FCC TEST REPORT

CATEGORY	:	Portable End Product
PRODUCT NAME	:	Game Pad
FCC ID.	:	FSUGG0007
FILING TYPE	:	Certification
MODEL NAME	:	OG-03002
BRAND NAME	:	KYE
APPLICANT	:	**KYE SYSTEMS CORP** No. 492, Sec. 5, Chung Hsin Rd., San Chung, Taipei Hsien, 241, 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

NVLAP®
Lab Code: 200079-0

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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

KYE SYSTEMS CORP

No. 492, Sec. 5, Chung Hsin Rd., San Chung, Taipei Hsien, 241, Taiwan, R.O.C.

1.2 Manufacturer

Same as 1.1

1.3 Basic Description of Equipment under Test

This product is the controller part of wireless Game Pad which is composed by a controller and the main set connected with the PS2 directly. The technical data has been listed on section " Features of Equipment under Test ". Using GFSK modulation and operating on the same frequency with Bluetooth, but it can not be used to communicate with the Bluetooth device.

1.4 Features of Equipment under Test

ITEMS	DESCRIPTION
Type of Modulation	GFSK
Number of Hopping Frequencies	79
Channel Bandwidth	1MHz
Operating Frequency Band	2402 ~ 2480MHz
Antenna Type	Printed PCB Antenna / -4.9 dBi
Function Type	Transceiver
Power Rating (DC/AC, Voltage)	6 VDC from batteries
Humidity Range	0% ~ 85%
Temperature Range (Operating)	0 ~ 50℃

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 spurious above 1GHz, the following 3 modes was tested:
   Mode 1: carrier 2402MHz
   Mode 2: carrier 2440MHz
   Mode 3: carrier 2480MHz
c. This handy controller is able to be powered by PS2 through the cable connected between the controller and the main set. So, an extra mode “Cable Link” was tested for AC power conduction and spurious emission below 1GHz.
d. For emission below 1GHz, it is independent of hopping, so only carrier 2480MHz with maximum power was tested.
e. The configuration is operated in a manner which tends to maximize its emission characteristics in a typical application.
f. 3 meters measurement distance in semi-anechoic chamber was used in this test.

2.1 Frequency Range Investigated

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

2.2 Description of Test Supporting Units

Support Unit 1. – TV (JVC)

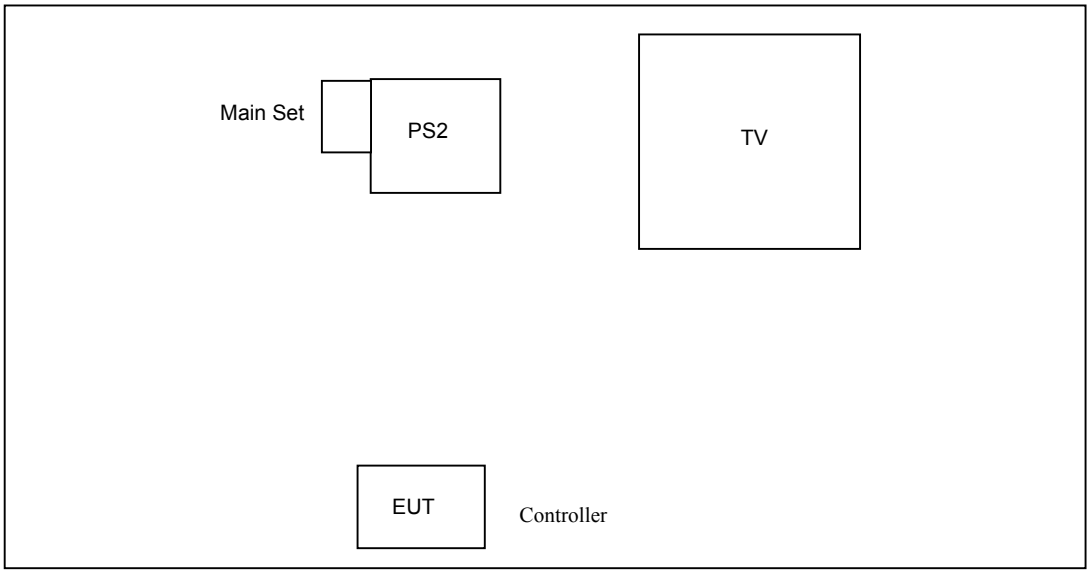
FCC ID	: N/A
Model No.	: TM-1700PN
Power Supply Type	: Switching
Power Cord	: Non-Shielded
Serial No.	: SP0024

Support Unit 2. – PS2 (SONY)

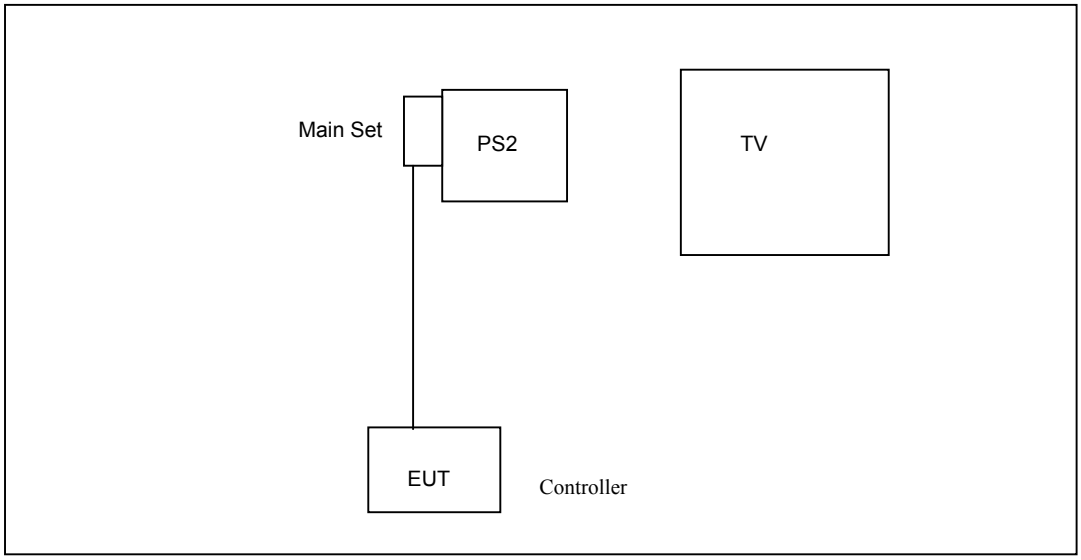
FCC ID	: N/A
Model No.	: SCPH-50007
Power Supply Type	: Switching
Power Cord	: Non-Shielded
Serial No.	: SP0016

2.3 Connection Diagram of Test System

RF Link



Cable Link



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. :	CO04-HY, 03CH03-HY

3.2 Test Conditions

Normal Voltage	: 6VDC
Extreme Voltages	: N.A.
Normal Temperature	: 20 ℃
Extreme Temperature	: 0 ℃ and 50 ℃

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 able to connect with the main set via a cable and also the receiver function is available, so Class B of 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)	Test of Radiated Emission	Pass
6.0	15.235(c)(3)	Antenna Requirement	Pass

5. Test Result

5.1 Carrier Field Strength

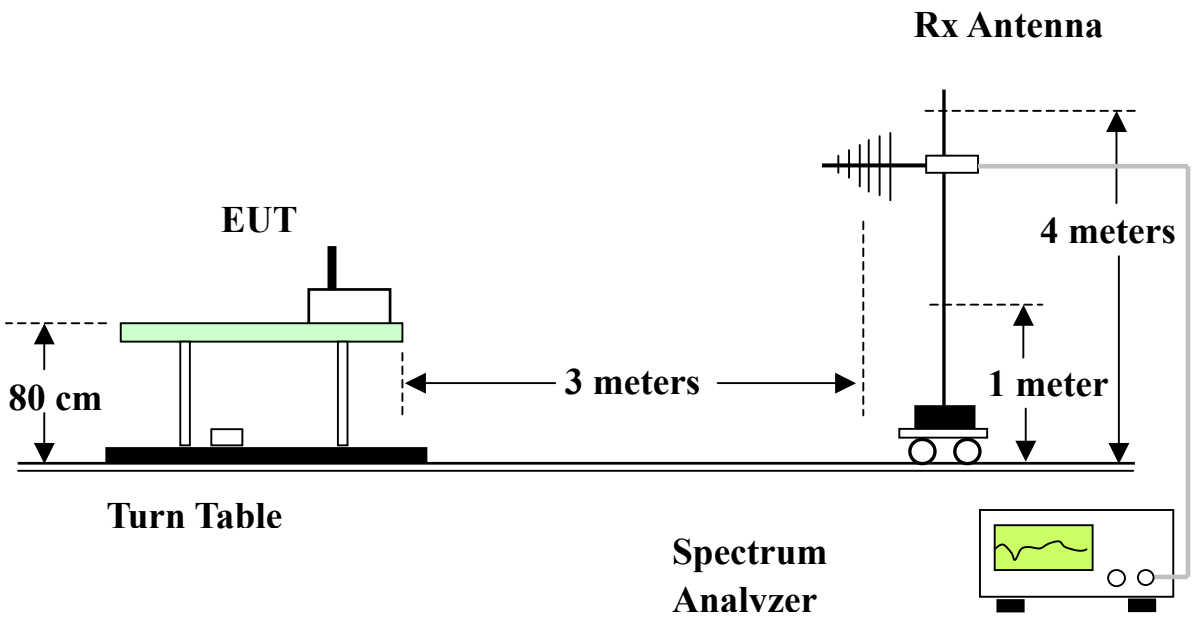
5.1.1 Measuring Instruments

Item 1~9 of the table on section 7.

5.1.2 Test Procedures

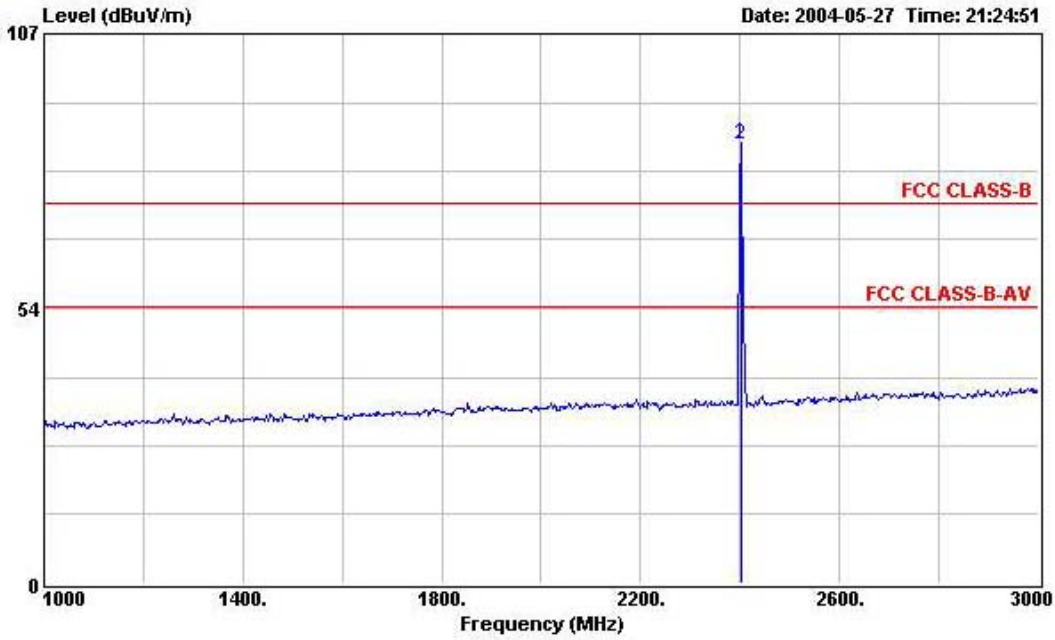
a) Configure the EUT according to ANSI C63.4.
b) The EUT was placed on the top of the turn table 0.8 meter above ground.
c) The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turn table.
d) Power on the EUT and all the supporting units.
e) The turn table was rotated by 360 degrees to determine the position of the highest radiation.
f) 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.
g) For each carrier 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.
h) Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
i) For emission above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
j) 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.
k) 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 carrier emissions will be measured in average mode again and reported.

5.1.3 Test Setup Layout



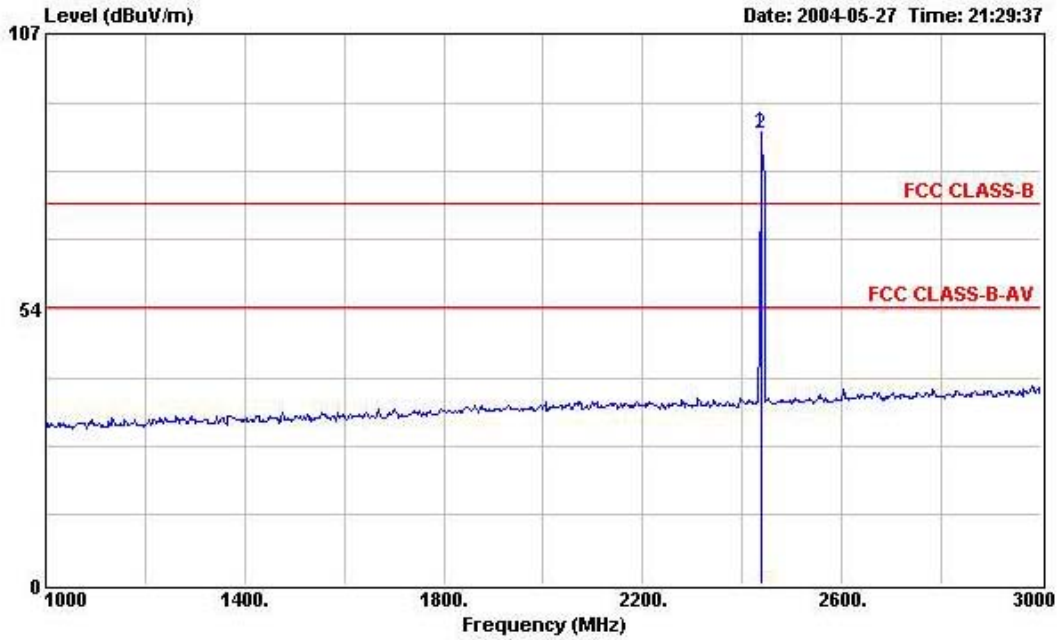
5.1.4 Test Result

Test Mode	Mode 1	Temperature	25 deg. C	Tested By	Steve Chen
Frequency	2402MHz	Humidity	67%		



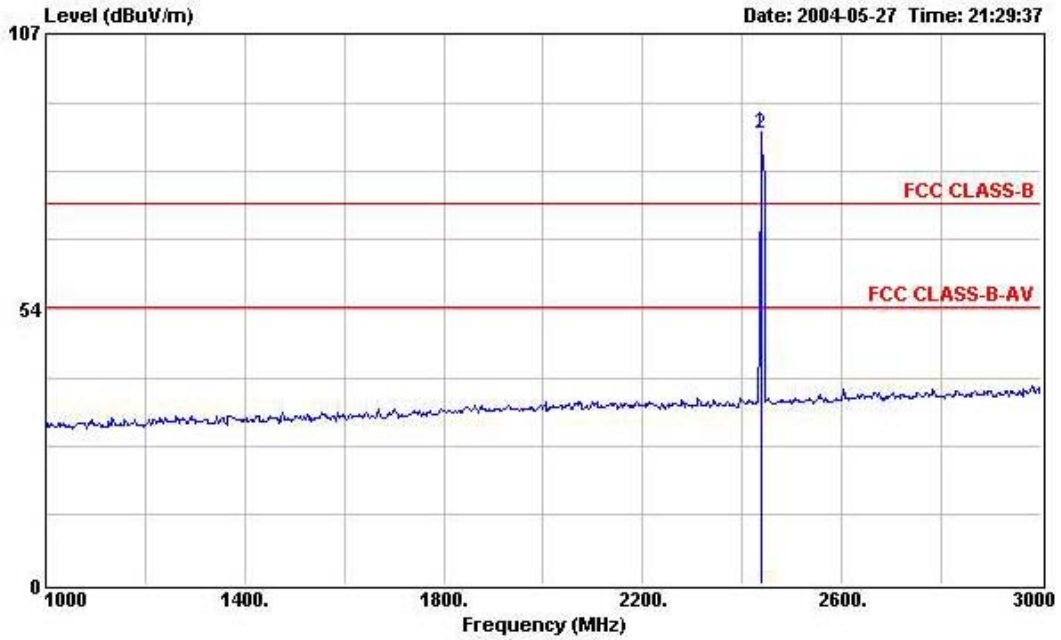
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Probe Factor (dB)	Cable Loss (dB)	Preamp Factor (dBuV/m)	Detect Mode
2404.000	85.65	-28.35	114.00	96.89	28.18	1.73	41.15	Peak
2404.000	85.30	-8.70	94.00	96.54	28.18	1.73	41.15	AV

Test Mode	Mode 2	Temperature	25deg. C	Tested By	Steve Chen
Frequency	2440MHz	Humidity	67%		



Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Probe Factor (dB)	Cable Loss (dB)	Preamp Factor (dBuV/m)	Detect Mode
2433.000	88.06	-25.94	114.00	99.20	28.27	1.76	41.17	Peak
2433.000	87.59	-6.41	94.00	98.73	28.27	1.76	41.17	AV

Test Mode	Mode 3	Temperature	25deg. C	Tested By	Steve Chen
Frequency	2480MHz	Humidity	67%		



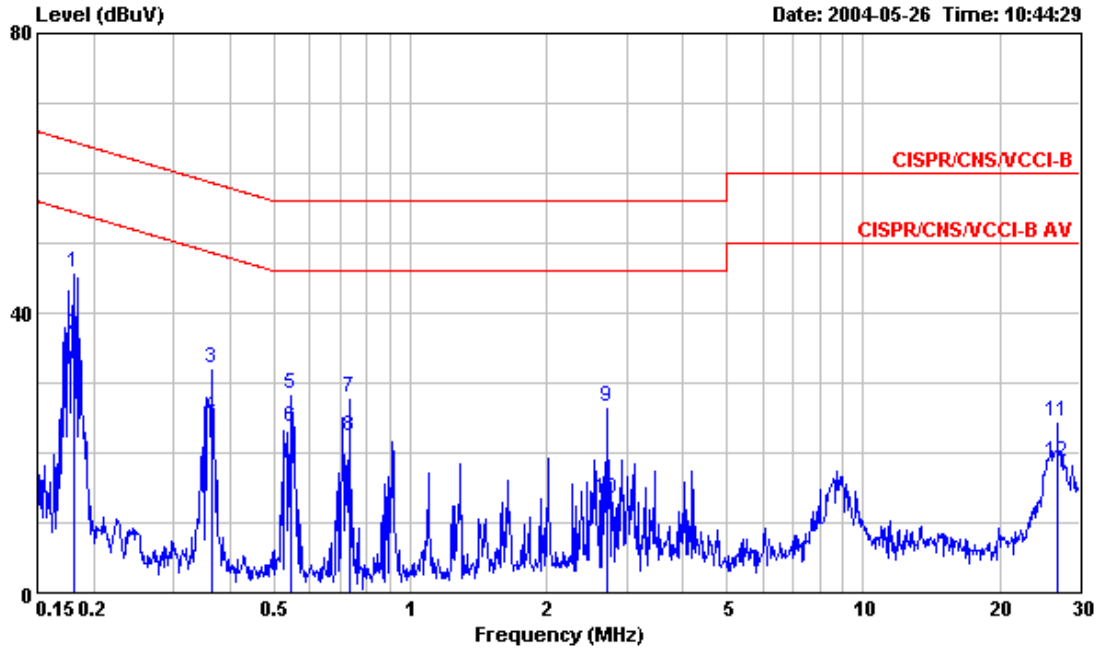
Frequency	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Detect
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB)	(dB)	(dBuV/m)	Mode
2473.000	89.57	-24.43	114.00	100.53	28.37	1.81	41.19	Peak
2473.000	89.02	-4.98	94.00	100.03	28.37	1.81	41.19	AV

5.2 AC Power Line Conducted Emission

5.2.1 Test Result of Conducted Emission

Test Mode	Cable Link	Tested By	Brian Lin
Temperature / Humidity	27deg. C / 57%		

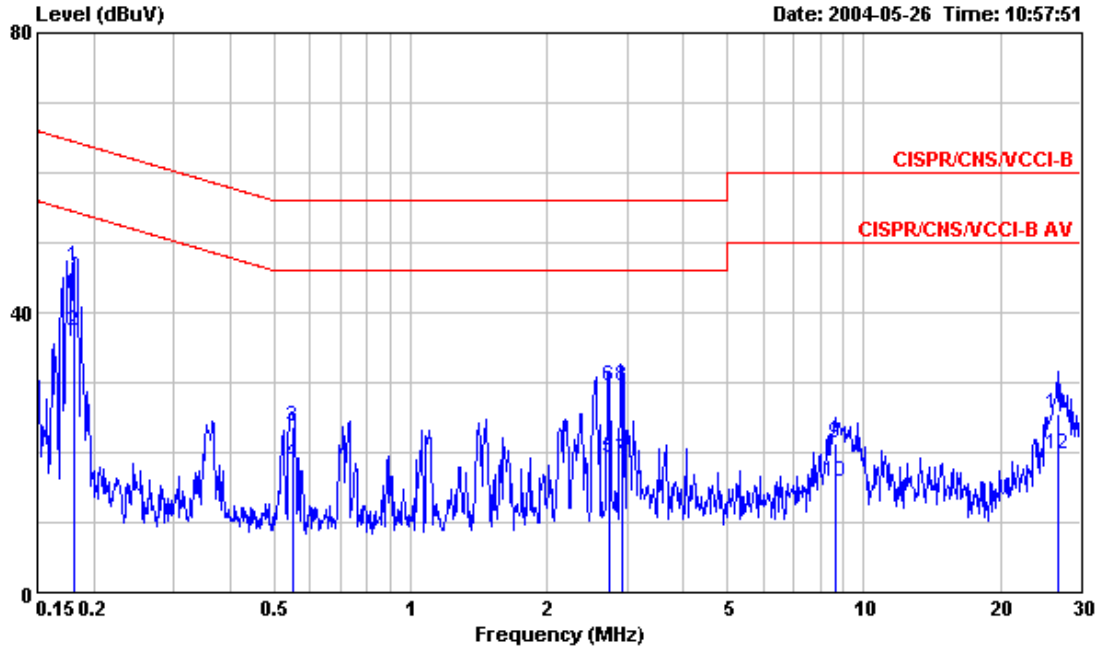
Line



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1815220	45.80	-18.62	64.42	45.69	0.10	0.01	QP
2	0.1815220	36.72	-17.70	54.42	36.61	0.10	0.01	Average
3	0.3653120	32.08	-26.53	58.61	31.96	0.10	0.02	QP
4	0.3653120	25.22	-23.39	48.61	25.10	0.10	0.02	Average
5	0.5464400	28.32	-27.68	56.00	28.19	0.10	0.03	QP
6	0.5464400	23.75	-22.25	46.00	23.62	0.10	0.03	Average
7	0.7313060	27.95	-28.05	56.00	27.82	0.10	0.03	QP
8	0.7313060	22.25	-23.75	46.00	22.12	0.10	0.03	Average
9	2.710	26.61	-29.39	56.00	26.47	0.10	0.04	QP
10	2.710	13.36	-32.64	46.00	13.22	0.10	0.04	Average
11	26.700	24.36	-35.64	60.00	23.71	0.43	0.22	QP
12	26.700	18.72	-31.28	50.00	18.07	0.43	0.22	Average

Test Mode	Cable Link	Tested By	Brian Lin
Temperature / Humidity	27deg. C / 57%		

Neutral

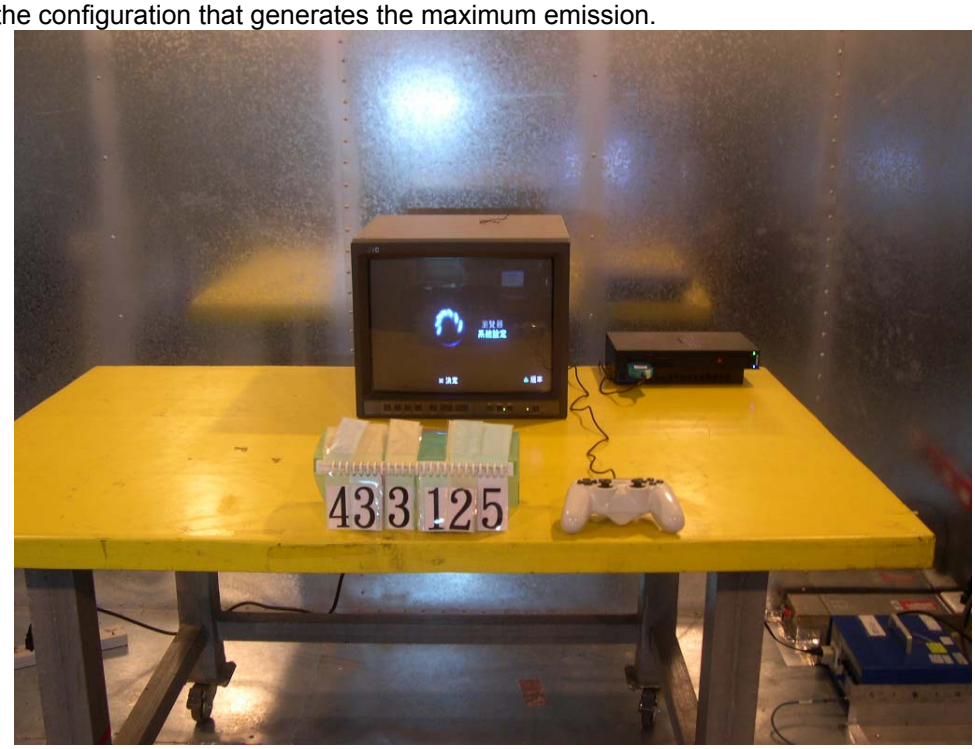


	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1815220	46.68	-17.74	64.42	46.57	0.10	0.01	QP
2	0.1815220	37.29	-17.13	54.42	37.18	0.10	0.01	Average
3	0.5493430	23.56	-32.44	56.00	23.43	0.10	0.03	QP
4	0.5493430	18.49	-27.51	46.00	18.36	0.10	0.03	Average
5	2.740	19.18	-26.82	46.00	19.04	0.10	0.04	Average
6	2.740	29.37	-26.63	56.00	29.23	0.10	0.04	QP
7	2.916	18.90	-27.10	46.00	18.75	0.10	0.05	Average
8	2.916	29.49	-26.51	56.00	29.34	0.10	0.05	QP
9	8.640	21.24	-38.76	60.00	20.96	0.18	0.10	QP
10	8.640	15.77	-34.23	50.00	15.49	0.18	0.10	Average
11	26.700	25.64	-34.36	60.00	24.85	0.57	0.22	QP
12	26.700	19.78	-30.22	50.00	18.99	0.57	0.22	Average

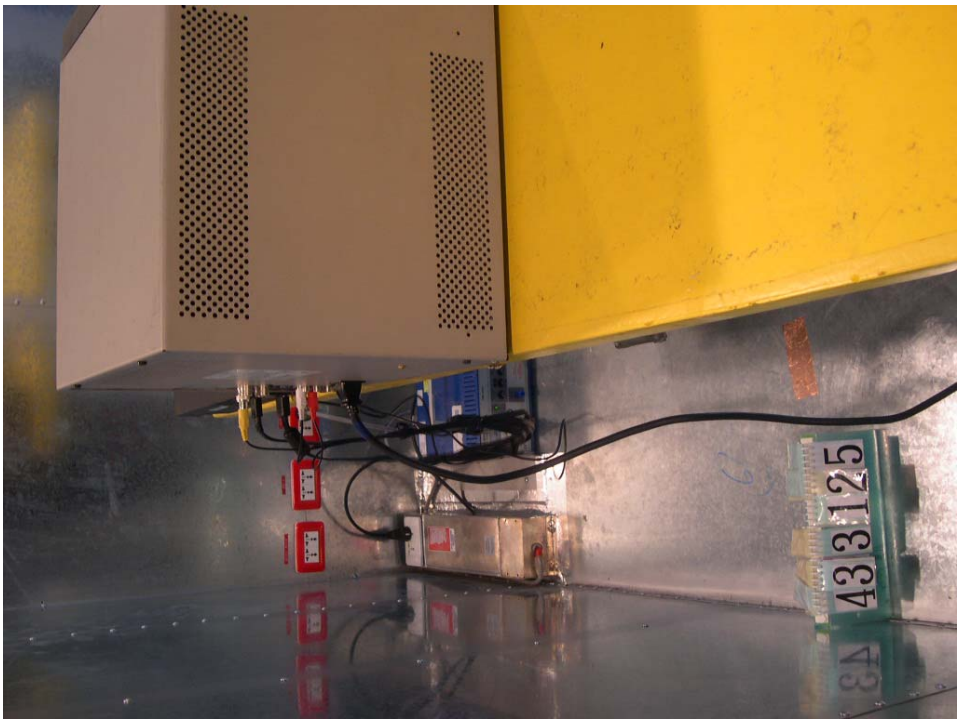
5.2.2 Photographs of Conducted Emission Test Configuration

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

FRONT VIEW



REAR VIEW



5.3 Test of Radiated Emission

5.3.1 Measuring Instruments

Item 1~9 of the table on section 7.

5.5.2 Test Procedures

a) Configure the EUT according to ANSI C63.4.

b) The EUT was placed on the top of the turn table 0.8 meter above ground.

c) 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.

d) Power on the EUT and all the supporting units.

e) The turn table was rotated by 360 degrees to determine the position of the highest radiation.

f) 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.

g) 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.

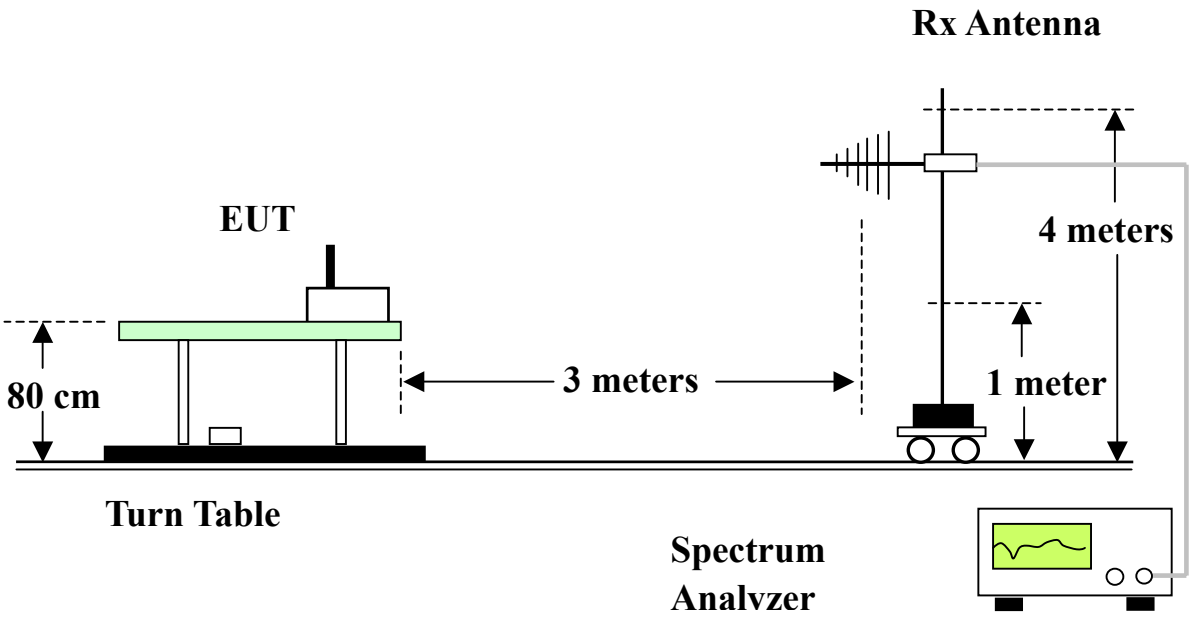
h) Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.

i) For emission above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.

j) 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.

k) 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.

5.4.3. Test Setup Layout

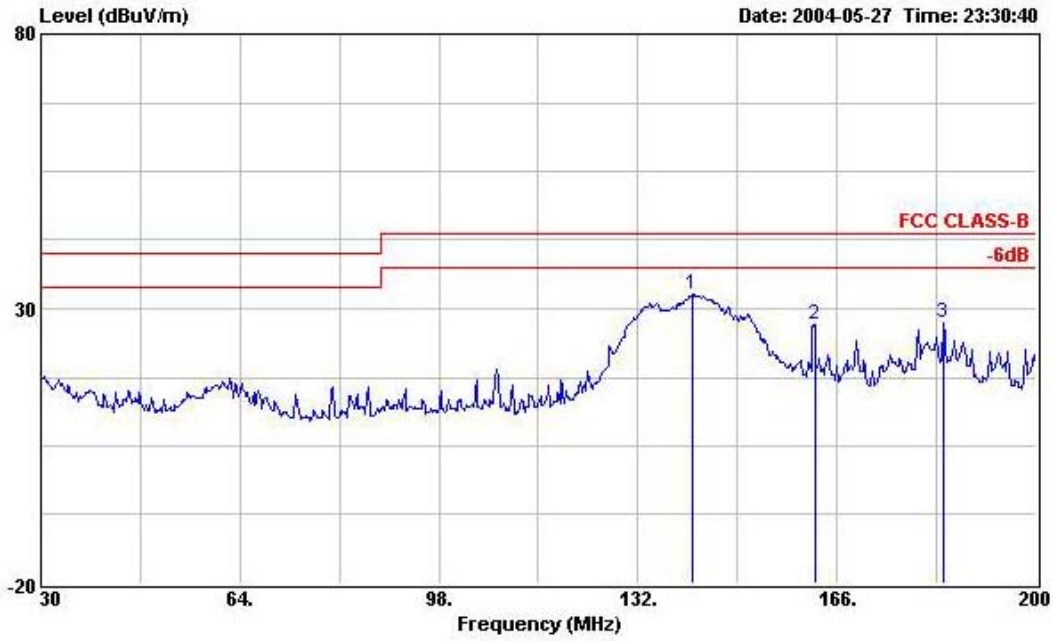


5.5.4 Test Results and Limit

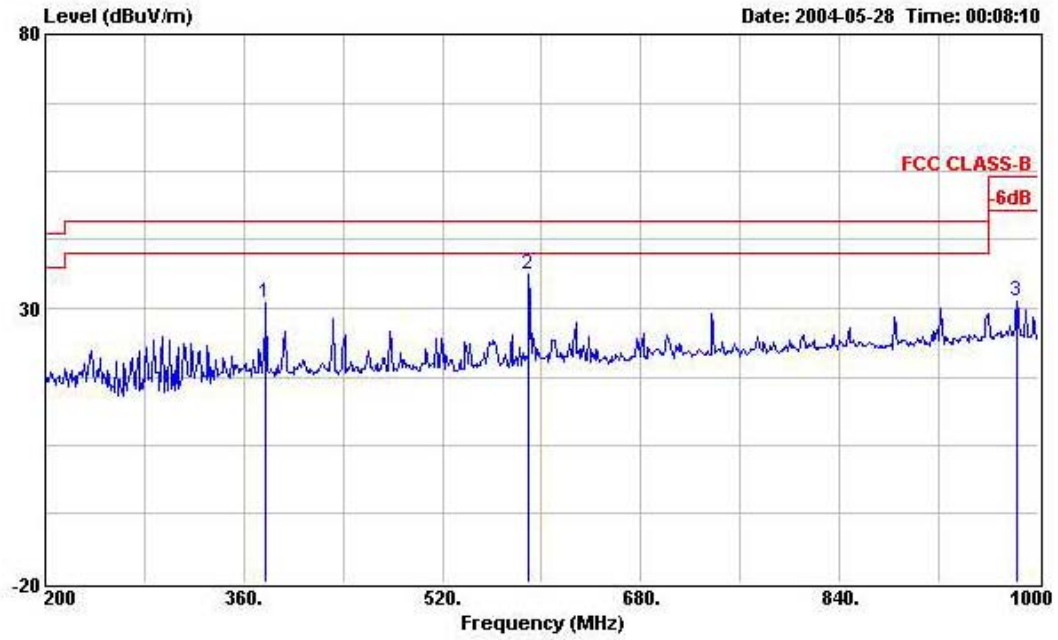
Note:
Emission level (dBuV/m) = 20 log Emission level (uV/m)
Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

Test Mode	RF LINK	**Temperature**	25 deg. C	**Tested By**	Steve Chen
Freq. Range	30MHz~1GHz	**Humidity**	67%		

(A) Polarization: Horizontal

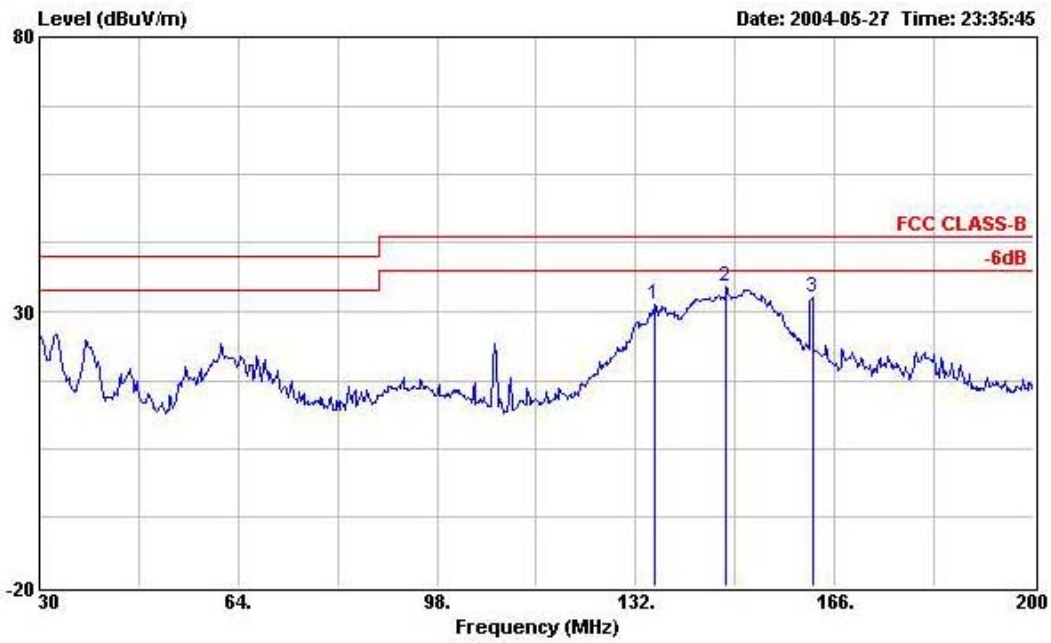


	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	141.350	32.50	-11.00	43.50	46.42	11.83	2.07	27.82	QP	---	---
2	162.260	27.06	-16.44	43.50	39.70	12.81	2.32	27.77	QP	---	---
3	184.190	27.40	-16.10	43.50	38.69	13.99	2.45	27.73	QP	---	---

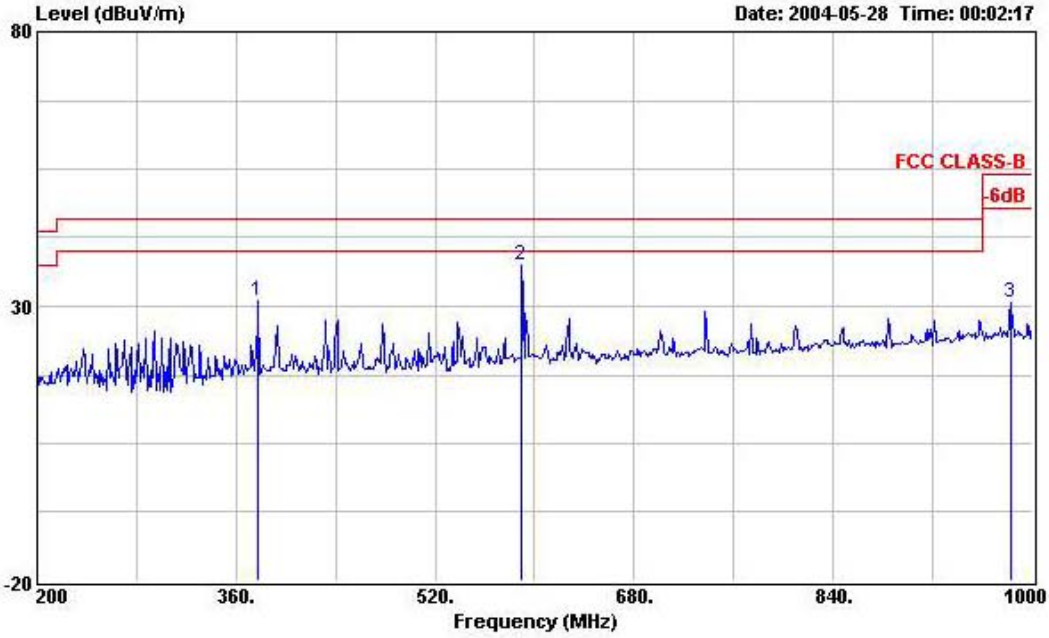


	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	377.600	30.88	-15.12	46.00	39.80	15.37	3.40	27.69	QP	---	---
2	589.600	36.26	-9.74	46.00	42.00	18.74	4.31	28.79	QP	---	---
3	983.200	31.19	-22.81	54.00	31.67	22.10	5.64	28.22	QP	---	---

(B) Polarization: Vertical



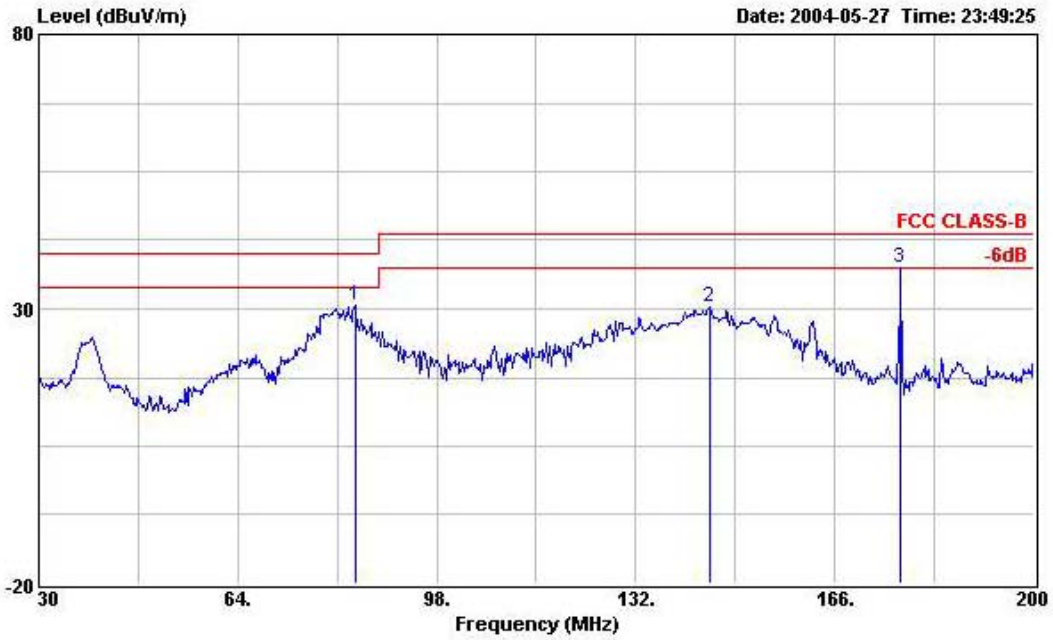
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	135.230	31.18	-12.32	43.50	45.46	11.56	1.99	27.83	QP	---	---
2	147.470	34.44	-9.06	43.50	47.81	12.22	2.21	27.80	QP	---	---
3	162.260	32.65	-10.85	43.50	45.29	12.81	2.32	27.77	QP	---	---



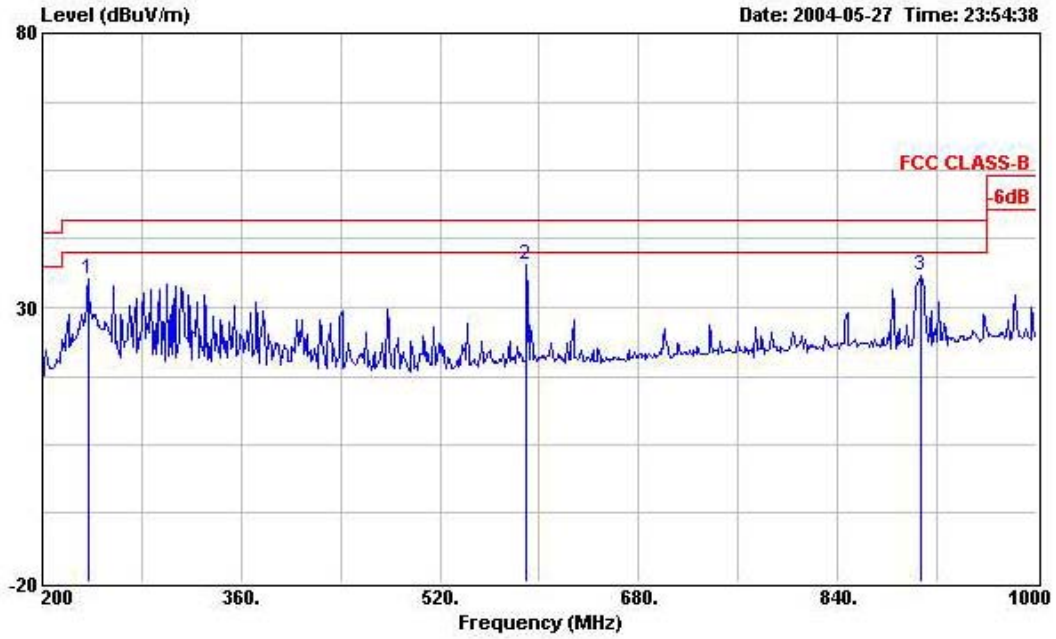
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	377.600	30.99	-15.01	46.00	39.91	15.37	3.40	27.69	QP	---	---
2	589.600	37.50	-8.50	46.00	43.24	18.74	4.31	28.79	QP	102	126
3	982.400	30.74	-23.26	54.00	31.23	22.09	5.64	28.22	QP	---	---

Test Mode	Cable LINK	Temperature	25 deg. C	Tested By	Steve Chen
Freq. Range	30MHz~1GHz	Humidity	67%		

(A) Polarization: Horizontal

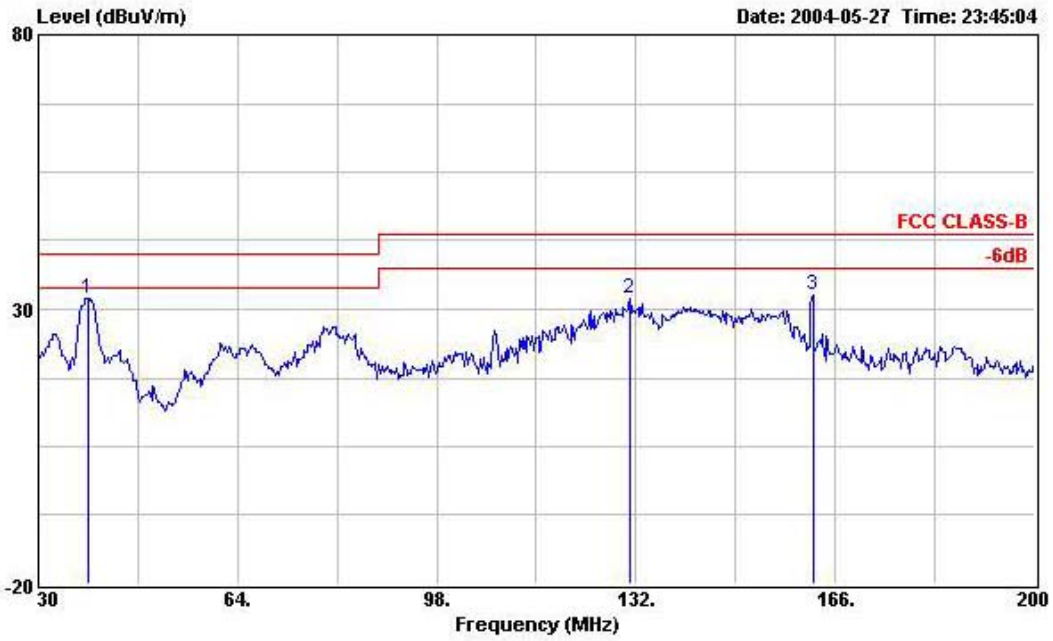


	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	84.060	30.67	-9.33	40.00	47.34	9.69	1.57	27.93	QP	---	---
2	144.580	30.40	-13.10	43.50	44.05	12.03	2.13	27.81	QP	---	---
3 !	177.220	37.50	-6.00	43.50	49.36	13.48	2.40	27.74	QP	100	132

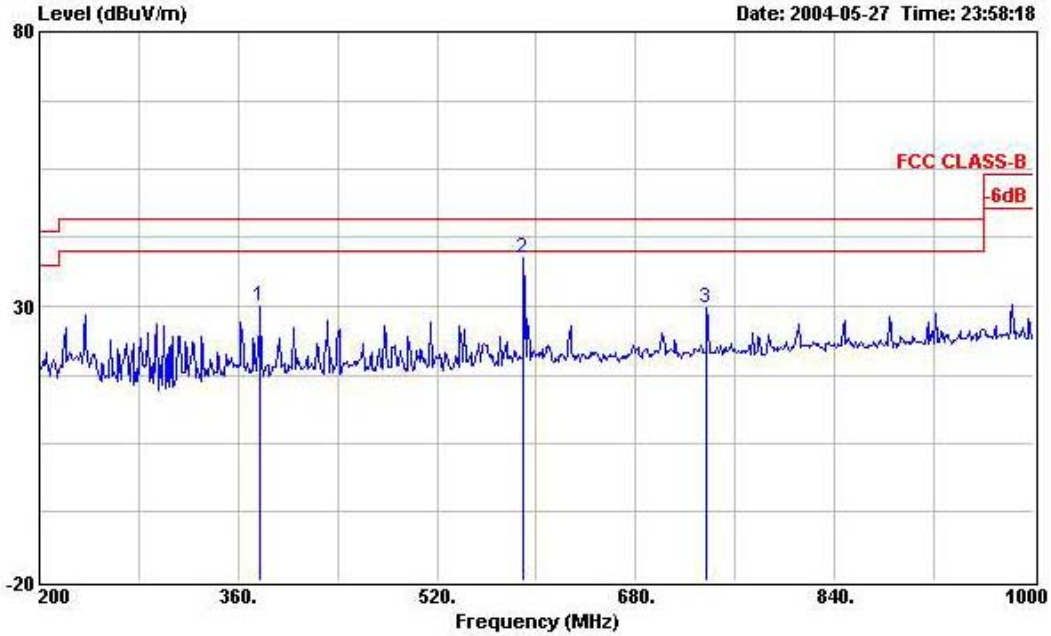


	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	236.800	35.22	-10.78	46.00	46.94	13.05	2.78	27.55	QP	---	---
2	589.600	37.86	-8.14	46.00	43.60	18.74	4.31	28.79	QP	---	---
3	906.400	35.99	-10.01	46.00	37.74	21.18	5.36	28.29	QP	---	---

(B) Polarization: Vertical



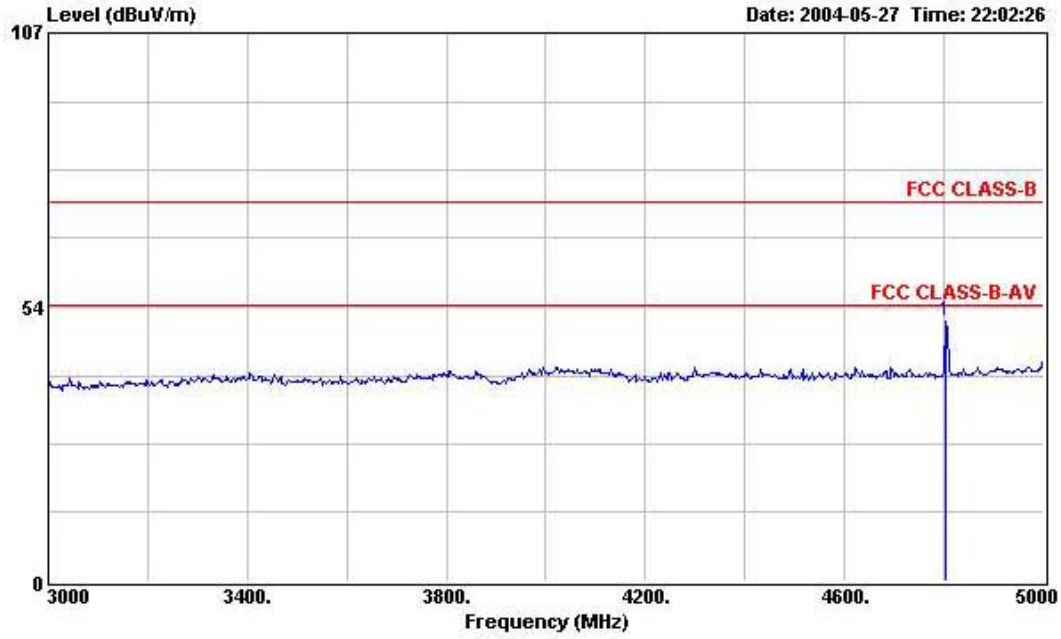
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	38.500	32.02	-7.98	40.00	46.96	12.04	1.05	28.03	QP	---	---
2	130.980	32.05	-11.45	43.50	46.40	11.41	2.08	27.84	QP	---	---
3	162.260	32.48	-11.02	43.50	45.12	12.81	2.32	27.77	QP	---	---



	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	377.600	29.97	-16.03	46.00	38.89	15.37	3.40	27.69	QP	---	---
2	589.600	38.62	-7.38	46.00	44.36	18.74	4.31	28.79	QP	110	125
3	736.800	29.70	-16.30	46.00	33.66	19.95	4.83	28.74	QP	---	---

Test Mode	RF Link Mode 1	Temperature	25 deg. C	Tested By	Steve Chen
Freq. Range	1GHz~25GHz	Humidity	67%		

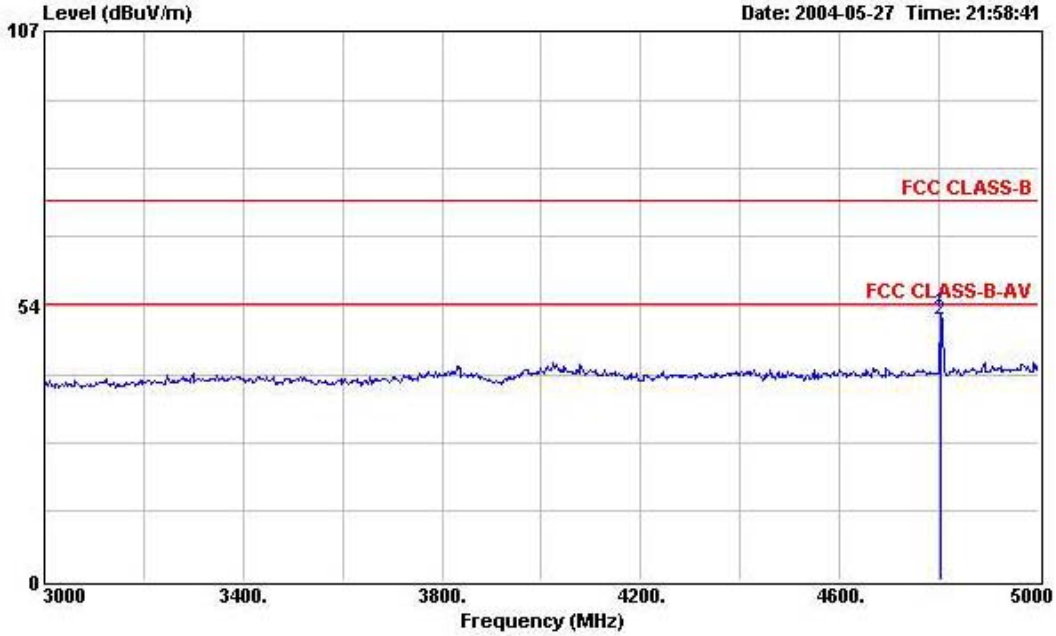
(A) Polarization: Horizontal



	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	4804.000	50.69	-3.31	54.00	57.44	33.19	2.40	42.34	Average	---	---

Remark: No other emission found on higher frequency band.

(B) Polarization: Vertical

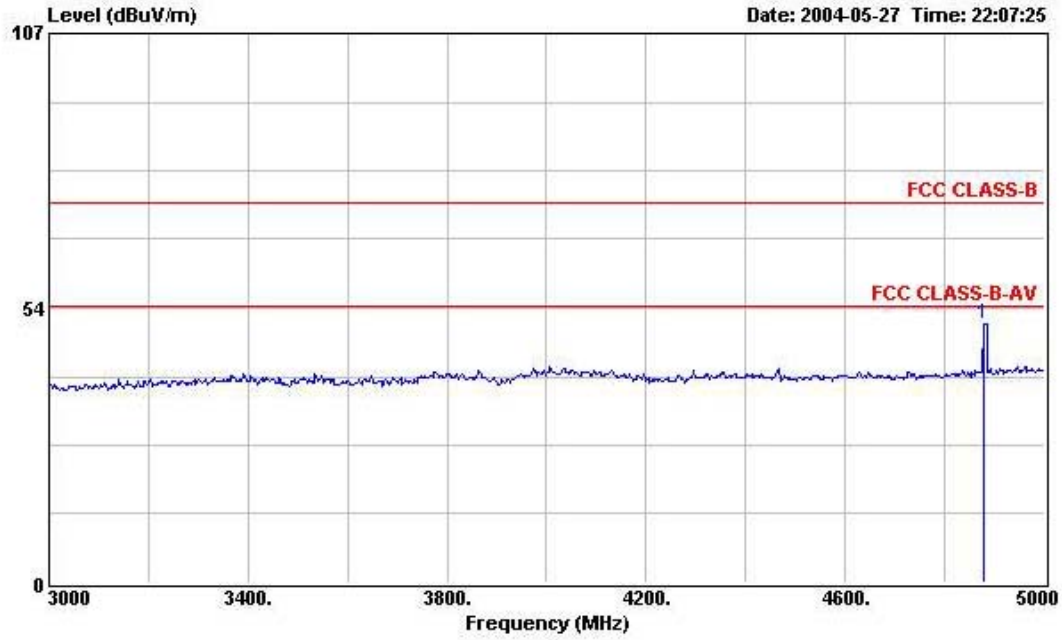


	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4804.000	51.97	-22.03	74.00	58.72	33.19	2.40	42.34	Peak	102	125
2	4804.000	50.70	-3.30	54.00	57.45	33.19	2.40	42.34	Average	---	---

Remark: No other emission found on higher frequency band.

Test Mode	RF Link Mode 2	Temperature	25 deg. C	Tested By	Steve Chen
Freq. Range	1GHz~25GHz	Humidity	67%		

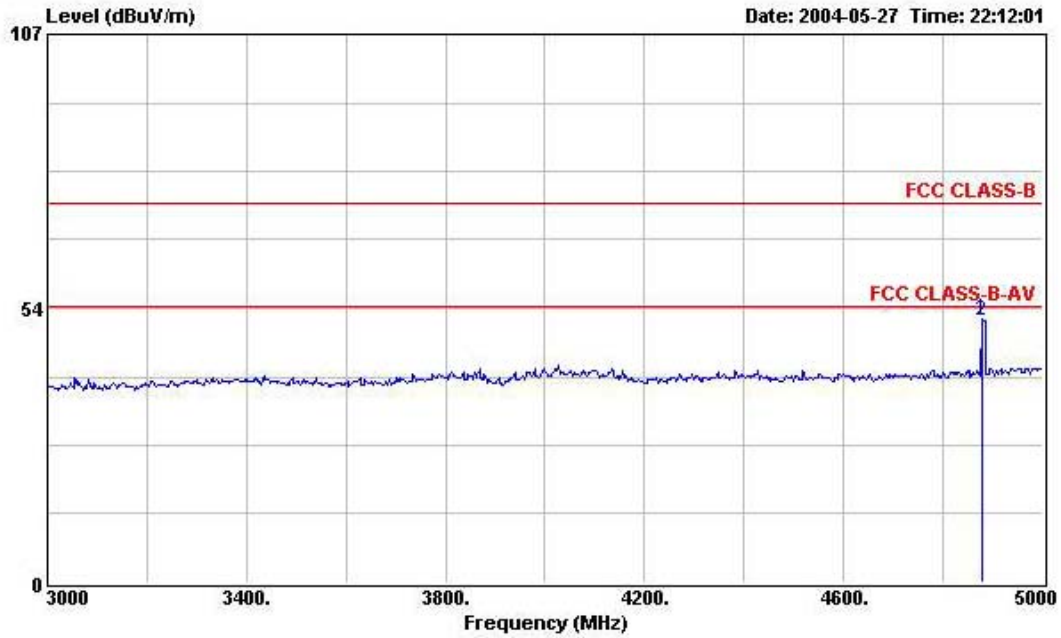
(A) Polarization: Horizontal



	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	4878.000	50.40	-3.60	54.00	56.98	33.36	2.51	42.45	Average	---	---

Remark: No other emission found on higher frequency band.

(B) Polarization: Vertical

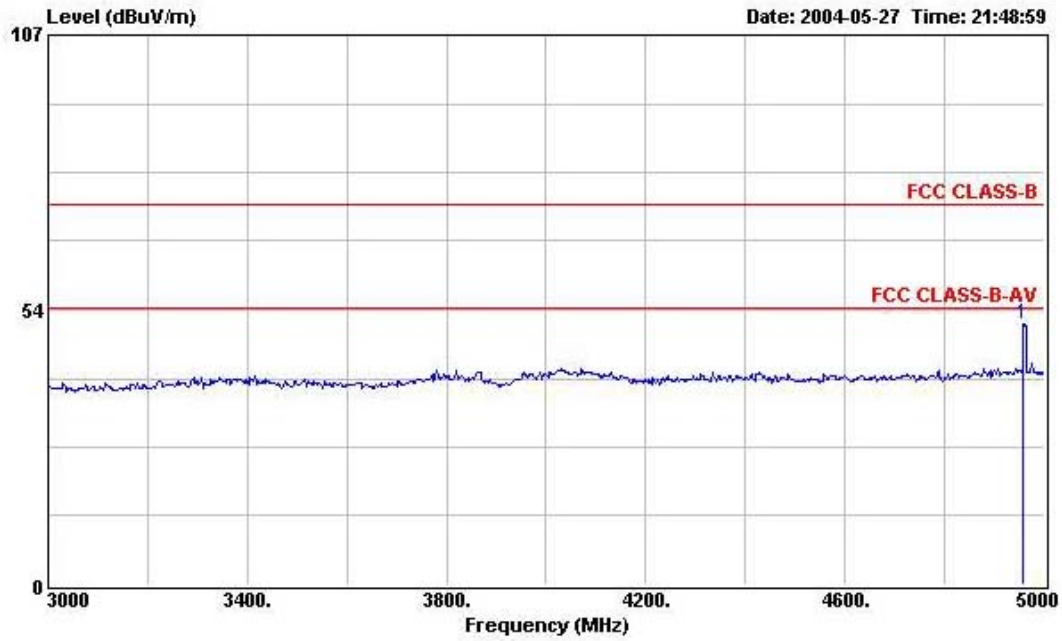


	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4878.000	51.58	-22.42	74.00	58.16	33.36	2.51	42.45	Peak	105	162
2	4878.000	50.92	-3.08	54.00	57.50	33.36	2.51	42.45	Average	---	---

Remark: No other emission found on higher frequency band.

Test Mode	RF Link Mode 3	Temperature	25 deg. C	Tested By	Steve Chen
Freq. Range	1GHz~25GHz	Humidity	67%		

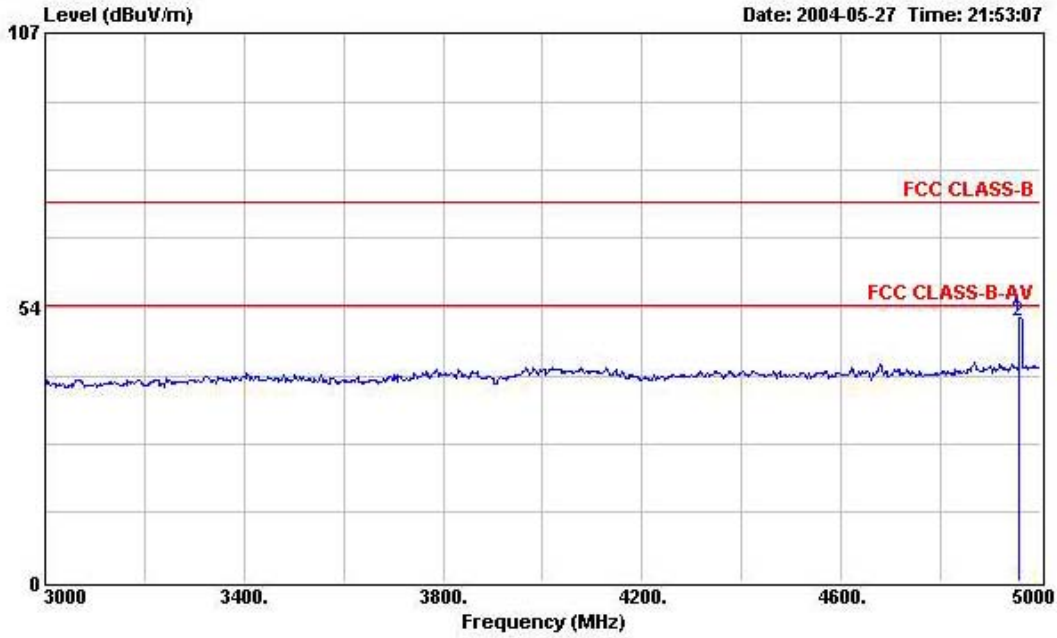
(A) Polarization: Horizontal



	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	4958.000	50.76	-3.24	54.00	57.35	33.53	2.44	42.56	Average	---	---

Remark: No other emission found on higher frequency band.

(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	4958.000	51.29	-22.71	74.00	57.88	33.53	2.44	42.56	Peak	---	---
2	4958.000	50.85	-3.15	54.00	57.44	33.53	2.44	42.56	Average	103	149

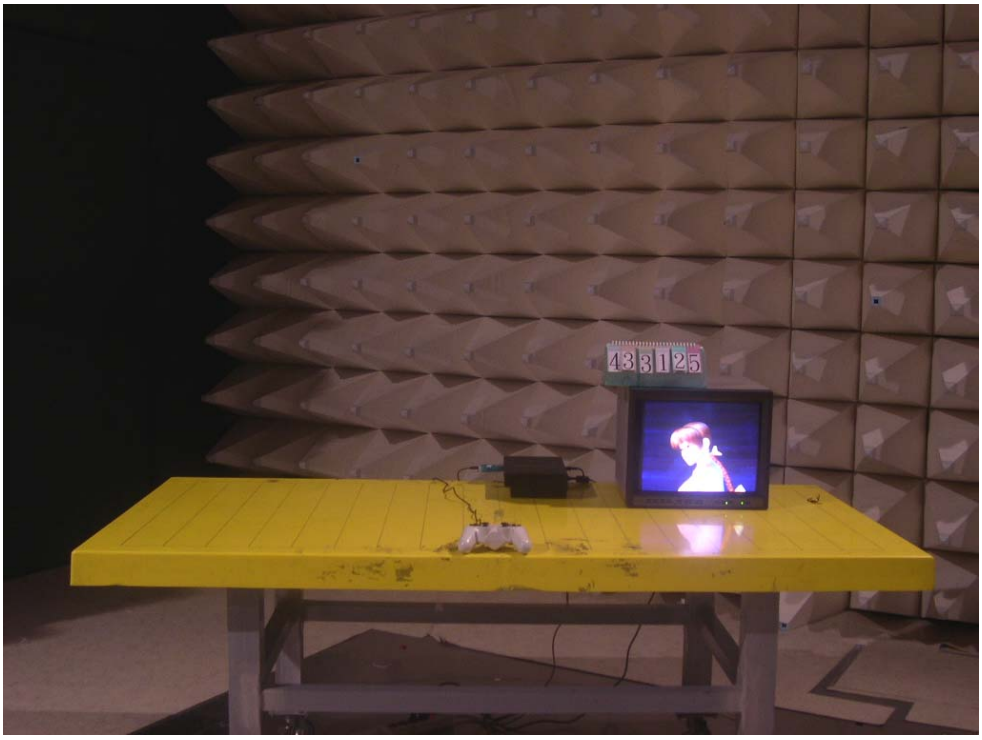
Remark: No other emission found on higher frequency band.

5.5.5 Photographs of Radiated Emission Test Configuration

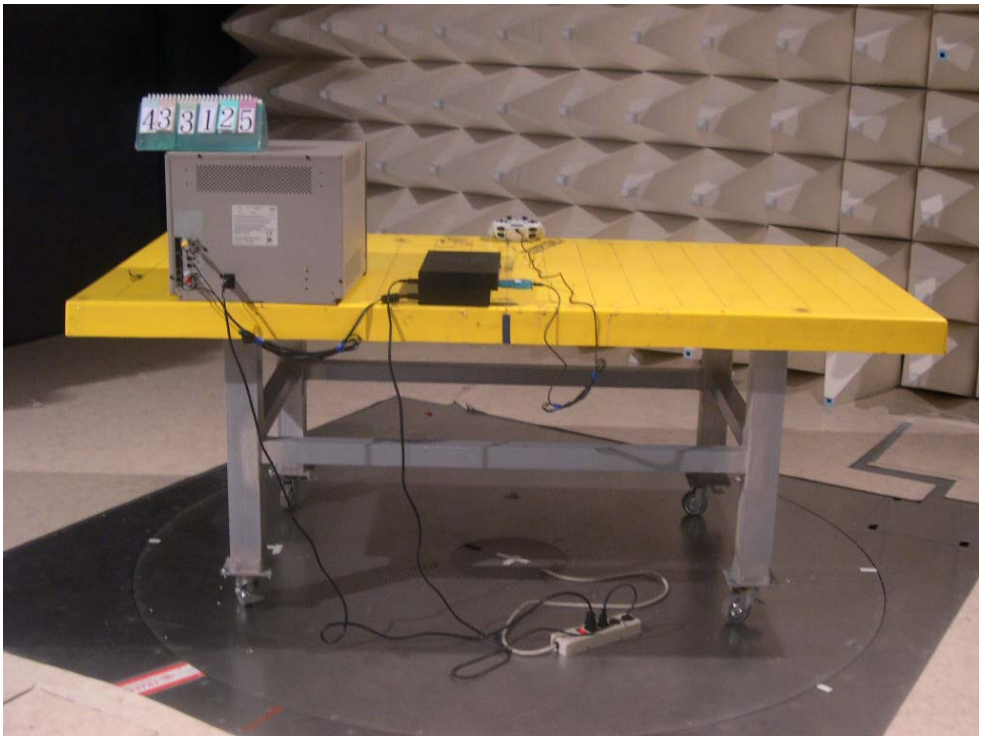
- The photographs show the configuration that generates the maximum emission.

Note: Only Cable Link mode is shown here. RF Link mode is the configuration without the cable between controller and the main set.

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.

47 CFR Part15 Section 15.235 (c):
The antenna shall be a single element, one meter or less in length, permanently mounted on the enclosure containing the device.

6.2 Antenna Construction

The antenna used in this device is printed antenna, there is no antenna connector.

7 List of Measuring Equipments Used

Items	Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
1	EMC Receiver	R&S	ESCS 30	100174	9 KHz – 2.75 GHz	Feb. 16, 2004	Conduction (CO04-HY)
2	LISN	MessTec	NNB-2/16Z	2001/004	9 KHz – 30 MHz	Jun. 02, 2003	Conduction (CO04-HY)
3	LISN (Support Unit)	MessTec	NNB-2/16Z	99041	9 KHz – 30 MHz	Apr. 27, 2004	Conduction (CO04-HY)
4	EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	N/A	Conduction (CO04-HY)
5	RF Cable-CON	UTIFLEX	3102-26886-4	CB044	9KHz~30MHz	Apr. 21, 2004	Conduction (CO04-HY)
6	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz~1GHz 3m	Jun. 21, 2003	Radiation (03CH03-HY)
7	Spectrum analyzer	R&S	FSP40	100004	9KHZ~40GHz	Aug. 23, 2003	Radiation (03CH03-HY)
8	Amplifier	HP	8447D	2944A09072	100KHz – 1.3GHz	Nov. 05, 2003	Radiation (03CH03-HY)
9	Biconical Antenna	SCHWARZBECK	VHBB 9124	301	30MHz –200MHz	Jul. 24, 2003	Radiation (03CH03-HY)
10	Log Antenna	SCHWARZBECK	VUSLP 9111	221	200MHz -1GHz	Jul. 24, 2003	Radiation (03CH03-HY)
11	RF Cable-R03m	Jye Bao	RG142	CB021	30MHz~1GHz	Dec. 03, 2003	Radiation (03CH03-HY)
12	Amplifier	MITEQ	AFS44	879981	100MHz~26.5GHz	Jul. 23, 2003	Radiation (03CH03-HY)
13	Horn Antenna	COM-POWER	3115	6821	1GHz – 18GHz	Sep. 12, 2003	Radiation (03CH03-HY)
14	Turn Table	HD	DS 420	420/650/00	0 ~ 360 degree	N/A	Radiation (03CH03-HY)
15	Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	Radiation (03CH03-HY)
16	Horn Antenna	Schwarzbeck	BBHA9170	154	15GHz~40GHz	Jun. 01, 2004	Radiation (03CH03-HY)
17	RF Cable-HIGH	Jye Bao	RG142	CB030-HIGH	1GHz~29.5GHz	Dec. 05, 2003	Radiation (03CH03-HY)

※ Calibration Interval of instruments listed above is one year.

Items	Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
1	Spectrum analyzer	R&S	FSP7	838858/014	9KHZ~7GHZ	Sep. 03, 2003	Conducted
2	Power meter	R&S	NRVS	100444	DC~40GHz	May 27, 2004	Conducted
3	Power sensor	R&S	NRV-Z55	100049	DC~40GHz	May 27, 2004	Conducted
4	Power Sensor	R&S	NRV-Z32	100057	30MHz-6GHz	May 27, 2004	Conducted
5	AC power source	HPC	HPA-500W	HPA-9100024	AC 0~300V	May 26, 2004	Conducted
6	DC power source	G.W.	GPC-6030D	C671845	DC 1V~60V	Nov. 06, 2003	Conducted
7	Temp. and Humidity Chamber	KSON	THS-C3L	612	N/A	Oct. 01, 2003	Conducted
8	RF CABLE-1m	Jye Bao	RG142	CB034-1m	20MHz~7GHz	Jan. 01, 2004	Conducted
9	RF CABLE-2m	Jye Bao	RG142	CB035-2m	20MHz~1GHz	Jan. 01, 2004	Conducted

※ Calibration Interval of instruments listed above is one year.