FCC TEST REPORT

CATEGORY	:	Mobile End Product
PRODUCT NAME	:	Duplex Long Range Wireless A/V Transmission System
FCC ID.	:	SC5L24D
FILING TYPE	:	Certification
MODEL NAME	:	LRVS-24DM
BRAND NAME	:	WINPOWER
APPLICANT	:	**WINPOWER ELECTRONIC CO., LTD.** 17F-3, No.6, Sec. 2, Dah-Shing W. Rd., Taoyuan City(330), Taoyuan Hsien, Taiwan R.O.C.
MANUFACTURER	:	Same as Applicant
ISSUED BY	:	**SPORTON INTERNATIONAL INC.** 6F, No. 106, Sec. 1, Hsin Tai Wu Rd., His Chih, Taipei Hsien, Taiwan, R.O.C.

Statements:

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.

Certificate or Test Report could not be used by the applicant to claim the product endorsement by CNLA, NVLAP or any agency of U.S. government.

The test equipment used to perform the test are calibrated and traceable to NML/ROC or NIST/USA.

Dr. Alan Lane
Vice General Manager
Sporton International Inc.

Lab Code: 200079-0

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Appendix A. Photographs of EUT ..... A1 ~ A32

History of this test report

■ No additional attachment.

☐ Additional attachment were issued as following record:

Attachment No.	Issue Date	Description

1. General Description of Equipment under Test

1.1 Applicant

WINPOWER ELECTRONIC CO., LTD.

17F-3, No.6, Sec. 2, Dah-Shing W. Rd., Taoyuan City (330), Taoyuan Hsien, Taiwan R.O.C.

1.2 Manufacturer

Same as 1.1

1.3 Basic Description of Equipment under Test

This product is Duplex Long Range Wireless A/V Transmission System. The technical data has been listed on section " Features of Equipment under Test ". This product is operating on 2 frequency bands. 2.4GHz band is for A/V signal transmitting, 900MHz band is for control signal. The whole set is composed by 2 independent units. One, unit A, is for 2.4GHz Tx and 900MHz Rx, the other one, unit B, is 2.4GHz Rx and 900MHz Tx. This test report is for unit B. The camera is installed together with unit A, the shooting direction of the camera is controlled by a panel installed together with unit B. The channel can be selected by dip switch.

1.4 Features of Equipment under Test

ITEMS	DESCRIPTION
Type of Modulation	FM
Number of Channels	4
Carrier Frequencies	Please reference section 1.5
Antenna Type	Monopole Antenna
Function Type	Transceiver
Power Rating (DC/AC, Voltage)	12 VDC from power adapter
Duty Cycle	100%
Humidity Range	10% ~ 90%
Temperature Range (Operating)	-10 ~ +55 ℃

1.5 Table for Operating Frequencies

Channel	Frequency
1	920.50 MHz
2	920.75 MHz
3	921.00 MHz
4	921.25 MHz

2. Test Configuration of the Equipment under Test

2.1 Description of the Test

a. The EUT has been programmed to continuously transmit or receive during testing. The used peripherals as well as the configuration fulfill the requirements of ANSI C63.4:2001.
b. The configuration is operated in a manner which tends to maximize its emission characteristics in a typical application.
c. 3 meters measurement distance in semi-anechoic chamber was used in this test.
d. DVD player sent the A/V signal to EUT (Tx) and then the EUT transmit signal to the receiver.
e. 3 modes were tested. From mode 1 to 3 are 900MHz band.

Mode 1: CH 01 (920.5 MHz)
Mode 2: CH 02 (920.75MHz)
Mode 3: CH 04 (921.25Hz)

f. Spurious emission below 1GHz is independent of channel selection, so only one channel was tested.

2.2 Frequency Range Investigated

Radiated emission test: from 30 MHz to 10th harmonic of the highest operating frequency or 40GHz whichever is lower.

2.3 Description of Test Supporting Units

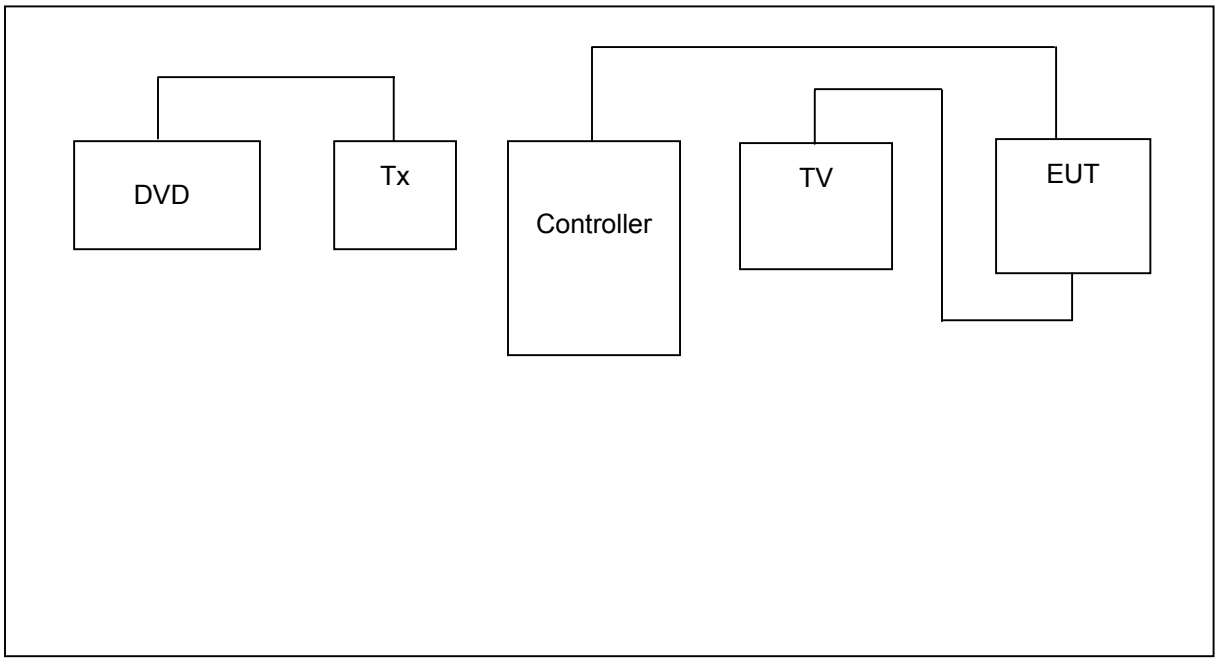
Support Unit1. –DVD PLAYER(SONY)

FCC ID	: N/A
Model No.	: CVP-35450

Support Unit 2. -- TV (JVC)

FCC ID	: N/A
Model No.	: TM-1700PN
Serial No.	: SP0038
AV Cable	: Non-Shielded, 1.6m

2.4 Connection Diagram of Test System



2.5 Test Software

No Test Software is needed for testing.

3. Test Location and Standards

3.1 Test Location

Test Location	:	Sporton Hwa Ya Testing Building
Address	:	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. Tel: +886 3 327 3456 Fax: +886 3 318 0055
Test Site No.	:	03CH03-HY

3.2 Test Conditions

Normal Voltage	: 110VAC
Extreme Voltages	: 126.5 / 93.5 VAC
Normal Temperature	: 20 ℃
Extreme Temperature	: -10 ℃ and 55 ℃

3.3 Standards for Methods of Measurement

Here is the list of the standards followed in this test report.

ANSI C63.4-2001

47 CFR Part 15 Subpart C (Section 15.249)

3.4 DoC Statement

This EUT is also classified as a device of computer peripheral Class B which DoC has to be followed. It has been verified according to the rule of 47 CFR part 15 Subpart B, and found that all the requirements has been fulfilled.

4. List of Measurements

4.1 Summary of the Test Results

Applied Standard: 47 CFR Part 15 and Part 2			
Paragraph	**FCC Rule**	**Description of Test**	**Result**
5.1	15.249(a)	Carrier field strength	Pass
5.2	15.107/15.207	AC Power Line Conducted Emission	Pass
5.3	15.249(a)/ 15.249(d)	Spurious Radiated Emission	Pass
5.4	15.249(b)	Frequency Tolerance	N/A
5.5	15.235(c)(3)	Antenna Requirement	Pass

5. Test Result

5.1 Carrier Field Strength

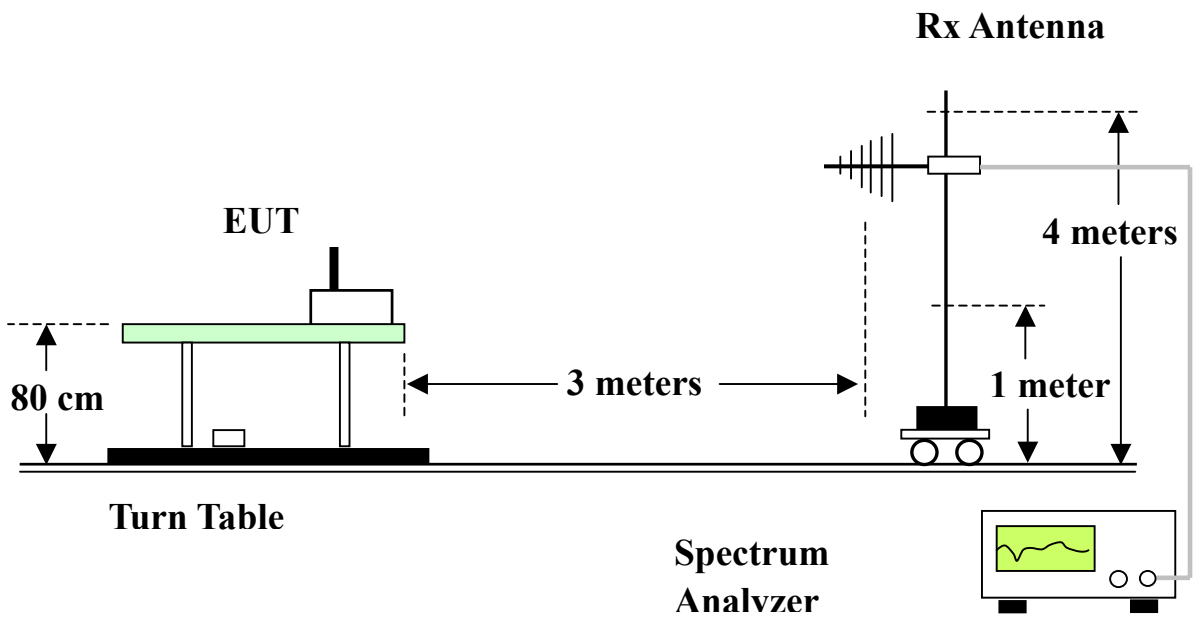
5.1.1 Measuring Instruments

Item 1~9 of the table on section 7.

5.1.2 Test Procedures

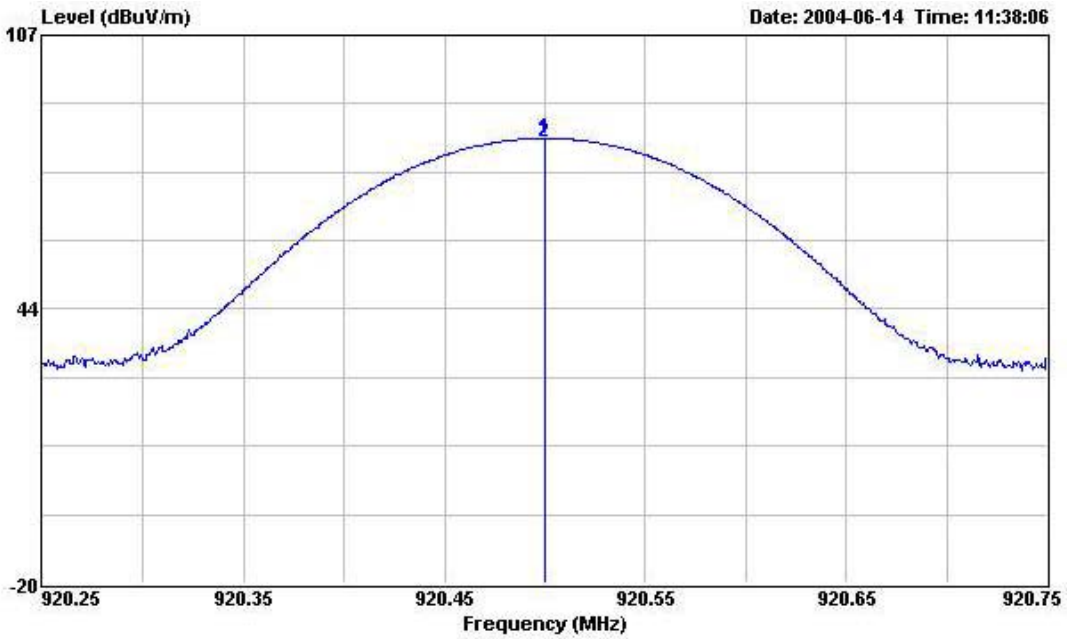
1. Configure the EUT according to ANSI C63.4.
2. The EUT was placed on the top of the turn table 0.8 meter above ground.
3. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turn table.
4. Power on the EUT and all the supporting units.
5. The turn table was rotated by 360 degrees to determine the position of the highest radiation.
6. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emission field strength of both horizontal and vertical polarization.
7. For each suspected emission, the antenna tower was scan (from 1 M to 4 M) and then the turn table was rotated (from 0 degree to 360 degrees) to find the maximum reading.
8. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
9. For emission above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
10. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB higher than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

5.1.3 Test Setup Layout



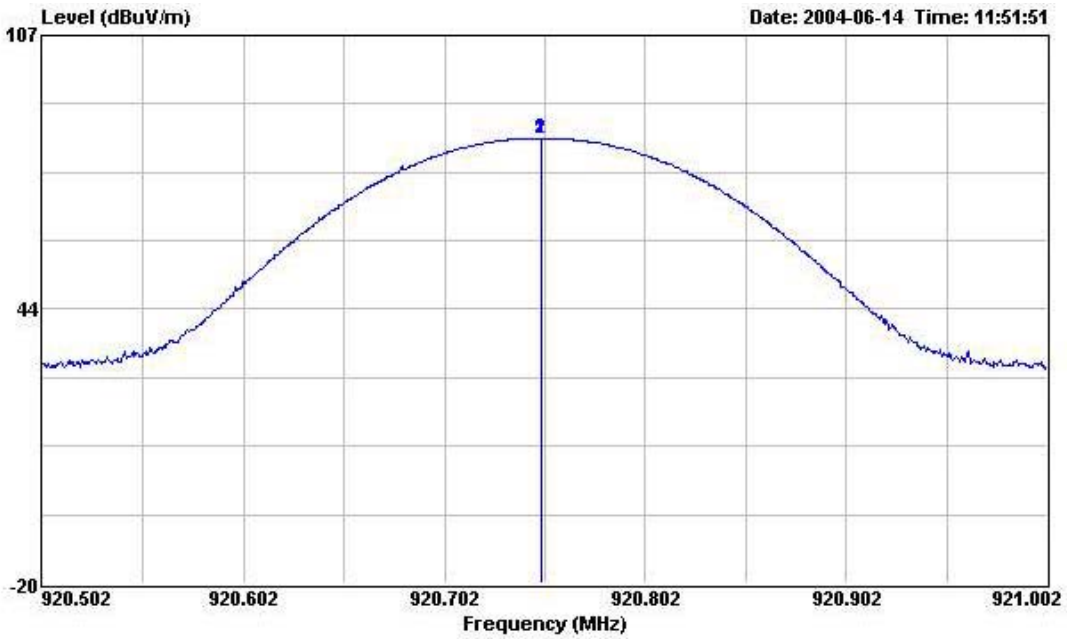
5.1.4 Test Result

Test Mode	Mode 1	Temperature	24 deg. C	Tested By	Steve Chen
Frequency	920.5MHz	Humidity	67%		



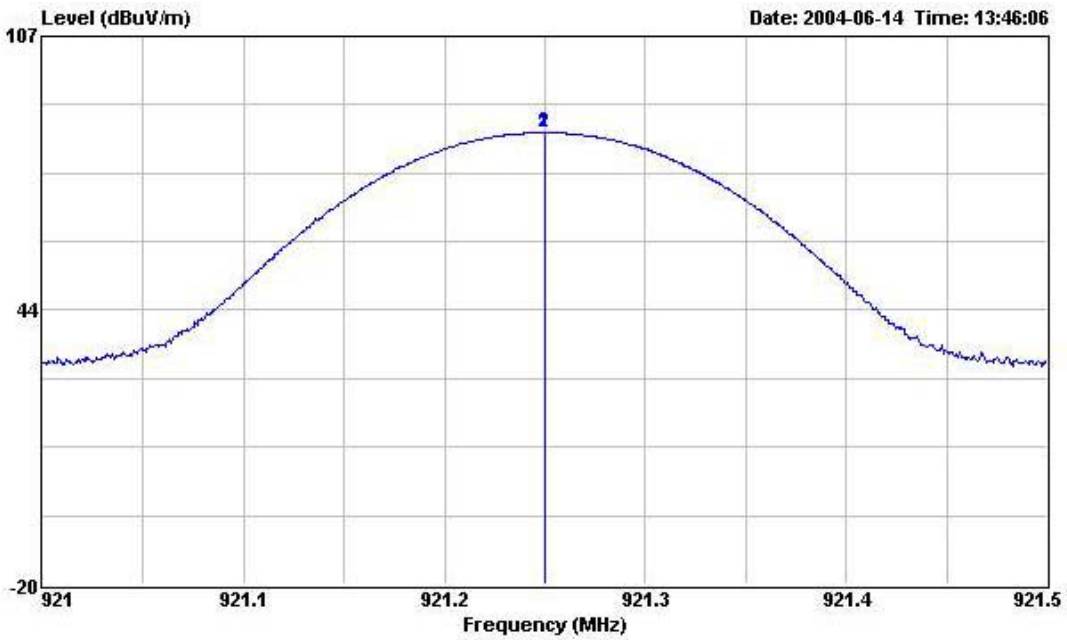
Frequency (MHz)	Level (dBuV/m)	Read Level (dBuV)	Probe Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Limit Line (dBuV/m)	Detect Mode
920.500	83.06	84.54	21.39	5.41	28.28	114	Peak
920.500	82.17	83.65	21.39	5.41	28.28	94	AV

Test Mode	Mode 2	Temperature	24 deg. C	Tested By	Steve Chen
Frequency	920.75MHz	Humidity	67%		



Frequency (MHz)	Level (dBuV/m)	Read Level (dBuV)	Probe Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Limit Line (dBuV/m)	Detect Mode
920.750	83.14	84.62	21.39	5.41	28.28	114	Peak
920.750	83.01	84.49	21.39	5.41	28.28	94	AV

Test Mode	Mode 3	Temperature	24 deg. C	Tested By	Steve Chen
Frequency	921.5MHz	Humidity	67%		



Frequency (MHz)	Level (dBuV/m)	Read Level (dBuV)	Probe Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Limit Line (dBuV/m)	Detect Mode
921.250	84.58	86.04	21.41	5.41	28.28	114	Peak
921.250	84.48	85.94	21.41	5.41	28.28	94	AV

5.2 AC Power Line Conducted Emission

5.2.1 Measuring Instruments

Please reference item 1~7 in chapter 6 for the instruments used for testing.

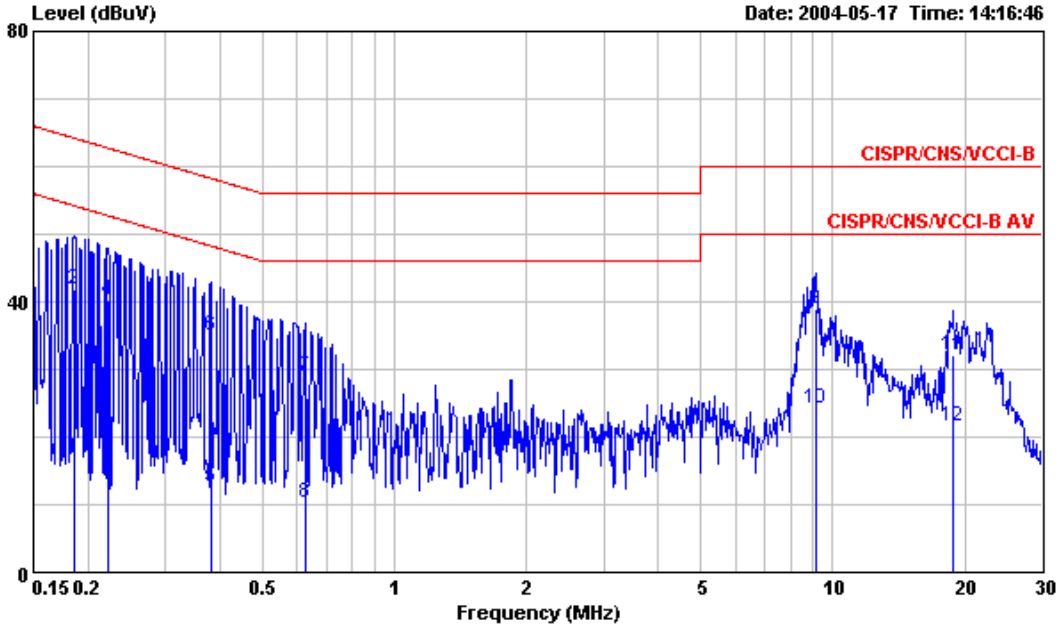
5.2.2 Test Procedures

1. Configure the EUT according to ANSI C63.4.
2. The 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 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 provides 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.
7. The measurement has to be done between each power line and ground at the power terminal for each RF channel. Only one RF channel has to be investigated since this test is independent with the RF channel selection.

5.2.3 Test Result of Conducted Emission

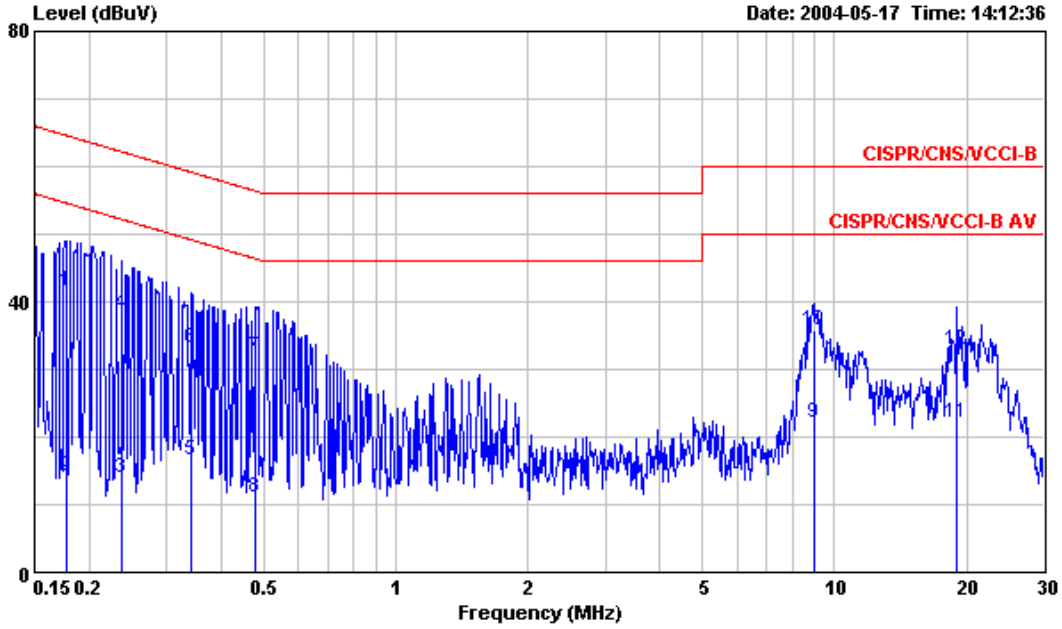
Test Mode	RF LINK	Tested By	Brian Lin
Temperature / Humidity	24deg. C / 52%		

Line to Ground



		Freq	Level	Over Limit	Limit Line	Read Level	Factor	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	dB	
1		0.1863950	16.84	-37.36	54.20	16.73	0.11	0.10	0.01	Average
2		0.1863950	41.90	-22.30	64.20	41.79	0.11	0.10	0.01	QP
3		0.2220070	13.55	-39.19	52.74	13.44	0.11	0.10	0.01	Average
4		0.2220070	40.38	-22.36	62.74	40.27	0.11	0.10	0.01	QP
5		0.3811300	12.66	-35.59	48.25	12.54	0.12	0.10	0.02	Average
6		0.3811300	34.90	-23.35	58.25	34.78	0.12	0.10	0.02	QP
7		0.6271470	29.02	-26.98	56.00	28.89	0.13	0.10	0.03	QP
8		0.6271470	10.15	-35.85	46.00	10.02	0.13	0.10	0.03	Average
9	@	9.160	38.82	-21.18	60.00	38.61	0.21	0.10	0.11	QP
10		9.160	24.28	-25.72	50.00	24.07	0.21	0.10	0.11	Average
11		18.820	32.00	-28.00	60.00	31.61	0.39	0.20	0.19	QP
12		18.820	21.52	-28.48	50.00	21.13	0.39	0.20	0.19	Average

Neutral to Ground



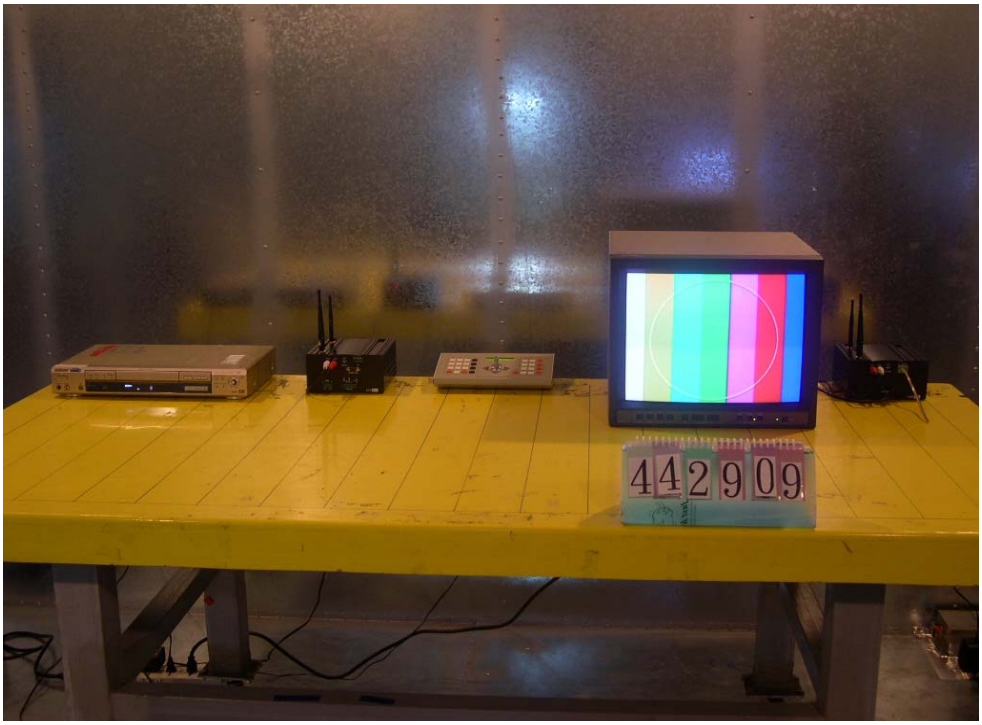
	req MHz	Level dBuV	Over Limit dB	Limit Line dBuV	Read Level dBuV	Factor dB	LISN Factor dB	Cable Loss dB	Remark
1	0.1767760	41.54	-23.10	64.64	41.43	0.11	0.10	0.01	QP
2	0.1767760	14.26	-40.38	54.64	14.15	0.11	0.10	0.01	Average
3	0.2378380	13.88	-38.29	52.17	13.77	0.11	0.10	0.01	Average
4	0.2378380	38.26	-23.91	62.17	38.15	0.11	0.10	0.01	QP
5	0.3409970	16.57	-32.61	49.18	16.45	0.12	0.10	0.02	Average
6	0.3409970	33.19	-25.99	59.18	33.07	0.12	0.10	0.02	QP
7	0.4786490	31.76	-24.60	56.36	31.64	0.12	0.10	0.02	QP
8	0.4786490	11.05	-35.31	46.36	10.93	0.12	0.10	0.02	Average
9	8.960	22.01	-27.99	50.00	21.71	0.30	0.19	0.11	Average
10	8.960	35.91	-24.09	60.00	35.61	0.30	0.19	0.11	QP
11	19.020	22.18	-27.82	50.00	21.71	0.47	0.28	0.19	Average
12	19.020	32.84	-27.16	60.00	32.37	0.47	0.28	0.19	QP

Test Engineer : _____
Brian Lin

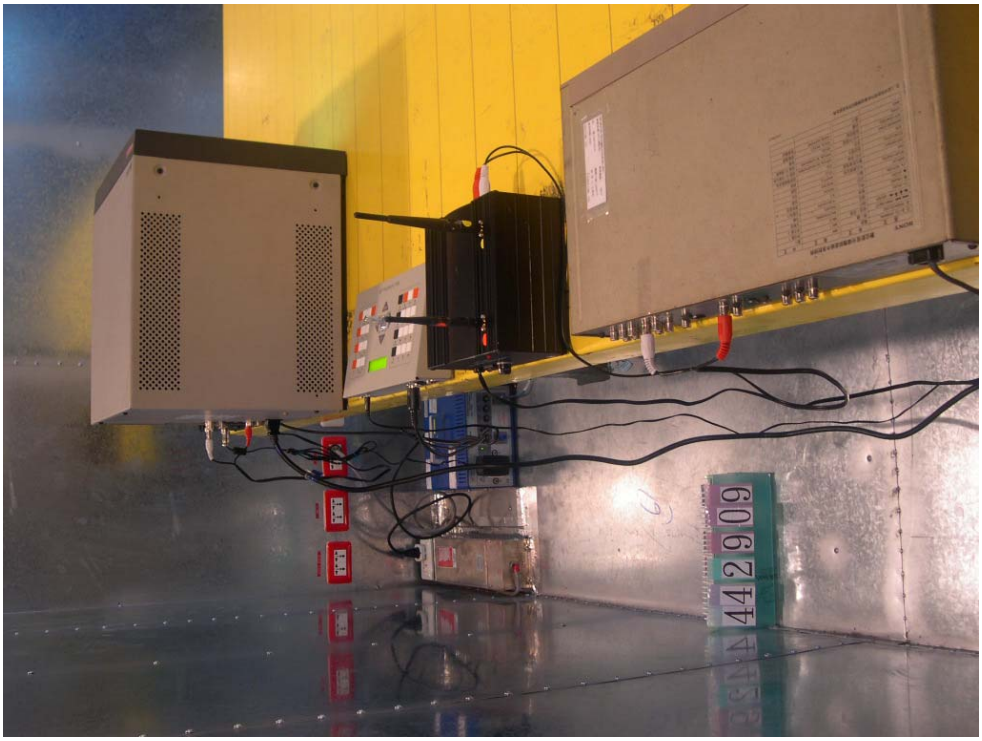
5.2.4 Photographs of Conducted Emission Test Configuration

- The photographs show the configuration that generates the maximum emission.

FRONT VIEW



REAR VIEW



SIDE VIEW

5.3 Test of Radiated Emission

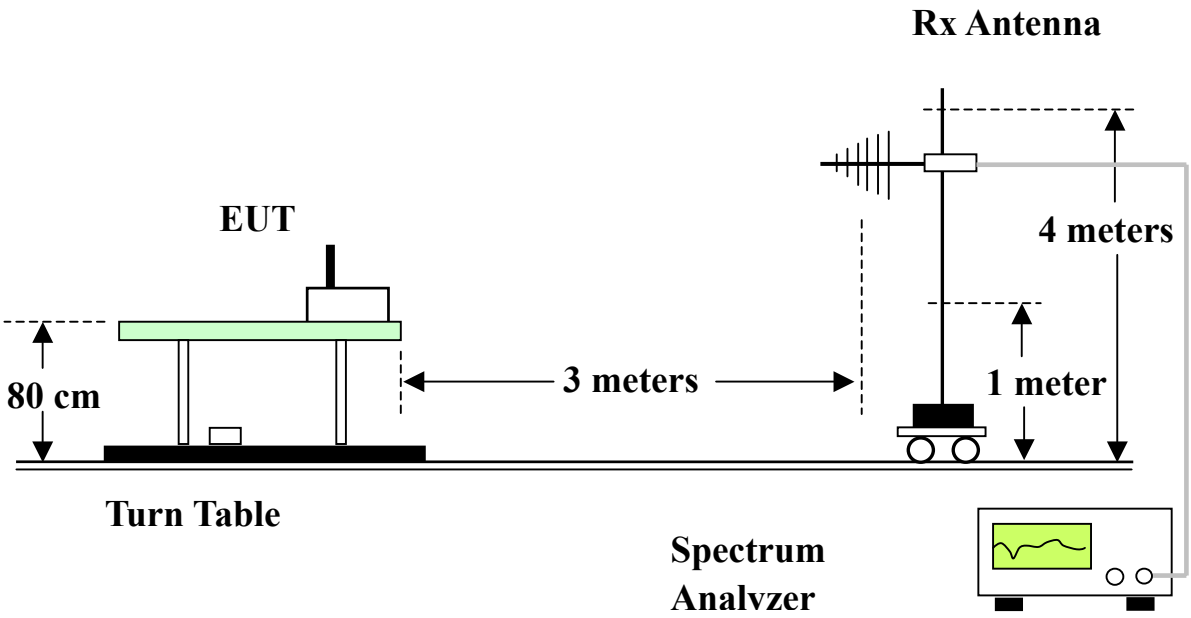
5.3.1 Measuring Instruments

Item 1~9 of the table on section 7.

5.3.2 Test Procedures

1. Configure the EUT according to ANSI C63.4.
2. The EUT was placed on the top of the turn table 0.8 meter above ground.
3. 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 turn table.
4. Power on the EUT and all the supporting units.
5. The turn table was rotated by 360 degrees to determine the position of the highest radiation.
6. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emission field strength of both horizontal and vertical polarization.
7. For each suspected emission, the antenna tower was scan (from 1 M to 4 M) and then the turn table was rotated (from 0 degree to 360 degrees) to find the maximum reading.
8. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
9. For emission above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
10. If the emission level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz and average method for above the 1GHz. the reported.
11. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB higher than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

5.3.3 Test Setup Layout



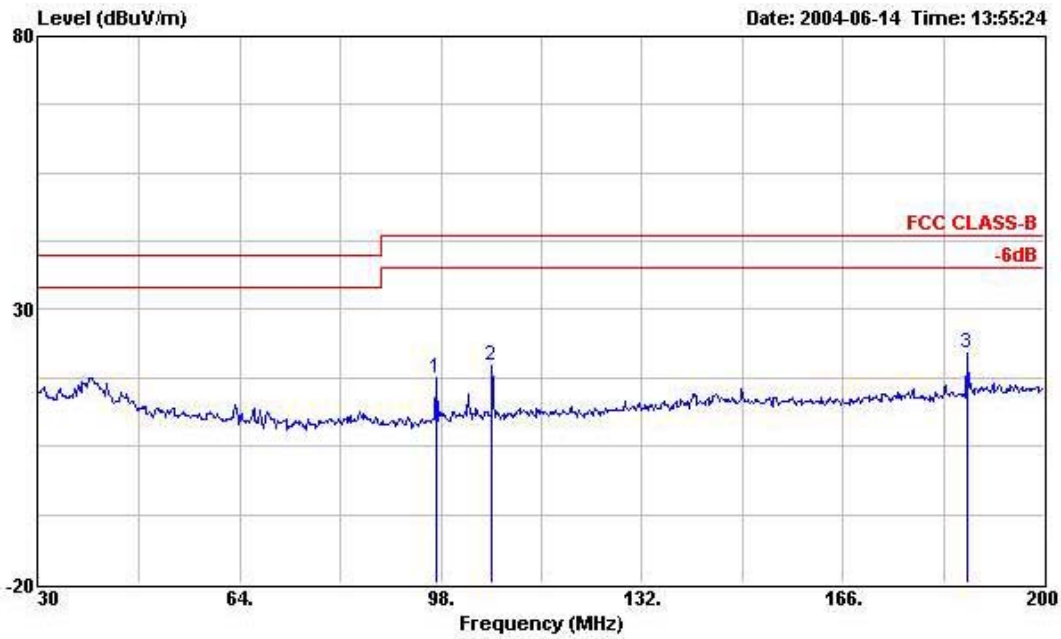
5.3.4 Test Results and Limit

Note:
Emission level (dBuV/m) = 20 log Emission level (uV/m)
Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

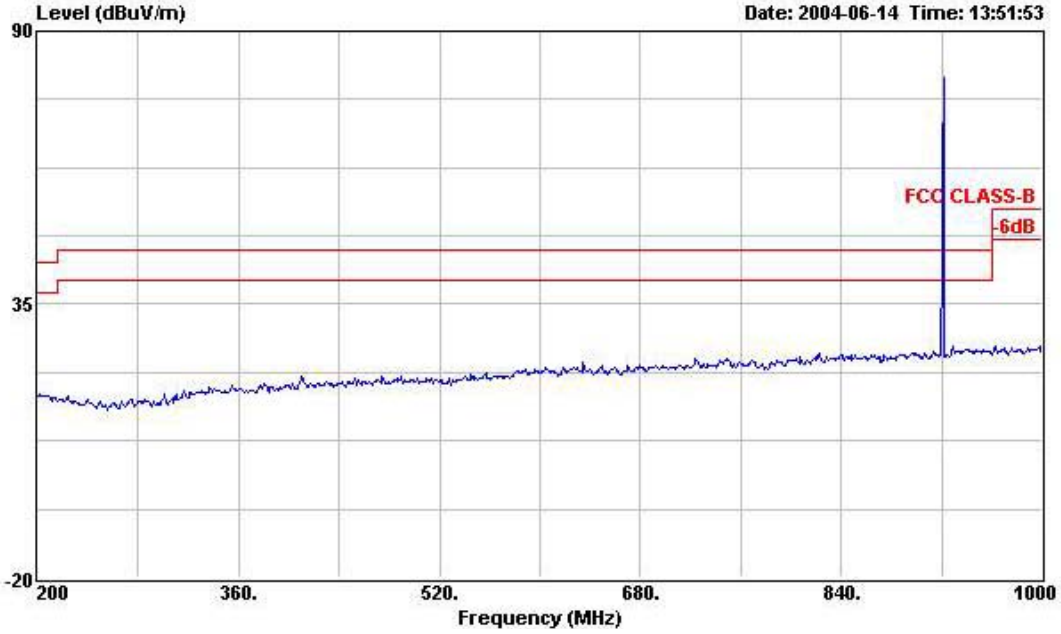
Test Mode	RF LINK	**Temperature**	24 deg. C	**Tested By**	Steve Chen
Freq. Range	30MHz~1GHz	**Humidity**	52%		

900MHz

(A) Polarization: Horizontal

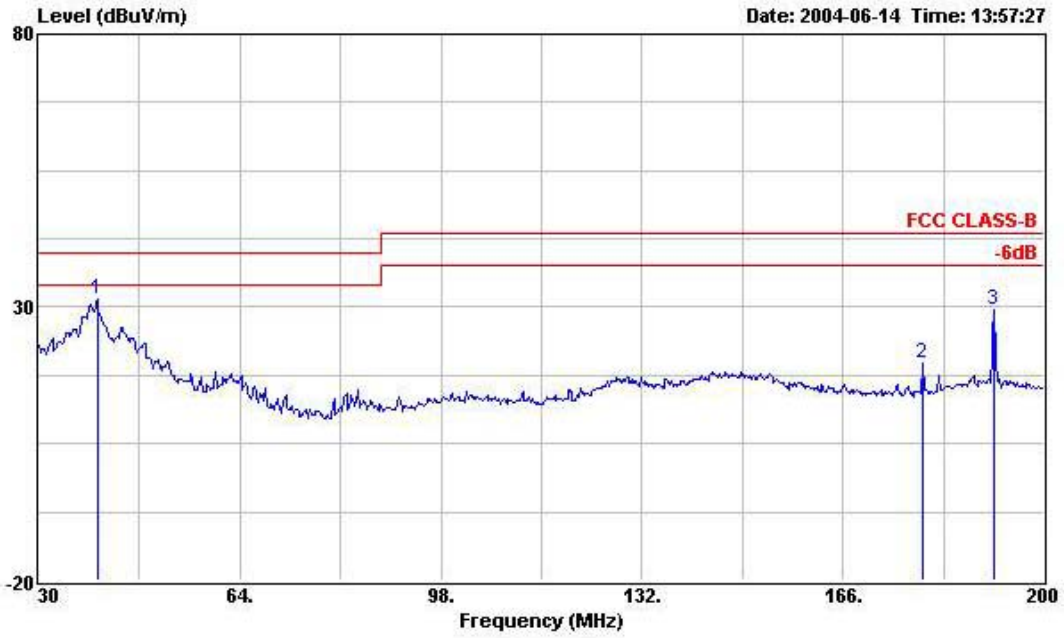


	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	97.150	17.55	-25.95	43.50	34.20	9.54	1.71	27.90	QP	---	---
2	106.670	19.83	-23.67	43.50	35.65	10.23	1.84	27.89	QP	---	---
3	186.910	21.87	-21.63	43.50	32.89	14.25	2.46	27.73	QP	---	---

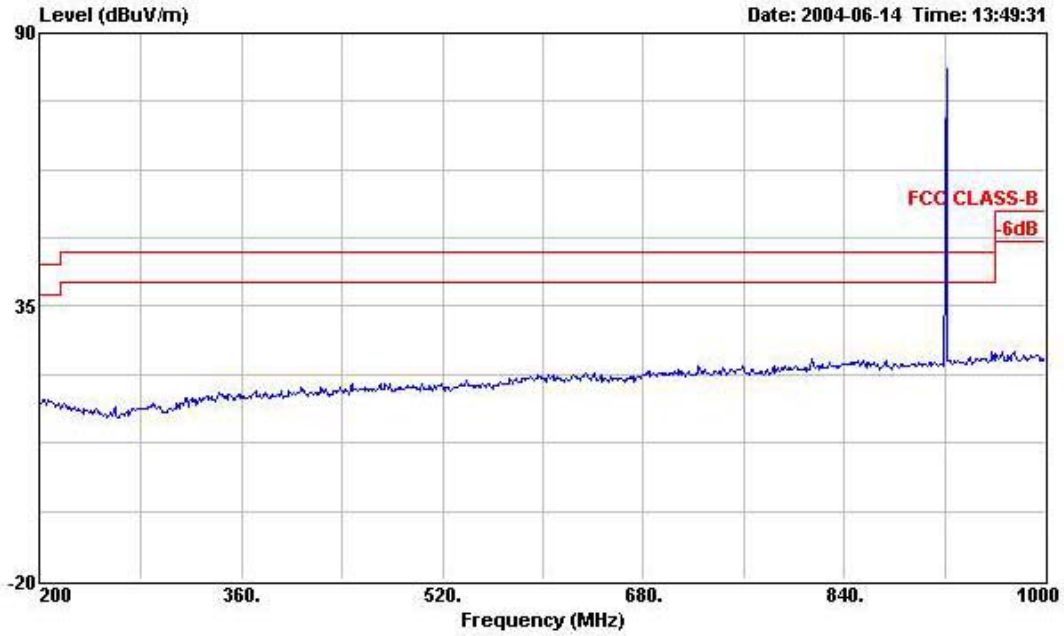


Remark: Spurious emission emitted by the EUT is too low to be measured.

(B) Polarization: Vertical



	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	39.860	31.50	-8.50	40.00	46.71	11.74	1.07	28.02	QP	100	211
2	179.430	19.60	-23.90	43.50	31.37	13.54	2.43	27.74	QP	---	---
3	191.500	29.56	-13.94	43.50	40.20	14.60	2.48	27.72	QP	---	---

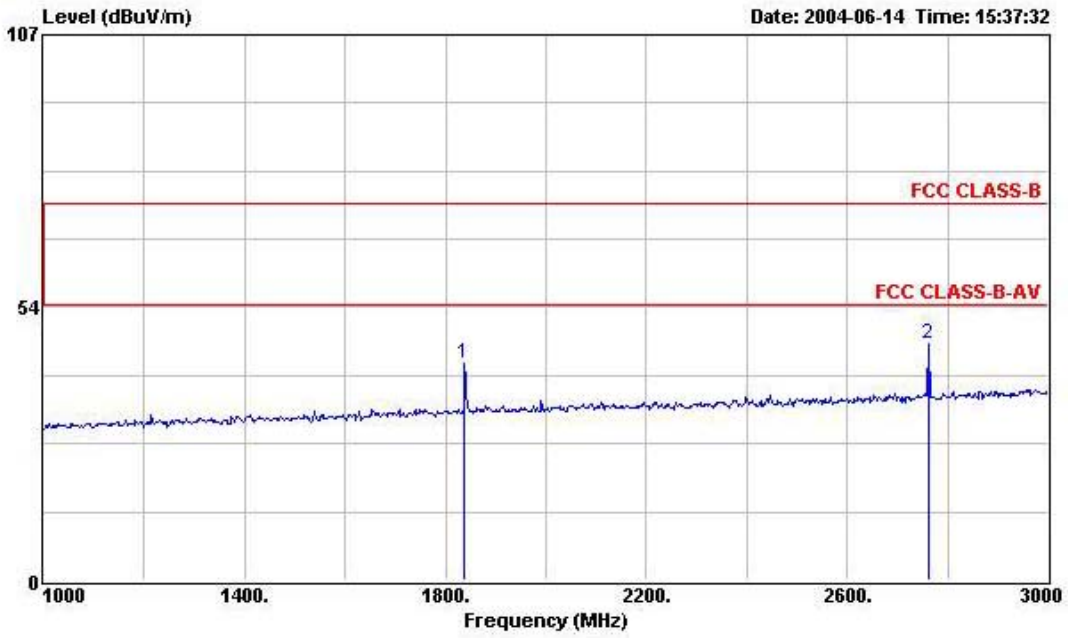


Remark: Spurious emission emitted by the EUT is too low to be measured.

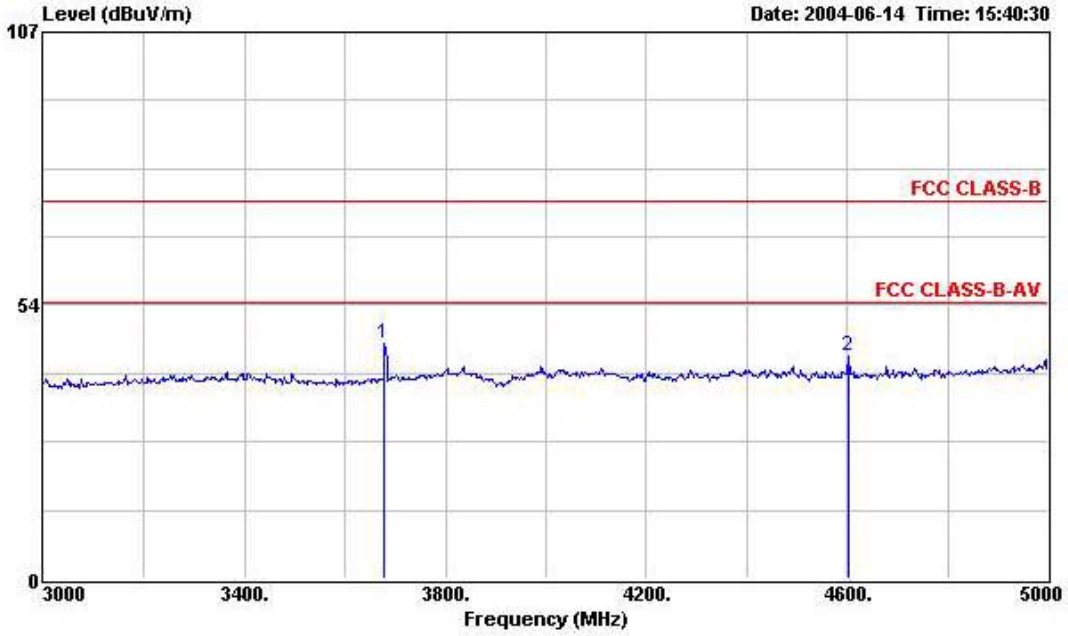
Test Mode	Mode 1	Temperature	24 deg. C	Tested By	Steve Chen
Freq. Range	1GHz~25GHz	Humidity	65%		

900MHz

(A) Polarization: Horizontal

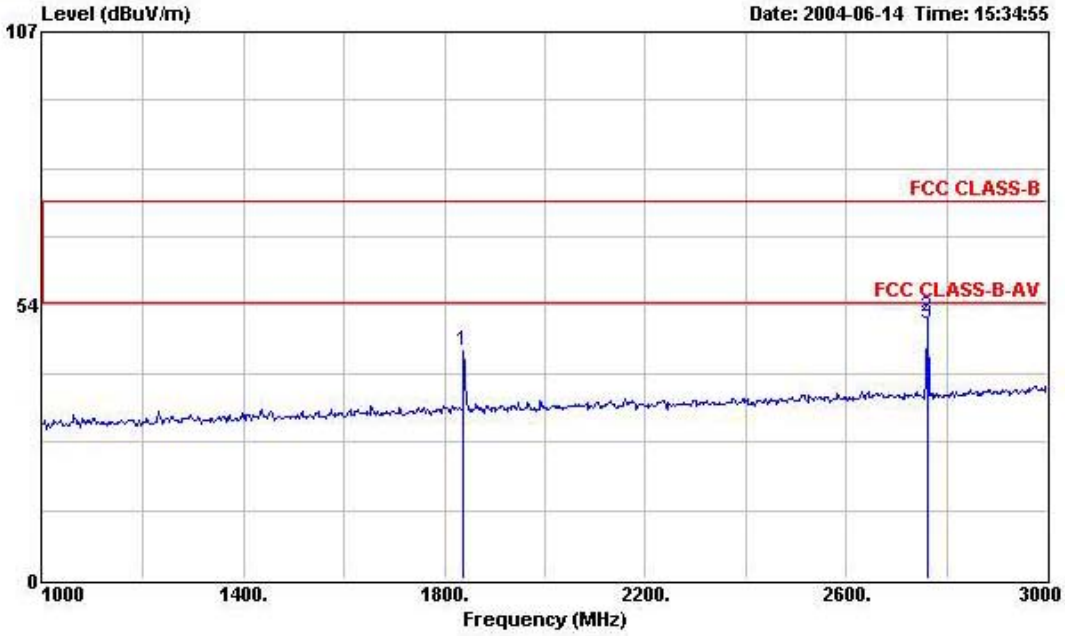


	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	1838.000	42.41	-11.59	54.00	55.06	26.51	1.65	40.81	Average	---	---
2	2764.000	46.47	-7.53	54.00	56.35	29.37	1.95	41.20	Average	---	---

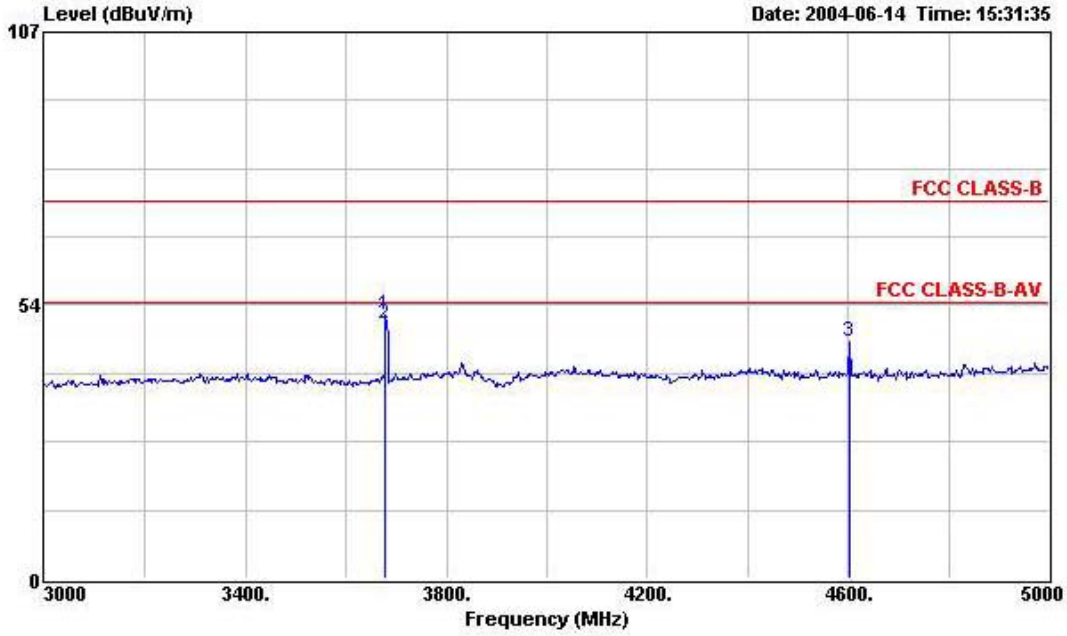


	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	3678.000	46.03	-7.97	54.00	53.74	31.83	1.84	41.38	Average	---	---
2	4604.000	43.68	-10.32	54.00	50.64	32.74	2.36	42.06	Average	---	---

(B) Polarization: Vertical



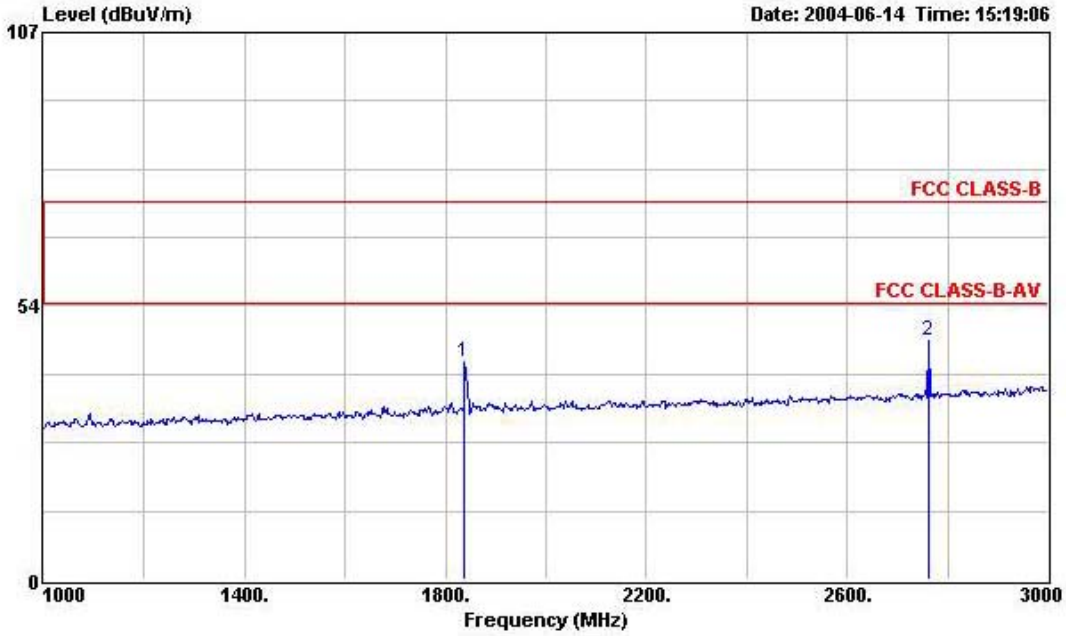
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	1838.000	44.57	-9.43	54.00	57.22	26.51	1.65	40.81	Average	---	---
2	2764.000	51.33	-22.67	74.00	61.21	29.37	1.95	41.20	Peak	---	---
3	2764.000	49.85	-4.15	54.00	59.73	29.37	1.95	41.20	Average	105	228



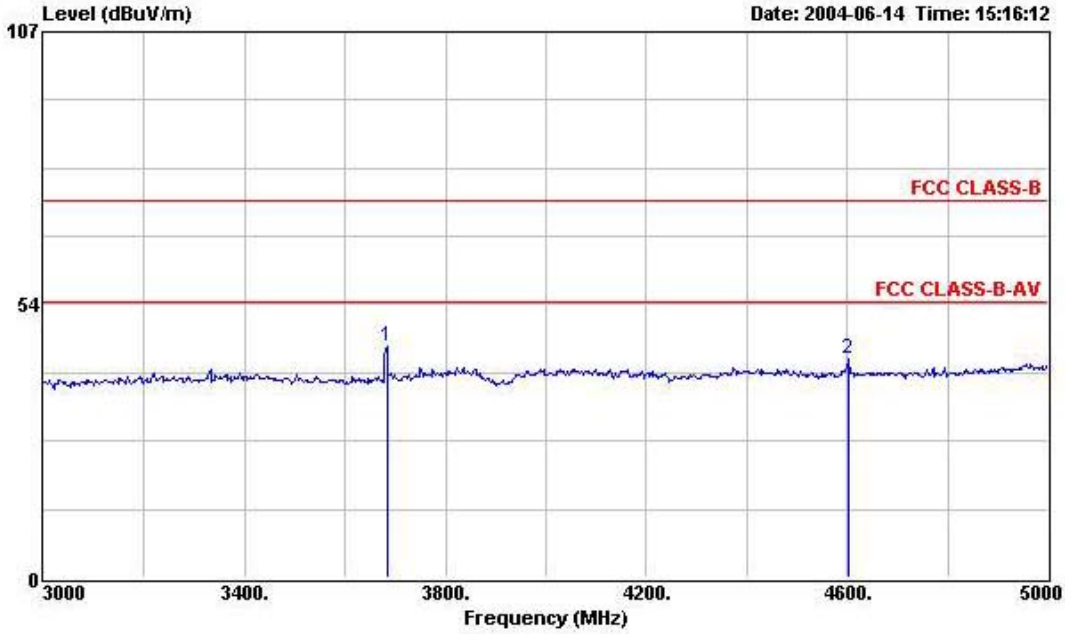
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	3678.000	51.41	-22.59	74.00	59.12	31.83	1.84	41.38	Peak	---	---
2	3678.000	49.75	-4.25	54.00	57.46	31.83	1.84	41.38	Average	---	---
3	4604.000	46.36	-7.64	54.00	53.32	32.74	2.36	42.06	Average	---	---

Test Mode	Mode 2	Temperature	24 deg. C	Tested By	Steve Chen
Freq. Range	1GHz~25GHz	Humidity	65%		

(A) Polarization: Horizontal

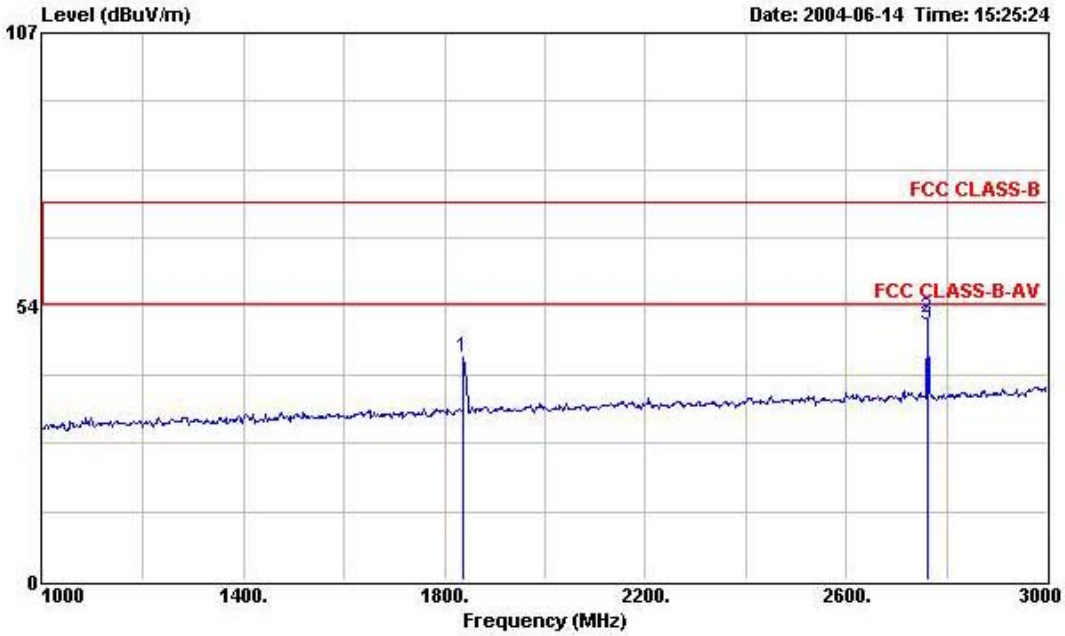


	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	1838.000	42.61	-11.39	54.00	55.26	26.51	1.65	40.81	Average	---	---
2	2764.000	46.53	-7.47	54.00	56.41	29.37	1.95	41.20	Average	---	---

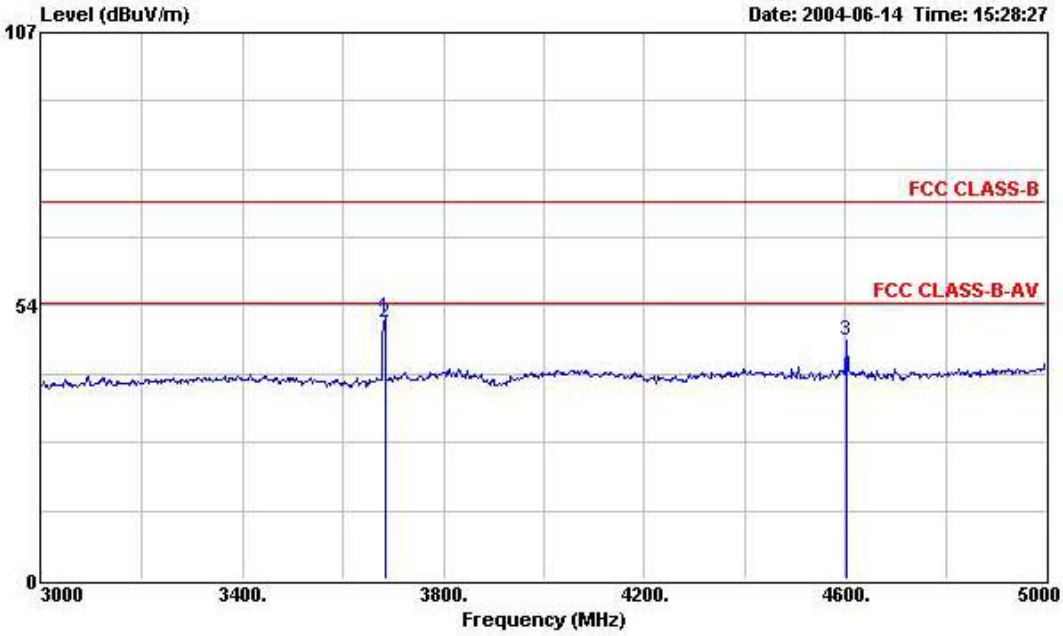


	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	3684.000	45.46	-8.54	54.00	53.17	31.85	1.82	41.38	Average	---	---
2	4604.000	42.76	-11.24	54.00	49.72	32.74	2.36	42.06	Average	---	---

(B) Polarization: Vertical



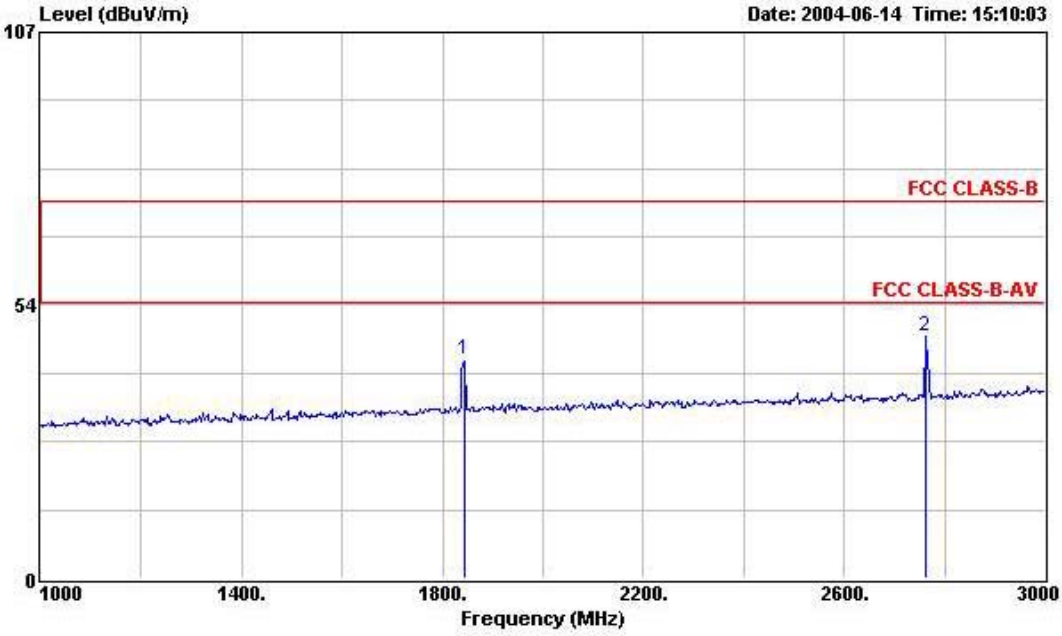
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	1838.000	43.57	-10.43	54.00	56.22	26.51	1.65	40.81	Average	---	---
2	2764.000	51.36	-22.64	74.00	61.24	29.37	1.95	41.20	Peak	---	---
3	2764.000	49.86	-4.14	54.00	59.74	29.37	1.95	41.20	Average	---	---



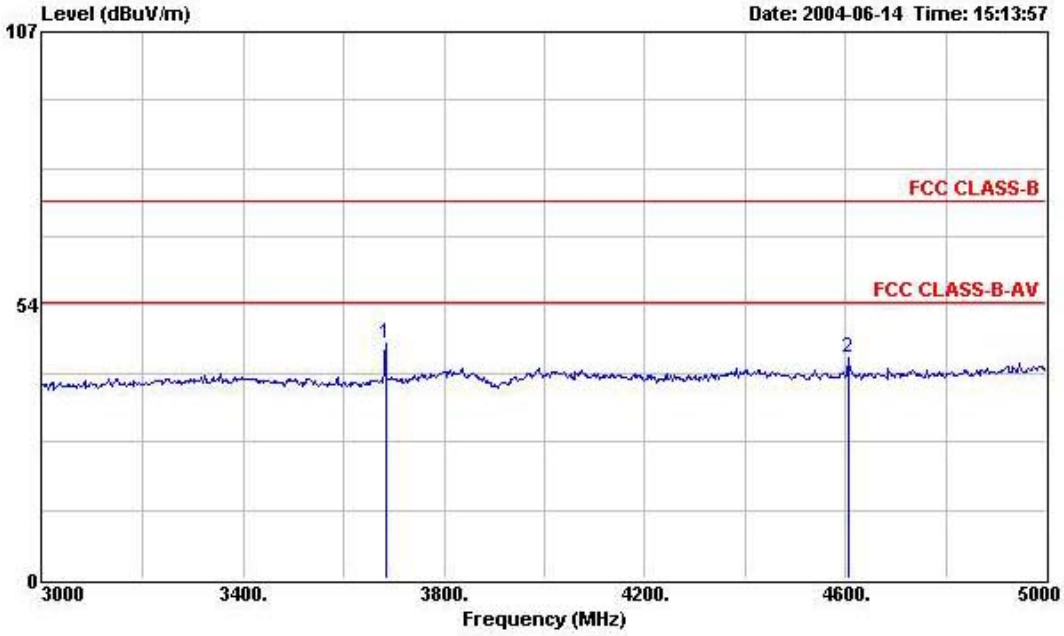
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	3684.000	51.07	-22.93	74.00	58.78	31.85	1.82	41.38	Peak	---	---
2	3684.000	50.13	-3.87	54.00	57.84	31.85	1.82	41.38	Average	101	217
3	4604.000	46.72	-7.28	54.00	53.68	32.74	2.36	42.06	Average	---	---

Test Mode	Mode 3	Temperature	24 deg. C	Tested By	Steve Chen
Freq. Range	1GHz~25GHz	Humidity	65%		

(A) Polarization: Horizontal

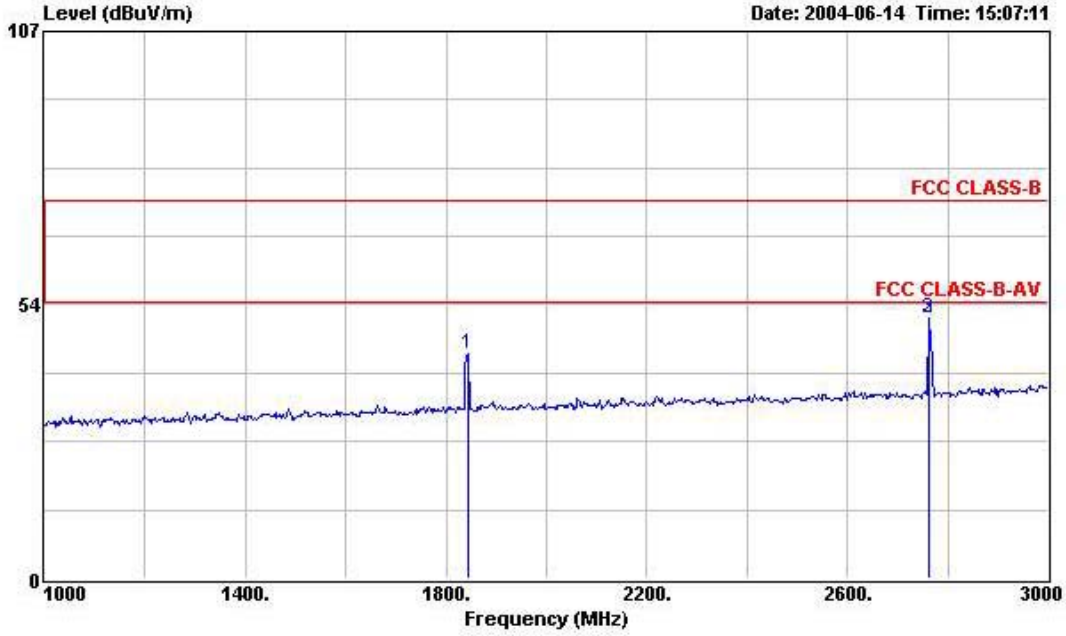


	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	1844.000	42.70	-11.30	54.00	55.33	26.54	1.64	40.81	Average	---	---
2	2764.000	47.34	-6.66	54.00	57.22	29.37	1.95	41.20	Average	---	---



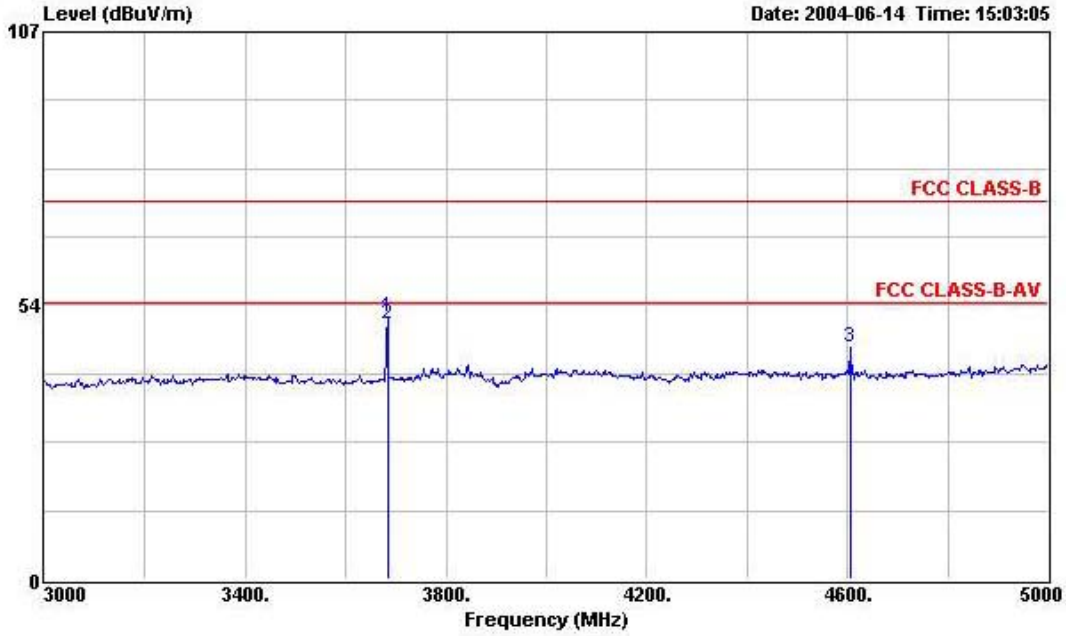
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	3684.000	45.93	-8.07	54.00	53.64	31.85	1.82	41.38	Average	---	---
2	4606.000	43.15	-10.85	54.00	50.10	32.75	2.36	42.06	Average	---	---

(B) Polarization: Vertical



L

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	1844.000	43.92	-10.08	54.00	56.55	26.54	1.64	40.81	Average	---	---
2	2764.000	51.03	-22.97	74.00	60.91	29.37	1.95	41.20	Peak	---	---
3	2764.000	50.75	-3.25	54.00	60.63	29.37	1.95	41.20	Average	102	216

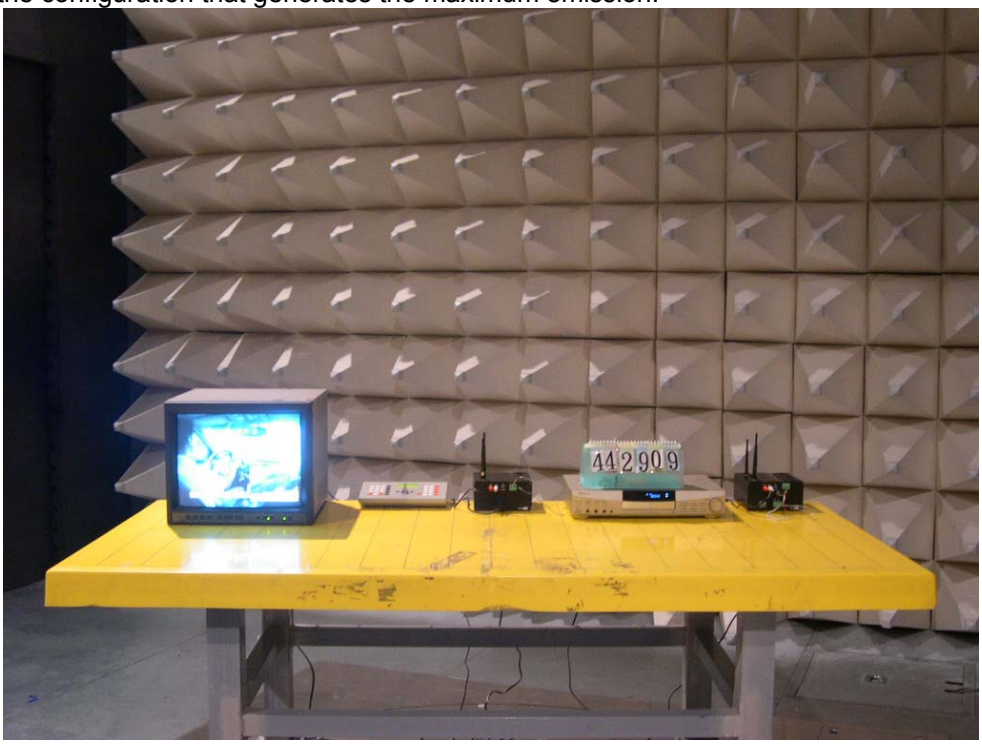


	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	3684.000	51.20	-22.80	74.00	58.91	31.85	1.82	41.38	Peak	---	---
2	3684.000	49.80	-4.20	54.00	57.51	31.85	1.82	41.38	Average	---	---
3	4606.000	45.29	-8.71	54.00	52.24	32.75	2.36	42.06	Average	---	---

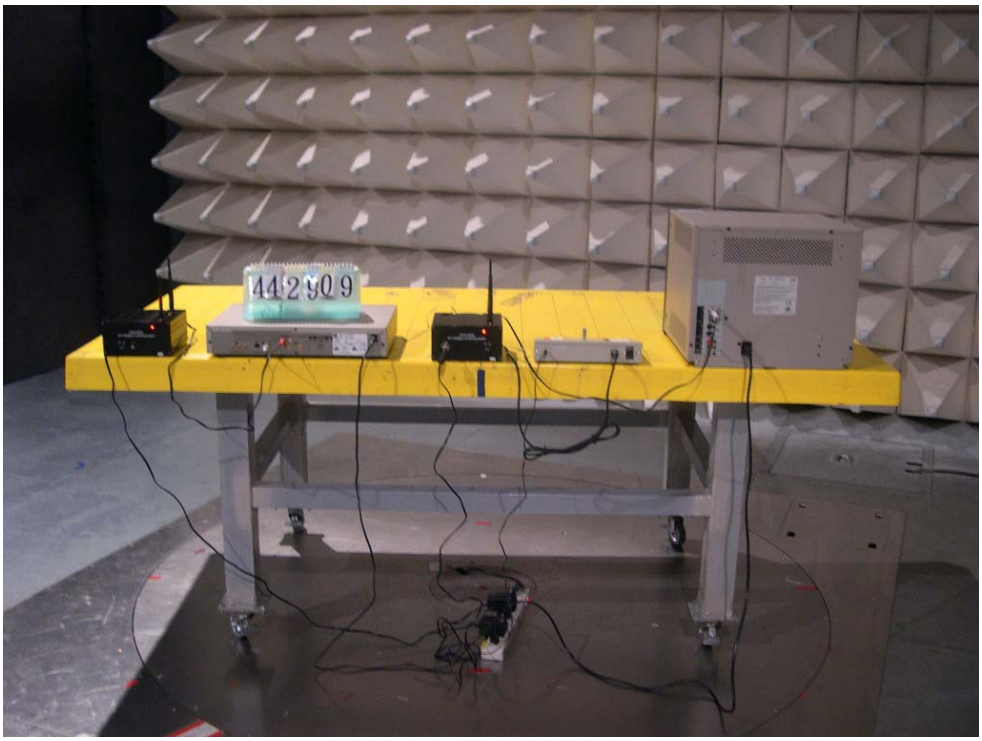
5.3.5 Photographs of Radiated Emission Test Configuration

- The photographs show the configuration that generates the maximum emission.

FRONT VIEW



REAR VIEW



6 Antenna Requirements

6.1 Standard Applicable

47 CFR Part15 Section 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

6.2 Antenna Construction

The antenna used in this device is monopole antenna, the antenna connector is reversed SMA.

7 List of Measuring Equipments Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz~1GHz 3m	Jun. 20, 2004	Radiation (03CH03-HY)
Spectrum analyzer	R&S	FSP40	100004	9KHZ~40GHz	Aug. 23, 2003	Radiation (03CH03-HY)
Amplifier	HP	8447D	2944A09072	100KHz – 1.3GHz	Nov. 05, 2003	Radiation (03CH03-HY)
Biconical Antenna	SCHWARZBECK	VHBB 9124	301	30MHz –200MHz	Jul. 24, 2003	Radiation (03CH03-HY)
Log Antenna	SCHWARZBECK	VUSLP 9111	221	200MHz -1GHz	Jul. 24, 2003	Radiation (03CH03-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	30MHz~1GHz	Dec. 03, 2003	Radiation (03CH03-HY)
Amplifier	MITEQ	AFS44	879981	100MHz~26.5GHz	Jul. 23, 2003	Radiation (03CH03-HY)
Horn Antenna	COM-POWER	3115	6821	1GHz – 18GHz	Sep. 12, 2003	Radiation (03CH03-HY)
Turn Table	HD	DS 420	420/650/00	0 ~ 360 degree	N/A	Radiation (03CH03-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6821	1GHz – 18GHz	Sep. 12, 2003	Radiation (03CH03-HY)
RF Cable-HIGH	Jye Bao	RG142	CB030-HIGH	1GHz~29.5GHz	Dec. 05, 2003	Radiation (03CH03-HY)
Spectrum analyzer	R&S	FSP7	838858/014	9KHZ~7GHZ	Sep. 03, 2003	Conducted
Power meter	R&S	NRVS	100444	DC~40GHz	Jun. 15, 2004	Conducted
Power sensor	R&S	NRV-Z55	100049	DC~40GHz	Jun. 15, 2004	Conducted
Power Sensor	R&S	NRV-Z32	100057	30MHz-6GHz	Jun. 15, 2004	Conducted
AC power source	HPC	HPA-500W	HPA-9100024	AC 0~300V	May 26, 2004	Conducted
Temp. and Humidity	KSON	THS-C3L	612	N/A	Oct. 01, 2003	Conducted
RF CABLE-1m	Jye Bao	RG142	CB034-1m	20MHz~7GHz	Jan. 01, 2004	Conducted
RF CABLE-2m	Jye Bao	RG142	CB035-2m	20MHz~1GHz	Jan. 01, 2004	Conducted

※ Calibration Interval of instruments listed above is one year.