



Report No.: FG190337A

FCC RADIO TEST REPORT

FCC ID : ZMOL860GL16L

Equipment : LTE Module

Brand Name : Fibocom Wireless Inc.

Model Name : L860-GL-16

Applicant : Fibocom Wireless Inc.

1101, Tower A, Building 6, Shenzhen

International, Innovation Valley, Dashi 1st Rd,

Nanshan, ShenZhen, China

Manufacturer : LCFC (HeFei) Electronics Technology Co., Ltd.

No. 3188-1, Yungu Road (Hefei Export Processing Zone), Hefei Economics &

Technology Development Area, Anhui, CHINA

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

Equipment: Fibocom L860-GL-16 tested inside of Lenovo Notebook Computer.

The product was received on Sep. 03, 2021 and testing was started from Sep. 20, 2021 and completed on Sep. 28, 2021. We, Sporton International Inc. EMC & Wireless Communications Laboratory, 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 test results in this partial report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Louis Wu

Louis W/m

Sporton International Inc. EMC & Wireless Communications Laboratory

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History of this test report

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Report No.	Version	Description	Issued Date
FG190337A	01	Initial issue of report	Oct. 22, 2021

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Summary of Test Result

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Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
	§2.1046	Conducted Output Power		
	§22.913 (a)(5)	Effective Radiated Power (WCDMA Band V)	_	
3.2	§24.232 (c)	Equivalent Isotropic Radiated Power (WCDMA Band II)	Pass	-
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (WCDMA Band IV)		
-	§24.232 (d)	Peak-to-Average Ratio	-	See Note
-	§2.1049 §22.917 (b) §24.238 (b) §27.53 (g)	Occupied Bandwidth (WCDMA Band V) (WCDMA Band II) (WCDMA Band IV)	-	See Note
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (g)	Band Edge Measurement (WCDMA Band V) (WCDMA Band II) (WCDMA Band IV)	-	See Note
-	\$2.1051 Conducted Emission \$22.917 (a) \$24.238 (a) \$27.53 (g) (WCDMA Band IV)		-	See Note
-	§2.1055 §22.355 §24.235 §27.54	Frequency Stability Temperature & Voltage	-	See Note
4.4	§2.1053 §22.917 (a) §24.238 (a) §27.53 (h)	Field Strength of Spurious Radiation (WCDMA Band V) (WCDMA Band II) (WCDMA Band IV)	Pass	Under limit 31.32 dB at 7410.000 MHz

Note:

- 1. The module (Model: L860-GL-16) makes no difference after verifying output power, this report reuses test data from the module report.
- Conducted power was verified to be consistent with the original modular approval, so the output power level in the original modular grant is referenced in this report for determining ERP/EIRP of this host product.

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.

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1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature				
Equipment	LTE Module			
Brand Name	Fibocom Wireless Inc.			
Model Name	L860-GL-16			
FCC ID	ZMOL860GL16L			
Sample 1	EUT with Host 1			
Sample 2	EUT with Host 2			
EUT supports Radios application	WCDMA/HSPA/LTE/GNSS			
EUT Stage	Production Unit			

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Remark:

- 1. The above EUT's information was declared by manufacturer.
- 2. Equipment: Fibocom L860-GL-16 tested inside of Lenovo Notebook Computer.

The product was installed into Notebook Computer (Brand Name: Lenovo, Model Name: TP00128B) during test, and the host information was recorded in the following table.

Host Information				
Host 1 Host with Amphenol Antenna				
Host 2	Host with JYT/NVC Antenna			

WWAN Antenna Information							
				WCDMA Band II: 0.50			
	Manufacturer	Amphenol	Peak gain (dBi)	WCDMA Band IV: 0.95			
				WCDMA Band V: -0.43			
Main Antenna	Part number	TKC114-16-000-C	Туре	PIFA			
Main Antenna			Peak gain (dBi)	WCDMA Band II: -1.83			
	Manufacturer	JYT/NVC		WCDMA Band IV: -1.18			
				WCDMA Band V: -2.02			
	Part number	JYAAE0154HR	Туре	PIFA			

Remark:

- The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.
- 2. All the tests were performed with "Amphenol Antenna" as representative.

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1.2 Product Specification of Equipment Under Test

Product Specification subjective to this standard					
	WCDMA:				
Ty Fraguency	Band V:	826.4 MHz ~ 846.6 MHz			
Tx Frequency	Band II:	1852.4 MHz ~ 1907.6 MHz			
	Band IV:	1712.4 MHz ~ 1752.6 MHz			
	WCDMA:				
Dy Fraguency	Band V:	871.4 MHz ~ 891.6 MHz			
Rx Frequency	Band II:	1932.4 MHz ~ 1987.6 MHz			
	Band IV:	2112.4 MHz ~ 2152.6 MHz			
	WCDMA:				
Maximum Output Power to Antenna	Band V:	23.32 dBm			
Maximum Output Fower to Antenna	Band II:	23.52 dBm			
	Band IV:	23.32 dBm			
		SPSK (Uplink)			
Type of Modulation		QAM (Downlink)			
	HSUPA: QPSK (Uplink)				

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1.3 Modification of EUT

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

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1.4 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory	
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan	
Test Site No.	Sporton Site No.	
rest site No.	TH03-HY	
Test Engineer	Benjamin Lin	
Temperature	23.5~25.2℃	
Relative Humidity	49.4~52.3%	

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Test Site	Sporton International Inc. Wensan Laboratory		
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist.,		
	Taoyuan City 333010, Taiwan		
Test Site No.	Sporton Site No.		
rest site No.	03CH12-HY (TAF Code: 3786)		
Test Engineer	Jack Cheng, Lance Chiang and Chuan Chu		
Temperature	21.6~26.2°ℂ		
Relative Humidity	56~68%		
Remark	The Radiated Spurious Emission test item subcontracted to Sporton International Inc. Wensan Laboratory		

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

FCC Designation No.: TW1190 and TW3786

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
- FCC 47 CFR Part 2, 22(H), 24(E), 27(L)
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- FCC KDB 414788 D01 Radiated Test Site v01r01

Remark:

- 1. All test items were verified and recorded according to the standards and without any deviation during the test.
- 2. The TAF code is not including all the FCC KDB listed without accreditation.

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2 Test Configuration of Equipment Under Test

2.1 Test Mode

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

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The measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in Tablet Type (three orthogonal axis (X: flat, Y: portrait, Z: landscape)) and Notebook Type, adjusting the measurement antenna orientation, following C63.26 exploratory test procedures and find X with accessory for Cellular Band; Z without accessory for PCS Band and Y with accessory for AWS Band as worst plane.

Radiated emissions were investigated as following frequency range:

- 1. 30 MHz to 9000 MHz for WCDMA Band V
- 2. 30 MHz to 18000 MHz for WCDMA Band IV
- 3. 30 MHz to 19100 MHz for WCDMA Band II

All modes, data rates and positions were investigated.

Test modes are chosen to be reported as the worst case configuration below:

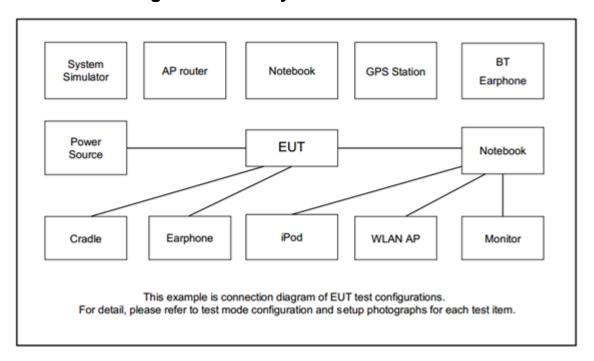
Test Modes							
Band	Radiated TCs	Conducted TCs					
WCDMA Band V	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link					
WCDMA Band II ■ RMC 12.2Kbps Link		■ RMC 12.2Kbps Link					
WCDMA Band IV	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link					

Remark: All the radiated test cases were performed with Battery 1.

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2.2 Connection Diagram of Test System



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2.3 Support Unit used in test configuration

Item	Equipment	Brand Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A

2.4 Frequency List of Low/Middle/High Channels

Frequency List						
Band	Channel/Frequency(MHz)	Lowest	Middle	Highest		
WCDMA	Channel	4132	4182	4233		
Band V	Frequency	826.4	836.4	846.6		
WCDMA	Channel	9262	9400	9538		
Band II	Frequency	1852.4	1880.0	1907.6		
WCDMA	Channel	1312	1413	1513		
Band IV	Frequency	1712.4	1732.6	1752.6		

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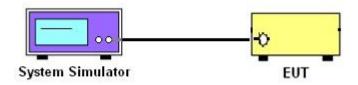
3 Conducted Test Result

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.1.1 Test Setup

3.1.2 Conducted Output Power



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3.1.3 Test Result of Conducted Test

Please refer to Appendix A.

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3.2 Conducted Output Power and ERP/EIRP

3.2.1 Description of the Conducted Output Power and ERP/EIRP

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

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The ERP of mobile transmitters must not exceed 7 Watts for WCDMA Band V

The EIRP of mobile transmitters must not exceed 2 Watts for WCDMA Band II

The EIRP of mobile transmitters must not exceed 1 Watts for WCDMA Band IV

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 system simulator.
- 3. Select the lowest, middle, and the highest channels for each band and different modulation.
- 4. Measure the maximum burst average power for GSM and maximum average power for other modulation signal.

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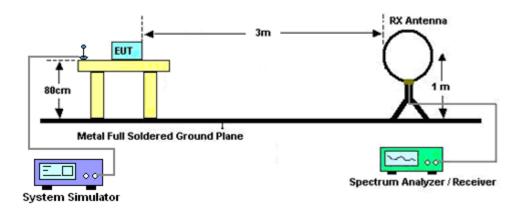
4 Radiated Test Items

4.1 Measuring Instruments

See list of measuring instruments of this test report.

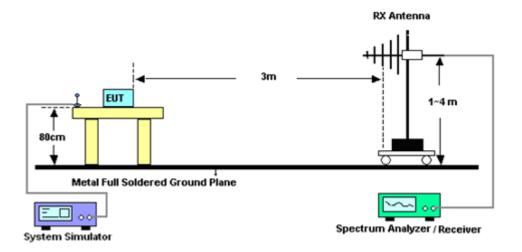
4.2 Test Setup

For radiated test below 30MHz



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For radiated test from 30MHz to 1GHz



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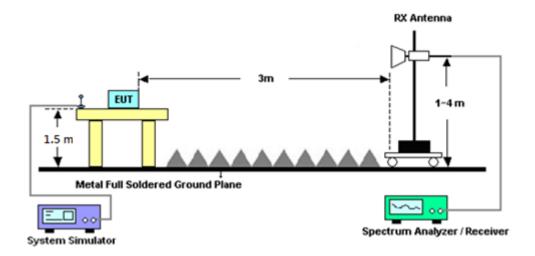
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For radiated test above 1GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

Note:

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line was not reported.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

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4.4 Field Strength of Spurious Radiation Measurement

4.4.1 Description of Field Strength of Spurious Radiated Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

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4.4.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI / TIA-603-E Section 2.2.12.

- The EUT was placed on a rotatable wooden table 0.8 meters for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz above the 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.
- 4. The height of the receiving antenna is varied between one meter and four meters to search for the maximum spurious emission for both horizontal and vertical polarizations.
- 5. Make the measurement with the spectrum analyzer's RBW = 1 MHz, VBW = 3 MHz, taking record of maximum spurious emission.
- 6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
- 7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
- 8. Take the record of output power at antenna port.
- 9. Repeat step 7 to step 8 for another polarization.
- 10. EIRP (dBm) = S.G. Power Tx Cable Loss + Tx Antenna Gain
- 11. ERP (dBm) = EIRP 2.15
- 12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
- 13. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

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5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 04, 2021	Sep. 20, 2021~ Sep. 28, 2021	Jan. 03, 2022	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	37059 & 01	30MHz~1GHz	Oct. 11, 2020	Sep. 20, 2021~ Sep. 28, 2021	Oct. 10, 2021	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 11, 2020	Sep. 20, 2021~ Sep. 28, 2021	Oct. 10, 2021	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1328	1GHz~18GHz	Nov. 23, 2020	Sep. 20, 2021~ Sep. 28, 2021	Nov. 22, 2021	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1212	1GHz~18GHz	May 18, 2021	Sep. 20, 2021~ Sep. 28, 2021	May 17, 2022	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	00993	18GHz~40GHz	Nov. 19, 2020	Sep. 20, 2021~ Sep. 28, 2021	Nov. 18, 2021	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA917057 6	18GHz~40GHz	May 21, 2021	Sep. 20, 2021~ Sep. 28, 2021	May 20, 2022	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 24, 2021	Sep. 20, 2021~ Sep. 28, 2021	Mar. 23, 2022	Radiation (03CH12-HY)
Preamplifier	Aglient	8449B	3008A02375	1GHz~26.5GHz	May 25, 2021	Sep. 20, 2021~ Sep. 28, 2021	May 24, 2022	Radiation (03CH12-HY)
Preamplifier	E-INSTRUME NT TECH LTD.	ERA-100M-18 G-56-01-A70	EC1900249	1GHz~18GHz	Dec. 05, 2020	Sep. 20, 2021~ Sep. 28, 2021	Dec. 04, 2021	Radiation (03CH12-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 11, 2020	Sep. 20, 2021~ Sep. 28, 2021	Dec. 10, 2021	Radiation (03CH12-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Jan. 15, 2021	Sep. 20, 2021~ Sep. 28, 2021	Jan. 14, 2022	Radiation (03CH12-HY)
Signal Generator	Rohde & Schwarz	SMB100A	101107	100kHz~40GHz	Dec. 04, 2020	Sep. 20, 2021~ Sep. 28, 2021	Dec. 03, 2021	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30MHz~18GHz	Dec. 11, 2020	Sep. 20, 2021~ Sep. 28, 2021	Dec. 10, 2021	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz~40GHz	Feb. 22, 2021	Sep. 20, 2021~ Sep. 28, 2021	Feb. 21, 2022	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz~40GHz	Feb. 22, 2021	Sep. 20, 2021~ Sep. 28, 2021	Feb. 21, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WLKS1200-12 SS	SN2	1.2GHz Low Pass Filter	Mar. 17, 2021	Sep. 20, 2021~ Sep. 28, 2021	Mar. 16, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-1080 -1200-15000-6 0SS	SN1	1.2GHz High Pass Filter	Mar. 17, 2021	Sep. 20, 2021~ Sep. 28, 2021	Mar. 16, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-2700 -3000-18000-6 0ST	SN2	3GHz High Pass Filter	Jul. 12, 2021	Sep. 20, 2021~ Sep. 28, 2021	Jul. 11, 2022	Radiation (03CH12-HY)
Hygrometer	TECPEL	DTM-303B	TP140349	N/A	Oct. 02, 2020	Sep. 20, 2021~ Sep. 28, 2021	Oct. 01, 2021	Radiation (03CH12-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Sep. 20, 2021~ Sep. 28, 2021	N/A	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Sep. 20, 2021~ Sep. 28, 2021	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Sep. 20, 2021~ Sep. 28, 2021	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	N/A	N/A	Sep. 20, 2021~ Sep. 28, 2021	N/A	Radiation (03CH12-HY)
Base Station (Measure)	Anritsu	MT8821C	6262025341	N/A	Oct. 06, 2020	Sep. 20, 2021	Oct. 05, 2021	Conducted (TH03-HY)

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6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of	2.40 JD
Confidence of 95% (U = 2Uc(y))	3.10 dB

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

Measuring Uncertainty for a Level of	3,39 dB
Confidence of 95% (U = 2Uc(y))	3.39 UB

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

Manager and the second of the form of the second of	
Measuring Uncertainty for a Level of	4.34 dB
Confidence of 95% (U = 2Uc(y))	4.34 UB

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Appendix A. Test Results of Conducted Test

Conducted Output Power (Average power) & ERP / EIRP

WCDMA Band V Maximum Average Power [dBm] (GT - LC = -0.43 dB)								
Channel	4132	4182	4233	ERP (dBm) ERP (W				
Frequency	826.4	836.4	846.6	ERP (ubili)	ERP (W)			
RMC 12.2K	23.11	23.32	23.25	20.74	0.1186			
Limit		ERP < 7W	Result	Pass				

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WCDMA Band II Maximum Average Power [dBm] (GT - LC = 0.5 dB)								
Channel	9262	9400	9538	EIRP (dBm) EIRP (W)				
Frequency	1852.4	1880	1907.6	EIRP (UBIII)	EIRP (W)			
RMC 12.2K	23.09	23.36	23.52	24.02	0.2523			
Limit		EIRP < 2W	-	Result	Pass			

WCDMA Band VI Maximum Average Power [dBm] (GT - LC = 0.95 dB)								
Channel	1312	1413	1513	EIRP (dBm)	EIRP (W)			
Frequency	1712.4	1732.6	1752.6	EIRP (UBIII)	EIRP (VV)			
RMC 12.2K	23.32	23.06	23.13	24.27	0.2673			
Limit		EIRP < 1W	Result	Pass				

Appendix B. Test Results of Radiated Test

WCDMA 850

Report No.: FG190337A

	WCDMA 850										
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)		
	1656	-60.73	-13	-47.73	-70.4	-66.35	0.92	8.69	Н		
	2480	-56.74	-13	-43.74	-70.68	-64.12	1.15	10.67	Н		
	3305	-55.10	-13	-42.10	-71.15	-63.66	1.32	12.03	Н		
Lowest									Н		
Lowest	1656	-61.14	-13	-48.14	-70.24	-66.76	0.92	8.69	V		
	2480	-56.77	-13	-43.77	-70.88	-64.15	1.15	10.67	V		
	3305	-54.89	-13	-41.89	-71.41	-63.45	1.32	12.03	V		
									V		
	1672	-60.11	-13	-47.11	-69.83	-65.79	0.93	8.75	Н		
	2512	-56.77	-13	-43.77	-70.73	-64.18	1.15	10.71	Н		
	3345	-55.06	-13	-42.06	-71.04	-63.71	1.33	12.13	Н		
Middle									Н		
Middle	1672	-60.45	-13	-47.45	-69.54	-66.13	0.93	8.75	V		
	2509	-56.15	-13	-43.15	-70.3	-63.56	1.15	10.71	V		
	3345	-54.74	-13	-41.74	-71.18	-63.39	1.33	12.13	V		
									V		
	1696	-60.50	-13	-47.50	-69.84	-66.26	0.94	8.84	Н		
	2539	-56.93	-13	-43.93	-71.14	-64.37	1.16	10.75	Н		
	3384	-56.49	-13	-43.49	-72.27	-65.22	1.34	12.22	Н		
I II ad a set									Н		
Highest	1696	-62.90	-13	-49.90	-71.53	-68.66	0.94	8.84	V		
	2539	-56.97	-13	-43.97	-71.31	-64.41	1.16	10.75	V		
	3384	-56.08	-13	-43.08	-72.3	-64.81	1.34	12.22	V		
									V		

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

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FAX: 886-3-328-4978 E-mail: Alex@sporton.com.tw

WCDMA 1700

Report No.: FG190337A

WCDMA 1700										
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	
	3425	-54.34	-13	-41.34	-71.2	-65.31	1.35	12.32	Н	
	5137	-49.48	-13	-36.48	-71.05	-60.63	1.65	12.79	Н	
	6850	-46.43	-13	-33.43	-71.89	-56.80	1.74	12.11	Н	
Lowest									Н	
Lowest	3425	-53.45	-13	-40.45	-70.73	-64.42	1.35	12.32	V	
	5137	-49.01	-13	-36.01	-70.33	-60.16	1.65	12.79	V	
	6850	-46.39	-13	-33.39	-71.44	-56.76	1.74	12.11	V	
									V	
	3462	-54.06	-13	-41.06	-71.3	-65.12	1.35	12.41	Н	
	5198	-49.50	-13	-36.50	-71.11	-60.72	1.66	12.88	Н	
	6930	-46.04	-13	-33.04	-71.9	-56.31	1.73	12.00	Н	
N 41 - 1 - 11 -									Н	
Middle	3462	-53.64	-13	-40.64	-71.3	-64.70	1.35	12.41	V	
	5198	-48.31	-13	-35.31	-69.76	-59.53	1.66	12.88	V	
	6930	-46.33	-13	-33.33	-71.72	-56.60	1.73	12.00	V	
									V	
	3505	-53.31	-13	-40.31	-70.98	-64.45	1.36	12.50	Н	
	5258	-48.74	-13	-35.74	-70.57	-60.02	1.68	12.96	Н	
	7010	-45.38	-13	-32.38	-71.63	-55.54	1.73	11.88	Н	
I Palacet									Н	
Highest	3505	-53.23	-13	-40.23	-71.24	-64.37	1.36	12.50	V	
	5258	-47.64	-13	-34.64	-69.24	-58.92	1.68	12.96	V	
	7010	-45.95	-13	-32.95	-71.72	-56.11	1.73	11.88	V	
									V	

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

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FAX: 886-3-328-4978 E-mail: Alex@sporton.com.tw

WCDMA 1900

Report No.: FG190337A

WCDMA 1900										
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	
	3708	-52.56	-13	-39.56	-71.13	-63.77	1.41	12.62	Н	
	5557	-48.11	-13	-35.11	-71	-59.67	1.74	13.30	Н	
	7410	-44.32	-13	-31.32	-71.28	-53.62	1.94	11.24	Н	
Lowest									Н	
Lowest	3708	-52.22	-13	-39.22	-70.94	-63.43	1.41	12.62	V	
	5557	-48.14	-13	-35.14	-70.58	-59.70	1.74	13.30	V	
	7410	-44.42	-13	-31.42	-71.23	-53.72	1.94	11.24	V	
									V	
	3762	-52.16	-13	-39.16	-70.86	-63.39	1.43	12.66	Н	
	5640	-47.11	-13	-34.11	-70.06	-58.68	1.73	13.30	Н	
	7518	-44.93	-13	-31.93	-71.42	-54.04	1.99	11.10	Н	
NA: Jalla									Н	
Middle	3762	-52.37	-13	-39.37	-71.29	-63.60	1.43	12.66	V	
	5640	-48.29	-13	-35.29	-70.83	-59.86	1.73	13.30	V	
	7518	-45.04	-13	-32.04	-71.49	-54.15	1.99	11.10	V	
									V	
	3816	-52.44	-13	-39.44	-71.25	-63.69	1.44	12.69	Н	
	5722	-47.53	-13	-34.53	-70.87	-59.10	1.73	13.30	Н	
	7632	-45.19	-13	-32.19	-71.26	-54.31	2.01	11.13	Н	
l link oot									Н	
Highest	3816	-52.34	-13	-39.34	-71.39	-63.59	1.44	12.69	V	
	5722	-45.32	-13	-32.32	-68.04	-56.89	1.73	13.30	V	
	7632	-45.46	-13	-32.46	-71.44	-54.58	2.01	11.13	V	
									V	

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

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