
5	Frequency	2502.5	2535	2567.5			

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

TEL: +86-512-57900158 FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw

Report Template No.: BU5-FGLTE Version 2.4

Page Number : 12 of 20 Issued Date : May 03, 2019

Report No. : FG931313-02B

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				

LTE Band 26 Channel and Frequency List					
BW [MHz]	Channel/Frequency(MHz)	Highest			
15	Channel	26865	26915	26965	
15	Frequency	831.5	836.5	841.5	
10	Channel	26840	26915	26990	
10	Frequency	829.0	836.5	844.0	
5	Channel	26815	26915	27015	
5	Frequency	826.5	836.5	846.5	
2	Channel	26805	26915	27025	
3	Frequency	825.5	836.5	847.5	
, ,	Channel	26797	26915	27033	
1.4	Frequency	824.7	836.5	848.3	

LTE Band 41 Channel and Frequency List							
BW [MHz]	Channel/Frequency(MHz) Lowest Middle High						
20	Channel	39750	40620	41490			
20	Frequency	2506.0	2593.0	2680.0			
45	Channel	39725	40620	41515			
15	Frequency	2503.5	2593.0	2682.5			
10	Channel	39700	40620	41540			
10	Frequency	2501.0	2593.0	2685.0			
	Channel	39675	40620	41565			
5	Frequency	2498.5	2593.0	2687.5			

TEL: +86-512-57900158 FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw

Report Template No.: BU5-FGLTE Version 2.4

Page Number : 13 of 20 Issued Date : May 03, 2019

Report No. : FG931313-02B

	LTE Band 66 Channel and Frequency List							
BW [MHz]	Channel/Frequency(MHz) Lowest Middle Higher							
20	Channel	132072	132322	132572				
20	Frequency	1720	1745	1770				
15	Channel	132047	132322	132597				
15	Frequency	1717.5	1745	1772.5				
40	Channel	132022	132322	132622				
10	Frequency	1715	1745	1775				
5	Channel	131997	132322	132647				
5	Frequency	1712.5	1745	1777.5				
3	Channel	131987	132322	132657				
3	Frequency	1711.5	1745	1778.5				
1.4	Channel	131979	132322	132665				
1.4	Frequency	1710.7	1745	1779.3				

 TEL: +86-512-57900158
 Page Number
 : 14 of 20

 FAX: +86-512-57900958
 Issued Date
 : May 03, 2019

 E-mail: Alex@sporton.com.tw
 Report Version
 : 01

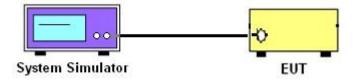
3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.1.1 Test Setup

3.1.2 Conducted Output Power



3.1.3 Test Result of Conducted Test

Please refer to Appendix A.

TEL: +86-512-57900158 FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw

Report Template No.: BU5-FGLTE Version 2.4

Page Number : 15 of 20 Issued Date : May 03, 2019

Report No.: FG931313-02B

3.2 Conducted Output Power and ERP/EIRP

3.2.1 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.

Report No.: FG931313-02B

The ERP of mobile transmitters must not exceed 7 Watts for LTE Band 5 and Band 26.

The ERP of mobile transmitters must not exceed 3 Watts for LTE Band 12 and Band 17.

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

The EIRP of mobile transmitters must not exceed 1 Watts for LTE Band 4 and Band 66.

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

3.2.2 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.

 TEL: +86-512-57900158
 Page Number
 : 16 of 20

 FAX: +86-512-57900958
 Issued Date
 : May 03, 2019

 E-mail: Alex@sporton.com.tw
 Report Version
 : 01

E-mail : Alex@sporton.com.tw
Report Template No.: BU5-FGLTE Version 2.4

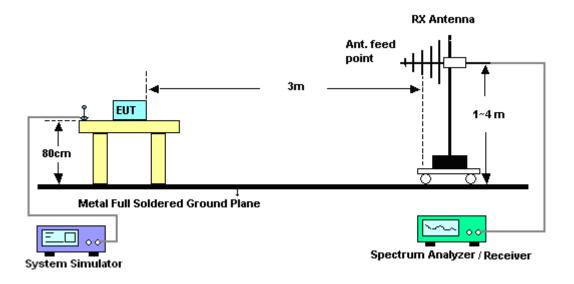
4 Radiated Test Items

4.1 Measuring Instruments

See list of measuring instruments of this test report.

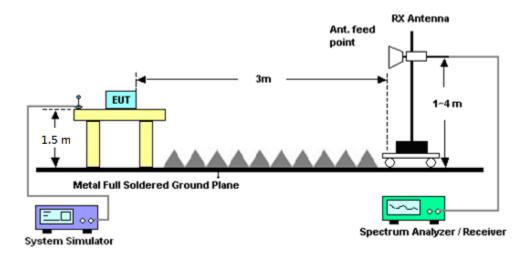
4.1.1 Test Setup

For radiated test from 30MHz to 1GHz



Report No.: FG931313-02B

For radiated test above 1GHz



4.1.2 Test Result of Radiated Test

Please refer to Appendix B.

 TEL: +86-512-57900158
 Page Number
 : 17 of 20

 FAX: +86-512-57900958
 Issued Date
 : May 03, 2019

 E-mail: Alex@sporton.com.tw
 Report Version
 : 01

4.2 Radiated Spurious Emission Measurement

4.2.1 Description of Radiated Spurious Emission Measurement

The radiated spurious emission was measured by substitution method according to ANSI / TIA-603-E.

Report No.: FG931313-02B

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

For Band 7, 41

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.

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

4.2.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI / TIA-603-E Section 2.2.12.

- 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.
- 2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
- 3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
- The height of the receiving antenna is varied between one meter and four meters to search the 4. maximum spurious emission for both horizontal and vertical polarizations.
- Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the 5. record of maximum spurious emission.
- A horn antenna was substituted in place of the EUT and was driven by a signal generator. 6.
- 7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
- 8. Taking the record of output power at antenna port.
- 9. Repeat step 7 to step 8 for another polarization.
- 10. 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)

11. For Band 7, 41:

The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)

EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain

ERP (dBm) = EIRP - 2.15

TEL: +86-512-57900158 : 18 of 20 Page Number FAX: +86-512-57900958 : May 03, 2019 Issued Date E-mail: Alex@sporton.com.tw : 01

Report Version

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
LTE Base Station	Anritsu	MT8820C	KS141204 JCGS01	6201432836	Jan. 14, 2019	Apr. 05, 2019~ Apr. 08. 2019	Jan. 13, 2020	Radiation (03CH06-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY553705 28	10Hz-44GHz	Oct. 10, 2018	Apr. 05, 2019~ Apr. 08. 2019	Oct. 09, 2019	Radiation (03CH06-KS)
Bilog Antenna	TeseQ	CBL6112D	35406	30MHz-1GHz	Apr. 19, 2018	Apr. 05, 2019~ Apr. 08. 2019	Apr. 18, 2019	Radiation (03CH06-KS)
Broad-Band Horn Antenna	Schwarzbeck MESS-ELEKT RONIK	BBHA9120D	01648	1GHz~18GHz	Jan. 27, 2019	Apr. 05, 2019~ Apr. 08. 2019	Jan. 26, 2020	Radiation (03CH06-KS)
Amplifier	SONOMA	310N	380827	9KHz-1GHz Gain 32dB	Aug. 03, 2018	Apr. 05, 2019~ Apr. 08. 2019	Aug. 02, 2019	Radiation (03CH06-KS)
Amplifier	MITEQ	AMF-7D-0010 1800-30-10P	2025788	100MHz-18GHz Gain 55dB	Apr. 17, 2018	Apr. 05, 2019~ Apr. 08. 2019	Apr. 16, 2019	Radiation (03CH06-KS)
Preamplifier	Keysight	83017A	MY532703 19	0.5G-26.5GHz	Oct. 12, 2018	Apr. 05, 2019~ Apr. 08. 2019	Oct. 11, 2019	Radiation (03CH06-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA1702 49	15-40GHz	Feb. 07, 2019	Apr. 05, 2019~ Apr. 08. 2019	Feb. 06, 2020	Radiation (03CH06-KS)
Amplifier	MITEQ	TTA1840-35- HG	1887435	18~40GHz,45d B Min	Feb. 08, 2019	Apr. 05, 2019~ Apr. 08. 2019	Feb. 07, 2020	Radiation (03CH06-KS)
Radio communication analyzer	Anritsu	MT8820C	KS141204 JCGS01	6201432836	Jan. 14, 2019	Apr. 05, 2019~ Apr. 08. 2019	Jan. 13, 2020	Radiation (03CH06-KS)

Report No.: FG931313-02B

 TEL: +86-512-57900158
 Page Number
 : 19 of 20

 FAX: +86-512-57900958
 Issued Date
 : May 03, 2019

 E-mail: Alex@sporton.com.tw
 Report Version
 : 01

6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of	2.50
Confidence of 95% (U = 2Uc(y))	2100

Report No.: FG931313-02B

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

Measuring Uncertainty for a Level of	2.10
Confidence of 95% (U = 2Uc(y))	2.10

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

Measuring Uncertainty for a Level of	2.40
Confidence of 95% (U = 2Uc(y))	2.10

 TEL: +86-512-57900158
 Page Number
 : 20 of 20

 FAX: +86-512-57900958
 Issued Date
 : May 03, 2019

 E-mail: Alex@sporton.com.tw
 Report Version
 : 01

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		22.75	22.87	22.56
20	1	49		22.52	22.57	22.33
20	1	99		22.44	22.51	22.26
20	50	0	QPSK	21.52	21.63	21.43
20	50	24		21.49	21.54	21.42
20	50	50		21.39	21.55	21.39
20	100	0		21.76	21.86	21.65
20	1	0		21.80	21.92	21.68
20	1	49		21.73	21.85	21.59
20	1	99		21.89	21.83	21.67
20	50	0	16-QAM	20.47	20.63	20.47
20	50	24		20.48	20.57	20.52
20	50	50		20.42	20.59	20.49
20	100	0		20.64	20.76	20.75
15	1	0		22.79	22.82	22.62
15	1	37		22.54	22.59	22.38
15	1	74		22.65	22.46	22.25
15	36	0	QPSK	21.41	21.63	21.41
15	36	20		21.50	21.62	21.44
15	36	39		21.58	21.61	21.40
15	75	0		21.64	21.81	21.77
15	1	0		21.65	21.92	21.70
15	1	37		21.73	21.88	21.66
15	1	74		21.88	21.82	21.69
15	36	0	16-QAM	20.54	20.63	20.45
15	36	20		20.44	20.61	20.48
15	36	39		20.49	20.59	20.51
15	75	0		20.71	20.74	20.81



		LTE	Band 2 Max	ximum Average Po	wer [dBm]	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0		22.73	22.81	22.59
10	1	25		22.47	22.54	22.38
10	1	49		22.55	22.44	22.27
10	25	0	QPSK	21.45	21.70	21.37
10	25	12		21.47	21.62	21.46
10	25	25		21.56	21.67	21.34
10	50	0		21.65	21.89	21.75
10	1	0		21.66	21.98	21.68
10	1	25		21.66	21.87	21.64
10	1	49		21.96	21.87	21.64
10	25	0	16-QAM	20.46	20.57	20.43
10	25	12		20.44	20.57	20.49
10	25	25		20.50	20.62	20.51
10	50	0		20.65	20.68	20.78
5	1	0		22.73	22.86	22.54
5	1	12		22.52	22.64	22.37
5	1	24		22.65	22.54	22.29
5	12	0	QPSK	21.51	21.72	21.37
5	12	7		21.47	21.60	21.44
5	12	13		21.56	21.66	21.36
5	25	0		21.63	21.82	21.68
5	1	0		21.59	21.99	21.69
5	1	12		21.68	21.86	21.66
5	1	24		21.93	21.90	21.69
5	12	0	16-QAM	20.50	20.59	20.46
5	12	7		20.43	20.57	20.45
5	12	13		20.49	20.65	20.52
5	25	0		20.65	20.69	20.81



	LTE Band 2 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest			
3	1	0		22.73	22.86	22.58			
3	1	8		22.54	22.63	22.37			
3	1	14		22.61	22.48	22.28			
3	8	0	QPSK	21.44	21.66	21.34			
3	8	4		21.56	21.55	21.42			
3	8	7		21.58	21.60	21.40			
3	15	0		21.59	21.80	21.71			
3	1	0		21.59	21.93	21.75			
3	1	8		21.71	21.90	21.65			
3	1	14		21.89	21.82	21.63			
3	8	0	16-QAM	20.52	20.62	20.42			
3	8	4		20.45	20.55	20.46			
3	8	7		20.45	20.65	20.54			
3	15	0		20.69	20.69	20.77			
1.4	1	0		22.70	22.84	22.57			
1.4	1	3		22.71	22.74	22.53			
1.4	1	5		22.67	22.74	22.49			
1.4	3	0	QPSK	22.73	22.84	22.55			
1.4	3	1		22.74	22.83	22.47			
1.4	3	3		22.71	22.79	22.40			
1.4	6	0		21.64	21.78	21.50			
1.4	1	0		21.90	21.89	21.78			
1.4	1	3		21.89	21.81	21.75			
1.4	1	5		21.89	21.80	21.68			
1.4	3	0	16-QAM	21.71	21.88	21.62			
1.4	3	1		21.65	21.87	21.61			
1.4	3	3		21.66	21.83	21.49			
1.4	6	0		20.63	20.76	20.59			



		LTE	Band 4 Max	ximum Average Po	wer [dBm]	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0		22.83	22.84	22.81
20	1	49		22.80	22.66	22.55
20	1	99		22.65	22.50	22.83
20	50	0	QPSK	21.81	21.83	21.76
20	50	24		21.72	21.61	21.58
20	50	50		21.76	21.45	21.65
20	100	0		21.85	21.88	21.83
20	1	0		21.81	22.09	21.83
20	1	49		22.07	21.81	21.73
20	1	99		22.02	21.57	22.18
20	50	0	16-QAM	20.83	20.86	20.52
20	50	24		20.94	20.71	20.65
20	50	50		20.92	20.55	20.92
20	100	0		20.97	20.78	20.90
15	1	0		22.57	22.89	22.61
15	1	37		22.83	22.66	22.50
15	1	74		22.75	22.40	22.99
15	36	0	QPSK	21.71	21.69	21.45
15	36	20		21.92	21.60	21.57
15	36	39		21.79	21.40	21.83
15	75	0		21.90	21.63	21.82
15	1	0		21.79	22.02	21.81
15	1	37		22.00	21.73	21.69
15	1	74		21.99	21.53	22.18
15	36	0	16-QAM	20.83	20.85	20.48
15	36	20		20.87	20.66	20.62
15	36	39		20.85	20.45	20.89
15	75	0		20.96	20.69	20.87



	LTE Band 4 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest			
10	1	0		22.53	22.92	22.66			
10	1	25		22.80	22.64	22.47			
10	1	49		22.76	22.40	22.91			
10	25	0	QPSK	21.73	21.73	21.49			
10	25	12		21.87	21.53	21.56			
10	25	25		21.81	21.37	21.79			
10	50	0		21.90	21.66	21.73			
10	1	0		21.80	22.09	21.79			
10	1	25		21.98	21.77	21.71			
10	1	49		22.00	21.47	22.09			
10	25	0	16-QAM	20.75	20.85	20.47			
10	25	12		20.93	20.63	20.55			
10	25	25		20.84	20.55	20.90			
10	50	0		20.91	20.78	20.89			
5	1	0		22.63	22.96	22.62			
5	1	12		22.82	22.64	22.54			
5	1	24		22.73	22.50	22.99			
5	12	0	QPSK	21.74	21.69	21.46			
5	12	7		21.82	21.56	21.50			
5	12	13		21.83	21.42	21.78			
5	25	0		21.88	21.59	21.73			
5	1	0		21.71	22.00	21.79			
5	1	12		22.04	21.76	21.70			
5	1	24		21.94	21.57	22.14			
5	12	0	16-QAM	20.77	20.85	20.44			
5	12	7		20.86	20.70	20.56			
5	12	13		20.87	20.50	20.86			
5	25	0		20.89	20.77	20.84			



		LTE	Band 4 Max	kimum Average Po	wer [dBm]	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0		22.61	22.91	22.62
3	1	8		22.87	22.56	22.49
3	1	14		22.71	22.48	22.93
3	8	0	QPSK	21.75	21.73	21.50
3	8	4		21.87	21.51	21.53
3	8	7		21.78	21.40	21.77
3	15	0		21.89	21.68	21.76
3	1	0		21.78	22.00	21.73
3	1	8		22.03	21.72	21.66
3	1	14		21.97	21.50	22.12
3	8	0	16-QAM	20.75	20.77	20.45
3	8	4		20.89	20.69	20.62
3	8	7		20.88	20.49	20.82
3	15	0		20.89	20.68	20.89
1.4	1	0		22.41	22.54	22.97
1.4	1	3		22.36	22.55	22.92
1.4	1	5		22.44	22.52	22.98
1.4	3	0	QPSK	22.33	22.55	22.94
1.4	3	1		22.35	22.49	22.97
1.4	3	3		22.46	22.58	22.91
1.4	6	0		21.47	21.55	21.89
1.4	1	0		21.58	21.77	22.15
1.4	1	3		21.58	21.71	22.10
1.4	1	5		21.28	21.78	22.19
1.4	3	0	16-QAM	21.42	21.62	22.06
1.4	3	1		21.43	21.58	22.03
1.4	3	3		21.15	21.58	22.04
1.4	6	0		20.40	20.59	20.94



		LTE	Band 5 Max	ximum Average Po	ower [dBm]	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0		22.38	22.41	22.40
10	1	25		22.37	22.39	22.35
10	1	49		22.35	22.34	22.38
10	25	0	QPSK	21.37	21.43	21.41
10	25	12		21.35	21.36	21.22
10	25	25		21.30	21.37	21.37
10	50	0		21.47	21.48	21.44
10	1	0		21.55	21.66	21.59
10	1	25		21.64	21.62	21.53
10	1	49		21.69	21.59	21.61
10	25	0	16-QAM	20.44	20.46	20.47
10	25	12		20.55	20.44	20.39
10	25	25		20.47	20.40	20.37
10	50	0		20.60	20.48	20.47
5	1	0		22.24	22.45	22.35
5	1	12		22.37	22.36	22.38
5	1	24		22.42	22.38	22.33
5	12	0	QPSK	21.30	21.41	21.39
5	12	7		21.44	21.36	21.25
5	12	13		21.31	21.41	21.27
5	25	0		21.41	21.43	21.43
5	1	0		21.53	21.64	21.68
5	1	12		21.63	21.65	21.54
5	1	24		21.66	21.68	21.61
5	12	0	16-QAM	20.48	20.41	20.44
5	12	7		20.51	20.42	20.35
5	12	13		20.52	20.42	20.36
5	25	0		20.53	20.45	20.48



LTE Band 5 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest		
3	1	0		22.28	22.44	22.44		
3	1	8		22.36	22.36	22.30		
3	1	14		22.33	22.34	22.40		
3	8	0	QPSK	21.34	21.32	21.38		
3	8	4		21.45	21.41	21.26		
3	8	7		21.33	21.32	21.31		
3	15	0		21.42	21.41	21.43		
3	1	0		21.58	21.71	21.61		
3	1	8		21.66	21.68	21.51		
3	1	14		21.70	21.67	21.64		
3	8	0	16-QAM	20.42	20.43	20.41		
3	8	4		20.49	20.50	20.37		
3	8	7		20.49	20.44	20.44		
3	15	0		20.50	20.41	20.44		
1.4	1	0		22.17	22.30	22.31		
1.4	1	3		22.18	22.30	22.31		
1.4	1	5		22.19	22.29	22.33		
1.4	3	0	QPSK	22.20	22.26	22.26		
1.4	3	1		22.18	22.32	22.29		
1.4	3	3		22.19	22.32	22.29		
1.4	6	0		21.22	21.34	21.34		
1.4	1	0		21.56	21.70	21.59		
1.4	1	3		21.45	21.69	21.55		
1.4	1	5		21.55	21.66	21.70		
1.4	3	0	16-QAM	21.26	21.40	21.49		
1.4	3	1		21.35	21.36	21.44		
1.4	3	3		21.32	21.35	21.41		
1.4	6	0		20.33	20.42	20.46		



		LTE	Band 7 Max	kimum Average Po	wer [dBm]	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0		22.81	22.85	22.75
20	1	49		22.65	22.73	22.68
20	1	99		22.77	22.80	22.73
20	50	0	QPSK	21.75	21.85	21.78
20	50	24		21.69	21.83	21.71
20	50	50		21.74	21.82	21.74
20	100	0		21.76	21.88	21.82
20	1	0		21.85	21.97	21.83
20	1	49		21.80	21.96	21.88
20	1	99		21.97	22.01	22.09
20	50	0	16-QAM	20.74	20.90	20.76
20	50	24		20.73	20.87	20.83
20	50	50		20.83	20.85	20.98
20	100	0		20.81	20.96	20.98
15	1	0		22.75	22.71	22.65
15	1	37		22.60	22.70	22.65
15	1	74		22.67	22.79	22.78
15	36	0	QPSK	21.64	21.81	21.63
15	36	20		21.60	21.81	21.74
15	36	39		21.72	21.74	21.84
15	75	0		21.73	21.92	21.87
15	1	0		21.84	21.96	21.82
15	1	37		21.70	21.93	21.86
15	1	74		21.92	21.91	22.02
15	36	0	16-QAM	20.66	20.87	20.74
15	36	20		20.67	20.79	20.79
15	36	39		20.77	20.75	20.97
15	75	0		20.77	20.86	20.91

PORT		Report N	o. : FG931313-02B					
nd 7 Maximum Average Power [dBm]								
Mod	Lowest	Middle	Highest					

	LTE Band 7 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest			
10	1	0		22.69	22.63	22.59			
10	1	25		22.59	22.70	22.59			
10	1	49		22.67	22.70	22.79			
10	25	0	QPSK	21.63	21.75	21.62			
10	25	12		21.69	21.80	21.71			
10	25	25		21.64	21.82	21.94			
10	50	0		21.72	21.95	21.88			
10	1	0		21.75	21.90	21.82			
10	1	25		21.78	21.90	21.86			
10	1	49		21.96	21.91	22.09			
10	25	0	16-QAM	20.64	20.90	20.73			
10	25	12		20.67	20.77	20.82			
10	25	25		20.83	20.77	20.94			
10	50	0		20.78	20.92	20.94			
5	1	0		22.73	22.72	22.65			
5	1	12		22.64	22.69	22.60			
5	1	24		22.70	22.80	22.81			
5	12	0	QPSK	21.70	21.82	21.60			
5	12	7		21.63	21.81	21.78			
5	12	13		21.71	21.74	21.85			
5	25	0		21.75	21.89	21.86			
5	1	0		21.79	21.89	21.75			
5	1	12		21.71	21.86	21.81			
5	1	24		21.94	21.92	21.99			
5	12	0	16-QAM	20.74	20.84	20.74			
5	12	7		20.69	20.77	20.82			
5	12	13		20.76	20.82	20.92			
5	25	0		20.78	20.89	20.94			



LTE Band 12 Maximum Average Power [dBm] BW [MHz] **RB Size RB Offset** Mod Lowest Middle Highest 10 22.36 22.48 22.38 0 10 1 25 22.33 22.24 22.25 10 1 49 22.35 22.31 22.35 25 10 0 **QPSK** 21.46 21.45 21.48 10 25 12 21.34 21.33 21.29 10 25 25 21.42 21.35 21.30 10 50 21.49 21.50 21.42 0 10 1 0 21.50 21.65 21.60 10 1 25 21.71 21.60 21.55 10 1 49 21.56 21.61 21.65 10 25 0 16-QAM 20.41 20.47 20.31 10 25 12 20.57 20.25 20.42 10 25 25 20.53 20.43 20.41 10 50 0 20.59 20.51 20.49 5 1 0 22.24 22.31 22.31 5 1 12 22.34 22.30 22.22 5 1 24 22.37 22.24 22.41 5 12 0 **QPSK** 21.30 21.33 21.33 7 5 12 21.36 21.37 21.21 12 13 21.42 21.32 21.39 5 5 25 0 21.45 21.39 21.36 0 21.52 21.65 5 1 21.61 5 1 12 21.77 21.56 21.59 24 5 1 21.59 21.60 21.67 5 12 0 16-QAM 20.47 20.46 20.37 5 12 7 20.53 20.50 20.30 5 12 13 20.57 20.42 20.46 5 25 0 20.66 20.44 20.46

		LTE	Band 12 Ma	ximum Average Po	ower [dBm]	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0		22.32	22.37	22.36
3	1	8		22.45	22.27	22.27
3	1	14		22.36	22.27	22.38
3	8	0	QPSK	21.35	21.30	21.25
3	8	4		21.32	21.36	21.21
3	8	7		21.39	21.33	21.38
3	15	0		21.52	21.37	21.37
3	1	0		21.56	21.68	21.61
3	1	8		21.76	21.54	21.55
3	1	14		21.59	21.60	21.71
3	8	0	16-QAM	20.41	20.53	20.35
3	8	4		20.49	20.46	20.27
3	8	7		20.57	20.39	20.41
3	15	0		20.60	20.52	20.42
1.4	1	0		22.21	22.27	22.27
1.4	1	3		22.22	22.19	22.24
1.4	1	5		22.29	22.26	22.25
1.4	3	0	QPSK	22.18	22.26	22.22
1.4	3	1		22.21	22.21	22.19
1.4	3	3		22.23	22.20	22.24
1.4	6	0		21.27	21.31	21.32
1.4	1	0		21.60	21.61	21.60
1.4	1	3		21.59	21.58	21.58
1.4	1	5		21.59	21.57	21.56
1.4	3	0	16-QAM	21.25	21.32	21.32
1.4	3	1		21.25	21.36	21.29
1.4	3	3		21.33	21.30	21.32
1.4	6	0		20.29	20.41	20.37

		LTE	Band 17 Ma	ximum Average Po	ower [dBm]	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0		22.41	22.45	22.36
10	1	25		22.24	22.19	22.25
10	1	49		22.34	22.44	22.35
10	25	0	QPSK	21.41	21.46	21.39
10	25	12		21.32	21.26	21.30
10	25	25		21.33	21.36	21.37
10	50	0		21.27	21.39	21.32
10	1	0		21.73	21.62	21.59
10	1	25		21.55	21.49	21.50
10	1	49		21.76	21.73	21.66
10	25	0	16-QAM	20.45	20.46	20.28
10	25	12		20.36	20.30	20.25
10	25	25		20.42	20.45	20.49
10	50	0		20.42	20.36	20.45
5	1	0		22.33	22.30	22.29
5	1	12		22.17	22.18	22.26
5	1	24		22.37	22.41	22.37
5	12	0	QPSK	21.36	21.35	21.27
5	12	7		21.31	21.27	21.31
5	12	13		21.37	21.31	21.43
5	25	0		21.32	21.33	21.42
5	1	0		21.73	21.60	21.57
5	1	12		21.47	21.44	21.55
5	1	24		21.71	21.69	21.62
5	12	0	16-QAM	20.51	20.42	20.32
5	12	7		20.33	20.34	20.28
5	12	13		20.44	20.45	20.42
5	25	0		20.33	20.39	20.41



LTE Band 26 Maximum Average Power [dBm] BW [MHz] **RB Size RB Offset** Mod Lowest Middle Highest 15 22.35 22.45 22.40 0 22.41 15 1 37 22.34 22.32 15 1 74 22.30 22.43 22.39 15 36 0 **QPSK** 21.38 21.51 21.34 15 36 20 21.28 21.40 21.26 15 36 39 21.21 21.39 21.26 15 75 0 21.37 21.52 21.39 15 1 0 21.41 21.70 21.66 21.53 15 1 37 21.56 21.68 15 1 74 21.57 21.60 21.66 15 36 0 16-QAM 20.41 20.56 20.34 15 36 20 20.48 20.26 20.52 15 36 39 20.35 20.53 20.36 15 75 0 20.40 20.51 20.48 10 1 0 22.21 22.43 22.35 10 1 25 22.24 22.39 22.27 10 1 49 22.30 22.41 22.37 10 25 0 **QPSK** 21.30 21.45 21.39 10 25 12 21.24 21.32 21.39 10 25 25 21.34 21.41 21.33 10 50 0 21.36 21.48 21.38 21.46 10 0 21.64 21.66 1 10 1 25 21.51 21.49 21.66 10 49 1 21.65 21.62 21.66 10 25 0 16-QAM 20.38 20.59 20.40 10 25 12 20.44 20.58 20.31 10 25 25 20.40 20.53 20.37 10 50 20.42 20.58 20.49 0



FCC RADIO TEST REPORT

LTE Band 26 Maximum Average Power [dBm]									
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest			
5	1	0		22.19	22.40	22.34			
5	1	12		22.28	22.42	22.34			
5	1	24		22.34	22.39	22.32			
5	12	0	QPSK	21.32	21.49	21.38			
5	12	7		21.42	21.37	21.24			
5	12	13		21.31	21.46	21.26			
5	25	0		21.29	21.42	21.38			
5	1	0		21.50	21.59	21.61			
5	1	12	16-QAM	21.60	21.64	21.48			
5	1	24		21.59	21.69	21.63			
5	12	0		20.37	20.59	20.43			
5	12	7		20.42	20.48	20.28			
5	12	13		20.44	20.48	20.44			
5	25	0		20.48	20.50	20.50			
3	1	0	QPSK	22.13	22.42	22.33			
3	1	8		22.32	22.45	22.26			
3	1	14		22.34	22.35	22.34			
3	8	0		21.32	21.43	21.34			
3	8	4		21.36	21.42	21.26			
3	8	7		21.31	21.44	21.32			
3	15	0		21.34	21.51	21.40			
3	1	0		21.40	21.61	21.62			
3	1	8	16-QAM	21.57	21.66	21.50			
3	1	14		21.58	21.69	21.66			
3	8	0		20.44	20.55	20.39			
3	8	4		20.42	20.52	20.34			
3	8	7		20.37	20.50	20.34			
3	15	0		20.46	20.58	20.49			

LTE Band 26 Maximum Average Power [dBm]									
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest			
1.4	1	0		22.11	22.39	22.29			
1.4	1	3		22.20	22.36	22.26			
1.4	1	5		22.18	22.40	22.36			
1.4	3	0	QPSK	22.14	22.37	22.24			
1.4	3	1		22.06	22.31	22.29			
1.4	3	3		22.15	22.33	22.24			
1.4	6	0		21.20	21.38	21.28			
1.4	1	0		21.48	21.73	21.64			
1.4	1	3	16-QAM	21.48	21.58	21.59			
1.4	1	5		21.51	21.68	21.59			
1.4	3	0		21.20	21.43	21.42			
1.4	3	1		21.21	21.43	21.29			
1.4	3	3		21.28	21.43	21.34			
1.4	6	0		20.23	20.44	20.31			



CC RADIO TEST REPORT Report No. : FG931313-02B

		LTE	Band 41 Ma	ximum Average Po	wer [dBm]	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0		22.26	22.26	22.42
20	1	49		22.05	22.10	22.40
20	1	99		22.23	22.20	22.37
20	50	0	QPSK	21.21	21.23	21.47
20	50	24		21.14	21.12	21.46
20	50	50		21.18	21.18	21.40
20	100	0		21.25	21.14	21.50
20	1	0		21.14	21.15	21.40
20	1	49		21.10	21.11	21.41
20	1	99		21.32	21.21	21.53
20	50	0	16-QAM	20.12	20.15	20.41
20	50	24		20.12	20.10	20.42
20	50	50		20.15	20.16	20.47
20	100	0		20.18	20.14	20.46
15	1	0		22.14	22.08	22.27
15	1	37		22.07	22.05	22.30
15	1	74		22.16	22.26	22.39
15	36	0	QPSK	21.04	21.06	21.33
15	36	20		21.16	21.21	21.29
15	36	39		21.08	21.12	21.45
15	75	0		21.05	21.18	21.50
15	1	0		21.09	21.24	21.26
15	1	37		21.27	21.17	21.54
15	1	74		21.44	21.20	21.49
15	36	0	16-QAM	20.28	20.31	20.21
15	36	20		20.24	20.18	20.26
15	36	39		20.27	20.36	20.49
15	75	0		20.14	20.30	20.60



		LTE	Band 41 Ma	ximum Average Po	ower [dBm]	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0		22.05	22.28	22.41
10	1	25		22.06	22.23	22.40
10	1	49		22.39	22.26	22.39
10	25	0	QPSK	21.23	21.15	21.46
10	25	12		21.06	21.30	21.61
10	25	25		21.31	21.09	21.36
10	50	0		21.12	21.22	21.57
10	1	0		21.04	21.04	21.60
10	1	25		21.11	21.04	21.45
10	1	49		21.36	21.38	21.38
10	25	0	16-QAM	20.24	20.33	20.27
10	25	12		20.09	20.15	20.22
10	25	25		20.00	20.19	20.57
10	50	0		20.18	20.09	20.58
5	1	0		22.10	22.17	22.41
5	1	12		22.05	22.15	22.30
5	1	24		22.42	22.25	22.35
5	12	0	QPSK	21.03	21.08	21.42
5	12	7		21.25	21.03	21.53
5	12	13		21.34	21.29	21.39
5	25	0		21.43	21.27	21.43
5	1	0		21.19	21.29	21.23
5	1	12		21.10	21.21	21.31
5	1	24		21.18	21.04	21.63
5	12	0	16-QAM	20.26	20.16	20.38
5	12	7		20.29	20.05	20.26
5	12	13		20.01	20.25	20.43
5	25	0		20.04	20.11	20.66



CC RADIO TEST REPORT Report No.: FG931313-02B

		LTE	Band 66 Ma	ximum Average Po	ower [dBm]	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0		22.52	22.58	22.85
20	1	49		22.47	22.30	22.22
20	1	99		22.42	22.48	22.44
20	50	0	QPSK	21.64	21.45	21.68
20	50	24		21.59	21.41	21.29
20	50	50		21.54	21.43	21.18
20	100	0		21.58	21.50	21.59
20	1	0		21.51	21.62	22.14
20	1	49		21.86	21.56	21.57
20	1	99		21.72	22.04	21.61
20	50	0	16-QAM	20.47	20.29	20.58
20	50	24		20.65	20.38	20.23
20	50	50		20.59	20.63	20.14
20	100	0		20.80	20.66	20.53
15	1	0		22.34	22.32	22.83
15	1	37		22.68	22.25	22.23
15	1	74		22.46	22.48	22.34
15	36	0	QPSK	21.57	21.34	21.56
15	36	20		21.75	21.44	21.26
15	36	39		21.56	21.66	21.21
15	75	0		21.79	21.69	21.55
15	1	0		21.48	21.59	22.12
15	1	37		21.91	21.56	21.53
15	1	74		21.73	22.02	21.66
15	36	0	16-QAM	20.45	20.25	20.53
15	36	20		20.66	20.35	20.27
15	36	39		20.53	20.56	20.17
15	75	0		20.75	20.69	20.56

		LTE	Band 66 Ma	ximum Average Po	wer [dBm]	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0		22.38	22.37	22.74
10	1	25		22.63	22.29	22.15
10	1	49		22.43	22.50	22.35
10	25	0	QPSK	21.57	21.36	21.61
10	25	12		21.67	21.46	21.29
10	25	25		21.56	21.69	21.18
10	50	0		21.79	21.66	21.53
10	1	0		21.51	21.64	22.14
10	1	25		21.85	21.49	21.56
10	1	49		21.70	22.09	21.70
10	25	0	16-QAM	20.48	20.33	20.59
10	25	12		20.73	20.38	20.30
10	25	25		20.62	20.64	20.17
10	50	0		20.77	20.64	20.48
5	1	0		22.40	22.36	22.82
5	1	12		22.65	22.30	22.21
5	1	24		22.52	22.46	22.44
5	12	0	QPSK	21.59	21.42	21.60
5	12	7		21.73	21.42	21.36
5	12	13		21.55	21.65	21.17
5	25	0		21.80	21.69	21.52
5	1	0		21.47	21.63	22.17
5	1	12		21.86	21.59	21.51
5	1	24		21.70	22.06	21.63
5	12	0	16-QAM	20.53	20.25	20.57
5	12	7		20.65	20.37	20.23
5	12	13		20.55	20.58	20.22
5	25	0		20.73	20.64	20.53



		LTE	Band 66 Ma	ximum Average Po	ower [dBm]	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0		22.36	22.38	22.74
3	1	8		22.68	22.26	22.18
3	1	14		22.45	22.53	22.34
3	8	0	QPSK	21.57	21.39	21.66
3	8	4		21.70	21.37	21.32
3	8	7		21.65	21.66	21.26
3	15	0		21.84	21.64	21.53
3	1	0		21.52	21.64	22.11
3	1	8		21.92	21.50	21.52
3	1	14		21.72	22.00	21.60
3	8	0	16-QAM	20.47	20.34	20.58
3	8	4		20.63	20.39	20.27
3	8	7		20.56	20.64	20.18
3	15	0		20.76	20.69	20.49
1.4	1	0		22.36	22.34	22.46
1.4	1	3		22.19	22.32	22.43
1.4	1	5		22.27	22.42	22.46
1.4	3	0	QPSK	22.03	22.19	22.31
1.4	3	1		22.04	22.25	22.30
1.4	3	3		22.08	22.34	22.34
1.4	6	0		21.08	21.24	21.25
1.4	1	0		21.37	21.59	21.73
1.4	1	3		21.52	21.62	21.66
1.4	1	5		21.47	21.59	21.64
1.4	3	0	16-QAM	21.05	21.14	21.32
1.4	3	1		20.72	21.14	21.35
1.4	3	3		21.13	21.31	21.37
1.4	6	0		20.00	20.19	20.12

Appendix B. Test Results of ERP/EIRP and Radiated Test

ERP/EIRP

	LTE Band 2 / 1.4MHz (Average) (GT - LC = 1.44 dB)											
Channel	Mode	R	B	Conducted		EIRP						
Chamilei	Wode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.70	0.1862	24.14	0.2594					
Middle	QPSK	1	0	22.84	0.1923	24.28	0.2679					
Highest		1	0	22.57	0.1807	24.01	0.2518					
Lowest		1	0	21.90	0.1549	23.34	0.2158					
Middle	16QAM	1	0	21.89	0.1545	23.33	0.2153					
Highest		1	0	21.78	0.1507	23.22	0.2099					
Limit	EIRP <	2W		Result		PASS						

	LTE Band 2 / 3MHz (Average) (GT - LC = 1.44 dB)											
Channel	Mode	R	В	Cond	ucted	EIRP						
Channel	wode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.73	0.1875	24.17	0.2612					
Middle	QPSK	1	0	22.86	0.1932	24.30	0.2692					
Highest		1	0	22.58	0.1811	24.02	0.2523					
Lowest		1	0	21.59	0.1442	23.03	0.2009					
Middle	16QAM	1	0	21.93	0.1560	23.37	0.2173					
Highest		1	0	21.75	0.1496	23.19	0.2084					
Limit	EIRP < 2W			Result		PASS						

	LTE Band 2 / 5MHz (Average) (GT - LC = 1.44 dB)											
Channel	Mode	R	B	Conducted		EIRP						
Chamilei	Wode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.73	0.1875	24.17	0.2612					
Middle	QPSK	1	0	22.86	0.1932	24.30	0.2692					
Highest		1	0	22.54	0.1795	23.98	0.2500					
Lowest		1	0	21.59	0.1442	23.03	0.2009					
Middle	16QAM	1	0	21.99	0.1581	23.43	0.2203					
Highest		1	0	21.69	0.1476	23.13	0.2056					
Limit	EIRP <	2W		Re	sult	PA	SS					

	LTE Band 2 / 10MHz (Average) (GT - LC = 1.44 dB)										
Channel	Mode	R	B	Conducted		EIRP					
Chamilei	Wode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)				
Lowest		1	0	22.73	0.1875	24.17	0.2612				
Middle	QPSK	1	0	22.81	0.1910	24.25	0.2661				
Highest		1	0	22.59	0.1816	24.03	0.2529				
Lowest		1	0	21.66	0.1466	23.10	0.2042				
Middle	16QAM	1	0	21.98	0.1578	23.42	0.2198				
Highest		1	0	21.68	0.1472	23.12	0.2051				
Limit	EIRP < 2W			Re	sult	PASS					

	LTE Band 2 / 15MHz (Average) (GT - LC = 1.44 dB)											
Channel	Mode	R	В	Cond	ucted	EIRP						
Channel	Wode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.79	0.1901	24.23	0.2649					
Middle	QPSK	1	0	22.82	0.1914	24.26	0.2667					
Highest		1	0	22.62	0.1828	24.06	0.2547					
Lowest		1	0	21.65	0.1462	23.09	0.2037					
Middle	16QAM	1	0	21.92	0.1556	23.36	0.2168					
Highest		1	0	21.70	0.1479	23.14	0.2061					
Limit	EIRP <	2W		Result		PASS						

	LTE Band 2 / 20MHz (Average) (GT - LC = 1.44 dB)											
Channel	Mode	RB		Conducted		EIRP						
Chamilei	Wode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.75	0.1884	24.19	0.2624					
Middle	QPSK	1	0	22.87	0.1936	24.31	0.2698					
Highest		1	0	22.56	0.1803	24.00	0.2512					
Lowest		1	0	21.80	0.1514	23.24	0.2109					
Middle	16QAM	1	0	21.92	0.1556	23.36	0.2168					
Highest		1	0	21.68	0.1472	23.12	0.2051					
Limit	EIRP <	2W		Re	sult	PASS						

	LTE Band 4 / 1.4MHz (Average) (GT - LC = 1.1 dB)											
Channel	Mode	R	В	Conducted		EIRP						
Chamilei	Wiode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	5	22.44	0.1754	23.54	0.2259					
Middle	QPSK	1	5	22.52	0.1786	23.62	0.2301					
Highest		1	5	22.98	0.1986	24.08	0.2559					
Lowest		1	5	21.28	0.1343	22.38	0.1730					
Middle	16QAM	1	5	21.78	0.1507	22.88	0.1941					
Highest		1	5	22.19	0.1656	23.29	0.2133					
Limit	EIRP <	1W		Result		PASS						

	LTE Band 4 / 3MHz (Average) (GT - LC = 1.1 dB)											
Channel	Mode	R	В	Cond	lucted	EII	RP					
Channel	Wiode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	14	22.71	0.1866	23.81	0.2404					
Middle	QPSK	1	14	22.48	0.1770	23.58	0.2280					
Highest		1	14	22.93	0.1963	24.03	0.2529					
Lowest		1	14	21.97	0.1574	23.07	0.2028					
Middle	16QAM	1	14	21.50	0.1413	22.60	0.1820					
Highest		1	14	22.12	0.1629	23.22	0.2099					
Limit	EIRP <	EIRP < 1W			sult	PASS						

	LTE Band 4 / 5MHz (Average) (GT - LC = 1.1 dB)											
Channel	Mode	RB		Cond	ucted	EIRP						
Channel	Mode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	24	22.73	0.1875	23.83	0.2415					
Middle	QPSK	1	24	22.50	0.1778	23.60	0.2291					
Highest		1	24	22.99	0.1991	24.09	0.2564					
Lowest		1	24	21.94	0.1563	23.04	0.2014					
Middle	16QAM	1	24	21.57	0.1435	22.67	0.1849					
Highest		1	24	22.14	0.1637	23.24	0.2109					
Limit	EIRP <	EIRP < 1W			sult	PASS						

	LTE Band 4 / 10MHz (Average) (GT - LC = 1.1 dB)											
Channel	Mode	R	В	Cond	lucted	EII	RP					
Chainlei	Wiode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.53	0.1791	23.63	0.2307					
Middle	QPSK	1	0	22.92	0.1959	24.02	0.2523					
Highest		1	0	22.66	0.1845	23.76	0.2377					
Lowest		1	0	21.80	0.1514	22.90	0.1950					
Middle	16QAM	1	0	22.09	0.1618	23.19	0.2084					
Highest		1	0	21.79	0.1510	22.89	0.1945					
Limit	EIRP < 1W			Re	sult	PASS						

	LTE Band 4 / 15MHz (Average) (GT - LC = 1.1 dB)											
Channel	Mode	RB		Cond	ucted	EIRP						
Chamilei	Wode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	74	22.75	0.1884	23.85	0.2427					
Middle	QPSK	1	74	22.40	0.1738	23.50	0.2239					
Highest		1	74	22.99	0.1991	24.09	0.2564					
Lowest		1	74	21.99	0.1581	23.09	0.2037					
Middle	16QAM	1	74	21.53	0.1422	22.63	0.1832					
Highest		1	74	22.18	0.1652	23.28	0.2128					
Limit	EIRP < 1W			Re	sult	PASS						

	LTE Band 4 / 20MHz (Average) (GT - LC = 1.1 dB)											
Channel	Mada	RB		Cond	ucted	EIRP						
Chamilei	Mode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.83	0.1919	23.93	0.2472					
Middle	QPSK	1	0	22.84	0.1923	23.94	0.2477					
Highest		1	0	22.81	0.1910	23.91	0.2460					
Lowest		1	99	22.02	0.1592	23.12	0.2051					
Middle	16QAM	1	99	21.57	0.1435	22.67	0.1849					
Highest		1	99	22.18	0.1652	23.28	0.2128					
Limit	EIRP <	1W		Re	sult	PASS						

	LTE Band 5 / 1.4MHz (Average) (GT - LC = 1.17 dB)											
Channel	Mode	R	В	Cond	ucted	ERP						
Chainlei	Wiode	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)					
Lowest		1	5	22.19	0.1656	21.21	0.1321					
Middle	QPSK	1	5	22.29	0.1694	21.31	0.1352					
Highest		1	5	22.33	0.1710	21.35	0.1365					
Lowest		1	0	21.56	0.1432	20.58	0.1143					
Middle	16QAM	1	0	21.70	0.1479	20.72	0.1180					
Highest		1	0	21.59	0.1442	20.61	0.1151					
Limit	ERP < 7W			Re	sult	PASS						

	LTE Band 5 / 3MHz (Average) (GT - LC = 1.17 dB)											
Channel	Mode	RB		Cond	lucted	ERP						
Chamilei	Wode	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)					
Lowest		1	0	22.28	0.1690	21.30	0.1349					
Middle	QPSK	1	0	22.44	0.1754	21.46	0.1400					
Highest		1	0	22.44	0.1754	21.46	0.1400					
Lowest		1	0	21.58	0.1439	20.60	0.1148					
Middle	16QAM	1	0	21.71	0.1483	20.73	0.1183					
Highest		1	0	21.61	0.1449	20.63	0.1156					
Limit	ERP <	ERP < 7W			Result		PASS					

	LTE Band 5 / 5MHz (Average) (GT - LC = 1.17 dB)											
Channel	Mode	RB		Cond	ucted	ERP						
Chamilei	Wode	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)					
Lowest		1	0	22.24	0.1675	21.26	0.1337					
Middle	QPSK	1	0	22.45	0.1758	21.47	0.1403					
Highest		1	0	22.35	0.1718	21.37	0.1371					
Lowest		1	0	21.53	0.1422	20.55	0.1135					
Middle	16QAM	1	0	21.64	0.1459	20.66	0.1164					
Highest		1	0	21.68	0.1472	20.70	0.1175					
Limit	ERP < 7W			Re	sult	PA	SS					

	LTE Band 5 / 10MHz (Average) (GT - LC = 1.17 dB)											
Channel	Mode	RB		Cond	lucted	ERP						
Chamilei		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)					
Lowest		1	0	22.38	0.1730	21.40	0.1380					
Middle	QPSK	1	0	22.41	0.1742	21.43	0.1390					
Highest]	1	0	22.40	0.1738	21.42	0.1387					
Lowest		1	49	21.69	0.1476	20.71	0.1178					
Middle	16QAM	1	49	21.59	0.1442	20.61	0.1151					
Highest		1	49	21.61	0.1449	20.63	0.1156					
Limit	ERP < 7W			Result PASS			SS					

	LTE Band 7 / 5MHz (Average) (GT - LC = 2.05 dB)											
Channel	Mode	R	В	Cond	ucted	Ell	RP					
Chainlei	Wiode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	24	22.70	0.1862	24.75	0.2985					
Middle	QPSK	1	24	22.80	0.1905	24.85	0.3055					
Highest		1	24	22.81	0.1910	24.86	0.3062					
Lowest		1	24	21.94	0.1563	23.99	0.2506					
Middle	16QAM	1	24	21.92	0.1556	23.97	0.2495					
Highest		1	24	21.99	0.1581	24.04	0.2535					
Limit	EIRP <	2W	•	Re	sult	PASS						

	LTE Band 7 / 10MHz (Average) (GT - LC = 2.05 dB)											
Channel	Mode	RB		Cond	ucted	Ell	RP					
Chainlei	Wode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	49	22.67	0.1849	24.72	0.2965					
Middle	QPSK	1	49	22.70	0.1862	24.75	0.2985					
Highest		1	49	22.79	0.1901	24.84	0.3048					
Lowest		1	49	21.96	0.1570	24.01	0.2518					
Middle	16QAM	1	49	21.91	0.1552	23.96	0.2489					
Highest		1	49	22.09	0.1618	24.14	0.2594					
Limit	EIRP <	EIRP < 2W			Result		PASS					

	LTE Band 7 / 15MHz (Average) (GT - LC = 2.05 dB)										
Channel	Mode	RB		Cond	lucted	EIRP					
Chamilei		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)				
Lowest		1	74	22.67	0.1849	24.72	0.2965				
Middle	QPSK	1	74	22.79	0.1901	24.84	0.3048				
Highest		1	74	22.78	0.1897	24.83	0.3041				
Lowest		1	74	21.92	0.1556	23.97	0.2495				
Middle	16QAM	1	74	21.91	0.1552	23.96	0.2489				
Highest		1	74	22.02	0.1592	24.07	0.2553				
Limit	EIRP <	2W		Re	sult	PASS					

	LTE Band 7 / 20MHz (Average) (GT - LC = 2.05 dB)											
Channal	Mode	RB		Cond	ucted	EII	RP					
Channel Mode	Woue	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.81	0.1910	24.86	0.3062					
Middle	QPSK	1	0	22.85	0.1928	24.90	0.3090					
Highest		1	0	22.75	0.1884	24.80	0.3020					
Lowest		1	99	21.97	0.1574	24.02	0.2523					
Middle	16QAM	1	99	22.01	0.1589	24.06	0.2547					
Highest		1	99	22.09	0.1618	24.14	0.2594					
Limit	EIRP <	2W		Re	sult	PA	SS					

	LTE Band 12 / 1.4MHz (Average) (GT - LC = -1.95 dB)											
Channel	Mode	R	B	Cond	lucted	ERP						
	Wiode	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)					
Lowest		1	5	22.29	0.1694	18.19	0.0659					
Middle	QPSK	1	5	22.26	0.1683	18.16	0.0655					
Highest		1	5	22.25	0.1679	18.15	0.0653					
Lowest		1	0	21.60	0.1445	17.50	0.0562					
Middle	16QAM	1	0	21.61	0.1449	17.51	0.0564					
Highest		1	0	21.60	0.1445	17.50	0.0562					
Limit	ERP <	ERP < 3W			sult	PASS						

	LTE Band 12 / 3MHz (Average) (GT - LC = -1.95 dB)											
Channel	Mode	RB		Cond	ucted	ERP						
Chamilei	Wiode	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)					
Lowest		1	8	22.45	0.1758	18.35	0.0684					
Middle	QPSK	1	8	22.27	0.1687	18.17	0.0656					
Highest		1	8	22.27	0.1687	18.17	0.0656					
Lowest		1	8	21.76	0.1500	17.66	0.0583					
Middle	16QAM	1	8	21.54	0.1426	17.44	0.0555					
Highest		1	8	21.55	0.1429	17.45	0.0556					
Limit	ERP <	ERP < 3W			sult	PASS						

	LTE Band 12 / 5MHz (Average) (GT - LC = -1.95 dB)											
Channel	Mode	RB		Cond	ucted	ERP						
Channel	Wiode	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)					
Lowest		1	24	22.37	0.1726	18.27	0.0671					
Middle	QPSK	1	24	22.24	0.1675	18.14	0.0652					
Highest		1	24	22.41	0.1742	18.31	0.0678					
Lowest		1	12	21.77	0.1503	17.67	0.0585					
Middle	16QAM	1	12	21.59	0.1442	17.49	0.0561					
Highest		1	12	21.56	0.1432	17.46	0.0557					
Limit	ERP <	3W		Result		PASS						

	LTE Band 12 / 10MHz (Average) (GT - LC = -1.95 dB)											
Channel	Mode	R	RB	Cond	ucted	ERP						
Chamilei	Wode	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)					
Lowest		1	0	22.36	0.1722	18.26	0.0670					
Middle	QPSK	1	0	22.48	0.1770	18.38	0.0689					
Highest		1	0	22.38	0.1730	18.28	0.0673					
Lowest		1	25	21.71	0.1483	17.61	0.0577					
Middle	16QAM	1	25	21.60	0.1445	17.50	0.0562					
Highest		1	25	21.55	0.1429	17.45	0.0556					
Limit	ERP <	3W		Re	sult	PASS						

	LTE Band 17 / 5MHz (Average) (GT - LC = -1.95 dB)											
Channel	Mode	RB		Cond	ucted	ERP						
	Wiode	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)					
Lowest		1	24	22.37	0.1726	18.27	0.0671					
Middle	QPSK	1	24	22.41	0.1742	18.31	0.0678					
Highest		1	24	22.37	0.1726	18.27	0.0671					
Lowest		1	0	21.73	0.1489	17.63	0.0579					
Middle	16QAM	1	0	21.60	0.1445	17.50	0.0562					
Highest		1	0	21.57	0.1435	17.47	0.0558					
Limit	ERP <	ERP < 3W			sult	PASS						

	LTE Band 17 / 10MHz (Average) (GT - LC = -1.95 dB)											
Channel	Mode	R	В	Cond	ucted	ERP						
Chainlei		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)					
Lowest		1	0	22.41	0.1742	18.31	0.0678					
Middle	QPSK	1	0	22.45	0.1758	18.35	0.0684					
Highest		1	0	22.36	0.1722	18.26	0.0670					
Lowest		1	49	21.76	0.1500	17.66	0.0583					
Middle	16QAM	1	49	21.73	0.1489	17.63	0.0579					
Highest		1	49	21.66	0.1466	17.56	0.0570					
Limit	ERP <	3W		Re	sult	PASS						

	LTE Band 41 / 5MHz (Average) (GT - LC = 2.3 dB)											
Channel	Mode	RB		Cond	ucted	EIRP						
Chainlei	Wiode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	24	22.42	0.1746	24.72	0.2965					
Middle	QPSK	1	24	22.25	0.1679	24.55	0.2851					
Highest		1	24	22.35	0.1718	24.65	0.2917					
Lowest		1	24	21.18	0.1312	23.48	0.2228					
Middle	16QAM	1	24	21.04	0.1271	23.34	0.2158					
Highest		1	24	21.63	0.1455	23.93	0.2472					
Limit	EIRP <	EIRP < 2W			sult	PASS						

	LTE Band 41 / 10MHz (Average) (GT - LC = 2.3 dB)											
Channel	Mode	R	B	Cond	ucted	EIRP						
Chamilei		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.05	0.1603	24.35	0.2723					
Middle	QPSK	1	0	22.28	0.1690	24.58	0.2871					
Highest		1	0	22.41	0.1742	24.71	0.2958					
Lowest		1	0	21.04	0.1271	23.34	0.2158					
Middle	16QAM	1	0	21.04	0.1271	23.34	0.2158					
Highest		1	0	21.60	0.1445	23.90	0.2455					
Limit	EIRP <	EIRP < 2W			sult	PASS						

	LTE Band 41 / 15MHz (Average) (GT - LC = 2.3 dB)											
Channel	Mode	RB		Cond	ucted	EIRP						
Chamilei		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	74	22.16	0.1644	24.46	0.2793					
Middle	QPSK	1	74	22.26	0.1683	24.56	0.2858					
Highest		1	74	22.39	0.1734	24.69	0.2944					
Lowest		1	37	21.27	0.1340	23.57	0.2275					
Middle	16QAM	1	37	21.17	0.1309	23.47	0.2223					
Highest		1	37	21.54	0.1426	23.84	0.2421					
Limit	EIRP <	2W		Result		PASS						

	LTE Band 41 / 20MHz (Average) (GT - LC = 2.3 dB)											
Channel	Mode	RB		Cond	lucted	EIRP						
Chamilei		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.26	0.1683	24.56	0.2858					
Middle	QPSK	1	0	22.26	0.1683	24.56	0.2858					
Highest		1	0	22.42	0.1746	24.72	0.2965					
Lowest		1	99	21.32	0.1355	23.62	0.2301					
Middle	16QAM	1	99	21.21	0.1321	23.51	0.2244					
Highest		1	99	21.53	0.1422	23.83	0.2415					
Limit	EIRP <	2W		Result PASS			SS					

	LTE Band 26 / 1.4MHz (Average) (GT - LC = 1.39 dB)											
Channel	Mode	R	В	Cond	ucted	EF	₹P					
Chamilei	Wiode	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)					
Lowest		1	5	22.18	0.1652	21.42	0.1387					
Middle	QPSK	1	5	22.40	0.1738	21.64	0.1459					
Highest		1	5	22.36	0.1722	21.60	0.1445					
Lowest		1	0	21.48	0.1406	20.72	0.1180					
Middle	16QAM	1	0	21.73	0.1489	20.97	0.1250					
Highest		1	0	21.64	0.1459	20.88	0.1225					
Limit	ERP <	ERP < 7W			sult	PASS						

	LTE Band 26 / 3MHz (Average) (GT - LC = 1.39 dB)												
Channel	Mode	R	B	Cond	ucted	ERP							
Chamilei	Wode	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)						
Lowest		1	8	22.32	0.1706	21.56	0.1432						
Middle	QPSK	1	8	22.45	0.1758	21.69	0.1476						
Highest		1	8	22.26	0.1683	21.50	0.1413						
Lowest		1	14	21.58	0.1439	20.82	0.1208						
Middle	16QAM	1	14	21.69	0.1476	20.93	0.1239						
Highest		1	14	21.66	0.1466	20.90	0.1230						
Limit	ERP <	7W		Re	sult	PA	SS						

	LTE Band 26 / 5MHz (Average) (GT - LC = 1.39 dB)											
Channel	Mode	R	RB	Cond	ucted	ERP						
Chainlei	IVIOGE	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)					
Lowest		1	12	22.28	0.1690	21.52	0.1419					
Middle	QPSK	1	12	22.42	0.1746	21.66	0.1466					
Highest		1	12	22.34	0.1714	21.58	0.1439					
Lowest		1	24	21.59	0.1442	20.83	0.1211					
Middle	16QAM	1	24	21.69	0.1476	20.93	0.1239					
Highest		1	24	21.63	0.1455	20.87	0.1222					
Limit	ERP < 7W			Re	sult	PASS						

	LTE Band 26 / 10MHz (Average) (GT - LC = 1.39 dB)											
Channel	Mode	R	В	Cond	ucted	ERP						
Chamilei	Wiode	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)					
Lowest		1	0	22.21	0.1663	21.45	0.1396					
Middle	QPSK	1	0	22.43	0.1750	21.67	0.1469					
Highest	1	1	0	22.35	0.1718	21.59	0.1442					
Lowest		1	0	21.46	0.1400	20.70	0.1175					
Middle	16QAM	1	0	21.64	0.1459	20.88	0.1225					
Highest]	1	0	21.66	0.1466	20.90	0.1230					
Limit	ERP <	7W		Result PASS			SS					

	LTE Band 26 / 15MHz (Average) (GT - LC = 1.39 dB)											
Channel	Mode	RB		Cond	ucted	El	₹P					
Chamilei	Wiode	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)					
Lowest		1	0	22.35	0.1718	21.59	0.1442					
Middle	QPSK	1	0	22.45	0.1758	21.69	0.1476					
Highest		1	0	22.40	0.1738	21.64	0.1459					
Lowest		1	0	21.41	0.1384	20.65	0.1161					
Middle	16QAM	1	0	21.66	0.1466	20.90	0.1230					
Highest		1	0	21.70	0.1479	20.94	0.1242					
Limit	ERP <	7W		Result			SS					

	LTE Band 66 / 1.4MHz (Average) (GT - LC = 1.1 dB)											
Channel	Mode	R	B	Cond	lucted	EIRP						
Channel	Wiode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.36	0.1722	23.46	0.2218					
Middle	QPSK	1	0	22.34	0.1714	23.44	0.2208					
Highest	1	1	0	22.46	0.1762	23.56	0.2270					
Lowest		1	0	21.37	0.1371	22.47	0.1766					
Middle	16QAM	1	0	21.59	0.1442	22.69	0.1858					
Highest]	1	0	21.73	0.1489	22.83	0.1919					
Limit	EIRP <	1W		Result PASS			SS					

	LTE Band 66 / 3MHz (Average) (GT - LC = 1.1 dB)											
Channel	Mode	R	В	Cond	lucted	EIRP						
Chainlei	Wiode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.36	0.1722	23.46	0.2218					
Middle	QPSK	1	0	22.38	0.1730	23.48	0.2228					
Highest		1	0	22.74	0.1879	23.84	0.2421					
Lowest		1	0	21.52	0.1419	22.62	0.1828					
Middle	16QAM	1	0	21.64	0.1459	22.74	0.1879					
Highest		1	0	22.11	0.1626	23.21	0.2094					
Limit	EIRP < 1W			Re	sult	PASS						

	LTE Band 66 / 5MHz (Average) (GT - LC = 1.1 dB)											
Channel	Mode	RB		Cond	lucted	EIRP						
Channel	Wode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.40	0.1738	23.50	0.2239					
Middle	QPSK	1	0	22.36	0.1722	23.46	0.2218					
Highest		1	0	22.82	0.1914	23.92	0.2466					
Lowest		1	0	21.47	0.1403	22.57	0.1807					
Middle	16QAM	1	0	21.63	0.1455	22.73	0.1875					
Highest		1	0	22.17	0.1648	23.27	0.2123					
Limit	EIRP <	1W		Re	sult	PASS						

	LTE Band 66 / 10MHz (Average) (GT - LC = 1.1 dB)											
Channel	Mode	R	В	Cond	lucted	EIRP						
Chainlei	Wode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.38	0.1730	23.48	0.2228					
Middle	QPSK	1	0	22.37	0.1726	23.47	0.2223					
Highest		1	0	22.74	0.1879	23.84	0.2421					
Lowest		1	0	21.51	0.1416	22.61	0.1824					
Middle	16QAM	1	0	21.64	0.1459	22.74	0.1879					
Highest		1	0	22.14	0.1637	23.24	0.2109					
Limit	EIRP <	1W	•	Re	sult	PASS						

	LTE Band 66 / 15MHz (Average) (GT - LC = 1.1 dB)											
Channel	Mode	R	В	Cond	ucted	EIRP						
Channel	IVIOGE	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.34	0.1714	23.44	0.2208					
Middle	QPSK	1	0	22.32	0.1706	23.42	0.2198					
Highest		1	0	22.83	0.1919	23.93	0.2472					
Lowest		1	0	21.48	0.1406	22.58	0.1811					
Middle	16QAM	1	0	21.59	0.1442	22.69	0.1858					
Highest		1	0	22.12	0.1629	23.22	0.2099					
Limit	EIRP <	1W		Re	sult	PA	SS					

	LTE Band 66 / 20MHz (Average) (GT - LC = 1.1 dB)											
Channel	Mode	RB		Cond	ucted	EIRP						
Channel	IVIOGE	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)					
Lowest		1	0	22.52	0.1786	23.62	0.2301					
Middle	QPSK	1	0	22.58	0.1811	23.68	0.2333					
Highest		1	0	22.85	0.1928	23.95	0.2483					
Lowest		1	0	21.51	0.1416	22.61	0.1824					
Middle	16QAM	1	0	21.62	0.1452	22.72	0.1871					
Highest		1	0	22.14	0.1637	23.24	0.2109					
Limit	EIRP < 1W			Re	sult	PASS						

Radiated Spurious Emission

LTE Band 2

Report No. : FG931313-02B

	LTE Band 2/ 20MHz / QPSK												
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)					
	3702	-59.69	-13	-46.69	-66.26	1.848	8.42	Н					
	5553	-56.24	-13	-43.24	-64.60	2.32	10.68	Н					
	7404	-50.41	-13	-37.41	-59.74	2.61	11.94	Н					
								Н					
								Н					
Lowest								Н					
Lowest	3702	-59.23	-13	-46.23	-65.80	1.85	8.42	V					
	5553	-57.09	-13	-44.09	-65.45	2.32	10.68	V					
	7404	-48.99	-13	-35.99	-58.32	2.61	11.94	V					
								V					
								V					
								V					
	3741	-57.55	-13	-44.55	-64.12	1.848	8.42	Н					
	5613	-56.15	-13	-43.15	-64.51	2.32	10.68	Н					
	7485	-53.20	-13	-40.20	-62.53	2.61	11.94	Н					
								Н					
								Н					
Middle								Н					
ivildule	3741	-59.25	-13	-46.25	-65.82	1.85	8.42	V					
	5613	-58.06	-13	-45.06	-66.42	2.32	10.68	V					
	7485	-52.56	-13	-39.56	-61.89	2.61	11.94	V					
								V					
								V					
								V					

TEL: +86-512-57900158 Page Number : B2-1 of 14

FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw

	3783	-60.04	-13	-47.04	-66.61	1.848	8.42	Н
	5673.27	-57.40	-13	-44.40	-65.76	2.32	10.68	Н
	7560	-55.24	-13	-42.24	-64.57	2.61	11.94	Н
								Н
								Н
								Н
Llinkoot								Н
Highest	3783	-60.24	-13	-47.24	-66.81	1.85	8.42	V
	5673	-58.82	-13	-45.82	-67.18	2.32	10.68	V
	7560	-55.42	-13	-42.42	-64.75	2.61	11.94	V
								V
								V
								V
								V

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

TEL: +86-512-57900158 FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw Page Number : B2-2 of 14

LTE Band 7

Report No. : FG931313-02B

	LTE Band 7 / 20MHz / QPSK											
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)				
	5004	-50.49	-25	-25.49	-58.52	2.18	10.21	Н				
	7500	-56.40	-25	-31.40	-65.71	2.69	12.00	Н				
	10008	-45.22	-25	-20.22	-54.93	3.19	12.90	Н				
	12506	-59.12	-25	-34.12	-69.82	3.70	14.39	Н				
	15003	-47.88	-25	-22.88	-59.42	4.20	15.74	Н				
								Н				
Lowest								Н				
Lowest	5004	-51.56	-25	-26.56	-59.59	2.18	10.21	V				
	7500	-58.50	-25	-33.50	-67.81	2.69	12.00	V				
	10008	-51.71	-25	-26.71	-61.42	3.19	12.90	V				
	12506	-57.86	-25	-32.86	-68.56	3.70	14.39	V				
	15003	-49.43	-25	-24.43	-60.97	4.20	15.74	V				
								V				
								V				
	5052	-54.07	-25	-29.07	-62.10	2.18	10.21	Н				
	7578	-57.86	-25	-32.86	-67.17	2.69	12.00	Н				
	10104	-61.81	-25	-36.81	-71.52	3.19	12.90	Н				
	12630	-60.17	-25	-35.17	-70.87	3.70	14.39	Н				
	15157	-50.95	-25	-25.95	-62.49	4.20	15.74	Н				
								Н				
Middle								Η				
Middle	5052	-51.59	-25	-26.59	-59.62	2.18	10.21	V				
	7578	-59.42	-25	-34.42	-68.73	2.69	12.00	V				
	10107	-53.45	-25	-28.45	-63.16	3.19	12.90	V				
	12630.45	-59.22	-25	-34.22	-69.92	3.70	14.39	V				
	15157	-45.15	-25	-20.15	-56.69	4.20	15.74	V				
								V				
								V				

TEL: +86-512-57900158 Page Number : B2-3 of 14

FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw

	5136	-40.98	-25	-15.98	-50.80	2.30	12.13	Η
	7704	-33.42	-25	-8.42	-42.04	2.11	10.73	Н
	10272	-45.11	-25	-20.11	-54.79	2.23	11.91	Н
	12840	-51.65	-25	-26.65	-62.02	2.52	12.89	Н
	15414	-46.87	-25	-21.87	-59.60	2.44	15.17	Н
								Н
I Pakaar								Н
Highest	5136	-43.60	-25	-18.60	-53.42	2.30	12.13	V
	7704	-36.40	-25	-11.40	-45.02	2.11	10.73	V
	10272	-47.19	-25	-22.19	-56.87	2.23	11.91	V
	12840	-53.22	-25	-28.22	-63.59	2.52	12.89	V
	15414	-40.65	-25	-15.65	-53.38	2.44	15.17	V
								V
								V

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

TEL: +86-512-57900158 FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw Page Number : B2-4 of 14

LTE Band 12

Report No. : FG931313-02B

			LTE Ba	nd 12 / 10MF	lz / QPSK			
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
	1400	-44.61	-13	-31.61	-49.09	1.21	5.68	Н
	2098	-44.65	-13	-31.65	-48.91	1.54	5.80	Η
	2798	-51.21	-13	-38.21	-57.36	1.73	7.88	Н
	3498	-51.28	-13	-38.28	-58.55	1.98	9.25	Н
								Н
								Н
Lowest								Н
Lowest	1398	-41.04	-13	-28.04	-45.52	1.21	5.68	V
	2098	-44.27	-13	-31.27	-48.53	1.54	5.80	V
	2798	-58.27	-13	-45.27	-64.42	1.73	7.88	V
	3498	-54.12	-13	-41.12	-61.39	1.98	9.25	V
								V
								V
								V
	1406	-43.78	-13	-30.78	-48.26	1.21	5.68	Н
	2109	-44.52	-13	-31.52	-48.78	1.54	5.80	Η
	2812	-50.64	-13	-37.64	-56.79	1.73	7.88	Н
	3516	-50.50	-13	-37.50	-57.77	1.98	9.25	Н
								Н
								Н
Middle								Н
Middle	1406	-40.59	-13	-27.59	-45.07	1.21	5.68	V
	2109	-44.47	-13	-31.47	-48.73	1.54	5.80	V
	2812	-57.27	-13	-44.27	-63.42	1.73	7.88	V
	3516	-55.72	-13	-42.72	-62.99	1.98	9.25	V
								V
								V
								V

TEL: +86-512-57900158 Page Number : B2-5 of 14

FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw

	1412	-41.80	-13	-28.80	-46.28	1.21	5.68	Н
	2120	-46.14	-13	-33.14	-50.40	1.54	5.80	Н
	2826	-52.79	-13	-39.79	-58.94	1.73	7.88	Н
	3534	-50.65	-13	-37.65	-57.92	1.98	9.25	Н
								Н
								Н
LP-b								Н
Highest	1414	-40.34	-13	-27.34	-44.82	1.21	5.68	V
	2120	-42.72	-13	-29.72	-46.98	1.54	5.80	V
	2826	-55.51	-13	-42.51	-61.66	1.73	7.88	V
	3534	-54.42	-13	-41.42	-61.69	1.98	9.25	V
								V
								V
								V

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

TEL: +86-512-57900158 FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw

LTE Band 26

Report No. : FG931313-02B

			LTE Ba	nd 26 / 10MF	lz / QPSK			
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
	1650	-57.11	-13	-44.11	-61.59	1.21	5.68	Н
	2473.77	-53.83	-13	-40.83	-58.09	1.54	5.80	Н
	3297	-58.89	-13	-45.89	-65.04	1.73	7.88	Н
								Н
								Н
								Н
Lowest								Н
Lowest	1648	-58.03	-13	-45.03	-62.51	1.21	5.68	V
	2474	-54.16	-13	-41.16	-58.42	1.54	5.80	V
	3297	-58.24	-13	-45.24	-64.39	1.73	7.88	V
								V
								V
								V
								V
	1664	-58.36	-13	-45.36	-62.84	1.21	5.68	Н
	2496	-51.44	-13	-38.44	-55.70	1.54	5.80	Н
	3327	-56.87	-13	-43.87	-63.02	1.73	7.88	Н
								Н
								Н
								Н
N 4: -l -ll -								Н
Middle	1664	-55.36	-13	-42.36	-59.84	1.21	5.68	V
	2496	-53.34	-13	-40.34	-57.60	1.54	5.80	V
	3327	-57.28	-13	-44.28	-63.43	1.73	7.88	V
								V
								V
								V
								V

TEL: +86-512-57900158 Page Number : B2-7 of 14

FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw

	1680	-58.36	-13	-45.36	-62.84	1.21	5.68	Н
	2518	-54.74	-13	-41.74	-59.00	1.54	5.80	Н
	3357	-59.30	-13	-46.30	-65.45	1.73	7.88	Н
								Н
								Н
								Н
I Pakaar								Н
Highest	1678	-58.26	-13	-45.26	-62.74	1.21	5.68	V
	2518	-54.72	-13	-41.72	-58.98	1.54	5.80	V
	3357	-59.93	-13	-46.93	-66.08	1.73	7.88	V
								V
								V
								V
								V

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

TEL: +86-512-57900158 FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw Page Number : B2-8 of 14

: B2-9 of 14

			LTE Ba	nd 26 / 15MF	lz / QPSK			
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
	1650	-55.99	-13	-42.99	-60.47	1.21	5.68	Н
	2474	-52.10	-13	-39.10	-56.36	1.54	5.80	Н
	3300	-59.62	-13	-46.62	-65.77	1.73	7.88	Н
								Н
								Н
								Н
Lowest								Н
Lowest	1650	-57.93	-13	-44.93	-62.41	1.21	5.68	V
	2474	-53.44	-13	-40.44	-57.70	1.54	5.80	V
	3300	-56.96	-13	-43.96	-63.11	1.73	7.88	V
								V
								V
								V
								V
	1660	-56.84	-13	-43.84	-61.32	1.21	5.68	Н
	2490	-54.00	-13	-41.00	-58.26	1.54	5.80	Н
	3318	-56.58	-13	-43.58	-62.73	1.73	7.88	Н
								Н
								Н
								Н
Middle								Н
Middle	1660	-59.84	-13	-46.84	-64.32	1.21	5.68	V
	2490	-49.51	-13	-36.51	-53.77	1.54	5.80	V
	3318	-56.33	-13	-43.33	-62.48	1.73	7.88	V
								V
								V
								V
								V

TEL: +86-512-57900158 Page Number FAX: +86-512-57900958

E-mail : Alex@sporton.com.tw

	1670	-57.46	-13	-44.46	-61.94	1.21	5.68	Н
	2505	-55.42	-13	-42.42	-59.68	1.54	5.80	Н
	3339	-58.90	-13	-45.90	-65.05	1.73	7.88	Н
								Н
								Н
								Н
l limb and								Н
Highest	1670	-57.26	-13	-44.26	-61.74	1.21	5.68	V
	2505	-53.07	-13	-40.07	-57.33	1.54	5.80	V
	3339	-57.87	-13	-44.87	-64.02	1.73	7.88	V
								V
								V
								V
								V

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

TEL: +86-512-57900158 FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw Page Number : B2-10 of 14

LTE Band 41

Report No. : FG931313-02B

			LTE Ba	nd 41 / 20MF	lz / QPSK			
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
	4992	-51.65	-25	-26.65	-59.68	2.18	10.21	Н
	7488	-37.78	-25	-12.78	-47.09	2.69	12.00	Н
	9990	-58.59	-25	-33.59	-68.30	3.19	12.90	Н
	12486	-59.32	-25	-34.32	-68.85	4.05	13.58	Н
								Н
								Н
Lowest								Н
Lowest	4992	-51.98	-25	-26.98	-60.01	2.18	10.21	V
	7488	-46.37	-25	-21.37	-55.68	2.69	12.00	V
	9990	-57.16	-25	-32.16	-66.87	3.19	12.90	V
	12486	-59.57	-25	-34.57	-69.10	4.05	13.58	V
								V
								V
								V
	5166	-47.91	-25	-22.91	-55.94	2.18	10.21	Н
	7752	-38.99	-25	-13.99	-48.30	2.69	12.00	Н
	10332	-58.14	-25	-33.14	-67.85	3.19	12.90	Н
								Н
								Н
								Н
Middle								Н
Middle	5166	-49.16	-25	-24.16	-57.19	2.18	10.21	V
	7752	-43.59	-25	-18.59	-52.90	2.69	12.00	V
	10332	-59.37	-25	-34.37	-69.08	3.19	12.90	V
								V
								V
								V
								V

TEL: +86-512-57900158 Page Number : B2-11 of 14

FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw

	5340	-47.13	-25	-22.13	-55.16	2.18	10.21	Н
	8010	-48.10	-25	-23.10	-57.41	2.69	12.00	Н
	10683	-57.70	-25	-32.70	-67.41	3.19	12.90	Н
	13356	-56.25	-25	-31.25	-65.78	4.05	13.58	Н
								Н
								Н
Lliaboot								Н
Highest	5340	-45.60	-25	-20.60	-53.63	2.18	10.21	V
	8010	-46.61	-25	-21.61	-55.92	2.69	12.00	V
	10683	-57.93	-25	-32.93	-67.64	3.19	12.90	V
	13356	-57.57	-25	-32.57	-67.10	4.05	13.58	V
								V
								V
								V

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

TEL: +86-512-57900158 FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw Page Number : B2-12 of 14

LTE Band 66

Report No. : FG931313-02B

			LTE Ba	nd 66 / 20MF	lz / QPSK			
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
	3420	-54.63	-13	-41.63	-60.95	1.81	8.13	Н
	5133	-54.74	-13	-41.74	-62.72	2.222	10.20	Н
	6844	-47.17	-13	-34.17	-55.99	2.54	11.36	Н
	8556	-53.30	-13	-40.30	-62.91	2.89	12.50	Н
	10269	-39.54	-13	-26.54	-49.18	3.26	12.90	Н
								Н
Lowest								Н
Lowest	3420	-55.01	-13	-42.01	-61.33	1.81	8.13	V
	5133	-54.70	-13	-41.70	-62.68	2.222	10.20	V
	6844	-44.73	-13	-31.73	-53.55	2.54	11.36	V
	8556	-53.16	-13	-40.16	-62.77	2.888	12.50	V
	10269	-42.83	-13	-29.83	-52.47	3.263	12.90	V
								V
								V
	3474	-54.61	-13	-41.61	-60.93	1.81	8.13	Н
	5208.27	-53.38	-13	-40.38	-61.36	2.222	10.20	Н
	6944	-50.31	-13	-37.31	-59.13	2.54	11.36	Н
	8682	-52.50	-13	-39.50	-62.11	2.89	12.50	Н
								Н
								Н
Middle								Н
ivildule	3474	-56.39	-13	-43.39	-62.71	1.81	8.13	V
	5208	-51.21	-13	-38.21	-59.19	2.222	10.20	V
	6944	-51.68	-13	-38.68	-60.50	2.54	11.36	V
	8681	-52.09	-13	-39.09	-61.70	2.888	12.50	V
								V
								V
								V

TEL: +86-512-57900158 Page Number : B2-13 of 14

FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw

_								
	3522	-55.57	-13	-42.57	-61.89	1.81	8.13	Н
	5283	-50.69	-13	-37.69	-58.67	2.222	10.20	Н
	7044	-45.45	-13	-32.45	-54.27	2.54	11.36	Н
	8806	-52.41	-13	-39.41	-62.02	2.89	12.50	Н
	10566	-42.50	-13	-29.50	-52.14	3.26	12.90	Н
								Н
I.P. L								Н
Highest	3522	-55.75	-13	-42.75	-62.07	1.81	8.13	V
	5280	-45.47	-13	-32.47	-53.45	2.222	10.20	V
	7044	-44.62	-13	-31.62	-53.44	2.54	11.36	V
	8806	-51.79	-13	-38.79	-61.40	2.888	12.50	V
	10566	-46.66	-13	-33.66	-56.30	3.263	12.90	V
								V
								V

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

TEL: +86-512-57900158 FAX: +86-512-57900958 E-mail: Alex@sporton.com.tw Page Number : B2-14 of 14