

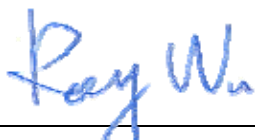
FCC Test Report

EQUIPMENT : Mobile Computer
BRAND NAME : Symbol
MODEL NAME : FR6876
FCC ID : H9PFR6876
STANDARD : FCC Part 15 Subpart C §15.247
CLASSIFICATION : Digital Transmission System (DTS)
APPLICANT : Symbol Technologies, Inc., A Motorola Company
230 Victoria Street #12-06/10 Bugis Junction Office Tower
Singapore 188024

The product sample received on Oct. 31, 2008 and completely tested on Mar. 28, 2009. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.4-2003 and shown the compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by:



Roy Wu / Manager



SPORTON INTERNATIONAL INC.

No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.



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SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	A8.2(a)	6dB Bandwidth	$\geq 0.5\text{MHz}$	Pass	-
3.2	15.247(b)	A8.4	Power Output	$\leq 30\text{dBm}$	Pass	-
3.3	15.247(d)	A8.5	Frequency Band Edges	$\leq 20\text{dBc}$	Pass	-
3.4	15.247(e)	A8.2(b)	Power Spectral Density	$\leq 8\text{dBm}$	Pass	-
3.5	15.207	Gen 7.2.2	AC Conducted Emission	15.207(a)	Pass	Under limit 13.3 dB at 0.742 MHz
3.6	15.247(d)	A8.5	Transmitter Radiated Emission	15.209(a) & 15.247(d)	Pass	Under limit 6.01 dB at 2389.99 MHz
3.7	15.203 & 15.247(b)	A8.4	Antenna Requirement	N/A	Pass	-



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR8O3106-01A	Rev. 01	Initial issue of report	Apr. 09, 2009

1 General Description

1.1 Applicant

Symbol Technologies, Inc., A Motorola Company

230 Victoria Street #12-06/10 Bugis Junction Office Tower Singapore 188024

1.2 Manufacturer

Inventec Appliances Corp.

No. 37, Wugong 5th Road, Wugu Industrial Park, Taipei Country 248, Taiwan, R.O.C.

1.3 Feature of Equipment Under Test

Product Feature & Specification	
Equipment	Mobile Computer
Brand Name	Symbol
Model Name	FR6876
Tx/Rx Frequency Range	2400 MHz ~ 2483.5 MHz
Number of Channels	11
Carrier Frequency of Each Channel	$2412+(n-1)*5$ MHz; $n=1\sim11$
Channel Spacing	5 MHz
Maximum Output Power to Antenna	802.11b : 16.16 dBm 802.11g : 15.34 dBm
Antenna Type	PIFA Antenna with gain -4 dBi
Type of Antenna Connector	N/A
HW Version	DVT
SW Version	Modem: 0029-010709-M OS: EDA-DVT1-0.20.0039-011409-WWE-H
Type of Modulation	802.11b : DSSS (BPSK / QPSK / CCK) 802.11g : OFDM (BPSK / QPSK / 16QAM / 64QAM)
EUT Stage	Identical Prototype

Accessories List:

Specification of Accessory		
Cradle	Brand Name	Symbol
	Model Name	CRD7X00-1
	Power Rating	12Vdc, 3.33A
Cradle Adapter	Brand Name	HIPRO
	Model Name	HP-O2040D43
	Power Rating	I/P: 100-240Vac, 50-60Hz, 1.5A; O/P: 12Vdc, 3.33A
	Power Cord Type	1.8 meter shielded cable with ferrite core
Product Charging Adapter	Brand Name	MOTOROLA
	Model Name	EADP-16BB A
	Power Rating	I/P: 100-240Vac, 50-60Hz, 0.4A; O/P: 5.4Vdc, 3A
	Power Cord Type	1.83 meter shielded cable with ferrite core
Product Charging Cable 1	Brand Name	MOTOROLA
	Model Name	25-102775-01R
	Power Rating	I/P: 5.4V, 3A
	Type	1.35 meter non-shielded cable with ferrite core
Product Charging Cable 2	Brand Name	MOTOROLA
	Model Name	25-118703-01R
	Power Rating	I/P: 5.4V, 3A
	Type	1.35 meter non-shielded cable with ferrite core
Battery 1	Brand Name	MOTOROLA
	Part Number	82-71364-04
	Power Rating	3.7Vdc, 1950mAh
	Type	Li-ion
Battery 2	Brand Name	MOTOROLA
	Part Number	82-71364-05
	Power Rating	3.7Vdc, 3600mAh
	Type	Li-ion
Earphone	Brand Name	Symbol
	Part Number	90-17C28-001R
	Signal Line Type	1.24 meter non-shielded cable without ferrite core
USB Cable	Brand Name	MOTOROLA
	Part Number	25-68596-01R
	Type	1.69 meter shielded cable without ferrite core

Remark:

1. Product Charging Cable 1 (P/N: 25-102775-01R) and Product Charging Cable 2 (P/N: 25-118703-01R) are exactly the same which was declared by the manufacturer, and only Product Charging Cable 1 (P/N: 25-102775-01R) was performed on all the tests.
2. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
3. For accessories equipped with this EUT, please refer to the appendix of the external photo.
4. This test report recorded only product characteristics and test results of Digital Transmission System (DTS).

1.4 Testing Site

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C TEL: +886-3-3273456 / FAX: +886-3-3284978		
Test Site No.	Sporton Site No.		FCC/IC Registration No.
	CO05-HY	03CH07-HY	TW1022/4086B-1

1.5 Applied Standards

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

- FCC Part 15 Subpart C §15.247
- FCC KDB Publication No. 558074 (Measurement Guidelines of DTS)
- ANSI C63.4-2003
- IC RSS-210 Issue 7

Remark:

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

1.6 Ancillary Equipment List

Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
System Simulator	R&S	CMU200	N/A	N/A	Unshielded, 1.8 m
WLAN AP	D-Link	DWL-7100AP	KA22003040018-1	N/A	Unshielded, 1.8 m
WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
BT Base Station	Anritsu	8852B	N/A	N/A	Unshielded, 1.8 m
GPS Station	SPIRENT	GSS4200	N/A	N/A	Unshielded, 1.8 m
Notebook	DELL	Vostro 1510	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
LCD Monitor	Lenovo	6135-AB1	FCC DoC	N/A	Unshielded, 1.8m
Bluetooth Earphone	Nokia	BH-100	PYA1YH	N/A	N/A
i-pod	Apple	A1199	FCC DoC	Shielded, 1.0 m	N/A

2 Test Configuration of Equipment Under Test

2.1 Pre-Scanned RF Power

Preliminary tests were performed in different data rate and recorded the RF power output in the following table:

802.11b

Channel	Frequency (MHz)	RF Power (dBm)			
		2.4GHz 802.11b Data Rate			
		1 Mbps	2 Mbps	5.5 Mbps	11 Mbps
CH 01	2412 MHz	14.15	13.66	13.60	13.59
CH 06	2437 MHz	15.33	15.77	15.35	15.30
CH 11	2462 MHz	13.97	14.00	13.95	13.95

802.11g

Channel	Frequency (MHz)	RF Power (dBm)							
		2.4GHz 802.11g Data Rate							
		6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 01	2412 MHz	11.00	11.66	11.69	12.12	12.30	12.05	12.03	11.97
CH 06	2437 MHz	12.39	12.79	13.24	13.32	12.69	13.11	13.20	13.38
CH 11	2462 MHz	10.73	11.59	11.56	12.07	10.69	11.47	11.44	11.89

Remark:

1. The EUT is programmed to transmit signal continuously for all testing.
2. For WLAN RF power, the pre-scanned RF power was measured by power meter.
3. The 802.11b data rates were set in 2Mbps and 802.11g data rates were set in 54Mbps for all the test cases, due to the highest RF output power.

2.2 Test Mode

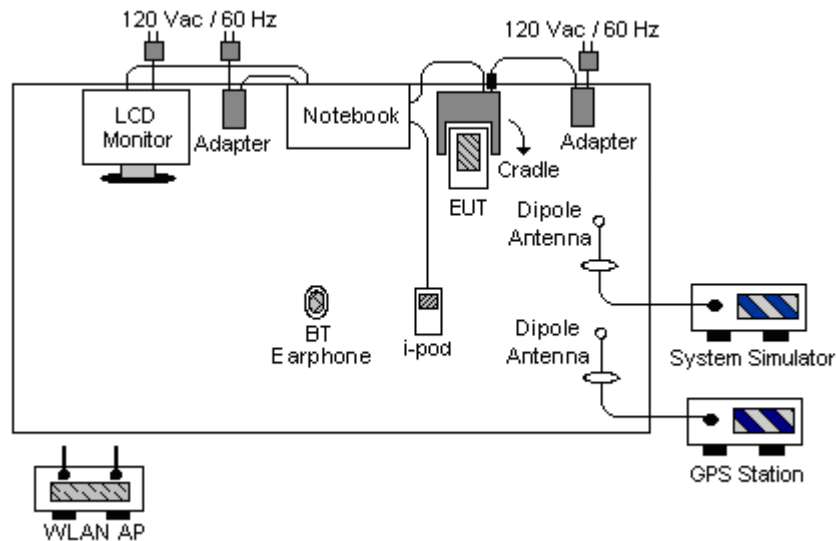
The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conducted emission (150 kHz to 30 MHz), radiated emission (30 MHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). Pre-scanned tests were conducted to determine the final configuration from all possible combinations. The following tables are showing the test modes as the worst cases and recorded in this report.

Test Cases		
Test Item	Modulation	
	802.11b DSSS	802.11g OFDM
Conducted TCs	■ Mode 1: CH01_2412 MHz ■ Mode 2: CH06_2437 MHz ■ Mode 3: CH11_2462 MHz	■ Mode 4: CH01_2412 MHz ■ Mode 5: CH06_2437 MHz ■ Mode 6: CH11_2462 MHz
Radiated TCs	■ Mode 1: CH01_2412 MHz + Battery 1 ■ Mode 2: CH06_2437 MHz + Battery 1 ■ Mode 3: CH11_2462 MHz + Battery 1	■ Mode 4: CH01_2412 MHz + Battery 1 ■ Mode 5: CH06_2437 MHz + Battery 1 ■ Mode 6: CH11_2462 MHz + Battery 1 ■ Mode 7: CH01_2412 MHz + Battery 2
AC Conducted Emission	■ Mode 1 : GSM 850 Idle + GPS Rx + BT Link + WLAN Link + Cradle + Adapter + USB Cable + Battery 1 ■ Mode 2 : GSM 850 Idle + GPS Rx + BT Link + WLAN Link + Earphone + USB Charging Cable with AC Power + Battery 1 ■ Mode 3 : WCDMA Band V Idle + GPS Rx + BT Link + WLAN Link + Cradle + Adapter + USB Cable + Battery 1 ■ Mode 4 : WCDMA Band V Idle + GPS Rx + BT Link + WLAN Link + Cradle + Adapter + USB Cable + Battery 2	

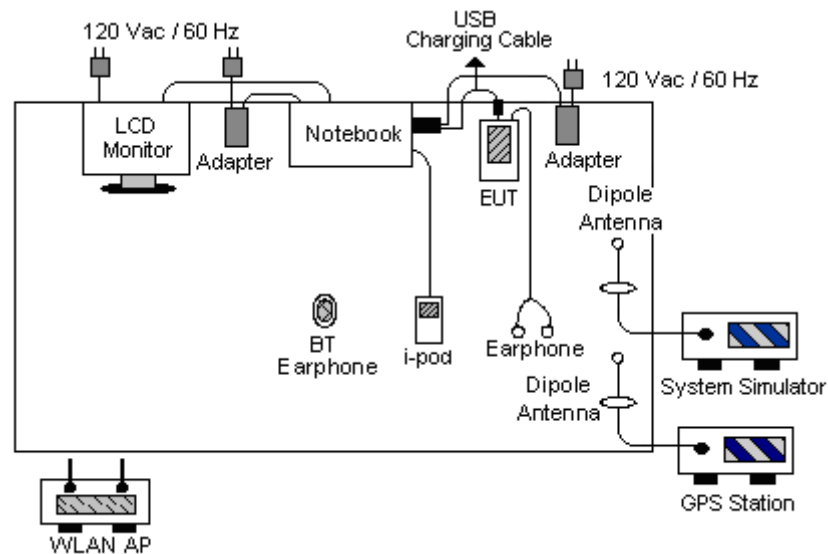
2.3 Connection Diagram of Test System

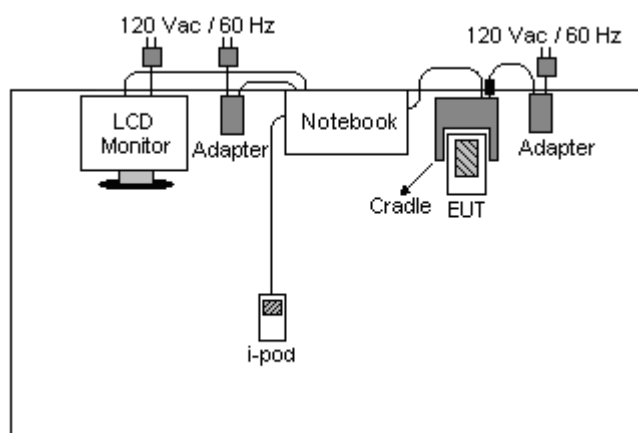
<Conducted Emission>

EUT with Cradle and Adapter Mode



EUT with USB Charging Cable with AC Power Mode



<Radiated Emission>


2.4 RF Utility

The programmed RF utility "My lab tool_0521" installed in EUT to provide channel selection, power level, data rate and the application type. RF utility can send transmitting signal for all testing. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

3 Test Result

3.1 6dB Bandwidth Measurement

3.1.1 Limit of 6dB Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

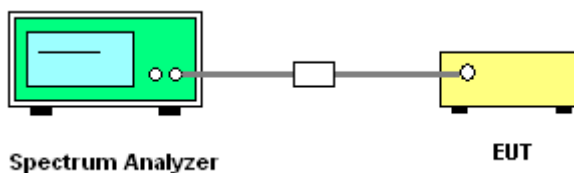
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz.
In order to make an accurate measurement, set the span greater than RBW. The 6 dB bandwidth must be greater than 500 kHz.
4. The marker-delta reading at this point is the 6 dB bandwidth of the emission.

3.1.4 Test Setup



3.1.5 Test Result of 6dB Bandwidth

Test Mode :	Mode 1, 2, 3	Temperature :	23~24
Test Engineer :	Eric Huang	Relative Humidity :	44~45%

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	10.08	0.5	Pass
06	2437	10.12	0.5	Pass
11	2462	10.08	0.5	Pass

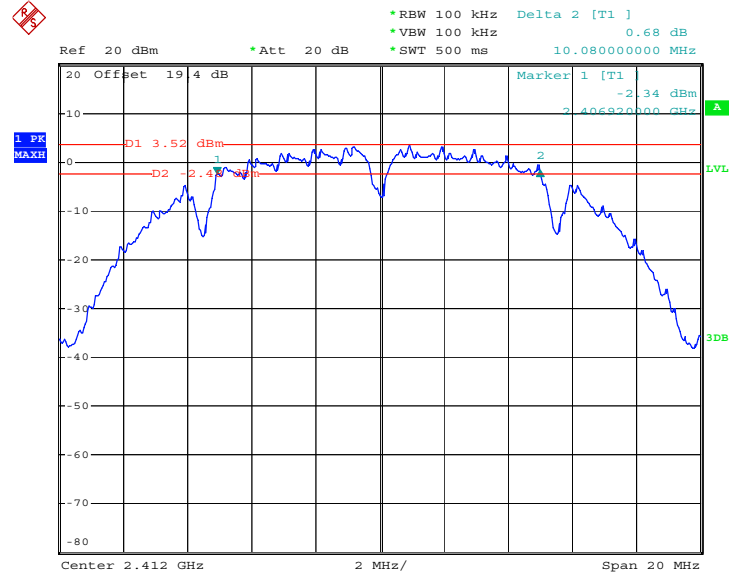
Test Mode :	Mode 4, 5, 6	Temperature :	23~24
Test Engineer :	Eric Huang	Relative Humidity :	44~45%

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	16.52	0.5	Pass
06	2437	16.52	0.5	Pass
11	2462	16.48	0.5	Pass



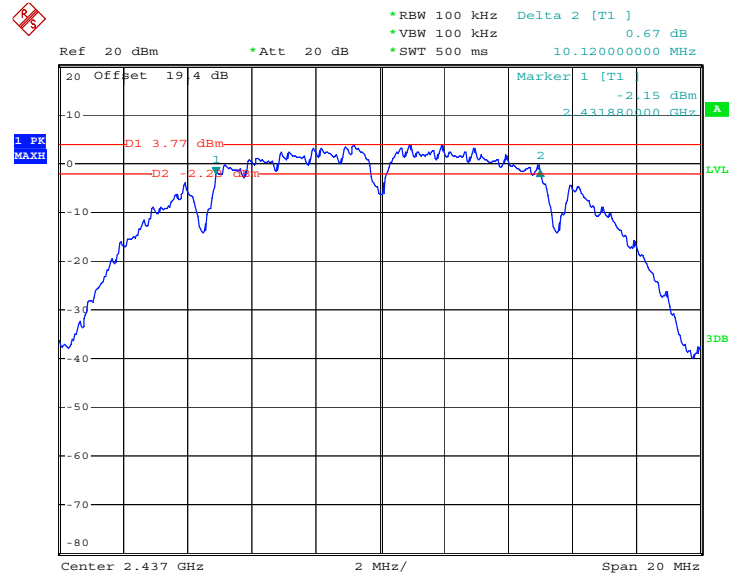
3.1.6 Test Result of 6dB Bandwidth Plots

Mode 1 : 6 dB Bandwidth Plot on 802.11b Channel 01



Date: 26.MAR.2009 14:12:43

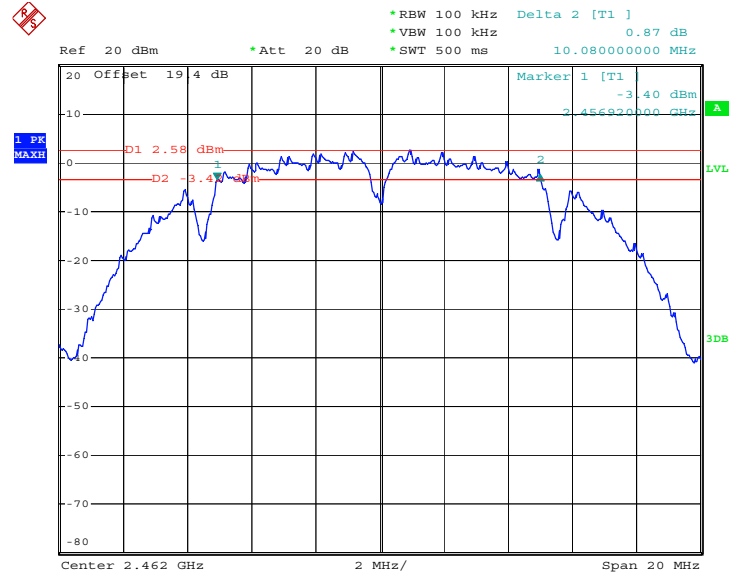
Mode 2 : 6 dB Bandwidth Plot on 802.11b Channel 06



Date: 25.MAR.2009 21:34:09

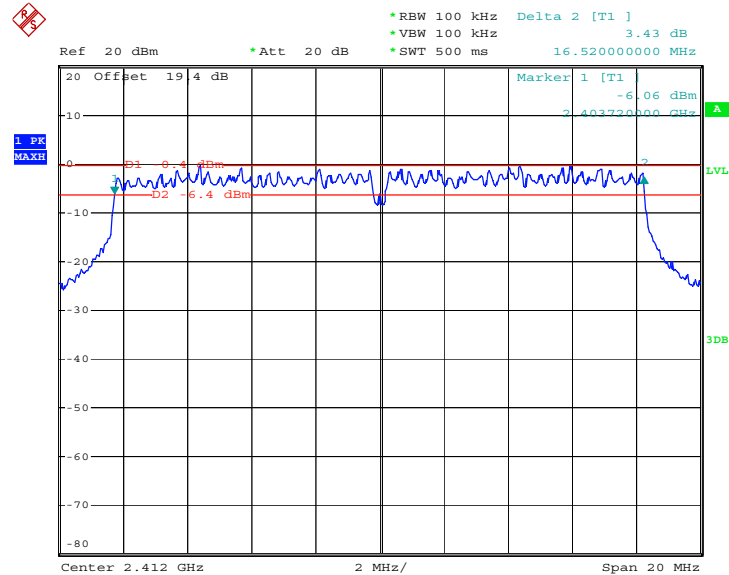


Mode 3 : 6 dB Bandwidth Plot on 802.11b Channel 11



Date: 25.MAR.2009 19:43:51

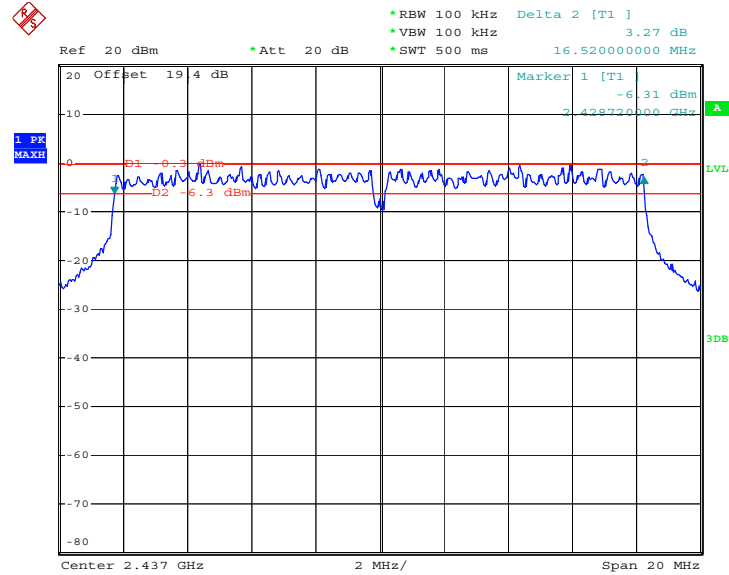
Mode 4 : 6 dB Bandwidth Plot on 802.11g Channel 01



Date: 25.MAR.2009 19:35:28

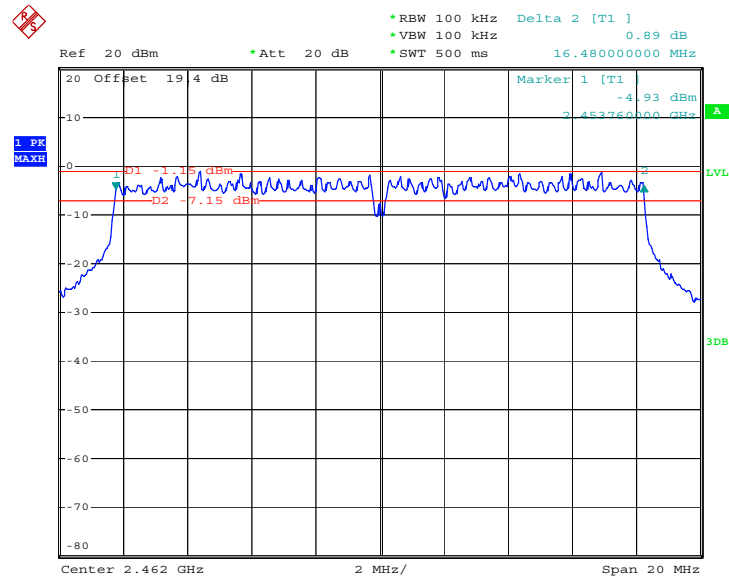


Mode 5 : 6 dB Bandwidth Plot on 802.11g Channel 06



Date: 25.MAR.2009 19:37:53

Mode 6 : 6 dB Bandwidth Plot on 802.11g Channel 11



Date: 25.MAR.2009 19:39:08

3.2 Output Power Measurement

3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm. If transmitting antenna of directional gain greater than 6dBi are used the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

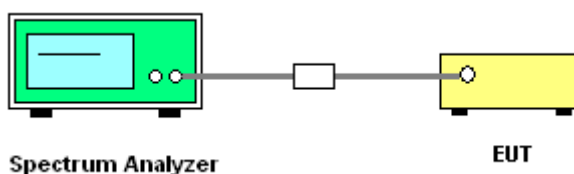
3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Measure the power by spectrum analyzer.

3.2.4 Test Setup



3.2.5 Test Result of Output Power

Test Mode :	Mode 1, 2, 3	Temperature :	23~24
Test Engineer :	Eric Huang	Relative Humidity :	44~45%

Channel	Frequency (MHz)	Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	15.13	30	Pass
06	2437	16.16	30	Pass
11	2462	14.99	30	Pass

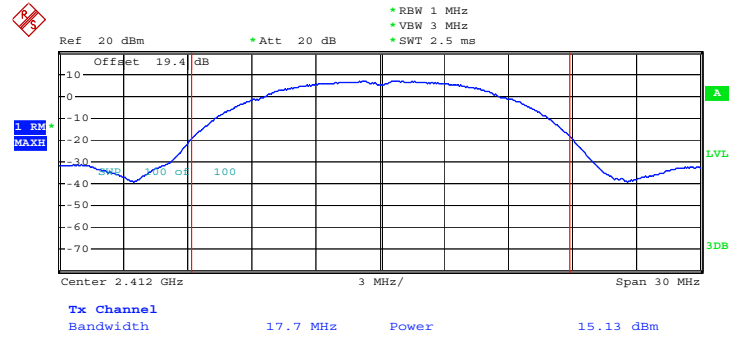
Test Mode :	Mode 4, 5, 6	Temperature :	23~24
Test Engineer :	Eric Huang	Relative Humidity :	44~45%

Channel	Frequency (MHz)	Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	14.92	30	Pass
06	2437	15.34	30	Pass
11	2462	14.05	30	Pass



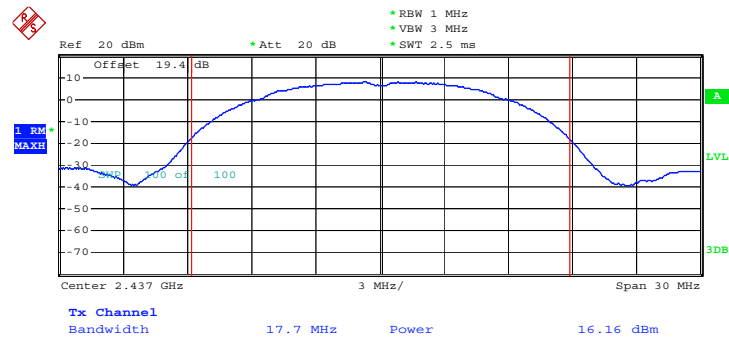
3.2.6 Test Result of Output Power Plots

Mode 1 : Output Power Plot on 802.11b Channel 01



Date: 25.MAR.2009 21:37:59

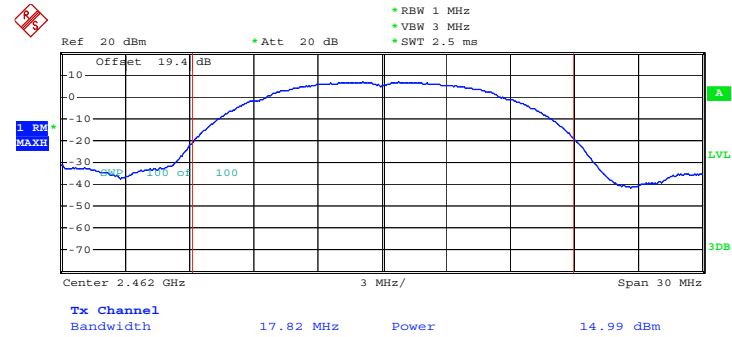
Mode 2 : Output Power Plot on 802.11b Channel 06



Date: 25.MAR.2009 21:38:58

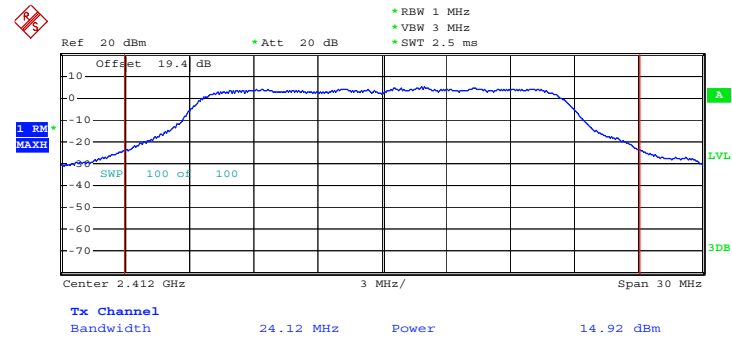


Mode 3 : Output Power Plot on 802.11b Channel 11



Date: 25.MAR.2009 21:39:36

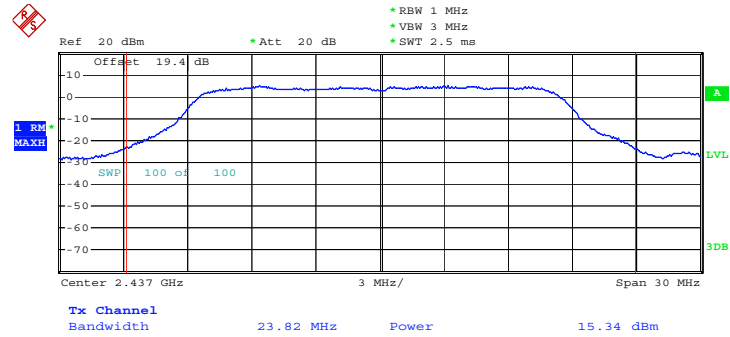
Mode 4 : Output Power Plot on 802.11g Channel 01



Date: 25.MAR.2009 22:50:24

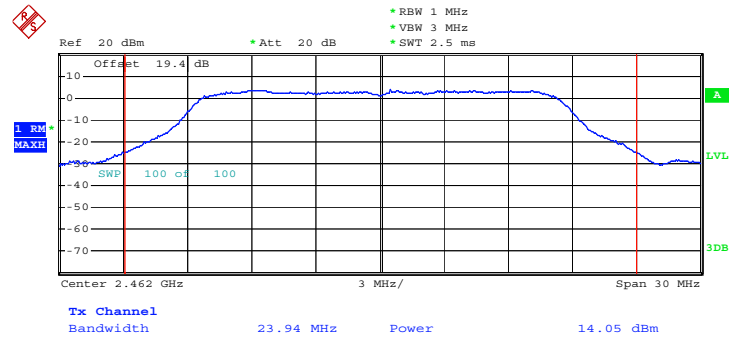


Mode 5 : Output Power Plot on 802.11g Channel 06



Date: 25.MAR.2009 22:51:35

Mode 6 : Output Power Plot on 802.11g Channel 11



Date: 25.MAR.2009 22:52:26

3.3 Band Edges Measurement

3.3.1 Limit of Band Edges

In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB.

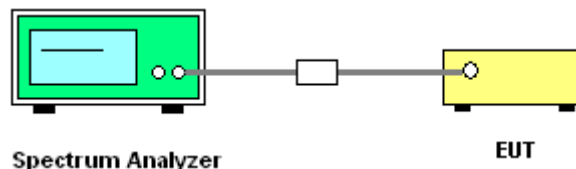
3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

1. The testing follows the guidelines in ANSI C63.4-2003 and FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. Conducted emission test: Set RBW = 100 kHz, Video bandwidth (VBW) > RBW, scan up through 10th harmonic. Band edge emissions must be at least 20 dB below the highest emission level within the authorized band as measured with a 100 kHz RBW. Note: If the output power of this device was measured by power meter, the attenuation under this paragraph shall be 30 dB instead of 20 dB.
3. Radiated emission test: Apply to band edge emissions that fall in the restricted bands listed in FCC Section 15.205. The maximum permitted average field strength is listed in FCC Section 15.209. A pre-amp is necessary for this measurement. For measurements above 1 GHz, set RBW = 1MHz, VBW = 10 Hz, Sweep=Auto. If the emission is pulsed, modify the unit for continuous operation; use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation as in FCC Section 15.35(b) and (c).

3.3.4 Test Setup



3.3.5 Test Result of Radiated Band Edges

Test Mode :	Mode 1	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2385.81	57.08	-16.92	74.00	53.99	32.02	5.46	34.38	100	351	Peak
2385.81	47.91	-6.09	54.00	44.82	32.02	5.46	34.38	100	351	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2385.81	56.39	-17.61	74.00	53.30	32.02	5.46	34.38	116	64	Peak
2385.81	47.33	-6.67	54.00	44.24	32.02	5.46	34.38	116	64	Average

Test Mode :	Mode 3	Temperature :	24~25°C
Test Channel :	11	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2486.89	47.51	-26.49	74.00	44.44	32.09	5.38	34.40	100	11	Peak
2486.89	35.13	-18.87	54.00	32.06	32.09	5.38	34.40	100	11	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2487.65	45.65	-28.35	74.00	42.58	32.09	5.38	34.40	103	236	Peak
2487.65	33.06	-20.94	54.00	29.99	32.10	5.37	34.40	103	236	Average



Test Mode :	Mode 4	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.61	64.70	-9.30	74.00	61.61	32.02	5.46	34.38	100	352	Peak
2389.61	47.95	-6.05	54.00	44.86	32.02	5.46	34.38	100	352	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.61	64.29	-9.71	74.00	61.20	32.02	5.46	34.38	104	247	Peak
2389.61	47.62	-6.38	54.00	44.53	32.02	5.46	34.38	104	247	Average

Test Mode :	Mode 6	Temperature :	24~25°C
Test Channel :	11	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang		

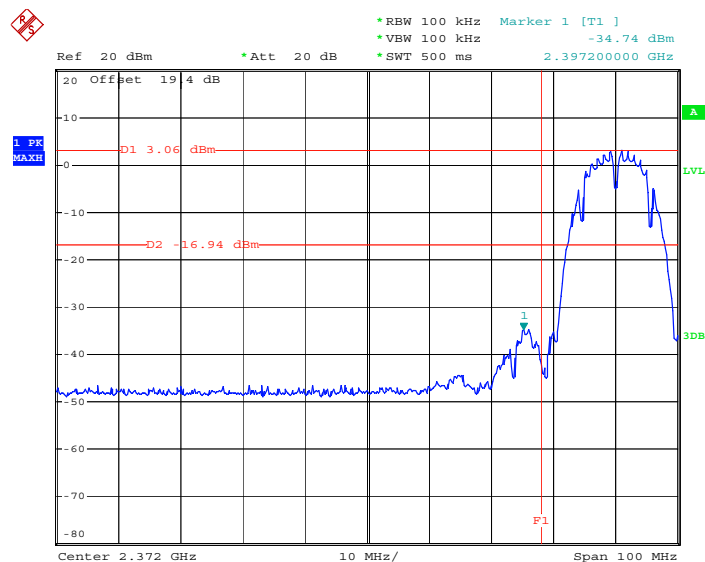
ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.50	51.28	-22.72	74.00	48.21	32.09	5.38	34.40	100	8	Peak
2483.50	35.27	-18.73	54.00	32.20	32.09	5.38	34.40	100	8	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.50	48.14	-25.86	74.00	45.07	32.09	5.38	34.40	141	45	Peak
2483.50	34.57	-19.43	54.00	31.50	32.09	5.38	34.40	141	45	Average

3.3.6 Test Result of Conducted Band Edges

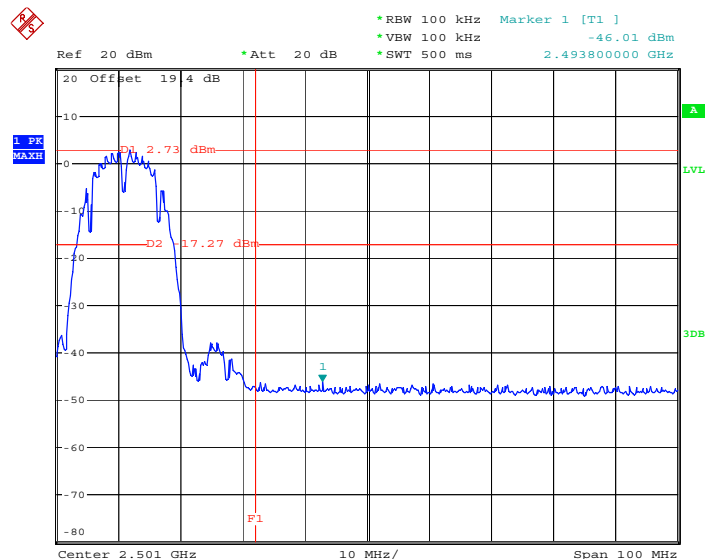
Test Mode :	Mode 1 and 3	Temperature :	23~24
Test Channel :	01, 11	Relative Humidity :	44~45%
Test Engineer :	Eric Huang		

Low Band Edge Plot on 802.11b Channel 01



Date: 25.MAR.2009 19:45:53

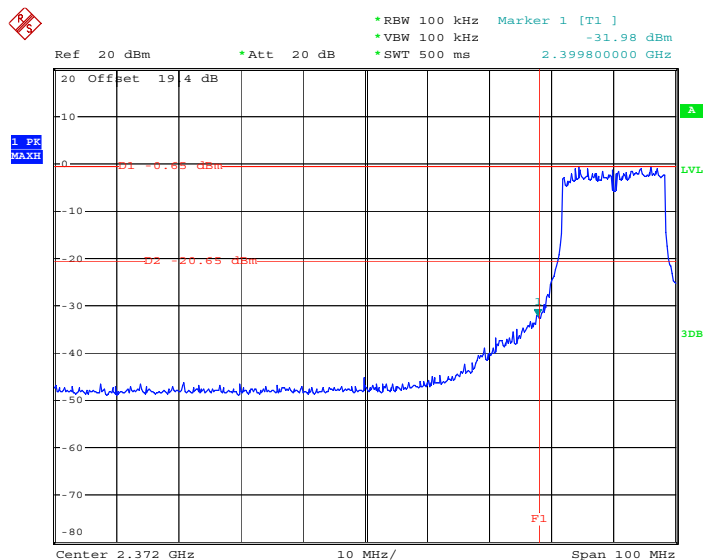
High Band Edge Plot on 802.11b Channel 11



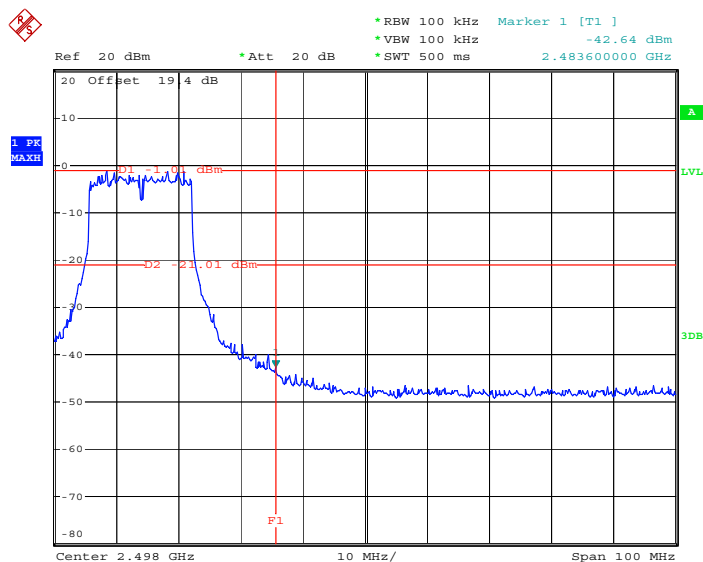
Date: 25.MAR.2009 19:46:43



Test Mode :	Mode 4 and 6	Temperature :	23~24
Test Channel :	01, 11	Relative Humidity :	44~45%
Test Engineer :	Eric Huang		

Low Band Edge Plot on 802.11g Channel 01

Date: 25.MAR.2009 19:49:15

High Band Edge Plot on 802.11g Channel 11

Date: 26.MAR.2009 14:22:59

3.4 Power Spectral Density Measurement

3.4.1 Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.

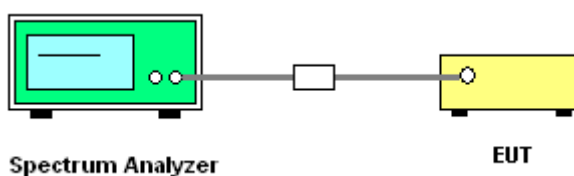
3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

1. The test follows FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Take the measured data from spectrum analyzer.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Test Mode :	Mode 1, 2, 3	Temperature :	23~24
Test Engineer :	Eric Huang	Relative Humidity :	44~45%

Channel	Frequency (MHz)	Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	-10.09	8	Pass
06	2437	-8.69	8	Pass
11	2462	-10.22	8	Pass

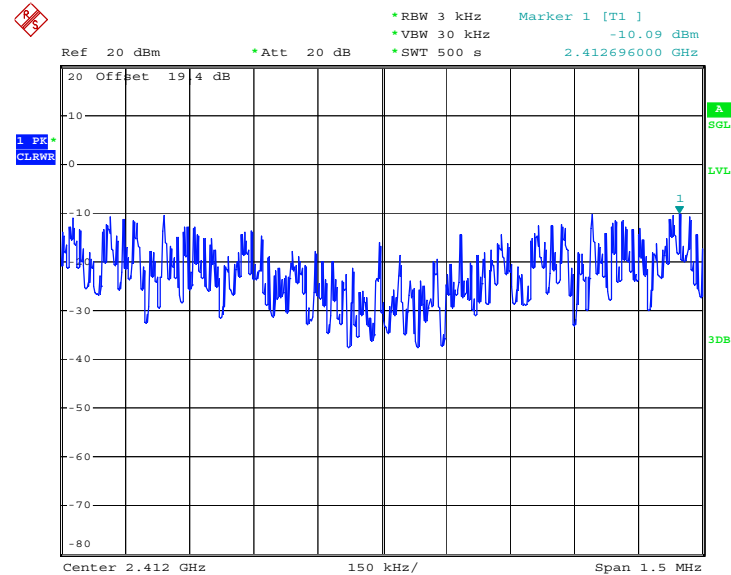
Test Mode :	Mode 4, 5, 6	Temperature :	23~24
Test Engineer :	Eric Huang	Relative Humidity :	44~45%

Channel	Frequency (MHz)	Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	-10.19	8	Pass
06	2437	-9.42	8	Pass
11	2462	-14.64	8	Pass



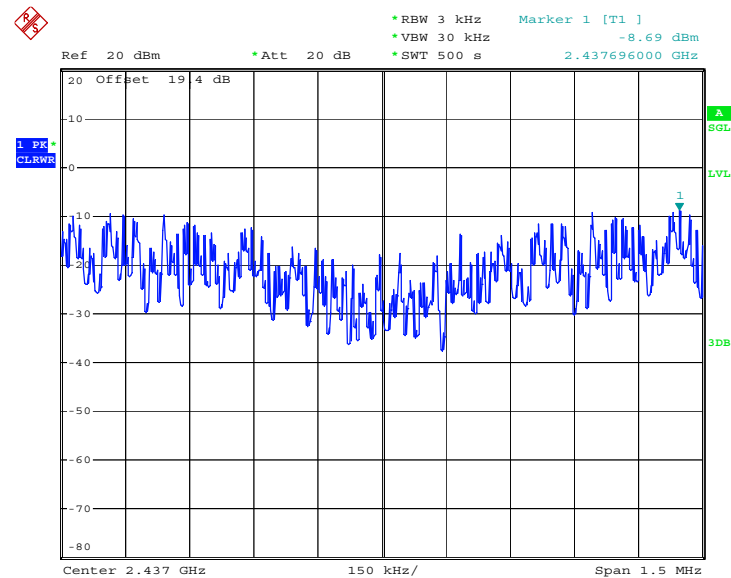
3.4.6 Test Result of Power Spectral Density Plots

Mode 1 : PSD Plot on 802.11b Channel 01



Date: 25.MAR.2009 22:30:08

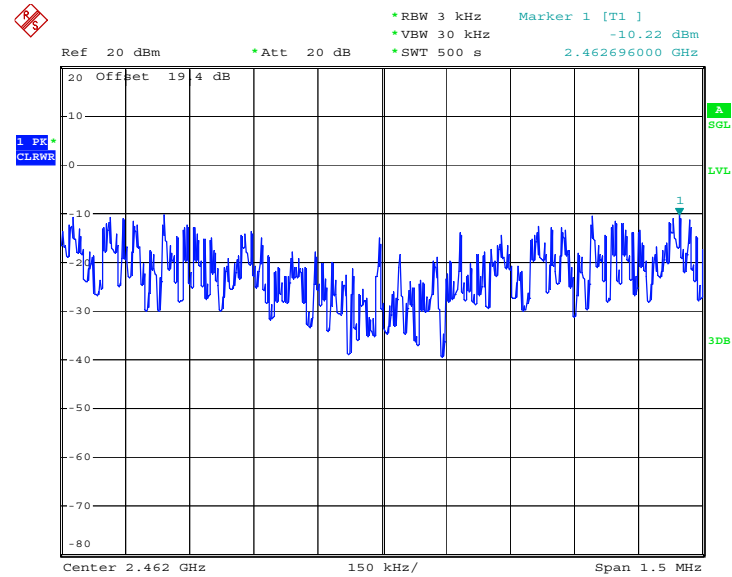
Mode 2 : PSD Plot on 802.11b Channel 06



Date: 25.MAR.2009 22:38:57

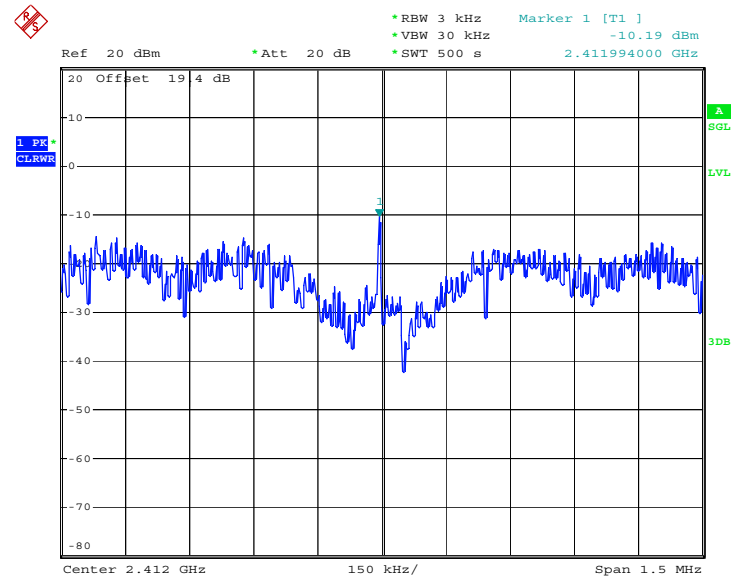


Mode 3 : PSD Plot on 802.11b Channel 11



Date: 25.MAR.2009 22:47:49

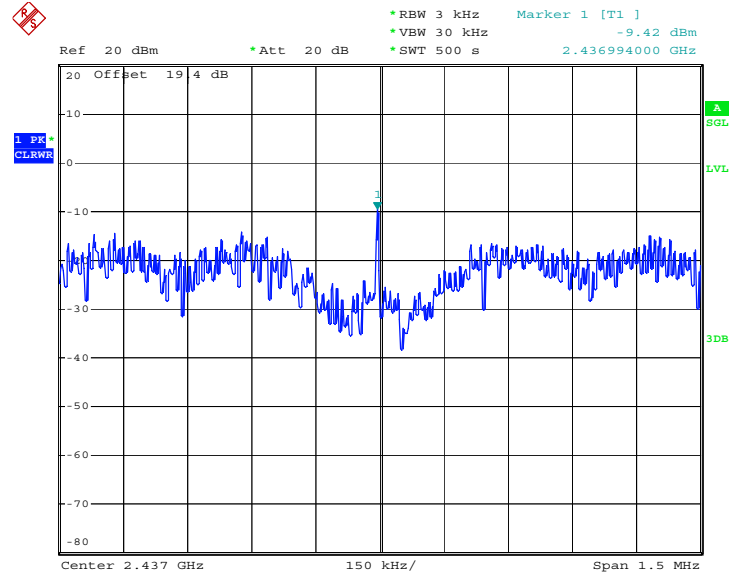
Mode 4 : PSD Plot on 802.11g Channel 01



Date: 25.MAR.2009 21:52:18

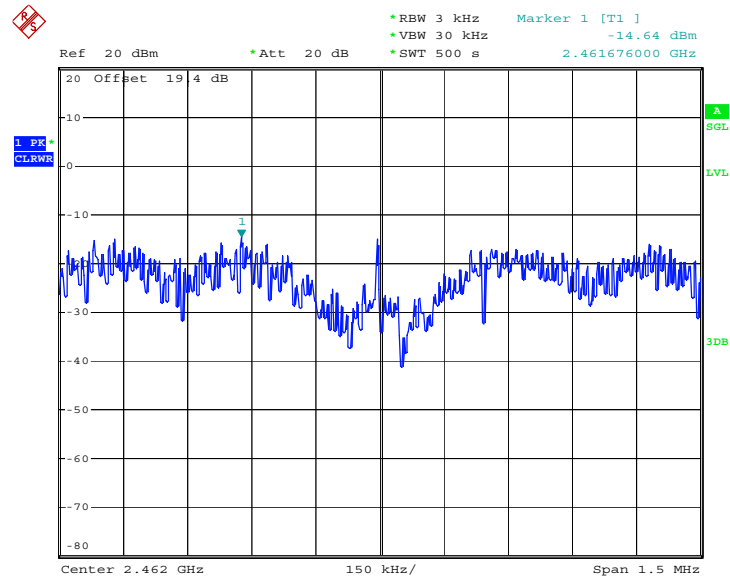


Mode 5 : PSD Plot on 802.11g Channel 06



Date: 25.MAR.2009 22:01:13

Mode 6 : PSD Plot on 802.11g Channel 11



Date: 25.MAR.2009 22:10:14

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

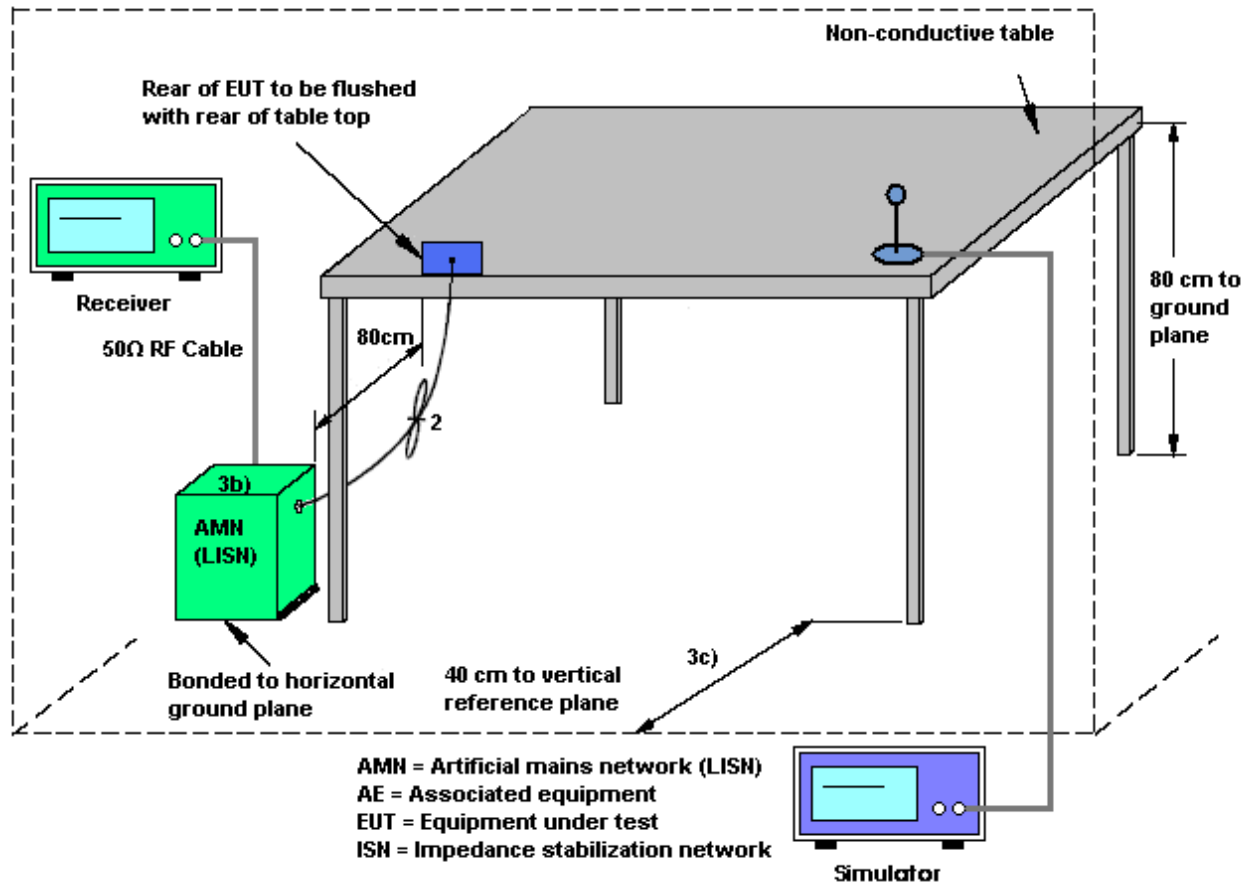
3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

3.5.3 Test Procedures

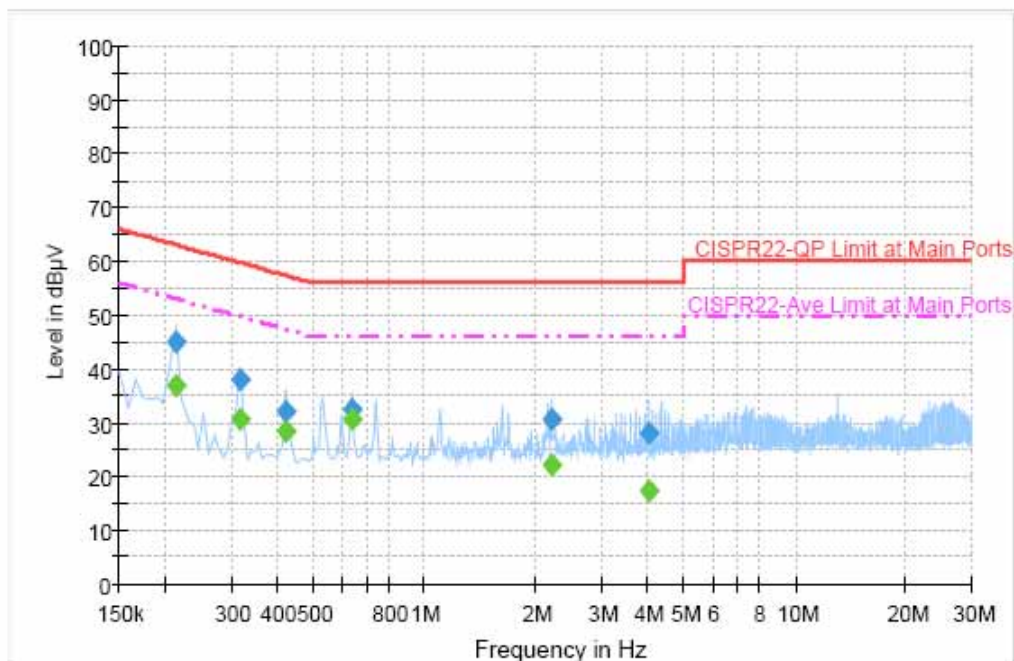
1. The testing follows the guidelines in ANSI C63.4-2003.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance stabilization network (LISN).
4. All the support units are connecting to the other LISN.
5. The LISN provides 50 ohm coupling impedance for the measuring instrument.
6. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
7. Both sides of AC line were checked for maximum conducted interference.
8. The frequency range from 150 kHz to 30 MHz was searched.
9. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	23~24
Test Engineer :	Cona Huang	Relative Humidity :	40~41%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM 850 Idle + GPS Rx + BT Link + WLAN Link + Cradle + Adapter + USB Cable + Battery 1		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

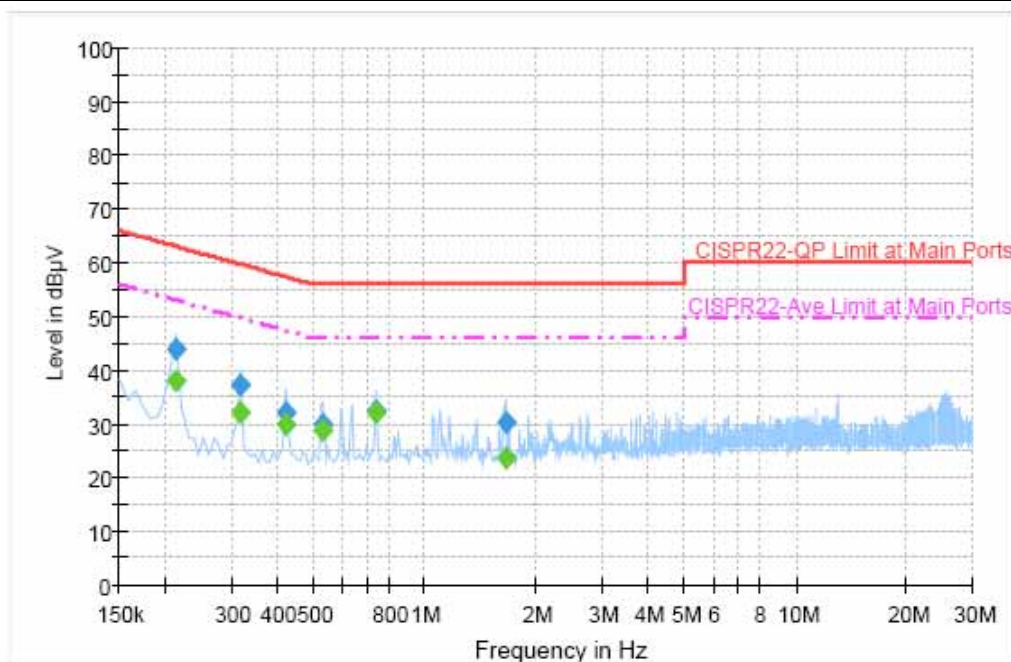

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.214000	45.1	Off	L1	19.3	17.9	63.0
0.318000	37.9	Off	L1	19.3	21.9	59.8
0.422000	32.1	Off	L1	19.4	25.3	57.4
0.638000	32.5	Off	L1	19.4	23.5	56.0
2.198000	30.7	Off	L1	19.5	25.3	56.0
4.030000	27.9	Off	L1	19.5	28.1	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.214000	36.8	Off	L1	19.3	16.2	53.0
0.318000	30.5	Off	L1	19.3	19.3	49.8
0.422000	28.3	Off	L1	19.4	19.1	47.4
0.638000	30.8	Off	L1	19.4	15.2	46.0
2.198000	22.1	Off	L1	19.5	23.9	46.0
4.030000	17.5	Off	L1	19.5	28.5	46.0

Test Mode :	Mode 1	Temperature :	23~24
Test Engineer :	Cona Huang	Relative Humidity :	40~41%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM 850 Idle + GPS Rx + BT Link + WLAN Link + Cradle + Adapter + USB Cable + Battery 1		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

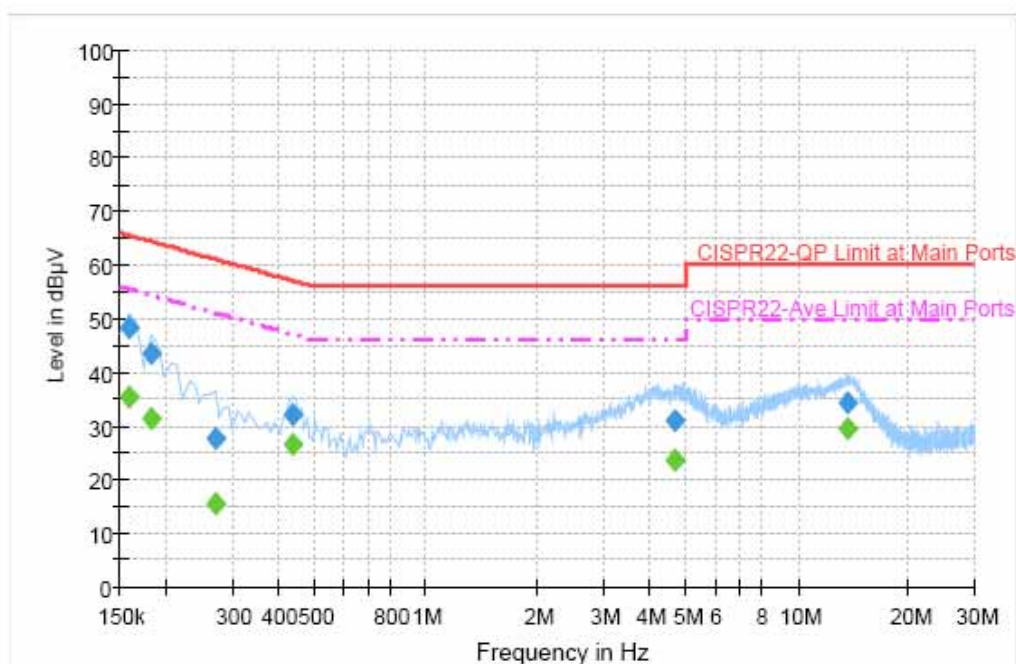

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.214000	44.0	Off	N	19.4	19.0	63.0
0.318000	37.5	Off	N	19.3	22.3	59.8
0.422000	32.2	Off	N	19.4	25.2	57.4
0.534000	29.9	Off	N	19.3	26.1	56.0
0.742000	32.6	Off	N	19.4	23.4	56.0
1.654000	30.1	Off	N	19.5	25.9	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.214000	37.9	Off	N	19.4	15.1	53.0
0.318000	32.3	Off	N	19.3	17.5	49.8
0.422000	29.8	Off	N	19.4	17.6	47.4
0.534000	28.6	Off	N	19.3	17.4	46.0
0.742000	32.0	Off	N	19.4	14.0	46.0
1.654000	23.6	Off	N	19.5	22.4	46.0

Test Mode :	Mode 2	Temperature :	23~24
Test Engineer :	Cona Huang	Relative Humidity :	40~41%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM 850 Idle + GPS Rx + BT Link + WLAN Link + Earphone + USB Charging Cable with AC Power + Battery 1		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

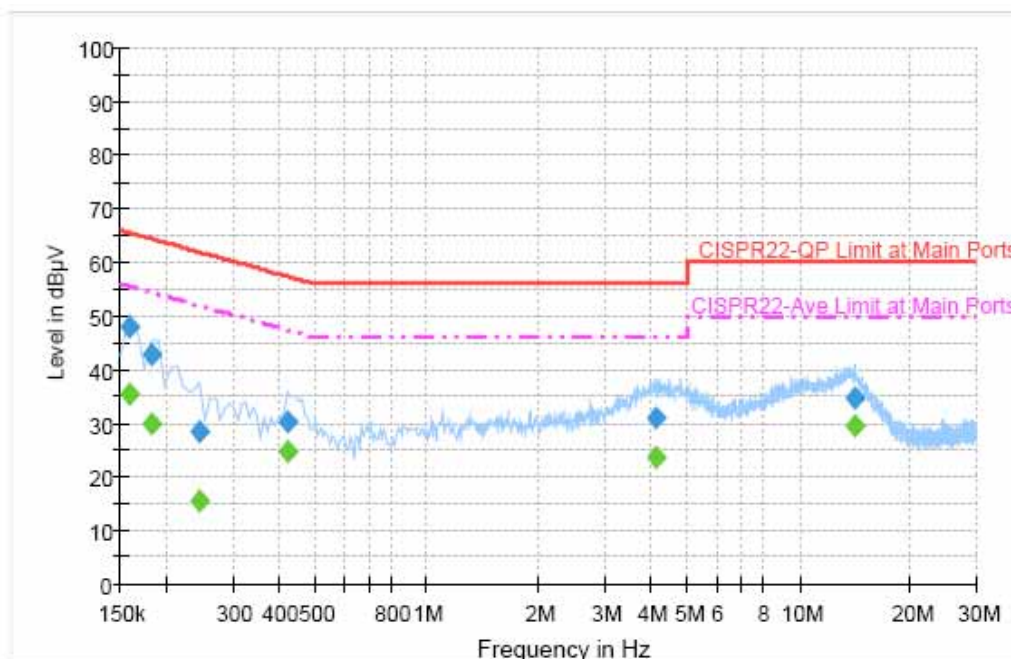

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.158000	48.3	Off	L1	19.3	17.3	65.6
0.182000	43.4	Off	L1	19.4	21.0	64.4
0.270000	27.7	Off	L1	19.3	33.4	61.1
0.438000	32.2	Off	L1	19.4	24.9	57.1
4.686000	31.1	Off	L1	19.5	24.9	56.0
13.614000	34.4	Off	L1	19.7	25.6	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.158000	35.3	Off	L1	19.3	20.3	55.6
0.182000	31.5	Off	L1	19.4	22.9	54.4
0.270000	15.7	Off	L1	19.3	35.4	51.1
0.438000	26.7	Off	L1	19.4	20.4	47.1
4.686000	23.7	Off	L1	19.5	22.3	46.0
13.614000	29.6	Off	L1	19.7	20.4	50.0

Test Mode :	Mode 2	Temperature :	23~24
Test Engineer :	Cona Huang	Relative Humidity :	40~41%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM 850 Idle + GPS Rx + BT Link + WLAN Link + Earphone + USB Charging Cable with AC Power + Battery 1		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

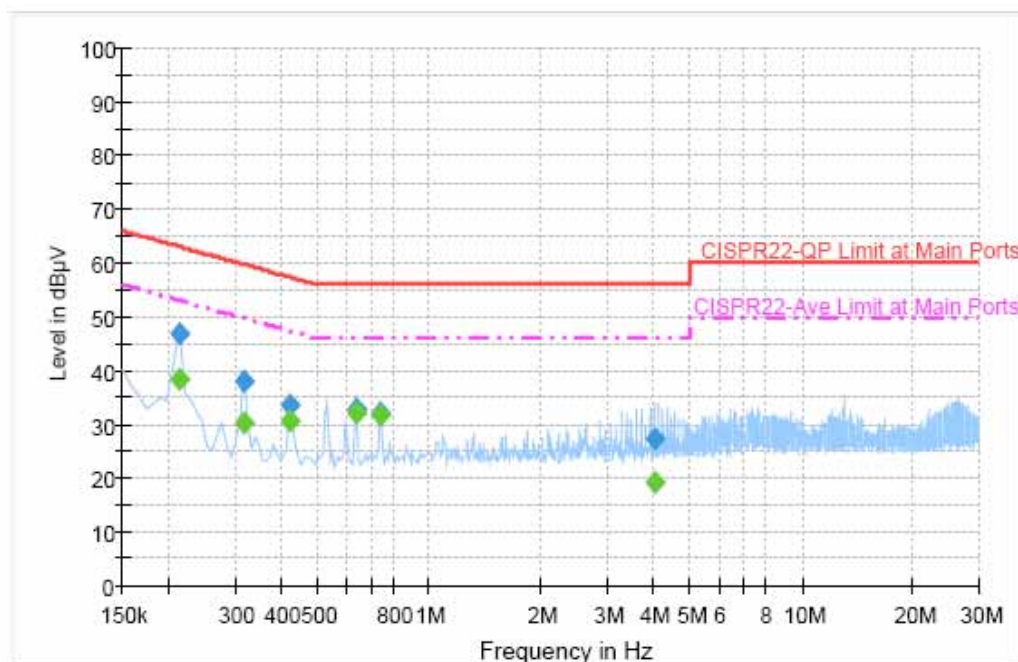

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.158000	47.9	Off	N	19.4	17.7	65.6
0.182000	42.9	Off	N	19.4	21.5	64.4
0.246000	28.5	Off	N	19.4	33.4	61.9
0.422000	30.1	Off	N	19.4	27.3	57.4
4.134000	31.0	Off	N	19.5	25.0	56.0
14.070000	34.6	Off	N	19.7	25.4	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.158000	35.6	Off	N	19.4	20.0	55.6
0.182000	30.0	Off	N	19.4	24.4	54.4
0.246000	15.4	Off	N	19.4	36.5	51.9
0.422000	24.7	Off	N	19.4	22.7	47.4
4.134000	23.7	Off	N	19.5	22.3	46.0
14.070000	29.7	Off	N	19.7	20.3	50.0

Test Mode :	Mode 3	Temperature :	23~24
Test Engineer :	Cona Huang	Relative Humidity :	40~41%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WCDMA Band V Idle + GPS Rx + BT Link + WLAN Link + Cradle + Adapter + USB Cable + Battery 1		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

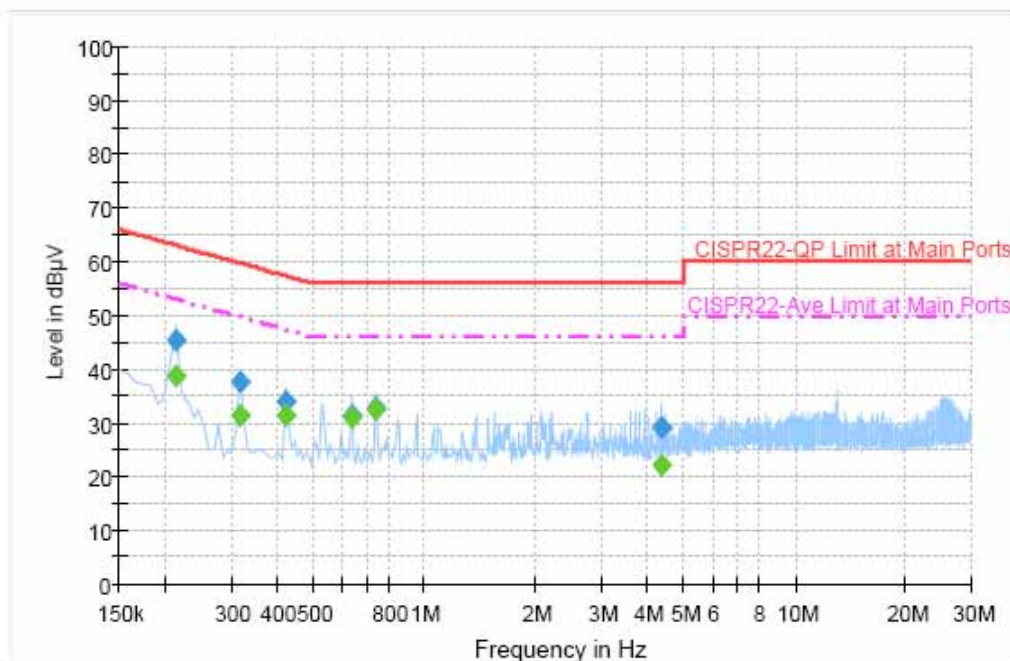

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.214000	46.7	Off	L1	19.3	16.3	63.0
0.318000	38.2	Off	L1	19.3	21.6	59.8
0.422000	33.4	Off	L1	19.4	24.0	57.4
0.638000	33.0	Off	L1	19.4	23.0	56.0
0.742000	32.0	Off	L1	19.4	24.0	56.0
4.030000	27.5	Off	L1	19.5	28.5	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.214000	38.4	Off	L1	19.3	14.6	53.0
0.318000	30.3	Off	L1	19.3	19.5	49.8
0.422000	30.6	Off	L1	19.4	16.8	47.4
0.638000	32.3	Off	L1	19.4	13.7	46.0
0.742000	31.7	Off	L1	19.4	14.3	46.0
4.030000	19.3	Off	L1	19.5	26.7	46.0

Test Mode :	Mode 3	Temperature :	23~24
Test Engineer :	Cona Huang	Relative Humidity :	40~41%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WCDMA Band V Idle + GPS Rx + BT Link + WLAN Link + Cradle + Adapter + USB Cable + Battery 1		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

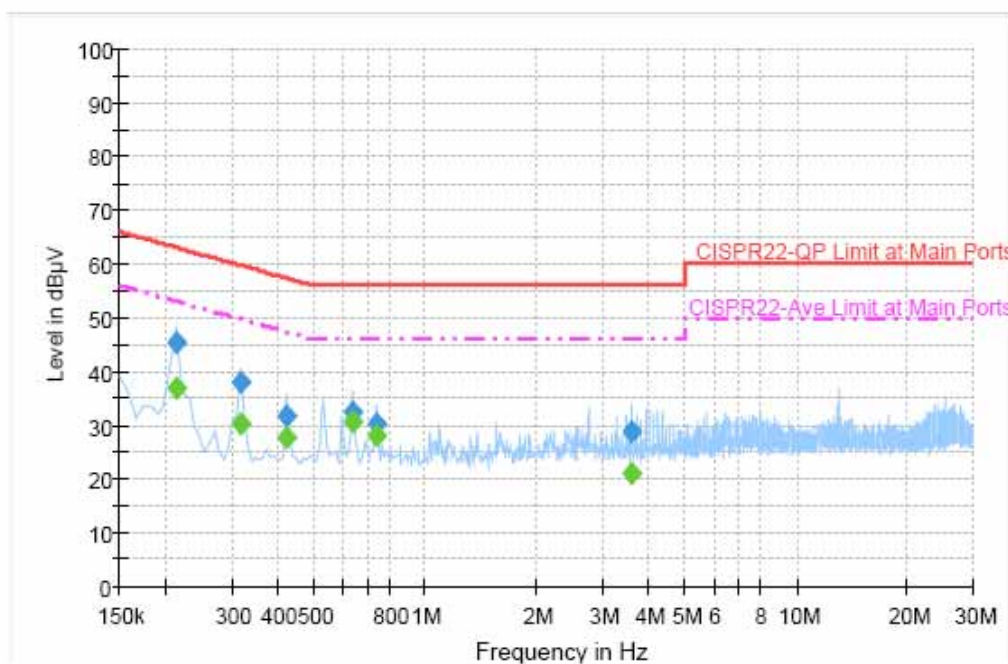

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.214000	45.6	Off	N	19.4	17.4	63.0
0.318000	37.6	Off	N	19.3	22.2	59.8
0.422000	33.9	Off	N	19.4	23.5	57.4
0.638000	31.5	Off	N	19.4	24.5	56.0
0.742000	32.7	Off	N	19.4	23.3	56.0
4.350000	29.2	Off	N	19.5	26.8	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.214000	38.8	Off	N	19.4	14.2	53.0
0.318000	31.4	Off	N	19.3	18.4	49.8
0.422000	31.5	Off	N	19.4	15.9	47.4
0.638000	31.0	Off	N	19.4	15.0	46.0
0.742000	32.7	Off	N	19.4	13.3	46.0
4.350000	22.3	Off	N	19.5	23.7	46.0

Test Mode :	Mode 4	Temperature :	23~24
Test Engineer :	Cona Huang	Relative Humidity :	40~41%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WCDMA Band V Idle + GPS Rx + BT Link + WLAN Link + Cradle + Adapter + USB Cable + Battery 2		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

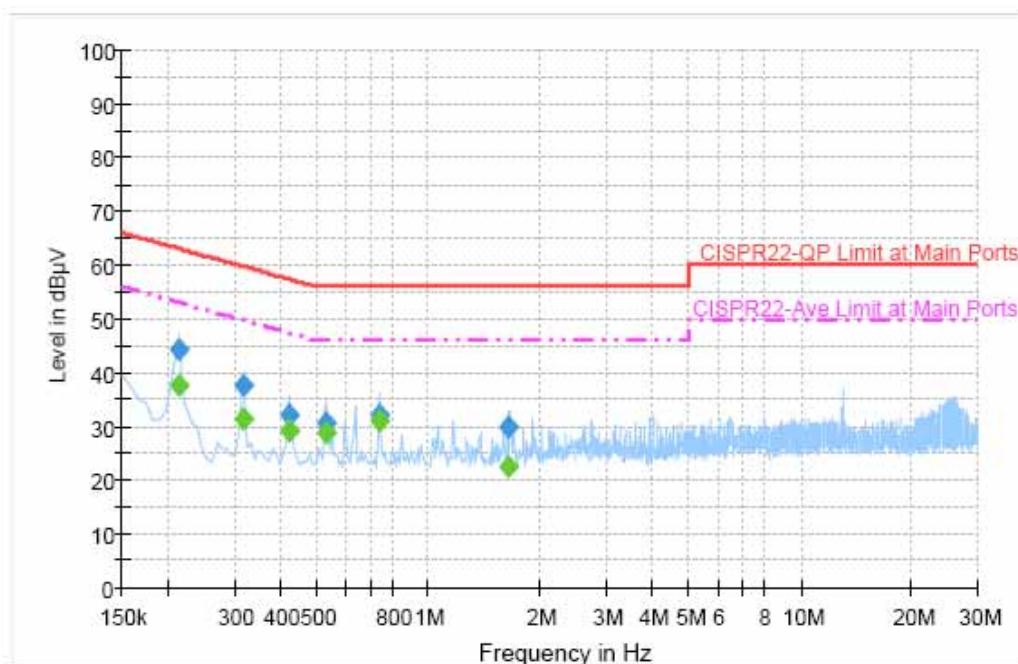

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.214000	45.3	Off	L1	19.3	17.7	63.0
0.318000	38.1	Off	L1	19.3	21.7	59.8
0.422000	31.8	Off	L1	19.4	25.6	57.4
0.638000	32.5	Off	L1	19.4	23.5	56.0
0.742000	30.3	Off	L1	19.4	25.7	56.0
3.606000	28.6	Off	L1	19.5	27.4	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.214000	36.8	Off	L1	19.3	16.2	53.0
0.318000	30.2	Off	L1	19.3	19.6	49.8
0.422000	27.8	Off	L1	19.4	19.6	47.4
0.638000	30.5	Off	L1	19.4	15.5	46.0
0.742000	28.2	Off	L1	19.4	17.8	46.0
3.606000	20.9	Off	L1	19.5	25.1	46.0

Test Mode :	Mode 4	Temperature :	23~24
Test Engineer :	Cona Huang	Relative Humidity :	40~41%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WCDMA Band V Idle + GPS Rx + BT Link + WLAN Link + Cradle + Adapter + USB Cable + Battery 2		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		


Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.214000	44.3	Off	N	19.4	18.7	63.0
0.318000	37.5	Off	N	19.3	22.3	59.8
0.422000	32.2	Off	N	19.4	25.2	57.4
0.534000	30.7	Off	N	19.3	25.3	56.0
0.742000	32.2	Off	N	19.4	23.8	56.0
1.646000	29.8	Off	N	19.5	26.2	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.214000	37.7	Off	N	19.4	15.3	53.0
0.318000	31.2	Off	N	19.3	18.6	49.8
0.422000	29.1	Off	N	19.4	18.3	47.4
0.534000	28.7	Off	N	19.3	17.3	46.0
0.742000	30.9	Off	N	19.4	15.1	46.0
1.646000	22.4	Off	N	19.5	23.6	46.0

3.6 Radiated Emission Measurement

3.6.1 Limit of Radiated Emission

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the FCC section 15.209 limits as below.

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

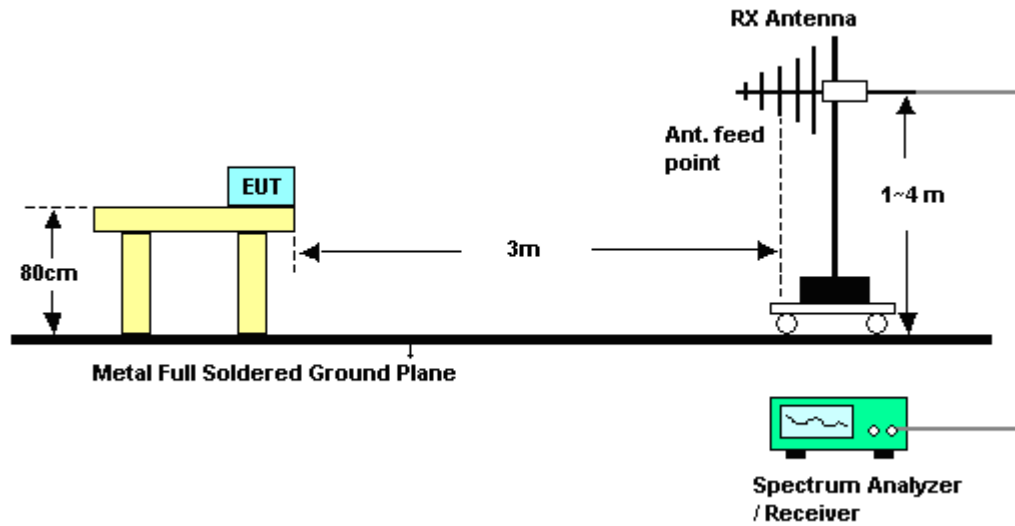
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

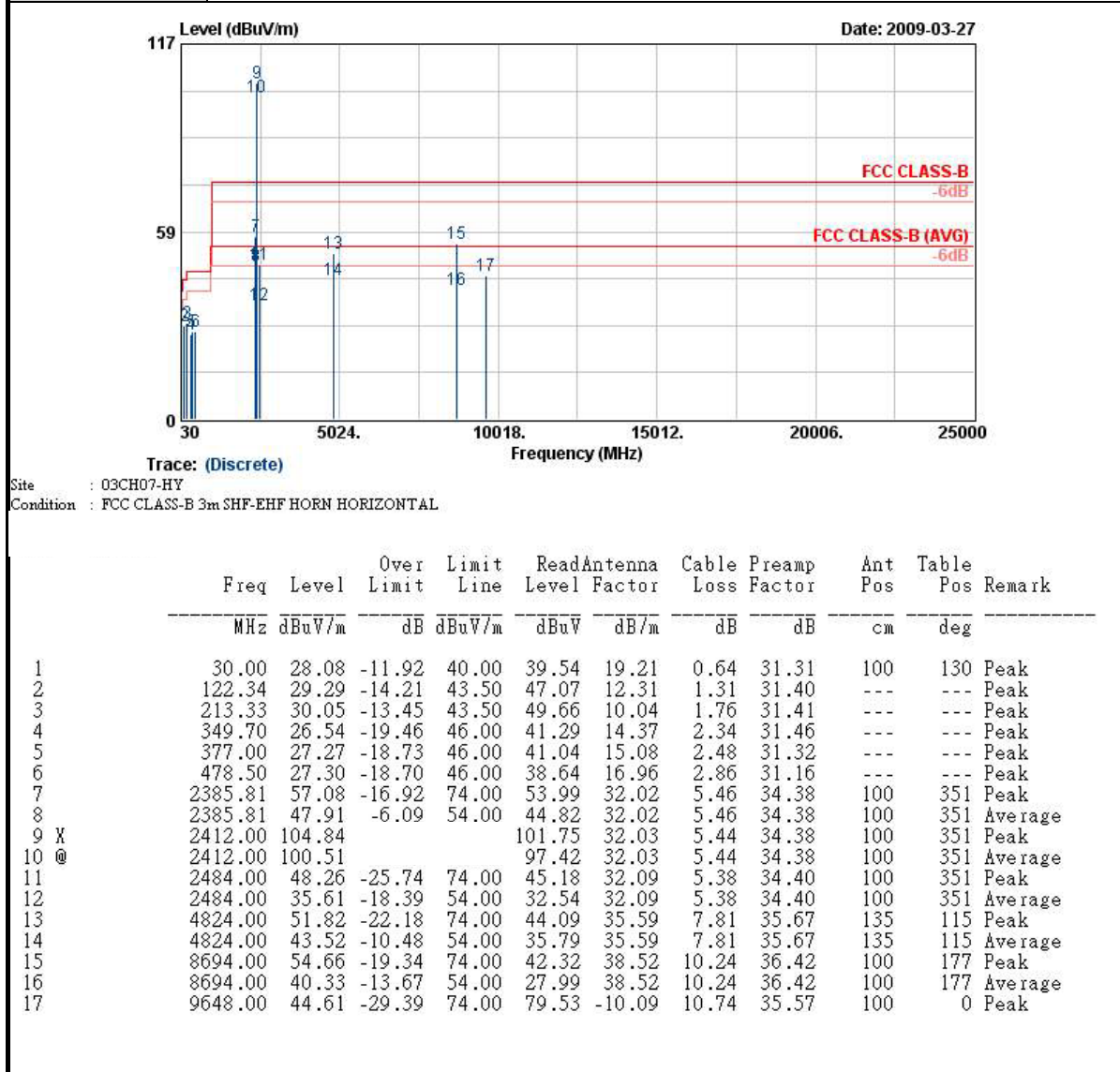
1. The testing follows the guidelines in FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. Use the following spectrum analyzer settings:
Span = wide enough to fully capture the emission being measured; RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz; VBW $\geq$ RBW; Sweep = auto; Detector function = peak; Trace = max hold.
3. Follow the guidelines in ANSI C63.4-2003 with respect to maximizing the emission by rotating the EUT, measuring the emission for three EUT orthogonal planes, and adjusting the measurement antenna height and polarization. A pre-amp and a high pass filter are used for this test in order to get the good signal level.

3.6.4 Test Setup



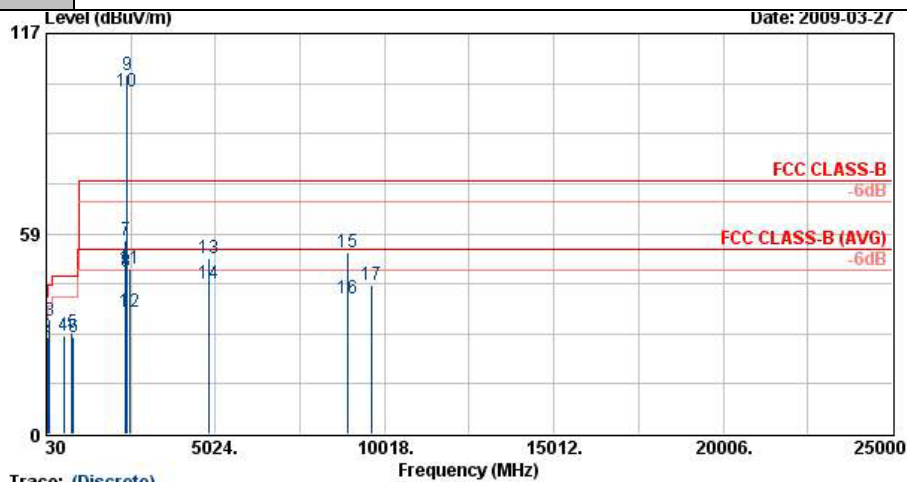
3.6.5 Test Result of Radiated Emission

Test Mode :	Mode 1	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang	Polarization :	Horizontal
Remark :	#9 and #10 are Fundamental Signals which can be ignored.		





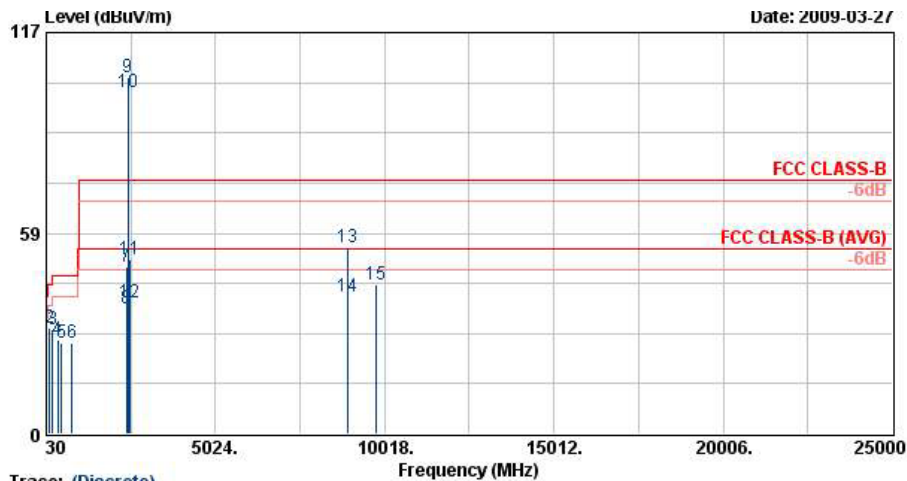
Test Mode :	Mode 1	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang	Polarization :	Vertical
Remark :	#9 and #10 are Fundamental Signals which can be ignored.		



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	30.00	28.57	-11.43	40.00	40.03	19.21	0.64	31.31	---	Peak
2	52.14	28.20	-11.80	40.00	50.98	7.64	0.85	31.26	---	Peak
3	128.01	33.23	-10.27	43.50	51.00	12.24	1.36	31.36	100	65 Peak
4	539.40	28.63	-17.37	46.00	38.73	17.89	3.06	31.05	---	Peak
5	780.20	29.75	-16.25	46.00	36.80	19.92	3.79	30.76	---	Peak
6	839.70	28.31	-17.69	46.00	34.32	20.70	3.94	30.66	---	Peak
7	2385.81	56.39	-17.61	74.00	53.30	32.02	5.46	34.38	116	64 Peak
8	2385.81	47.33	-6.67	54.00	44.24	32.02	5.46	34.38	116	64 Average
9 X	2412.00	104.62			101.53	32.03	5.44	34.38	116	64 Peak
10 @	2412.00	100.18			97.09	32.03	5.44	34.38	116	64 Average
11	2484.00	48.28	-25.72	74.00	45.21	32.09	5.38	34.40	116	64 Peak
12	2484.00	35.51	-18.49	54.00	32.44	32.09	5.38	34.40	116	64 Average
13	4824.00	51.48	-22.52	74.00	44.38	34.97	7.81	35.67	100	360 Peak
14	4824.00	43.93	-10.07	54.00	36.83	34.97	7.81	35.67	100	360 Average
15	8925.00	53.12	-20.88	74.00	41.81	37.55	10.31	36.56	100	211 Peak
16	8925.00	39.51	-14.49	54.00	28.20	37.55	10.31	36.56	100	211 Average
17	9648.00	43.67	-30.33	74.00	78.59	-10.09	10.74	35.57	100	0 Peak



Test Mode :	Mode 2	Temperature :	24~25°C
Test Channel :	06	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang	Polarization :	Horizontal
Remark :	#9 and #10 are Fundamental Signals which can be ignored.		

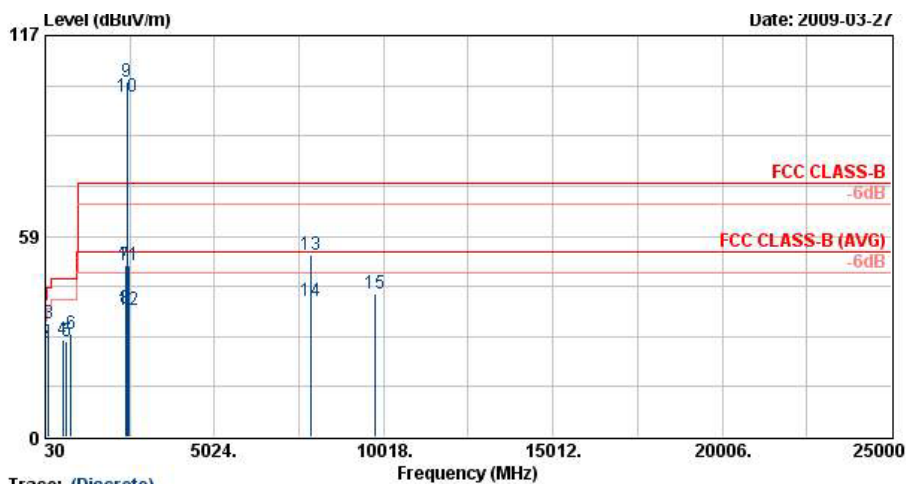


Site : 03CH07-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	29.20	-10.80	40.00	40.66	19.21	0.64	31.31	100	136	Peak
2	123.69	30.82	-12.68	43.50	48.43	12.44	1.34	31.39	---	---	Peak
3	213.33	30.59	-12.91	43.50	50.19	10.04	1.76	31.41	---	---	Peak
4	377.00	27.26	-18.74	46.00	41.03	15.08	2.48	31.32	---	---	Peak
5	478.50	26.55	-19.45	46.00	37.89	16.96	2.86	31.16	---	---	Peak
6	780.20	26.48	-19.52	46.00	33.54	19.92	3.79	30.76	---	---	Peak
7	2388.00	48.83	-25.17	74.00	45.73	32.02	5.46	34.38	100	8	Peak
8	2388.00	36.37	-17.63	54.00	33.28	32.02	5.46	34.38	100	8	Average
9 X	2437.00	104.05			100.97	32.06	5.41	34.39	100	8	Peak
10 X	2437.00	99.68			96.60	32.06	5.41	34.39	100	8	Average
11	2484.00	50.79	-23.21	74.00	47.71	32.09	5.38	34.40	100	8	Peak
12	2484.00	38.08	-15.92	54.00	35.01	32.09	5.38	34.40	100	8	Average
13	8937.00	54.54	-19.46	74.00	42.11	38.66	10.32	36.56	100	133	Peak
14	8937.00	40.18	-13.82	54.00	27.76	38.66	10.32	36.56	100	133	Average
15	9748.00	43.32	-30.68	74.00	77.94	-9.87	10.81	35.55	100	0	Peak



Test Mode :	Mode 2	Temperature :	24~25°C
Test Channel :	06	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang	Polarization :	Vertical
Remark :	#9 and #10 are Fundamental Signals which can be ignored.		

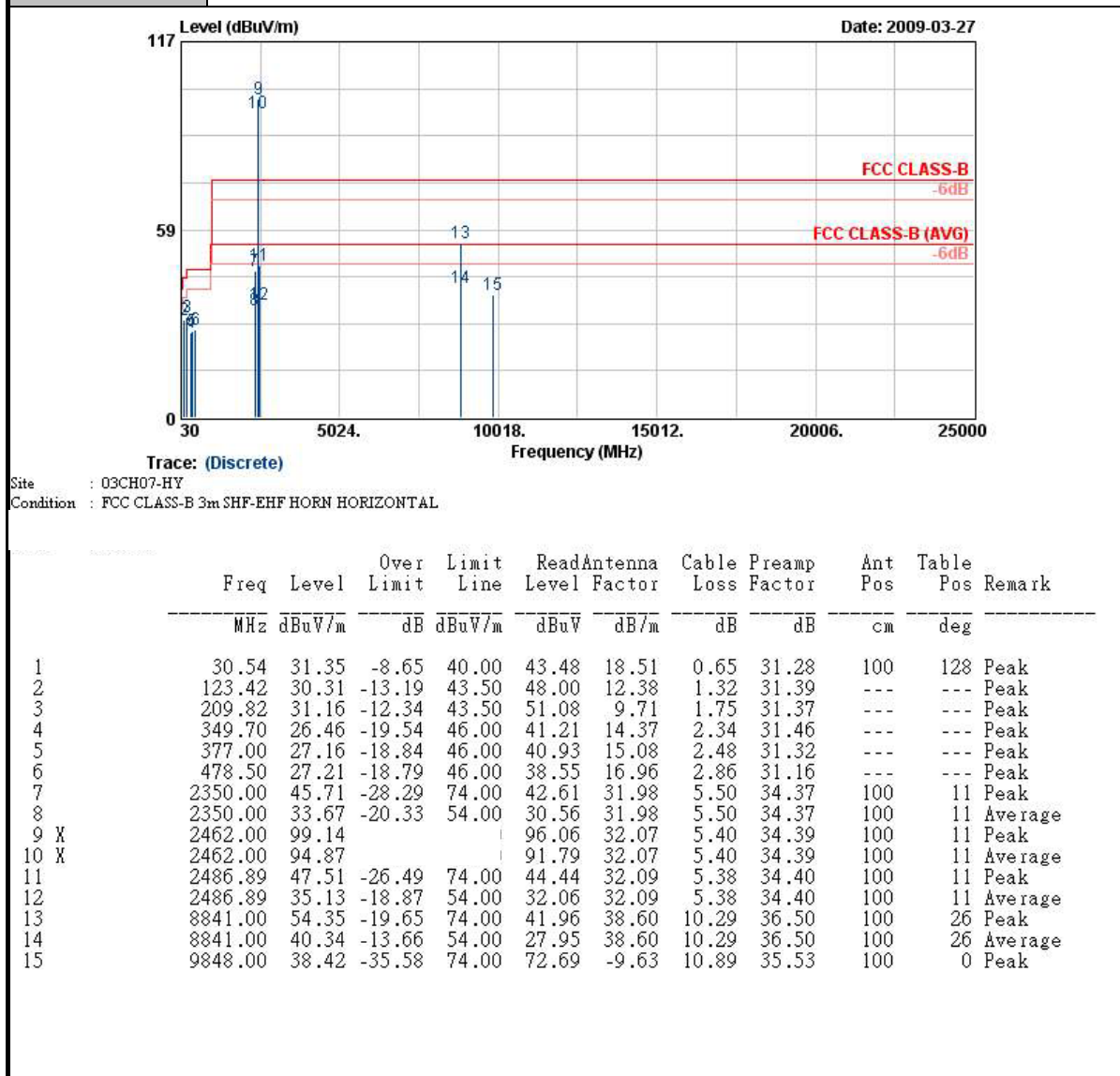


Site : 03CH07-HY

Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL

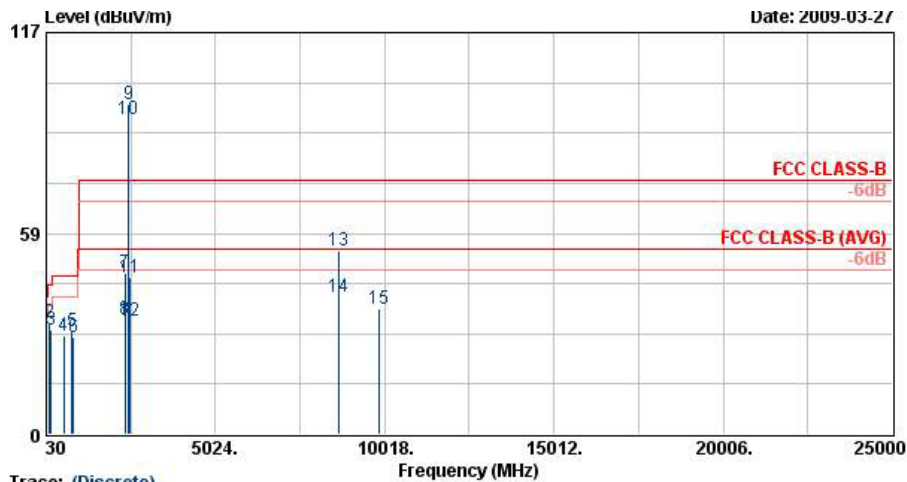
	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	29.86	-10.14	40.00	41.32	19.21	0.64	31.31	100	177	Peak
2	35.94	27.47	-12.53	40.00	42.76	15.20	0.69	31.17	---	---	Peak
3	128.01	33.05	-10.45	43.50	50.82	12.24	1.36	31.36	---	---	Peak
4	539.40	28.39	-17.61	46.00	38.49	17.89	3.06	31.05	---	---	Peak
5	659.80	27.98	-18.02	46.00	36.46	18.99	3.44	30.90	---	---	Peak
6	780.20	29.88	-16.12	46.00	36.93	19.92	3.79	30.76	---	---	Peak
7	2388.00	50.11	-23.89	74.00	47.01	32.02	5.46	34.38	110	50	Peak
8	2388.00	37.59	-16.41	54.00	34.50	32.02	5.46	34.38	110	50	Average
9 X	2437.00	103.62			100.53	32.06	5.41	34.39	110	50	Peak
10 X	2437.00	99.20			96.12	32.06	5.41	34.39	110	50	Average
11	2484.00	50.13	-23.87	74.00	47.05	32.09	5.38	34.40	110	50	Peak
12	2484.00	36.77	-17.23	54.00	33.70	32.09	5.38	34.40	110	50	Average
13	7854.00	53.14	-20.86	74.00	42.69	36.94	9.78	36.27	100	201	Peak
14	7854.00	39.54	-14.46	54.00	29.09	36.94	9.78	36.27	100	201	Average
15	9748.00	41.91	-32.09	74.00	76.52	-9.87	10.81	35.55	100	0	Peak

Test Mode :	Mode 3	Temperature :	24~25°C
Test Channel :	11	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang	Polarization :	Horizontal
Remark :	#9 and #10 are Fundamental Signals which can be ignored.		





Test Mode :	Mode 3	Temperature :	24~25°C
Test Channel :	11	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang	Polarization :	Vertical
Remark :	#9 and #10 are Fundamental Signals which can be ignored.		



Site : 03CH07-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL

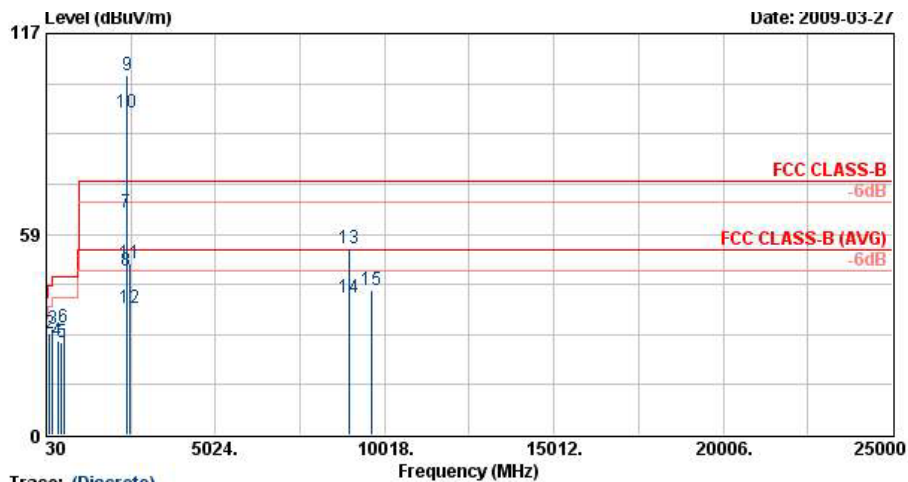
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	30.00	31.38	-8.62	40.00	42.84	19.21	0.64	31.31	100	164 Peak
2	128.82	32.49	-11.01	43.50	50.34	12.15	1.36	31.36	---	---
3	162.30	30.30	-13.20	43.50	50.16	9.94	1.52	31.31	---	---
4	539.40	28.67	-17.33	46.00	38.77	17.89	3.06	31.05	---	---
5	780.20	29.85	-16.15	46.00	36.90	19.92	3.79	30.76	---	---
6	839.70	28.38	-17.62	46.00	34.40	20.70	3.94	30.66	---	---
7	2356.00	47.02	-26.98	74.00	43.91	31.99	5.49	34.37	103	236 Peak
8	2356.00	33.58	-20.42	54.00	30.48	31.99	5.49	34.37	103	236 Average
9 X	2462.00	96.16			93.08	32.07	5.40	34.39	103	236 Peak
10 X	2462.00	91.95			88.87	32.07	5.40	34.39	103	236 Average
11	2487.65	45.65	-28.35	74.00	42.58	32.09	5.38	34.40	103	236 Peak
12	2487.65	33.06	-20.94	54.00	29.99	32.10	5.37	34.40	103	236 Average
13	8670.00	53.43	-20.57	74.00	42.20	37.40	10.23	36.41	100	192 Peak
14	8670.00	39.93	-14.07	54.00	28.70	37.40	10.23	36.41	100	192 Average
15	9848.00	36.54	-37.46	74.00	70.82	-9.63	10.89	35.53	100	0 Peak



FCC Test Report

Report No. : FR803106-01A

Test Mode :	Mode 4	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang	Polarization :	Horizontal
Remark :	#9 and #10 are Fundamental Signals which can be ignored.		

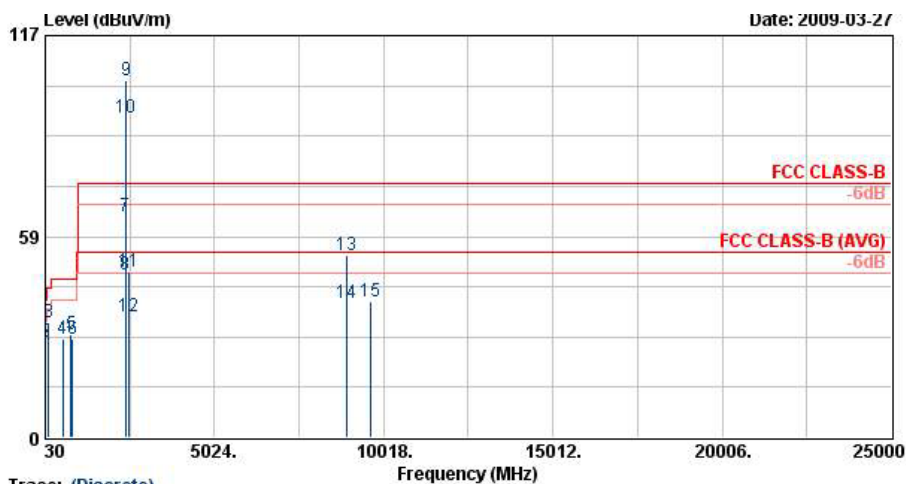


Site : 03CH07-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	31.78	-8.22	40.00	43.24	19.21	0.64	31.31	100	141	Peak
2	127.74	29.68	-13.82	43.50	47.45	12.24	1.36	31.36	---	---	Peak
3	209.82	30.72	-12.78	43.50	50.63	9.71	1.75	31.37	---	---	Peak
4	377.00	27.56	-18.44	46.00	41.32	15.08	2.48	31.32	---	---	Peak
5	478.50	27.09	-18.91	46.00	38.43	16.96	2.86	31.16	---	---	Peak
6	540.10	31.19	-14.81	46.00	41.27	17.90	3.06	31.04	---	---	Peak
7	2389.61	64.70	-9.30	74.00	61.61	32.02	5.46	34.38	100	352	Peak
8	2389.61	47.95	-6.05	54.00	44.86	32.02	5.46	34.38	100	352	Average
9 X	2412.00	104.66			101.57	32.03	5.44	34.38	100	352	Peak
10 @	2412.00	94.10			91.01	32.03	5.44	34.38	100	352	Average
11	2484.00	49.88	-24.12	74.00	46.81	32.09	5.38	34.40	100	352	Peak
12	2484.00	37.15	-16.85	54.00	34.08	32.09	5.38	34.40	100	352	Average
13	8985.00	54.21	-19.79	74.00	41.77	38.69	10.33	36.59	100	226	Peak
14	8985.00	40.23	-13.77	54.00	27.79	38.69	10.33	36.59	100	226	Average
15	9648.00	42.28	-31.72	74.00	77.15	-10.05	10.74	35.57	100	0	Peak



Test Mode :	Mode 4	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang	Polarization :	Vertical
Remark :	#9 and #10 are Fundamental Signals which can be ignored.		



Site : 03CH07-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL

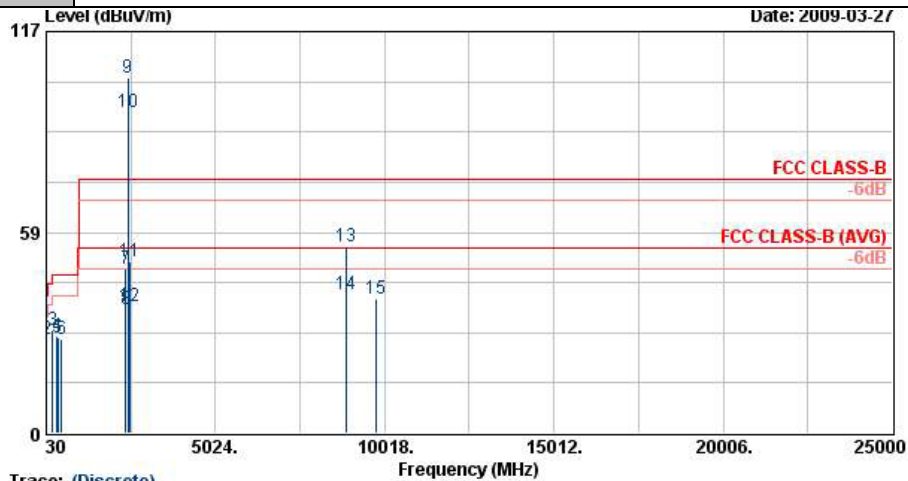
	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.81	29.96	-10.04	40.00	42.08	18.51	0.65	31.28	---	---	Peak
2	35.13	27.62	-12.38	40.00	42.39	15.73	0.68	31.18	---	---	Peak
3	127.74	33.50	-10.00	43.50	51.26	12.24	1.36	31.36	100	261	Peak
4	539.40	28.67	-17.33	46.00	38.77	17.89	3.06	31.05	---	---	Peak
5	780.20	30.04	-15.96	46.00	37.09	19.92	3.79	30.76	---	---	Peak
6	839.70	28.49	-17.51	46.00	34.51	20.70	3.94	30.66	---	---	Peak
7	2389.61	64.29	-9.71	74.00	61.20	32.02	5.46	34.38	104	247	Peak
8	2389.61	47.62	-6.38	54.00	44.53	32.02	5.46	34.38	104	247	Average
9 X	2412.00	103.97			100.88	32.03	5.44	34.38	104	247	Peak
10 @	2412.00	93.21			90.12	32.03	5.44	34.38	104	247	Average
11	2484.00	48.13	-25.87	74.00	45.05	32.09	5.38	34.40	104	247	Peak
12	2484.00	35.41	-18.59	54.00	32.34	32.09	5.38	34.40	104	247	Average
13	8925.00	53.26	-20.74	74.00	41.95	37.55	10.31	36.56	100	107	Peak
14	8925.00	39.09	-14.91	54.00	27.78	37.55	10.31	36.56	100	107	Average
15	9648.00	39.48	-34.52	74.00	74.35	-10.05	10.74	35.57	100	0	Peak



FCC Test Report

Report No. : FR803106-01A

Test Mode :	Mode 5	Temperature :	24~25°C
Test Channel :	06	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang	Polarization :	Horizontal
Remark :	#9 and #10 are Fundamental Signals which can be ignored.		



Trace: [Discrete]

Site : 03CH07-HY

Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL

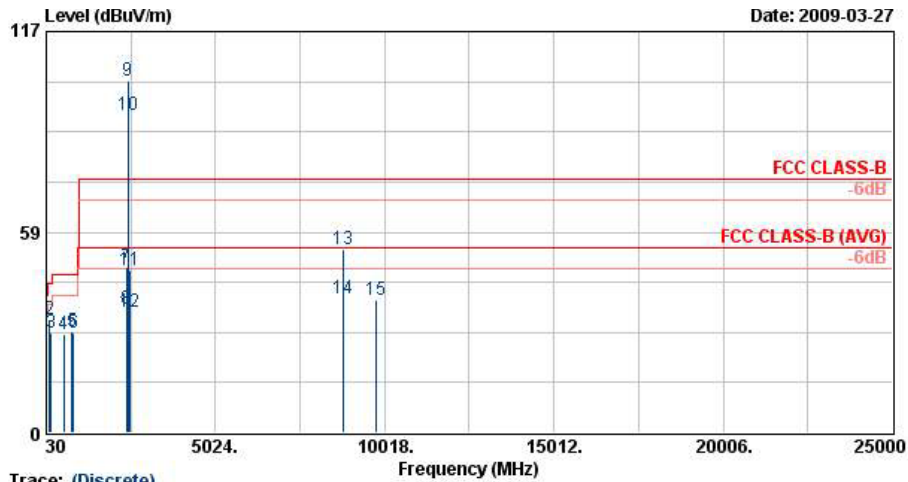
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	31.89	29.76	-10.24	40.00	42.54	17.82	0.66	31.26	100	122	Peak
2	35.13	27.43	-12.57	40.00	42.20	15.73	0.68	31.18	---	---	Peak
3	213.06	29.96	-13.54	43.50	49.57	10.04	1.76	31.41	---	---	Peak
4	349.70	28.33	-17.67	46.00	43.07	14.37	2.34	31.46	---	---	Peak
5	377.00	27.64	-18.36	46.00	41.41	15.08	2.48	31.32	---	---	Peak
6	478.50	27.61	-18.39	46.00	38.95	16.96	2.86	31.16	---	---	Peak
7	2382.00	48.00	-26.00	74.00	44.91	32.00	5.47	34.38	100	9	Peak
8	2382.00	36.11	-17.89	54.00	33.01	32.00	5.47	34.38	100	9	Average
9 X	2437.00	103.64			100.55	32.06	5.41	34.39	100	9	Peak
10 @	2437.00	93.37			90.29	32.06	5.41	34.39	100	9	Average
11	2484.00	49.83	-24.17	74.00	46.76	32.09	5.38	34.40	100	9	Peak
12	2484.00	37.18	-16.82	54.00	34.11	32.09	5.38	34.40	100	9	Average
13	8865.00	54.44	-19.56	74.00	42.03	38.62	10.30	36.51	100	237	Peak
14	8865.00	40.42	-13.58	54.00	28.01	38.62	10.30	36.51	100	237	Average
15	9748.00	38.96	-35.04	74.00	73.53	-9.85	10.82	35.55	100	0	Peak



FCC Test Report

Report No. : FR803106-01A

Test Mode :	Mode 5	Temperature :	24~25°C
Test Channel :	06	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang	Polarization :	Vertical
Remark :	#9 and #10 are Fundamental Signals which can be ignored.		

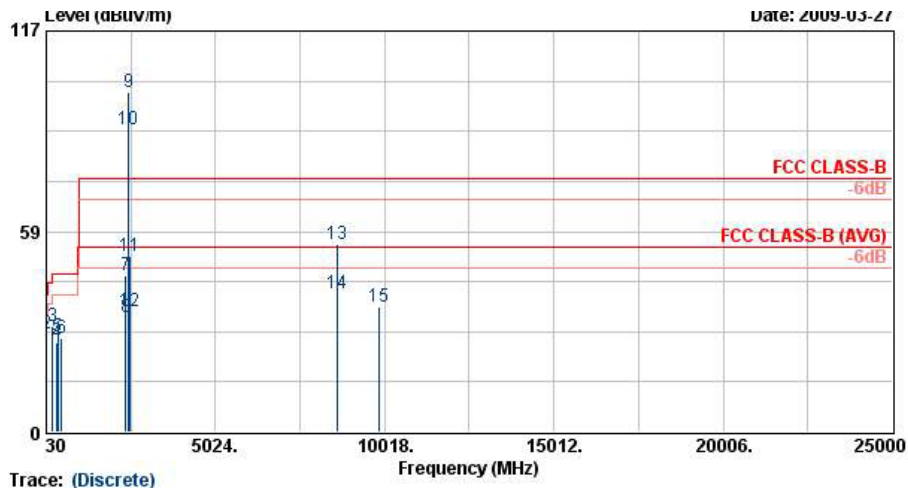


Site : 03CH07-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.54	29.38	-10.62	40.00	41.50	18.51	0.65	31.28	---	---	Peak
2	128.01	33.14	-10.36	43.50	50.91	12.24	1.36	31.36	100	211	Peak
3	162.30	29.20	-14.30	43.50	49.05	9.94	1.52	31.31	---	---	Peak
4	539.40	28.57	-17.43	46.00	38.67	17.89	3.06	31.05	---	---	Peak
5	780.20	29.74	-16.26	46.00	36.80	19.92	3.79	30.76	---	---	Peak
6	839.70	29.02	-16.98	46.00	35.04	20.70	3.94	30.66	---	---	Peak
7	2390.00	48.08	-25.92	74.00	44.98	32.02	5.46	34.38	155	117	Peak
8	2390.00	35.98	-18.02	54.00	32.89	32.02	5.46	34.38	155	117	Average
9 X	2437.00	102.72			99.64	32.04	5.43	34.39	155	117	Peak
10 @	2437.00	92.64			89.56	32.06	5.41	34.39	155	117	Average
11	2484.00	47.41	-26.59	74.00	44.33	32.09	5.38	34.40	155	117	Peak
12	2484.00	35.33	-18.67	54.00	32.26	32.09	5.38	34.40	155	117	Average
13	8805.00	53.42	-20.58	74.00	42.14	37.48	10.28	36.48	100	190	Peak
14	8805.00	39.20	-14.80	54.00	27.92	37.48	10.28	36.48	100	190	Average
15	9748.00	38.70	-35.30	74.00	73.28	-9.85	10.82	35.55	100	0	Peak



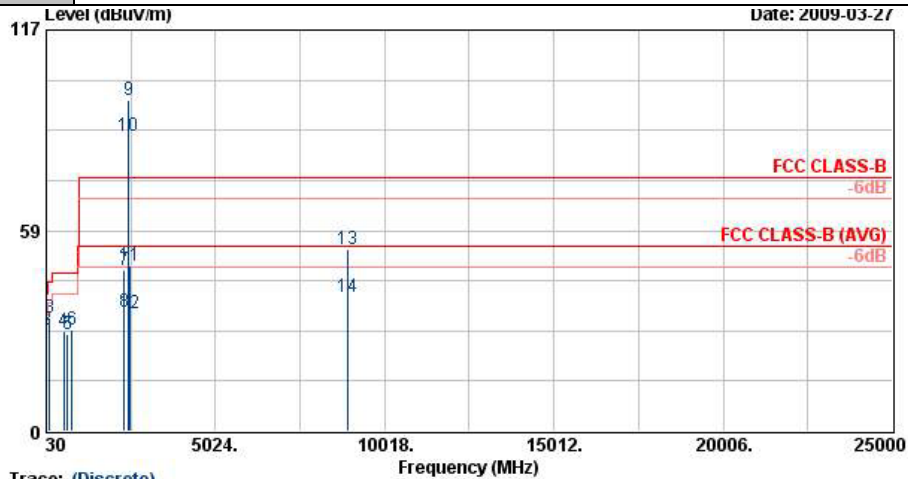
Test Mode :	Mode 6	Temperature :	24~25°C
Test Channel :	11	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang	Polarization :	Horizontal
Remark :	#9 and #10 are Fundamental Signals which can be ignored.		



Site : 03CH07-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	31.62	33.13	-6.87	40.00	45.92	17.82	0.66	31.26	100	61 Peak
2	35.94	28.67	-11.33	40.00	43.96	15.20	0.69	31.17	---	---
3	213.33	30.75	-12.75	43.50	50.36	10.04	1.76	31.41	---	---
4	349.70	26.27	-19.73	46.00	41.02	14.37	2.34	31.46	---	---
5	377.00	27.88	-18.12	46.00	41.65	15.08	2.48	31.32	---	---
6	478.50	27.25	-18.75	46.00	38.59	16.96	2.86	31.16	---	---
7	2380.00	45.83	-28.17	74.00	42.73	32.00	5.47	34.38	100	8 Peak
8	2380.00	33.38	-20.62	54.00	30.28	32.00	5.47	34.38	100	8 Average
9 X	2462.00	98.95			95.88	32.07	5.40	34.39	100	8 Peak
10 @	2462.00	88.27			85.19	32.07	5.40	34.39	100	8 Average
11	2483.50	51.28	-22.72	74.00	48.21	32.09	5.38	34.40	100	8 Peak
12	2483.50	35.27	-18.73	54.00	32.20	32.09	5.38	34.40	100	8 Average
13	8625.00	54.65	-19.35	74.00	42.32	38.48	10.22	36.38	100	103 Peak
14	8625.00	40.53	-13.47	54.00	28.20	38.48	10.22	36.38	100	103 Average
15	9848.00	36.33	-37.67	74.00	70.60	-9.63	10.89	35.53	100	0 Peak

Test Mode :	Mode 6	Temperature :	24~25°C
Test Channel :	11	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang	Polarization :	Vertical
Remark :	#9 and #10 are Fundamental Signals which can be ignored.		



Site : 03CH07-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL
Project : FR 803106-01

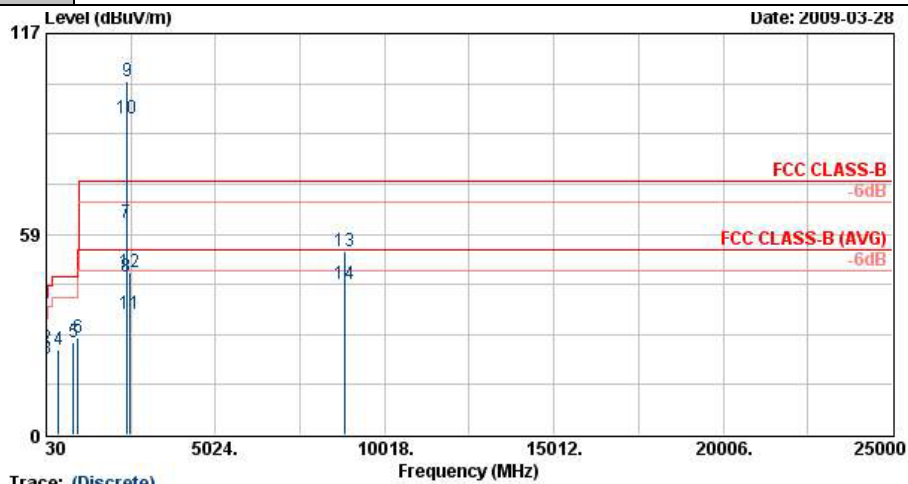
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	30.00	33.09	-6.91	40.00	44.55	19.21	0.64	31.31	100	120 Peak
2	31.62	29.79	-10.21	40.00	42.57	17.82	0.66	31.26	---	---
3	128.01	32.96	-10.54	43.50	50.73	12.24	1.36	31.36	---	---
4	539.40	29.01	-16.99	46.00	39.11	17.89	3.06	31.05	---	---
5	659.80	28.24	-17.76	46.00	36.71	18.99	3.44	30.90	---	---
6	780.20	29.45	-16.55	46.00	36.50	19.92	3.79	30.76	---	---
7	2326.00	47.05	-26.95	74.00	43.93	31.96	5.51	34.37	141	45 Peak
8	2326.00	34.70	-19.30	54.00	31.59	31.96	5.51	34.37	141	45 Average
9 X	2462.00	96.75			93.67	32.07	5.40	34.39	141	45 Peak
10 @	2462.00	86.12			83.04	32.07	5.40	34.39	141	45 Average
11	2483.50	48.14	-25.86	74.00	45.07	32.09	5.38	34.40	141	45 Peak
12	2483.50	34.57	-19.43	54.00	31.50	32.09	5.38	34.40	141	45 Average
13	8937.00	53.08	-20.92	74.00	41.76	37.56	10.32	36.56	100	231 Peak
14	8937.00	39.13	-14.87	54.00	27.81	37.56	10.32	36.56	100	231 Average



FCC Test Report

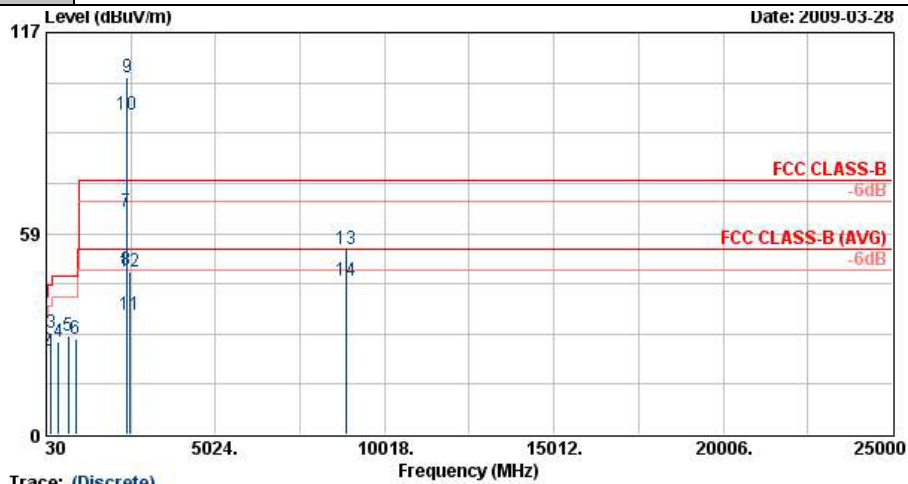
Report No. : FR803106-01A

Test Mode :	Mode 7	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang	Polarization :	Horizontal
Remark :	#9 and #10 are Fundamental Signals which can be ignored.		



Trace: (Discrete)					Frequency (MHz)						
Site : 03CH07-HY											
Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL											
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	27.76	-12.25	40.00	36.23	19.90	0.64	29.01	100	25	Peak
2	37.29	25.10	-14.90	40.00	37.94	15.46	0.71	29.01	---	---	Peak
3	46.74	22.01	-17.99	40.00	39.75	10.80	0.76	29.30	---	---	Peak
4	402.20	24.87	-21.13	46.00	35.01	16.45	2.56	29.14	---	---	Peak
5	825.00	27.07	-18.93	46.00	29.77	22.46	3.91	29.06	---	---	Peak
6	959.40	28.16	-17.84	46.00	28.68	24.36	4.28	29.17	---	---	Peak
7	2389.99	61.75	-12.25	74.00	58.66	32.02	5.46	34.38	103	61	Peak
8	2389.99	46.22	-7.78	54.00	43.13	32.02	5.46	34.38	103	61	Average
9 X	2412.00	103.16			100.07	32.03	5.44	34.38	103	61	Peak
10 @	2412.00	92.13			89.04	32.03	5.44	34.38	103	61	Average
11	2484.00	35.02	-18.98	54.00	31.95	32.09	5.38	34.40	103	61	Average
12	2484.00	47.30	-26.70	74.00	44.23	32.09	5.38	34.40	103	61	Peak
13	8853.00	53.52	-20.48	74.00	42.61	35.98	10.29	35.37	100	59	Peak
14	8853.00	44.06	-9.94	54.00	33.16	35.98	10.29	35.37	100	59	Average

Test Mode :	Mode 7	Temperature :	24~25°C
Test Channel :	01	Relative Humidity :	46~47%
Test Engineer :	Mac Lin and Kai Wang	Polarization :	Vertical
Remark :	#9 and #10 are Fundamental Signals which can be ignored.		



Site : 03CH07-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	31.89	29.44	-10.56	40.00	39.01	18.82	0.66	29.05	100	52 Peak
2	38.10	24.40	-15.60	40.00	37.24	15.46	0.71	29.01	---	---
3	162.30	29.49	-14.01	43.50	46.45	10.90	1.52	29.38	---	---
4	402.20	26.97	-19.03	46.00	37.10	16.45	2.56	29.14	---	---
5	676.60	28.64	-17.36	46.00	33.58	20.53	3.49	28.96	---	---
6	898.50	27.71	-18.29	46.00	29.83	22.90	4.15	29.18	---	---
7	2389.99	64.83	-9.17	74.00	61.74	32.02	5.46	34.38	103	119 Peak
8	2389.99	47.99	-6.01	54.00	44.90	32.02	5.46	34.38	103	119 Average
9 X	2412.00	103.74	---	---	100.65	32.04	5.43	34.39	103	119 Peak
10 @	2412.00	93.26	---	---	90.17	32.03	5.44	34.38	103	119 Average
11	2500.00	34.89	-19.11	54.00	31.82	32.10	5.37	34.40	103	119 Average
12	2500.00	47.56	-26.44	74.00	44.49	32.10	5.37	34.40	103	119 Peak
13	8886.00	53.82	-20.18	74.00	42.89	36.01	10.30	35.38	100	206 Peak
14	8886.00	44.91	-9.09	54.00	33.98	36.01	10.30	35.38	100	206 Average

3.7 Antenna Requirements

3.7.1 Standard Applicable

If directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the FCC rule.

3.7.2 Antenna Connected Construction

The antennas type used in this product is PIFA Antenna without connector and it is considered to meet antenna requirement.

3.7.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

4 List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100055	9kHz~40GHz	Jun. 26, 2008	Jun. 25, 2009	Conducted (TH02-HY)
Power Meter	Agilent	E4416A	GB41292344	N/A	Feb. 19, 2009	Feb. 18, 2010	Conducted (TH02-HY)
Power Sensor	Agilent	E9327A	US40441548	N/A	Feb. 19, 2009	Feb. 18, 2010	Conducted (TH02-HY)
System Simulator	R&S	CMU200	117591	N/A	Oct. 23, 2008	Oct. 22, 2009	Radiation (03CH07-HY)
Bilog Antenna	SCHAFFNER	CBL6111C	2726	30MHz~1GHz	Nov. 20, 2008	Nov. 19, 2009	Radiation (03CH07-HY)
Spectrum Analyzer	R&S	FSP	101067	9kHz~30GHz	Dec. 02, 2008	Dec. 01, 2009	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	15G - 40GHz	Oct. 16, 2008	Oct. 15, 2009	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	75962	1G~18GHz	Aug. 13, 2008	Aug. 12, 2009	Radiation (03CH07-HY)
Pre Amplifier	Agilent	8449B	3008A02362	1G~26.5GHz	Dec. 17, 2008	Dec. 16, 2009	Radiation (03CH07-HY)
Pre Amplifier	COM-POWER	PA-103A	161241	10~1000MHz. 32dB.GAIN	Mar. 27, 2009	Mar. 26, 2010	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	66584	1G~18GHz	Aug. 06, 2008	Aug. 05, 2009	Radiation (03CH07-HY)
EMI Receiver	R&S	ESCS 30	100356	9kHz~2.75GHz	Aug. 01, 2008	Jul. 31, 2009	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100081	9kHz~30MHz	Nov. 26, 2008	Nov. 25, 2009	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100080	9kHz~30MHz	Nov. 26, 2008	Nov. 25, 2009	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	N/A	Conduction (CO05-HY)

5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.10	Normal(k=2)	0.05
Cable loss	0.10	Normal(k=2)	0.05
AMN insertion loss	2.50	Rectangular	0.63
Receiver Spec	1.50	Rectangular	0.43
Site imperfection	1.39	Rectangular	0.80
Mismatch	+0.34/-0.35	U-shape	0.24
Combined standard uncertainty Uc(y)	1.13		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	2.26		

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

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch	+0.39/-0.41	U-shaped	0.28
Combined standard uncertainty Uc(y)	1.27		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	2.54		

Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Contribution	Uncertainty of x_i		$u(x_i)$	C_i	$C_i * u(x_i)$
	dB	Probability Distribution			
Receiver reading	±0.10	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	±1.70	Normal(k=2)	0.85	1	0.85
Cable loss calibration	±0.50	Normal(k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20\log(1 - \Gamma_1 * \Gamma_2)$	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty $U_c(y)$	2.36				
Measuring uncertainty for a level of confidence of 95% $U = 2U_c(y)$	4.72				

6 Certification of TAF Accreditation



Certificate No. : L1190-081212

財團法人全國認證基金會
Taiwan Accreditation Foundation

Certificate of Accreditation

This is to certify that

Sporton International Inc.
EMC & Wireless Communications Laboratory
No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien,
Taiwan, R.O.C.

is accredited in respect of laboratory

Accreditation Criteria	: ISO/IEC 17025:2005
Accreditation Number	: 1190
Originally Accredited	: December 15, 2003
Effective Period	: January 10, 2007 to January 09, 2010
Accredited Scope	: Testing Field, see described in the Appendix
Specific Accreditation Program	: Accreditation Program for Designated Testing Laboratory for Commodities Inspection Accreditation Program for Telecommunication Equipment Testing Laboratory Accreditation Program for BSMI Mutual Recognition Arrangement with Foreign Authorities



Jay-San Chen
President, Taiwan Accreditation Foundation
Date : December 12, 2008

P1, total 18 pages

The Appendix forms an integral part of this Certificate, which shall be invalid when use without the Appendix



Appendix A. Photographs of EUT

Please refer to Sporton report number EP8O3106-01 as below.