Test Report

Product Name	Joystick
Model No.	Wireless MetalStrike
FCC ID.	FSUGG000F

Applicant	KYE SYSTEMS CORP.
Address	No. 492 Sec.5, Chung Hsin Rd., San Chung, Taipei Hsien, 24160, Taiwan, R.O.C.

Date of Receipt	Sep. 20, 2007
Issued Date	Nov. 28, 2007
Report No.	079268R-RFUSP07V01

Test Report Certification

Issued Date: Nov. 28, 2007
Report No.: 079268R-RFUSP07V01

Product Name	Joystick
Applicant	KYE SYSTEMS CORP.
Address	No. 492 Sec.5, Chung Hsin Rd., San Chung, Taipei Hsien, 24160, Taiwan, R.O.C.
Manufacturer	KYE SYSTEMS CORP.
Model No.	Wireless MetalStrike
Rated Voltage	AC 120V / 60Hz
Working Voltage	DC 4.5V (Power by Battery)
Trade Name	Genius
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2006 ANSI C63.4: 2003 NVLAP Lab Code: 200533-0
Test Result	Complied

Test results relate only to the samples tested.
The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.
This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

Documented By : Anita Chou
(Senior Engineering Adm. Specialist / Anita Chou)

Tested By : Dino Chen
(Engineer/Dino Chen)

Approved By :
(Deputy Manager / Vincent Lin)

Testing Laboratory
0914

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Description Page

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Joystick
Trade Name	Genius
FCC ID.	FSUGG000F
Model No.	Wireless MetalStrike
Frequency Range	2410-2474.872MHz
Number of Channels	81
Channel Separation	810.9KHz
Channel Control	Auto
Type of Modulation	MSK
Antenna Type	Printed on PCB
Antenna Gain	-3.16dBi

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2410MHz	Channel 22:	2427.0289 MHz	Channel 43:	2444.0578 MHz	Channel 64:	2461.0867 MHz
Channel 02:	2410.8109 MHz	Channel 23:	2427.8398 MHz	Channel 44:	2444.8687 MHz	Channel 65:	2461.8976 MHz
Channel 03:	2411.6218 MHz	Channel 24:	2428.6507 MHz	Channel 45:	2445.6796 MHz	Channel 66:	2462.7085 MHz
Channel 04:	2412.4327 MHz	Channel 25:	2429.4616 MHz	Channel 46:	2446.4905 MHz	Channel 67:	2463.5194 MHz
Channel 05:	2413.2436 MHz	Channel 26:	2430.2725 MHz	Channel 47:	2447.3014 MHz	Channel 68:	2464.3303 MHz
Channel 06:	2414.0545 MHz	Channel 27:	2431.0834 MHz	Channel 48:	2448.1123 MHz	Channel 69:	2465.1412 MHz
Channel 07:	2414.8654 MHz	Channel 28:	2431.8943 MHz	Channel 49:	2448.9232 MHz	Channel 70:	2465.9521 MHz
Channel 08:	2415.6763 MHz	Channel 29:	2432.7052 MHz	Channel 50:	2449.7341 MHz	Channel 71:	2466.763 MHz
Channel 09:	2416.4872 MHz	Channel 30:	2433.5161 MHz	Channel 51:	2450.545 MHz	Channel 72:	2467.5739 MHz
Channel 10:	2417.2981 MHz	Channel 31:	2434.327 MHz	Channel 52:	2451.3559 MHz	Channel 73:	2468.3848 MHz
Channel 11:	2418.109 MHz	Channel 32:	2435.1379 MHz	Channel 53:	2452.1668 MHz	Channel 74:	2469.1957 MHz
Channel 12:	2418.9199 MHz	Channel 33:	2435.9488 MHz	Channel 54:	2452.9777 MHz	Channel 75:	2470.0066 MHz
Channel 13:	2419.7308 MHz	Channel 34:	2436.7597 MHz	Channel 55:	2453.7886 MHz	Channel 76:	2470.8175 MHz
Channel 14:	2420.5417 MHz	Channel 35:	2437.5706 MHz	Channel 56:	2454.5995 MHz	Channel 77:	2471.6284 MHz
Channel 15:	2421.3526 MHz	Channel 36:	2438.3815 MHz	Channel 57:	2455.4104 MHz	Channel 78:	2472.4393 MHz
Channel 16:	2422.1635 MHz	Channel 37:	2439.1924 MHz	Channel 58:	2456.2213 MHz	Channel 79:	2473.2502 MHz
Channel 17:	2422.9744 MHz	Channel 38:	2440.0033 MHz	Channel 59:	2457.0322 MHz	Channel 80:	2474.0611 MHz
Channel 18:	2423.7853 MHz	Channel 39:	2440.8142 MHz	Channel 60:	2457.8431 MHz	Channel 81:	2474.872 MHz
Channel 19:	2424.5962 MHz	Channel 40:	2441.6251 MHz	Channel 61:	2458.654 MHz		
Channel 20:	2425.4071 MHz	Channel 41:	2442.436 MHz	Channel 62:	2459.4649 MHz		
Channel 21:	2426.218 MHz	Channel 42:	2443.2469 MHz	Channel 63:	2460.2758 MHz		

Note:

1. The EUT is a Joystick with built-in 2.4GHz transceiver.
2. These tests are conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.249.
3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
4. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report.
5. Part 15 Subpart B compliance for spread spectrum devices is shown on the report no. 079268R-RFUSP01V02.
6. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

1.2. Operation Description

The EUT is Joystick . The operation frequency is 2.410GHz to 2474.872MHz. Seventy-seven manually selectable channels are built in the EUT. The signals modulated by MSK are transmitted from the printed antenna on PCB of the EUT. DC 4.5V shall be provided for EUT operation.

Test Mode	Mode 1: Transmitter

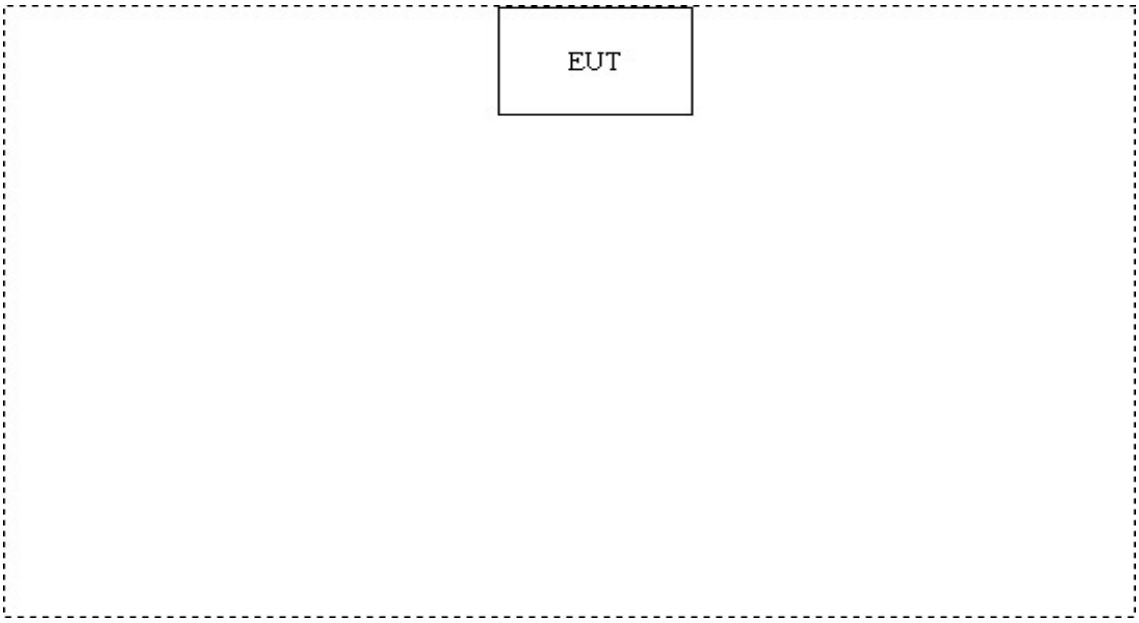
1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
(1)	N/A	N/A	N/A	N/A	N/A	N/A

Signal Cable Type		Signal cable Description
A.	N/A	N/A

1.4. Configuration of Tested System



1.5. EUT Exercise Software

(1) Setup the EUT as shown in section 1.4.

(2) Install the batteries of the EUT.

(3) Press the right button two times to start continuous transmitting.

(4) Press the left button to switch the channel.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

Site Description: File on
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046
Reference 31040/SIT1300F2

Accreditation on NVLAP
NVLAP Lab Code: 200533-0

Site Name: Quietek Corporation

Site Address: No. 5-22, Ruei-Shu Valley, Ruei-Ping Tsuen,
Lin-Kou Shiang, Taipei,
Taiwan, R.O.C.
TEL: 886-2-8601-3788 / FAX: 886-2-8601-3789
E-Mail : service@quietek.com

FCC Accreditation Number: TW1014

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2. Conducted Emission

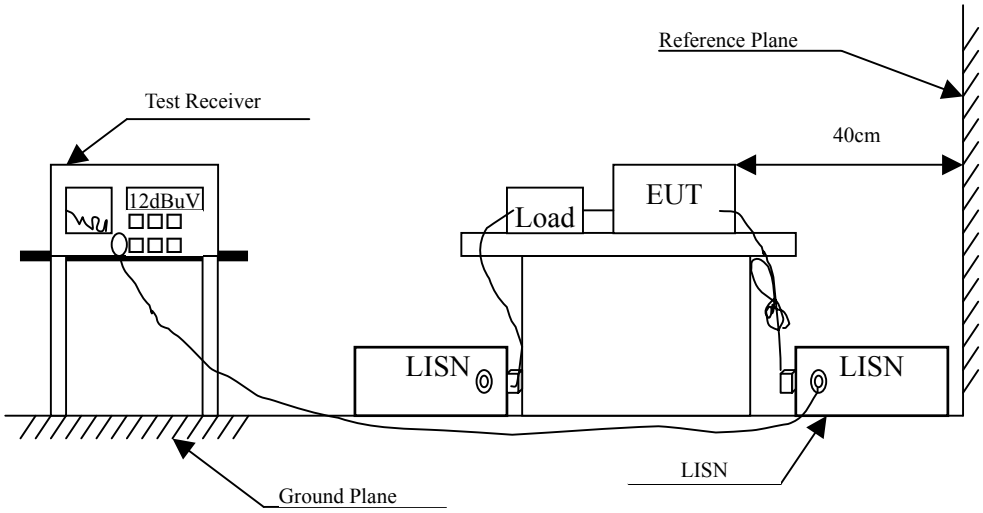
2.1. Test Equipment

The following test equipment are used during the conducted emission test:

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/17	May, 2007	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2007	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2007	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	May, 2007	
5	No.1 Shielded Room			N/A	

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBuV) Limit		
Frequency MHz	Limits	
	QP	AV
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

Remarks: In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)
Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Uncertainty

± 2.26 dB

2.6. Test Result of Conducted Emission

The EUT is powered by batteries Owing to the DC operation. This test item is not performed

3. Radiated Emission

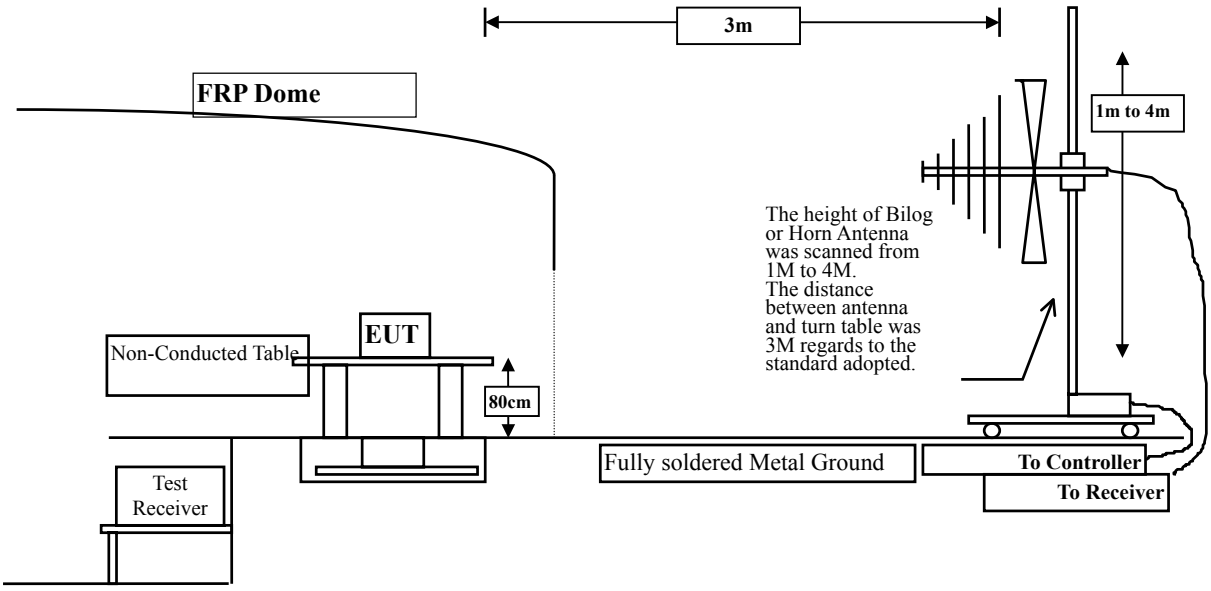
3.1. Test Equipment

The following test equipment are used during the radiated emission test:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☐Site # 1		Test Receiver	R & S	ESVS 10 / 834468/003	May, 2007
		Spectrum Analyzer	Advantest	R3162/ 00803480	May, 2007
		Pre-Amplifier	Advantest	BB525C/ 3307A01812	May, 2007
		Bilog Antenna	SCHAFFNER	CBL6112B / 2697	Sep., 2007
☐Site # 2		Test Receiver	R & S	ESCS 30 / 836858 / 022	May, 2007
		Spectrum Analyzer	Advantest	R3162 / 100803466	May, 2007
		Pre-Amplifier	Advantest	BB525C/3307A01814	May, 2007
		Bilog Antenna	SCHAFFNER	CBL6112B / 2705	May, 2007
		Horn Antenna	ETS	3115 / 0005-6160	Sep., 2007
		Pre-Amplifier	QTK	QTK-AMP-01/ 0001	May, 2007
☒Site # 3	X	Test Receiver	R & S	ESI 26 / 838786/004	May, 2007
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2007
	X	Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2007
	X	Horn Antenna	Schwarzbeck	BBHA9120D / 305, 306	July, 2007
	X	Horn Antenna	Schwarzbeck	BBHA9170 / 208, 209	July, 2007
	X	Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2007
	X	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2007
	X	Pre-Amplifier	HP	8449B / 3008A01123	July, 2007

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.
2. Mark “X” test instruments are used to measure the final test results.

3.2. Test Setup



3.3. Limits

➢ **Fundamental and Harmonics Emission Limits**

FCC Part 15 Subpart B Paragraph 15.249 Limits				
Frequency MHz	Field Strength of Fundamental		Field Strength of Harmonics	
	(mV/m @3m)	(dBuV/m @3m)	(uV/m @3m)	(dBuV/m @3m)
902-928	50	94	500	54
2400-2483.5	50	94	500	54
5725-5875	50	94	500	54

Remarks : 1. RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

➢ **General Radiated Emission Limits**

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart B Paragraph 15.209 Limits		
Frequency MHz	uV/m @3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks : 1. RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

3.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated measurement.
The additional latch filter below 1GHz was used to measure the level of harmonics radiated emission during field dtrength of harmonics measurement.
The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz.
The frequency range from 30MHz to 10th harminics is checked.

3.5. Uncertainty

± 3.9 dB above 1GHz
± 3.8 dB below 1GHz

3.6. Test Result of Radiated Emission

Product : Joystick
Test Item : Fundamental Radiated Emission
Test Site : No.3OATS
Test Mode : Mode 1: Transmitter (2410MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
Channel					
2410.300	-1.325	92.880	91.555	-22.445	114.000
Average Detector					
--					
Vertical					
Peak Detector:					
Channel					
2410.100	-1.326	96.400	95.074	-18.926	114.000
Average Detector					
2410.000	-1.327	94.036	92.709	-1.291	94.000

Note:

1. Measurement Level = Reading Level + Correct Factor.
2. Correct Factor = Antenna Factor + Cable Loss – PreAMP.

Product : Joystick
Test Item : Fundamental Radiated Emission
Test Site : No.3OATS
Test Mode : Mode 1: Transmitter (2442.4MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
Channel					
2442.700	-1.197	91.490	90.292	-23.708	114.000
Average Detector					
--					
Vertical					
Peak Detector:					
Channel					
2442.300	-1.201	95.040	93.840	-20.160	114.000
Average Detector					
--					

Note:

1. Measurement Level = Reading Level + Correct Factor.
2. Correct Factor = Antenna Factor + Cable Loss – PreAMP.

Product : Joystick
Test Item : Fundamental Radiated Emission
Test Site : No.3OATS
Test Mode : Mode 1: Transmitter (2474.8MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
Channel					
2475.100	-1.073	92.530	91.457	-22.543	114.000
Average Detector					
--					
Vertical					
Peak Detector:					
Channel					
2474.900	-1.074	94.160	93.086	-20.914	114.000
Average Detector					
--					

Note:

1. Measurement Level = Reading Level + Correct Factor.
2. Correct Factor = Antenna Factor + Cable Loss – PreAMP.

Product : Joystick
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (2410MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4820.000	2.856	42.149	45.005	-28.995	74.000
7230.000	7.693	37.618	45.311	-28.689	74.000
9640.000	9.296	38.460	47.756	-26.244	74.000
Average Detector					
--					
Vertical					
Peak Detector:					
4820.000	2.856	42.289	45.145	-28.855	74.000
7230.000	7.693	37.966	45.659	-28.341	74.000
9640.000	9.296	37.332	46.628	-27.372	74.000
Average Detector					
--					

Note:

1. The reading levels below 1GHz and above 1GHz are quasi-peak values and peak/average values, respectively.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Joystick
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (2442.4MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4884.800	3.030	43.648	46.678	-27.322	74.000
7327.200	7.910	37.664	45.574	-28.426	74.000
9769.600	9.367	37.308	46.675	-27.325	74.000
Average Detector					
--					
Vertical					
Peak Detector:					
4884.800	3.030	41.078	44.108	-29.892	74.000
7327.200	7.910	37.579	45.489	-28.511	74.000
9769.600	9.367	37.532	46.899	-27.101	74.000
Average Detector					
--					

Note:

1. The reading levels below 1GHz and above 1GHz are quasi-peak values and peak/average values, respectively.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Joystick
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (2474.8MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4949.725	3.209	43.885	47.093	-26.907	74.000
7424.400	8.128	37.196	45.323	-28.677	74.000
9899.200	9.436	37.541	46.976	-27.024	74.000
Average Detector					
--					
Vertical					
Peak Detector:					
4949.600	3.209	43.836	47.044	-26.956	74.000
7424.400	8.128	36.832	44.959	-29.041	74.000
9899.200	9.436	37.926	47.361	-26.639	74.000
Average Detector					
--					

Note:

1. The reading levels below 1GHz and above 1GHz are quasi-peak values and peak/average values, respectively.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Joystick
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (2442.4MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
128.940	11.910	17.650	29.560	-13.940	43.500
167.740	9.363	25.965	35.328	-8.172	43.500
258.920	13.318	16.919	30.237	-15.763	46.000
398.600	15.304	15.385	30.689	-15.311	46.000
472.320	17.469	12.144	29.613	-16.387	46.000
833.160	20.201	9.386	29.587	-16.413	46.000
Vertical					
113.420	10.989	24.335	35.324	-8.176	43.500
206.540	9.116	23.150	32.266	-11.234	43.500
258.920	13.468	20.419	33.887	-12.113	46.000
311.300	12.969	10.343	23.312	-22.688	46.000
520.820	17.445	8.869	26.314	-19.686	46.000
806.000	20.167	6.739	26.906	-19.094	46.000

Note:

1. The reading levels below 1GHz are quasi-peak values.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

4. Band Edge

4.1. Test Equipment

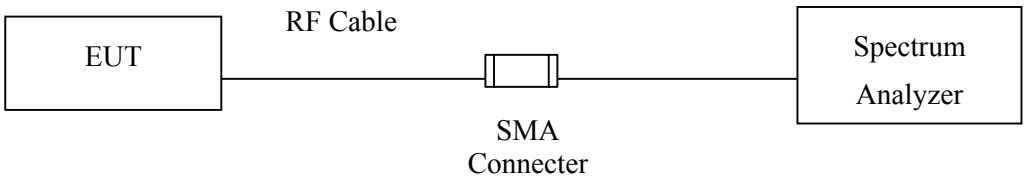
The following test equipments are used during the band edge tests:

Equipment		Manufacturer	Model No./Serial No.	Last Cal.
X	Test Receiver	R & S	ESI 26 / 838786/004	May, 2007
X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2007
X	Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2007
X	Horn Antenna	Schwarzbeck	BBHA9120D / 305, 306	July, 2007
X	Horn Antenna	Schwarzbeck	BBHA9170 / 208, 209	July, 2007
X	Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2007
X	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2007
X	Pre-Amplifier	HP	8449B / 3008A01123	July, 2007
Test Site: Site3				

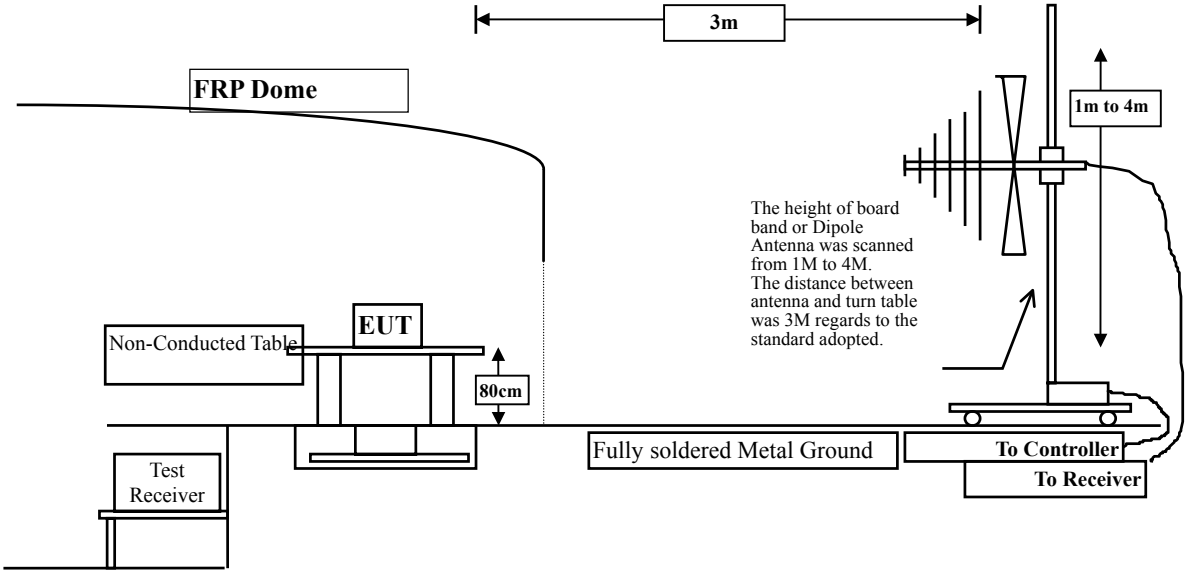
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.
2. Mark “X” test instruments are used to measure the final test results.

4.2. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:



4.3. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 50 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

4.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:2003 on radiated measurement.

The bandwidth setting below 1GHz and above 1GHz on the field strength meter is 120 kHz and 1MHz, respectively.

4.5. Uncertainty

Conducted is ± 1.27 dB

Radiated is ± 3.9 dB

4.6. Test Result of Band Edge

Product : Joystick
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (2410MHz)

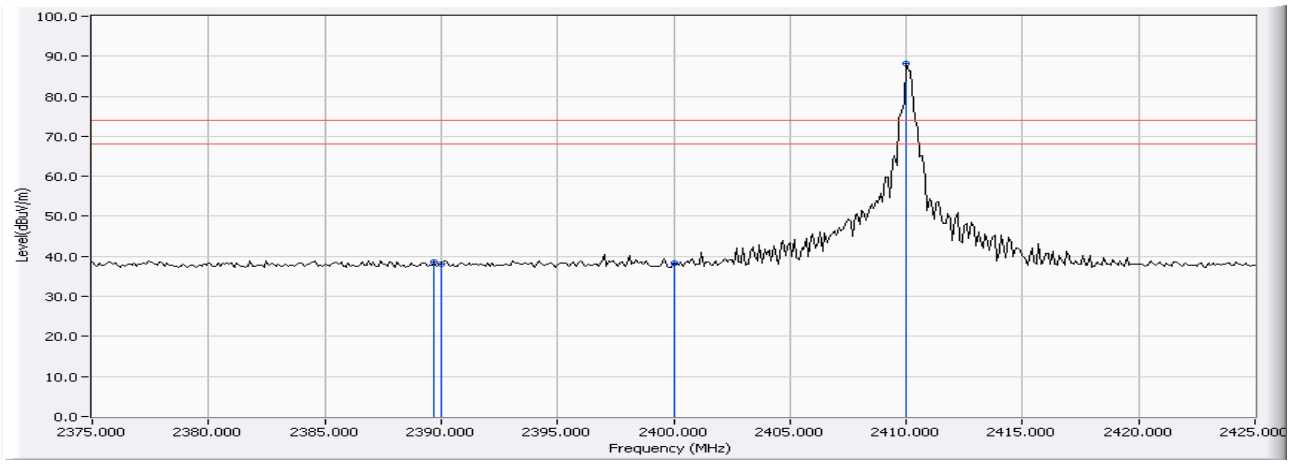
RF Radiated Measurement

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
01	<2400	>20	Pass

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2389.700	-1.408	39.966	38.558	74.00	54.00	Pass
01 (Peak)	2390.000	-1.407	39.415	38.008	74.00	54.00	Pass
01 (Peak)	2400.000	-1.363	39.692	38.329	74.00	54.00	Pass
01 (Peak)	2410.000	-1.327	89.482	88.155	74.00	54.00	Pass
01(Average)	--	--	--	--	74.00	54.00	Pass

Figure Channel 01: Horizontal (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Joystick
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (2410MHz)

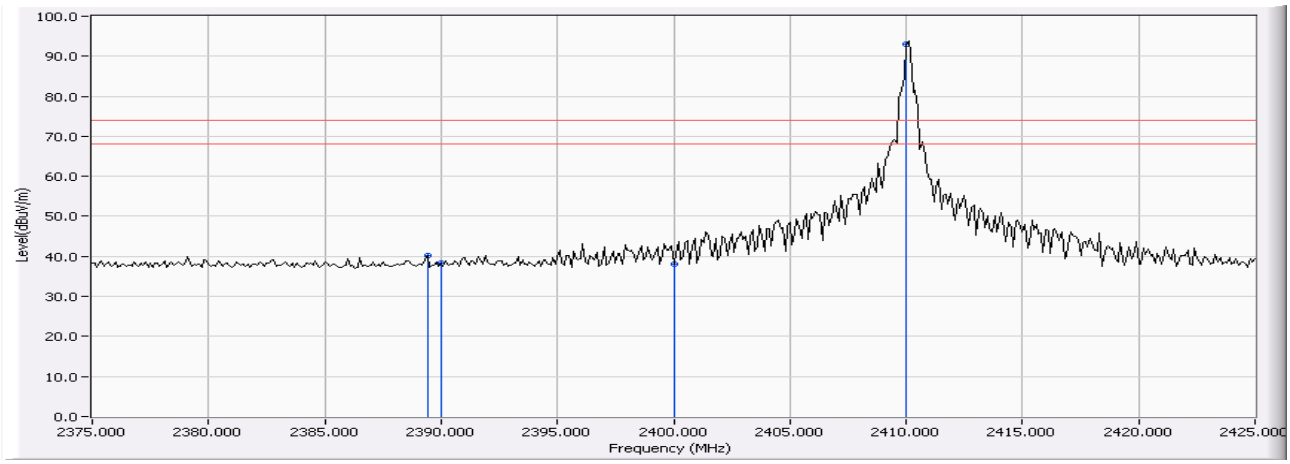
RF Radiated Measurement

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
01	<2400	>20	Pass

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2389.400	-1.409	41.539	40.130	74.00	54.00	Pass
01 (Peak)	2390.000	-1.407	39.659	38.252	74.00	54.00	Pass
01 (Peak)	2400.000	-1.363	39.502	38.139	74.00	54.00	Pass
01 (Peak)	2410.000	-1.327	94.479	93.152	74.00	54.00	Pass
01(Average)	--	--	--	--	74.00	54.00	Pass

Figure Channel 01: Vertical (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Joystick
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (2474.8MHz)

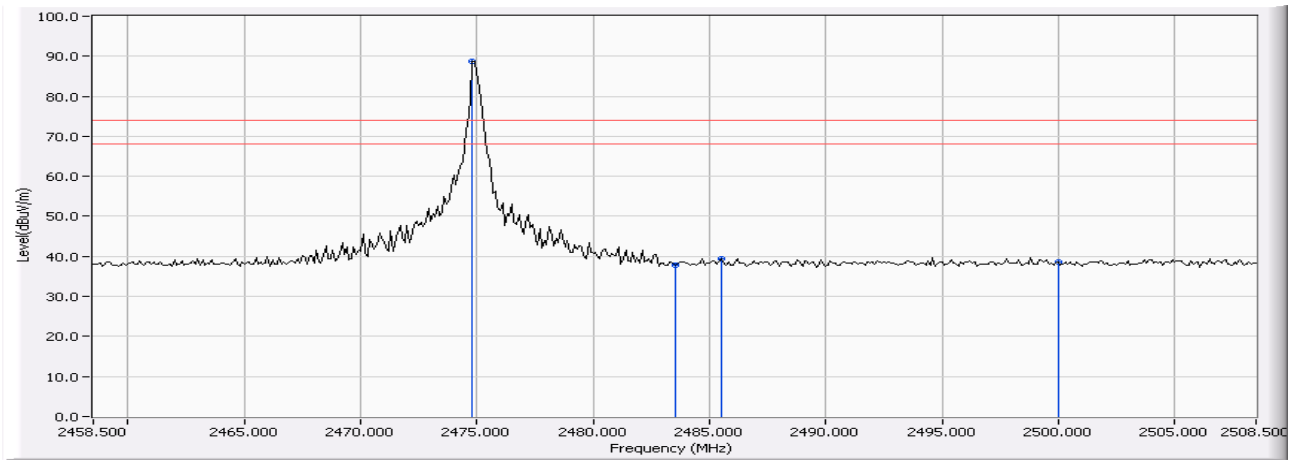
RF Radiated Measurement

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
81	>2483.5	>20	Pass

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
81 (Peak)	2474.800	-1.074	89.697	88.623	74.00	54.00	Pass
81 (Peak)	2483.500	-1.037	38.759	37.722	74.00	54.00	Pass
81 (Peak)	2485.500	-1.032	40.430	39.398	74.00	54.00	Pass
81 (Peak)	2500.000	-0.988	39.692	38.704	74.00	54.00	Pass
81(Average)	--	--	--	--	74.00	54.00	Pass

Figure Channel 81: Horizontal (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Joystick
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (2474.8MHz)

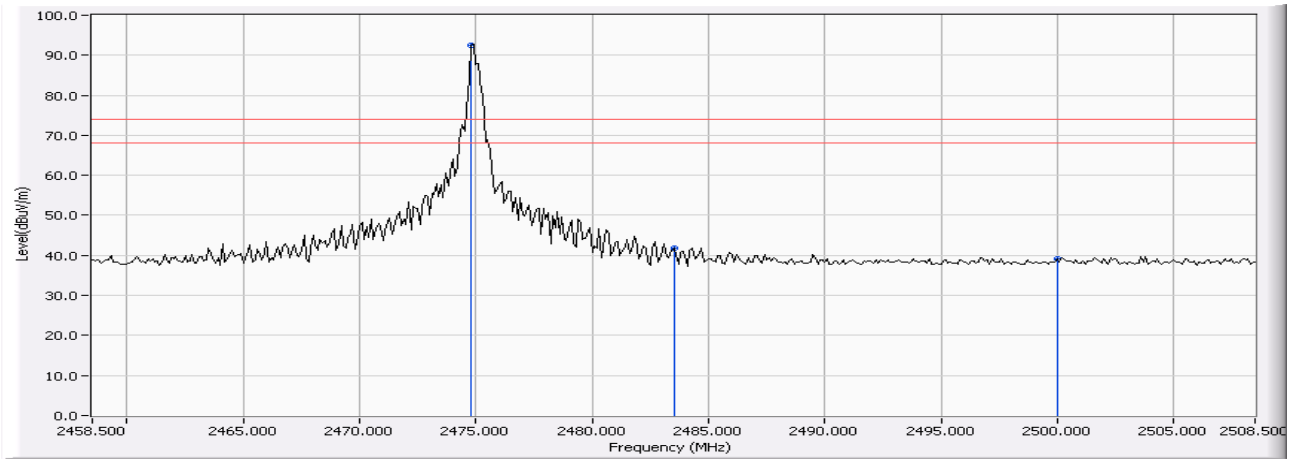
RF Radiated Measurement

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
81	>2483.5	>20	Pass

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
81 (Peak)	2474.800	-1.074	93.474	92.400	74.00	54.00	Pass
81 (Peak)	2483.500	-1.037	42.950	41.913	74.00	54.00	Pass
81 (Peak)	2500.000	-0.988	40.077	39.089	74.00	54.00	Pass
81(Average)	--	--	--	--	74.00	54.00	Pass

Figure Channel 81: Vertical (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

5. EMI Reduction Method During Compliance Testing

No modification was made during testing.