# FCC EMC TEST REPORT CERTIFICATE

according to

47 CFR FCC Part 15 Subpart B

Equipment	:	150N Wireless LAN USB Adapter
Model No.	:	EW-7811GLn,EW-7811Un,EW-7811UWn,GWU-H811GLn
Brand Name	:	EDIMAX
Filing Type	:	New Application
Applicant	:	EDIMAX TECHNOLOGY CO., LTD No.3, Wu Chuan 3rd Road, Wu-Ku Industrial Park, Taipei Hsien, Taiwan
FCC ID	:	NDD9578111008
Manufacturer	:	EDIMAX TECHNOLOGY CO., LTD No.3, Wu Chuan 3rd Road, Wu-Ku Industrial Park, Taipei Hsien, Taiwan
<b>Received Date</b>	:	Mar. 04, 2010
Final Test Date	:	Mar. 23, 2010
Multiple Listing	:	Please refer to section 2.5

# Statement

The test result in this report refers exclusively to the presented test model / sample. Without written approval of SPORTON International Inc., the test report shall not be reproduced except in full. The measurements and test results shown in this test report were made in accordance with the procedures and found in compliance with the limit given in **ANSI C63.4-2003** and **47 CFR FCC Part 15 Subpart B**. The test equipment used to perform the test is calibrated and traceable to NML/ROC.



# SPORTON International Inc.

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

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# History of This Test Report

Original Issue Date: Apr. 15, 2010

Report No.: FC030518

■ No additional attachment.

□ Additional attachment were issued as following record:

Report No.	Issue Date	Description

# **CERTIFICATE OF COMPLIANCE CERTIFICATE**

according to

47 CFR FCC Part 15 Subpart B

Equipment	: 150N Wireless LAN USB Adapter
Model No.	: EW-7811GLn,EW-7811Un,EW-7811UWn,GWU-H811GLn
Brand Name	: EDIMAX
Applicant	: EDIMAX TECHNOLOGY CO., LTD
	No.3, Wu Chuan 3rd Road, Wu-Ku Industrial Park, Taipei Hsien, Taiwan

#### WE HEREBY CERTIFY THAT:

The measurements shown in this test report were made in accordance with the procedures given in ANSI C63.4-2003 and the energy emitted by this equipment were passed 47 CFR FCC Part 15 Subpart B. Testing was carried out on Mar. 23, 2010 at SPORTON International Inc. LAB.

e 24au 2010. 415 Wayne Hsu

# SPORTON International Inc.

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

# **1 SUMMARY OF THE TEST RESULT**

	Applied Standard: 47 CFR FCC Part 15 Subpart B				
Part Rule Section Description of Test			Result	Under Limit	
3.1	15.107	AC Power Line Conducted Emissions	Complies	6.36 dB	
3.2	15.109	Radiated Emissions	Complies	4.69 dB	

Test Items	Uncertainty	Remark
AC Power Line Conducted Emissions	±2.3dB	Confidence levels of 95%
Radiated Emissions	±1.9dB	Confidence levels of 95%

# **2 GENERAL INFORMATION**

#### 2.1 Product Details

The RF detail of EUT is shown in the table below. For more detailed features description, please refer to the manufacturer's specifications or user's manual.

#### 2.2 Table for Filed Antenna

#### Antenna & Bandwidth

Antenna	Single (TX)		
Bandwidth Mode	20 MHz	40 MHz	
802.11b	V	x	
802.11g	V	x	
802.11n (2.4GHz)	V	V	

#### IEEE 802.11b/g/n

Ant.	Antenna Type	Connector	Gain (dBi)	Remark
А	Printed Antenna	Fixed on Board	3.00	TX / RX

Note: For the IEEE 802.11n antennas is 1T1R Spatial Multiplexing MIMO configuration. One antenna is for signal transmitting and receiving.

#### 2.3 Table for Test Modes

Investigation has been done on the entire possible Configuration for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode
AC Power Line Conducted Emissions	Normal Mode
Radiated Emissions (30MHz~1GHz)	Normal Mode
(1GHz~5th harmonic of highest frequency)	CRX 802.11g CH 6 / CRX 802.11n CH 6 (20MHz) /
	CRX 802.11n CH 6 (40MHz)

#### 2.4 Table for Multiple Listing

No.	Brand Name	Model Name
1	Edimax	EW-7811GLn, EW-7811Un, EW-7811UWn, GWU-H811GLn
2	Airlink101	AWLL5088
3	Sitecom	WL-365
4	GETNET	GN-521U

#### 2.5 Table for Testing Locations

Site Category	Location
Conduction	Hwa Ya
SAC	Hwa Ya
	Conduction

Semi Anechoic Chamber (SAC).

#### 2.6 Table for Supporting Units

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E5500	N/A
(USB) Mouse	Microsoft	1004	N/A
Modem	ACEEX	DM1414	IFAXDM1414

#### 2.7 EUT Operation during Test

An executive program, "EMCTEST.EXE" under WIN XP, which generates a complete line of continuously

repeating "H" pattern was used as the test software.

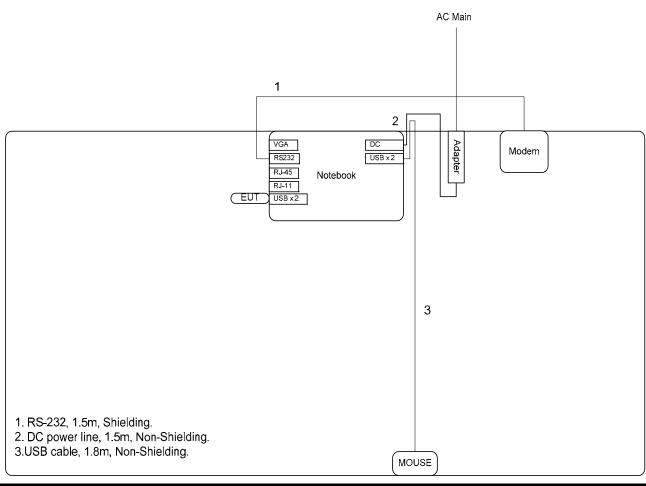
Conducted and Radiated:

The program was executed as follows :

- a. Turn on the power of all equipment.
- b. The NB reads the test program from the hard disk drive and runs it.
- c. The NB sends "H" messages to the panel and displays "H" patterns on the screen.
- d. The NB sends messages to the modem.

#### 2.8 Test Configuration

#### 2.8.1 Radiation Emissions Test Configuration



# **3 TEST RESULT**

#### 3.1 AC Power Line Conducted Emissions Measurement

#### 3.1.1 Limit

For this product which is designed to be connected to the 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 below limits table.

#### Class B

Frequency (MHz)	QP Limit (dBuV)	AV Limit (dBuV)
0.15~0.5	66~56	56~46
0.5~5	56	46
5~30	60	50

#### 3.1.2 Measuring Instruments and Setting

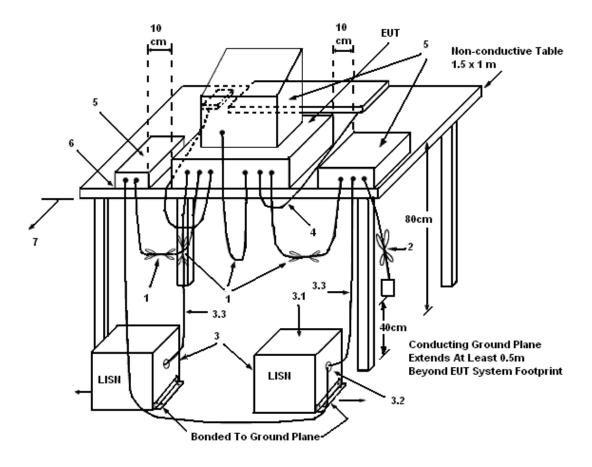
Please refer to section 4 of equipments list in this report. The following table is the setting of the receiver.

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 KHz

#### 3.1.3 Test Procedures

- 1. The EUT warm up about 15 minutes then start test.
- Configure the EUT according to ANSI C63.4. The EUT or host of EUT has to be placed 0.4 meter far from the conducting wall of the shielding room and at least 80 centimeters from any other grounded conducting surface.
- 3. Connect EUT or host of EUT to the power mains through a line impedance stabilization network (LISN).
- 4. All the support units are connected to the other LISNs. The LISN should provide 50uH/50ohms coupling impedance.
- 5. The frequency range from 150 KHz to 30 MHz was searched.
- 6. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- 1. The measurement has to be done between each power line and ground at the power terminal.

#### 3.1.4 Test Setup Layout



#### LEGEND:

(1) Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

(2) I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

(3) EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50  $\Omega$ . LISN can be placed on top of, or immediately beneath, reference ground plane.

(3.1) All other equipment powered from additional LISN(s).

(3.2) Multiple outlet strip can be used for multiple power cords of non-EUT equipment.

(3.3) LISN at least 80 cm from nearest part of EUT chassis.

(4) Cables of hand-operated devices, such as keyboards, mice, etc., shall be placed as for normal use.

(5) Non-EUT components of EUT system being tested.

(6) Rear of EUT, including peripherals, shall all be aligned and flush with rear of tabletop.

(7) Rear of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.

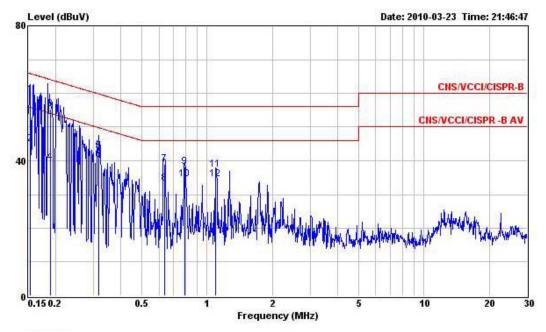
#### 3.1.5 Test Deviation

There is no deviation with the original standard.

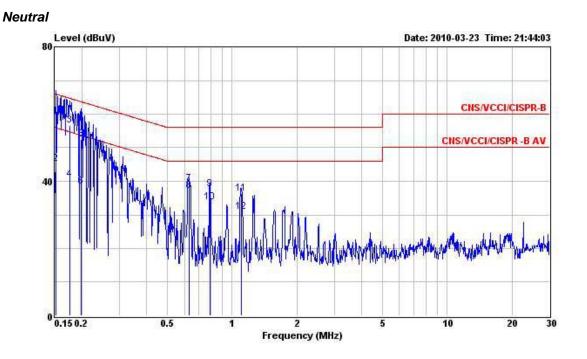
#### 3.1.6 Results of AC Power Line Conducted Emissions Measurement

Final Test Date	Mar. 23, 2010	Test Site No.	CO01-HY
Temperature	20	Humidity	50%
Test Engineer	Steven	Configuration	Normal Mode

Line



	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
-	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.153	59.48	-6.36	65.84	59.32	0.08	0.08	QP
2	0.153	44.99	-10.85	55.84	44.83	0.08	0.08	Average
з	0.189	55.40	-8.68	64.08	55.26	0.08	0.06	QP
4	0.189	39.52	-14.56	54.08	39.38	0.08	0.06	Average
.5	0.317	42.85	-16.94	59.79	42.69	0.09	0.07	QP
6	0.317	40.24	-9.55	49.79	40.08	0.09	0.07	Average
7	0.637	39.08	-16.92	56.00	38.87	0.10	0.11	QP
8	0.637	33.15	-12.85	46.00	32.94	0.10	0.11	Average
9	0.788	38.13	-17.87	56.00	37.91	0.10	0.12	QP
10	0.788	34.57	-11.43	46.00	34.35	0.10	0.12	Average
11	1.090	37.35	-18.65	56.00	37.10	0.11	0.14	QP
12	1.090	34.57	-11.43	46.00	34.32	0.11	0.14	Average



	The second	T 1	Over Linit	Limit	Read	Probe	Cable	Descela
	Freq	Level	Limit	Line	Level	Factor	T033	Remark
	MHz	dBuV	dB	dBu∛	dBuV	dB	dB	
1	0.152	59.30	-6.59	65.89	59.15	0.07	0.08	QP
2	0.152	45.21	-10.68	55.89	45.06	0.07	0.08	Average
3	0.176	56.70	-7.97	64.67	56.57	0.06	0.07	QP
4	0.176	40.45	-14.22	54.67	40.32	0.06	0.07	Average
5 6	0.199	52.39	-11.26	63.65	52.27	0.06	0.06	QP
6	0.199	38.47	-15.18	53.65	38.35	0.06	0.06	Average
7	0.630	39.26	-16.74	56.00	39.08	0.08	0.10	QP
8	0.630	37.14	-8.86	46.00	36.96	0.08	0.10	Average
9	0.792	37.59	-18.41	56.00	37.39	0.08	0.12	QP
10	0.792	33.79	-12.21	46.00	33.59	0.08	0.12	Average
11	1.100	36.31	-19.69	56.00	36.08	0.09	0.14	QP
12	1.100	30.80	-15.20	46.00	30.57	0.09	0.14	Average

Note:

Level = Read Level + LISN Factor + Cable Loss.

**SPORTON International Inc.** TEL : 886-2-2696-2468 FAX : 886-2-2696-2255

#### 3.2 Radiated Emissions Measurement

#### 3.2.1 Limit

Measurements shall be made with a quasi-peak measuring receiver in the frequency range 30 MHz to 5th harmonic of highest frequency. The quasi-peak measuring receiver shall be in accordance with clause 2 of CISPR 16-1. Receivers with peak detectors shall be in accordance with clause 3 of CISPR 16-1, and shall have a 6 dB bandwidth in accordance with clause 2 of CISPR 16-1.

Frequency of Emission (MHz)	Field Strength QP Limit (dBuV/m) at 3m
30~88	40
88~216	43.5
216~960	46

#### 3.2.2 Measuring Instruments and Setting

Please refer to section 4 of equipments list in this report. The following table is the setting of spectrum analyzer and receiver.

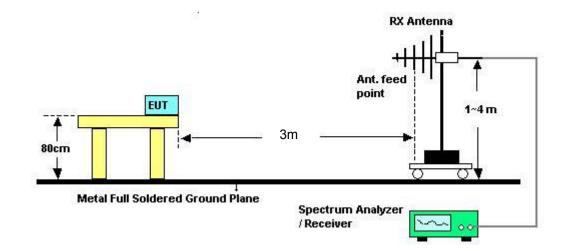
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

Spectrum Parameter	Setting
Start Frequency	1000 MHz
Stop Frequency	5th harmonic of highest frequency
RB / VB	1 MHz / 1MHz for Peak; 1 MHz / 10Hz for Average

#### 3.2.3 Test Procedures

- 1. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.

#### 3.2.4 Test Setup Layout



#### 3.2.5 Test Deviation

There is no deviation with the original standard.

#### 3.2.6 Results of Radiated Emissions (30MHz~1GHz)

Final Test Date	Mar. 04, 2010	Test Site No.	03CH02-HY
Temperature	24	Humidity	53%
Test Engineer	Billy	Configuration	Normal Mode

#### Horizontal Bevel (dBuV/m) Date: 2010-03-04 FCC CLASS\_B FCC CLASS\_B FCC CLASS\_B FCC CLASS\_C FCC CLASS\_C

Fre	au	end	v (	MHz)	1

ł

	Freq	Level	Over Limit			Antenna Factor		Preamp Factor	Remark
-	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
10	90.140	27.12	-16.38	43.50	43.78	9.50	1.54	27.70	Peak
2	153.190	21.60	-21.90	43.50	36.44	10.70	1.87	27.41	Peak
3 @	238.550	37.36	-8.64	46.00	49.31	12.62	2.30	26.87	Peak
4 @	347.190	31.55	-14.45	46.00	41.42	14.43	2.85	27.15	Peak
5 @	796.300	32.29	-13.71	46.00	35.38	20.21	4.44	27.74	Peak
6 @	995.150	38.80	-15.20	54.00	38.60	22.38	4.88	27.06	Peak

Vertical

 Level (dBuV/m)
 Date: 2010-03-04

 9
 FCC CLASS-B

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 Frequency (MHz)

	Freq	Level	Over Limit	Limit Line		Antenna Factor		Preamp Factor	Remark
in the	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
10	30.000	35.31	-4.69	40.00	46.33	16.22	0.64	27.88	Peak
2 @	90.140	33.61	-9.89	43.50	50.27	9.50	1.54	27.70	Peak
3 @	238.550	30.46	-15.54	46.00	42.41	12.62	2.30	26.87	Peak
4 @	529.550	31.17	-14.83	46.00	37.54	18.12	3.68	28.17	Peak
5 @	749.740	30.18	-15.82	46.00	34.15	19.55	4.36	27.88	Peak
6	998.060	30.06	-23.94	54.00	29.75	22.45	4.91	27.05	Peak

Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

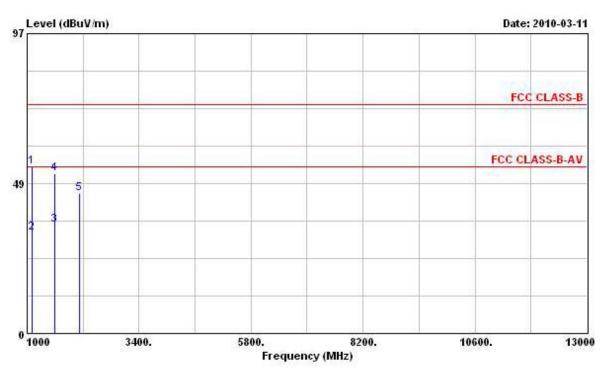
Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

#### 3.2.7 Results for Radiated Emissions (1GHz~5th harmonic of highest frequency)

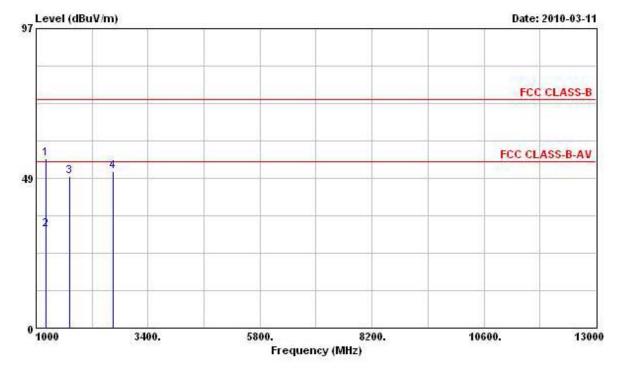
Final Test Date	Mar. 11, 2010	Test Site No.	03CH02-HY
Temperature	24	Humidity	53%
Test Engineer	Billy	Configuration	CRX 802.11g CH 6

Horizontal



		Over	Limit	Read	Antenna	Cable	Preamp	
Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1108.000	54.03	-19.97	74.00	59.68	27.18	1.92	34.75	Peak
1108.000	32.67	-21.33	54.00	38.32	27.18	1.92	34.75	Average
1590.000	35.17	-18.83	54.00	38.97	28.04	2.36	34.20	Average
1590.000	51.63	-22.37	74.00	55.43	28.04	2.36	34.20	Peak
2124.000	45.41	-28.59	74.00	45.69	30.68	2.81	33.77	Peak
	MHz 1108.000 1108.000 1590.000 1590.000	MHz dBuV/m 1108.000 54.03 1108.000 32.67 1590.000 35.17 1590.000 51.63	Freq         Level         Limit           MAz         dBuV/m         dB           1108.000         54.03         -19.97           1108.000         32.67         -21.33           1590.000         35.17         -18.83           1590.000         51.63         -22.37	Freq         Level         Limit         Line           MHz         dBuV/m         dB         dBuV/m           1108.000         54.03         -19.97         74.00           1108.000         32.67         -21.33         54.00           1590.000         35.17         -18.83         54.00           1590.000         51.63         -22.37         74.00	Freq         Level         Limit         Line         Level           MAz         dBuV/m         dB         dBuV/m         dBuV/m         dBuV/m           1108.000         54.03         -19.97         74.00         59.68           1108.000         32.67         -21.33         54.00         38.32           1590.000         35.17         -18.83         54.00         38.97           1590.000         51.63         -22.37         74.00         55.43	Freq         Level         Limit         Line         Level         Factor           MHz         dBuV/m         dB         dBuV/m         dBuV/m         dB/m         dB/m           1108.000         54.03         -19.97         74.00         59.68         27.18           1108.000         32.67         -21.33         54.00         38.32         27.18           1590.000         35.17         -18.83         54.00         38.97         28.04           1590.000         51.63         -22.37         74.00         55.43         28.04	Freq         Level         Limit         Line         Level         Factor         Loss           MAz         dBuV/m         dB         dBuV/m         dBuV/m         dB/m         dB           1108.000         54.03         -19.97         74.00         59.68         27.18         1.92           1108.000         32.67         -21.33         54.00         38.32         27.18         1.92           1590.000         35.17         -18.83         54.00         38.97         28.04         2.36           1590.000         51.63         -22.37         74.00         55.43         28.04         2.36	Freq         Level         Limit         Line         Level         Factor         Loss         Factor           MHz         dBuV/m         dB         dBuV/m         dBuV/m         dB/m         dB         dB           1108.000         54.03         -19.97         74.00         59.68         27.18         1.92         34.75           1108.000         32.67         -21.33         54.00         38.32         27.18         1.92         34.75           1590.000         35.17         -18.83         54.00         38.97         28.04         2.36         34.20           1590.000         51.63         -22.37         74.00         55.43         28.04         2.36         34.20

Vertical



	Freq	Level	Over Limit	Limit Line		Antenna Factor		Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	-
1	1206.000	54.89	-19.11	74.00	60.10	27.44	1.99	34.64	Peak
2	1206.000	32.04	-21.96	54.00	37.25	27.44	1.99	34.64	Average
3	1726.000	49.03	-24.97	74.00	51.23	29.32	2.49	34.01	Peak
4	2654.000	50.71	-23.29	74.00	49.10	32.64	3.18	34.21	Peak

Note:

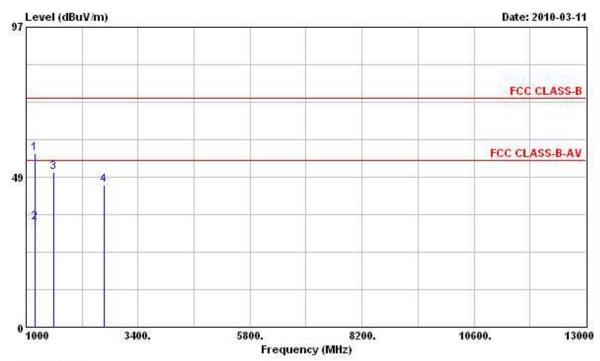
The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

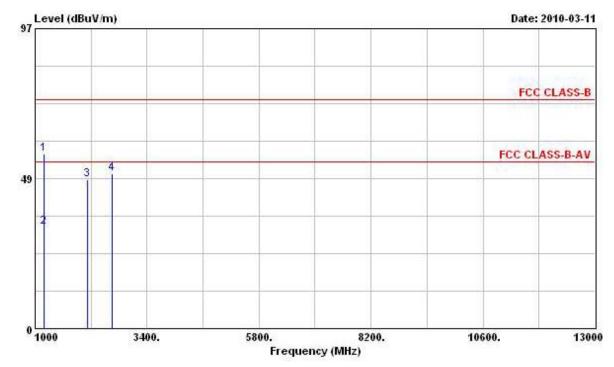
Final Test Date	Mar. 11, 2010	Test Site No.	03CH02-HY
Temperature	24	Humidity	53%
Test Engineer	Billy	Configuration	CRX 802.11n CH 6 (20MHz)

Horizontal



	Freq	Level	Over Limit		2010/01/22			Preamp Factor	Remark
5	Mrz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	00 30 940A
10	1190.000	56.26	-17.74	74.00	61.69	27.25	1.99	34.67	Peak
2	1190.000	33.69	-20.31	54.00	39.12	27.25	1.99	34.67	Average
3	1596.000	50.17	-23.83	74.00	53.97	28.04	2.36	34.20	Peak
4	2662.000	46.10	-27.90	74.00	44.50	32.60	3.21	34.21	Peak

Vertical



	Fre	q Level	Over Limit			Antenna Factor		Preamp Factor	Remark
	MHz	z dBuV/m	dB	dBuV/m dl	dBuV	BuV dB/m	dB	dB	
10	1188.00	0 56.44	-17.56	74.00	61.73	27.39	1.99	34.67	Peak
2	1188.00	0 32.95	-21.05	54.00	38.24	27.39	1.99	34.67	Average
3	2126.00	0 48.21	-25.79	74.00	48.14	31.03	2.81	33.77	Peak
4	2654.00	0 50.15	-23.85	74.00	48.54	32.64	3.18	34.21	Peak

Note:

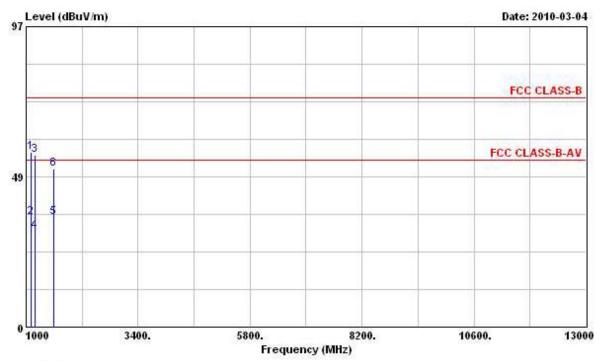
The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Final Test Date	Mar. 04, 2010	Test Site No.	03CH02-HY
Temperature	24	Humidity	53%
Test Engineer	Billy	Configuration	CRX 802.11n CH 6 (40MHz)

Horizontal



			Over	Limit	Readi	Antenna	Cable	Preamp	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark
77	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
10	1102.000	56.34	-17.66	74.00	61.99	27.18	1.92	34.75	Peak
2 @	1102.000	35.46	-18.54	54.00	41.11	27.18	1.92	34.75	Average
3 @	1196.000	55.47	-18.53	74.00	60.85	27.27	1.99	34.64	Peak
4	1196.000	31.09	-22.91	54.00	36.47	27.27	1.99	34.64	Average
5 @	1590.000	35.28	-18.72	54.00	39.08	28.04	2.36	34.20	Average
6	1590.000	51.03	-22.97	74.00	54.83	28.04	2.36	34.20	Peak

Vertical

Date: 2010-03-04 PT
Date: 2010-03-04
PCC CLASS-B
PCC CLASS-B
PCC CLASS-B
PCC CLASS-B-AV
PD
PCC CLASS-B-AV
PCC CLA

			Over	Limit	Readi	Antenna	Cable	Preamp	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark
i.	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	-
1	1110.000	53.19	-20.81	74.00	58.85	27.17	1.92	34.75	Peak
2	1110.000	34.83	-19.17	54.00	40.49	27.17	1.92	34.75	Average
3	1198.000	32.99	-21.01	54.00	38.20	27.44	1.99	34.64	Average
4	1198.000	54.84	-19.16	74.00	60.05	27.44	1.99	34.64	Peak
5	2660.000	53.92	-20.08	74.00	52.25	32.67	3.21	34.21	Peak
6 @	2660.000	36.11	-17.89	54.00	34.44	32.67	3.21	34.21	Average

Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

# **4 LIST OF MEASURING EQUIPMENTS**

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	<b>Calibration Date</b>	Remark
		ESCS 30	100122	9kHz – 2.75GHz	San 01 2000	Conduction
EMC Receiver	R&S	ESCS 30	100132	9KHZ – 2.75GHZ	Sep. 01, 2009	(CO01-HY)
LICN	MagaTag		2001/004	9kHz – 30MHz	lon 10 2010	Conduction
LISN	MessTec	NNB-2/16Z	2001/004	9KHZ – 30MHZ	Jan. 19, 2010	(CO01-HY)
LISN	MasaTaa		2004/000		Mar. 01, 2010	Conduction
(Support Unit)	MessTec	NNB-2/16Z	2001/009	9kHz – 30MHz	Mar. 01, 2010	(CO01-HY)
			07011000010001		May 05, 2000	Conduction
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832010001	9kHz – 30MHz	May 05, 2009	(CO01-HY)

Note: Calibration Interval of instruments listed above is one year.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Spectrum Analyzer	R&S	FSP40	100305/040	9 kHz - 40GHz	Feb. 02, 2010	Radiation (03CH02-HY)
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30 MHz - 1 GHz 3m	May 11, 2009	Radiation (03CH02-HY)
Amplifier	Agilent	8447D	2944A11146	100 kHz – 1.3 GHz	Jul. 07, 2009	Radiation (03CH02-HY)
Amplifier	Agilent	8449B	3008A02373	1GHz – 26.5 GHz	Jul. 16, 2009	Radiation (03CH02-HY)
Horn Antenna	ETS-LINDGREN	3117	00091920	1GHz~18GHz	Oct. 22, 2009	Radiation (03CH02-HY)
RF Cable-R03m	Jye Bao	RG142	CB020	30 MHz - 1 GHz	Dec. 16, 2009	Radiation (03CH02-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX106	03CH02-HY	1GHz~40GHz	Dec. 16, 2009	Radiation (03CH02-HY)
Bilog Antenna	SCHAFFNER	CBL61128	2723	30 MHz - 2 GHz	Nov. 30, 2009	Radiation (03CH02-HY)
Turn Table	HD	DS 420	420/649/00	0 - 360 degree	N/A	Radiation (03CH02-HY)
Antenna Mast	HD	MA 240	240/559/00	1 m - 4 m	N/A	Radiation (03CH02-HY)

Note: Calibration Interval of instruments listed above is one year.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	<b>Calibration Date</b>	Remark
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz - 30 MHz	Jul 28, 2008*	Radiation (03CH02-HY)

Note: Calibration Interval of instruments listed above is two year.

# **5 TEST LOCATION**

SHIJR	ADD	:	6FI., No. 106, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C.
	TEL	:	886-2-2696-2468
	FAX	:	886-2-2696-2255
HWA YA	ADD	:	No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
	TEL	:	886-3-327-3456
	FAX	:	886-3-318-0055
LINKOU	ADD	:	No. 30-2, Dingfu Tsuen, Linkou Shiang, Taipei, Taiwan 244, R.O.C
	TEL	:	886-2-2601-1640
	FAX	:	886-2-2601-1695
DUNGHU	ADD	:	No. 3, Lane 238, Kangle St., Neihu Chiu, Taipei, Taiwan 114, R.O.C.
	TEL	:	886-2-2631-4739
	FAX	:	886-2-2631-9740
JUNGHE	ADD	:	7FI., No. 758, Jungjeng Rd., Junghe City, Taipei, Taiwan 235, R.O.C.
	TEL	:	886-2-8227-2020
	FAX	:	886-2-8227-2626
NEIHU	ADD	:	4FI., No. 339, Hsin Hu 2 <sup>nd</sup> Rd., Taipei 114, Taiwan, R.O.C.
	TEL	:	886-2-2794-8886
	FAX	:	886-2-2794-9777
JHUBEI	ADD	:	No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.
	TEL	:	886-3-656-9065
	FAX	:	886-3-656-9085

# **6 TAF CERTIFICATE OF ACCREDITATION**

	Certificate No.: L1190-100107 財團法人全國認證基金會 Taiwan Accreditation Foundation
Ce	rtificate of Accreditation
	This is to certify that
	Sporton International Inc.
	& Wireless Communications Laboratory ., 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, 2010 to January 09, 2013
Accredited Scope Specific Accreditation Program	<ul> <li>Testing Field, see described in the Appendix</li> <li>Accreditation Program for Designated Testing Laboratory for Commodities Inspection Accreditation Program for Telecommunication Equipment Testing Laboratory Accreditation Program for BSMI Mutual Recognition Arrangment with Foreign Authorities</li> </ul>
	Jay-San Chen Jay-San Chen President, Taiwan Accreditation Foundation Date : January 07, 2010