Test Report

Product Name ： 2.4GHz wireless multifunction UFO Presenter Air Mouse
Model No. ： AWP305M
FCC ID. ： NGVAWP305M

Applicant ： AIRWAVE TECHNOLOGIES INC.
Address ： 4F, NO.9, INDUSTRY E. 9TH ROAD, SCIENCE-BASED INDUSTRIAL PARK, HSINCHU, TAIWAN, R.O.C

Date of Receipt ： 2010/07/22
Issued Date ： 2010/08/09
Report No. ： 107320R-RFUSP44V01
Version ： V1.0

Test Report Certification

Issued Date : 2010/08/09
Report No. : 107320R-RFUSP44V01

QuieTek

Product Name	:	2.4GHz wireless multifunction UFO Presenter Air Mouse
Applicant	:	AIRWAVE TECHNOLOGIES INC.
Address	:	4F, NO.9, INDUSTRY E. 9TH ROAD, SCIENCE-BASED INDUSTRIAL PARK, HSINCHU, TAIWAN, R.O.C
Manufacturer	:	AIRWAVE TECHNOLOGIES INC.
Model No.	:	AWP305M
Trade Name	:	AIRWAVE
FCC ID.	:	NGVAWP305M
EUT Voltage	:	DC 3.7V
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C Section 15.249: 2009
Test Result	:	Complied

The 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.

Documented By : Carol Tsai

(Carol Tsai / Engineering Adm. Specialist)

Reviewed By : Lucia Lu

(Lucia Lu / Assistant Engineer)

Approved By : Roy Wang

(Roy Wang / Manager)

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1. General Information

1.1. EUT Description

Product Name	2.4GHz wireless multifunction UFO Presenter Air Mouse
Trade Name	AIRWAVE
Model No.	AWP305M
Frequency Range	2408~2472MHz
Antenna Gain	-0.5336dBi
Channel Number	65
Type of Modulation	GFSK
Channel Control	AUTO
Antenna Type	Printed

Component	
Sliding plate	1 Set
USB Cable	Shielded, 1.1m

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01	2408 MHz	Channel 18	2425 MHz	Channel 35	2442 MHz	Channel 52	2459 MHz
Channel 02	2409 MHz	Channel 19	2426 MHz	Channel 36	2443 MHz	Channel 53	2460 MHz
Channel 03	2410 MHz	Channel 20	2427 MHz	Channel 37	2444 MHz	Channel 54	2461 MHz
Channel 04	2411 MHz	Channel 21	2428 MHz	Channel 38	2445 MHz	Channel 55	2462 MHz
Channel 05	2412 MHz	Channel 22	2429 MHz	Channel 39	2446 MHz	Channel 56	2463 MHz
Channel 06	2413 MHz	Channel 23	2430 MHz	Channel 40	2447 MHz	Channel 57	2464 MHz
Channel 07	2414 MHz	Channel 24	2431 MHz	Channel 41	2448 MHz	Channel 58	2465 MHz
Channel 08	2415 MHz	Channel 25	2432 MHz	Channel 42	2449 MHz	Channel 59	2466 MHz
Channel 09	2416 MHz	Channel 26	2433 MHz	Channel 43	2450 MHz	Channel 60	2467 MHz
Channel 10	2417 MHz	Channel 27	2434 MHz	Channel 44	2451 MHz	Channel 61	2468 MHz
Channel 11	2418 MHz	Channel 28	2435 MHz	Channel 45	2452 MHz	Channel 62	2469 MHz
Channel 12	2419 MHz	Channel 29	2436 MHz	Channel 46	2453 MHz	Channel 63	2470 MHz
Channel 13	2420 MHz	Channel 30	2437 MHz	Channel 47	2454 MHz	Channel 64	2471 MHz
Channel 14	2421 MHz	Channel 31	2438 MHz	Channel 48	2455 MHz	Channel 65	2472 MHz
Channel 15	2422 MHz	Channel 32	2439 MHz	Channel 49	2556 MHz		
Channel 16	2423 MHz	Channel 33	2440 MHz	Channel 50	2457 MHz		
Channel 17	2424 MHz	Channel 34	2441 MHz	Channel 51	2458 MHz		

Note:

1. This device is a 2.4GHz wireless multifunction UFO Presenter Air Mouse included a 2.4GHz receiving function, and 2.4GHz transmitting function.
2. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.249.
3. Regards to the frequency band operation; the lowest、middle and highest frequency of channel were selected to perform the test, and then shown on this report.
4. This device is a composite device in accordance with Part 15 regulations. The function receiving was measured and made a test report that the report number is107320R-RFUSP37V02 under Declaration of Conformity.

1.3. Test Mode

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Pre-Test Mode	
EMI	Mode 1: Transmit
Final Test Mode	
TX	Mode 1: Transmit

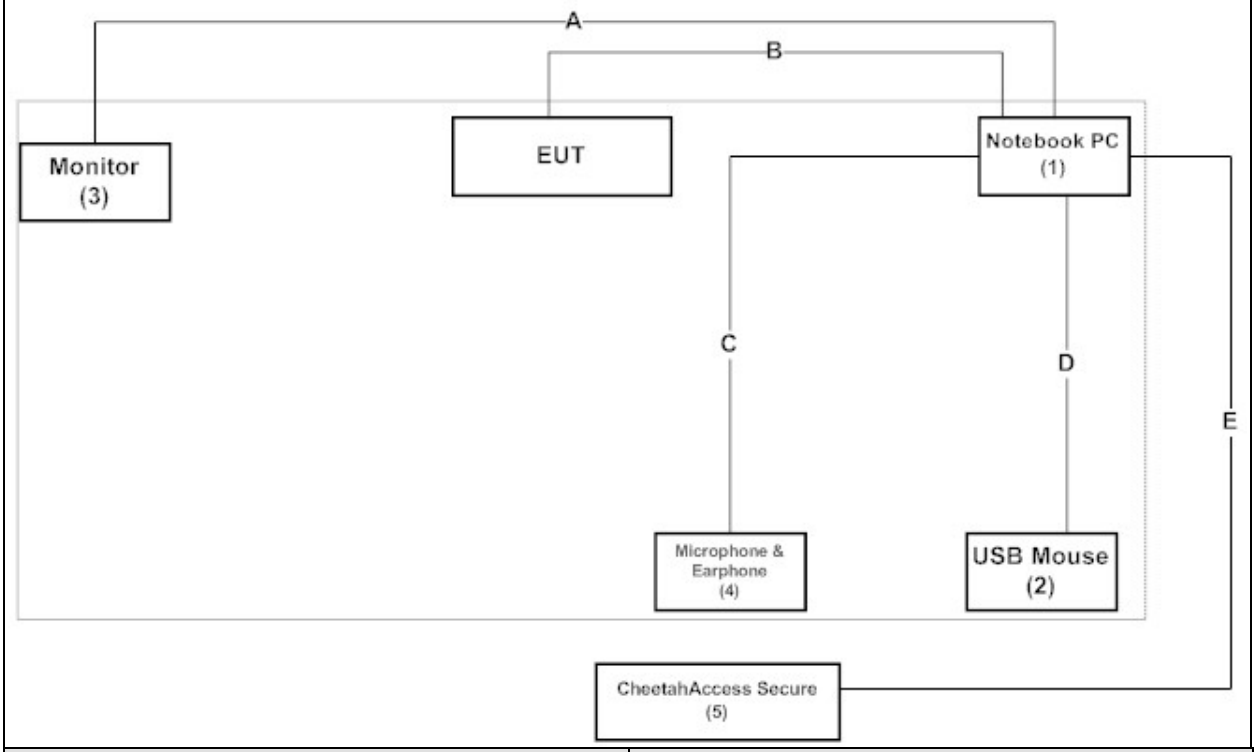
Emission	
Performed Item	Test
Conducted Emission	Yes
Radiated Emission	Yes
Band Edge	Yes

1.4. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	DELL	Precision M65	28G9NIS	Non-Shielded, 1.8m
2	USB Mouse	SANYO	SYMS-M8	N/A	--
3	Monitor	ViewSonic	E653	ER01502861	Non-Shielded, 1.8m
4	Microphone & Earphone	Fujiei	SBZ-38	N/A	--
5	CheetahAccess Secure	Accton	AC-IG1104	N/A	Non-Shielded, 1.8m

1.5. Configuration of tested System

Connection Diagram


Signal Cable Type		Signal cable Description
A	VGA Cable	Shielded, 1.8m, two ferrite cores bonded.
B	USB Cable	Shielded, 0.8m
C	Microphone & Earphone Cable	Non-Shielded, 1.2m
D	USB Mouse Cable	Shielded, 1.5m
E	LAN Cable	Non-Shielded, 10m

1.6. EUT Exercise Software

1	Setup the EUT and simulators as shown on 1.5.
2	Turn on the power.
3	The RF signal's status will continue transmit through EUT.
4	Repeat the above procedure (3)

1.7. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 C 15.207 Conducted Emission	15 - 35	25
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.209 Radiated Emission	15 - 35	25
Humidity (%RH)		25 - 75	65
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.249 Band Edge	15 - 35	25
Humidity (%RH)		25 - 75	65
Barometric pressure (mbar)		860 - 1060	950-1000

Site Description:

January 24, 2005 File on
Federal Communications Commission
Laboratory Division
7435 Oakland Mills Road
Columbia, MD 21046
Registration Number: 365520

Accredited by TAF
Accreditation Number: 1313
Effective through: December 27, 2010

Testing Laboratory 1313

Accredited by NVLAP
NVLAP Lab Code: 200347-0
Effective through: September 30, 2010

NVLAP Lab Code : 200347-0

Site Name: Quietek Corporation
Site Address: No.75-1, Wang-Yeh Valley, Yung-Hsing,
Chiung-Lin, Hsin-Chu County,
Taiwan, R.O.C.
TEL : 886-3-592-8858 / FAX : 886-3-592-8859
E-Mail : service@quietek.com

2. Conducted Emission

2.1. Test Equipment

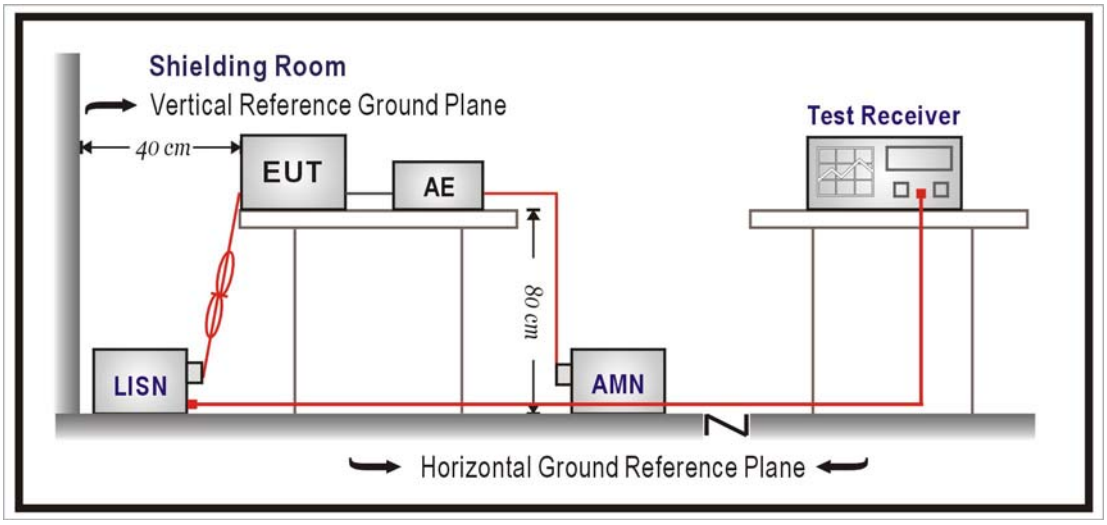
The following test equipment are used during the test:

Conducted Emission / SR3

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
LISN	R&S	ENV216	100096	2010/09/27
LISN	R&S	ESH3-Z5	836679/022	2011/05/30
Test Receiver	R&S	ESCS 30	825442/017	2011/02/04

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 Limits (dBuV)		
Frequency MHz	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: 2009on conducted measurement. Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Test Specification

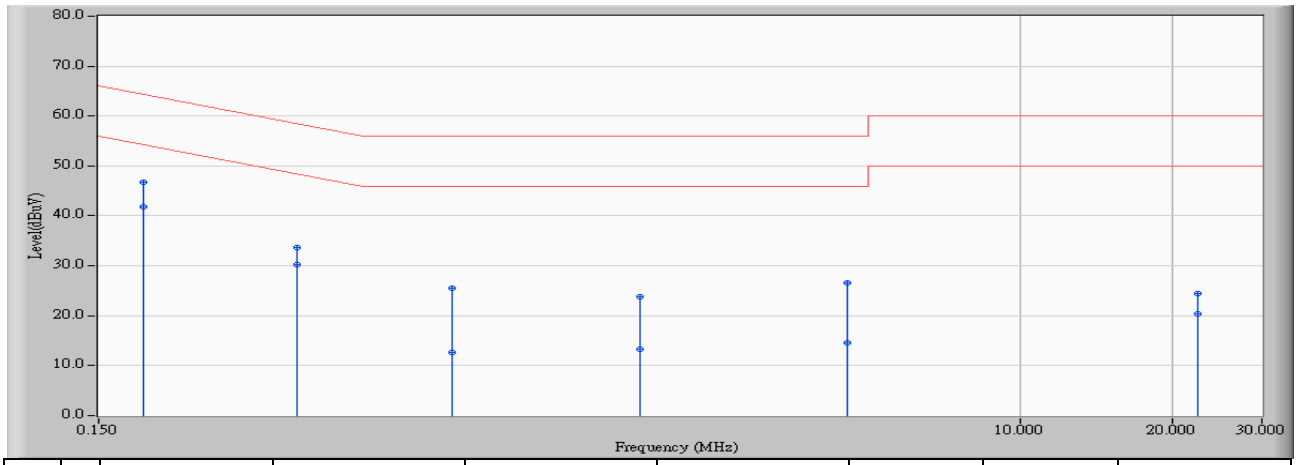
According to FCC Part 15 Subpart C Paragraph 15.207: 2009

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR3	**Time : 2010/07/26 - 18:19**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR3_LISN(16A) - Line1	**Power : DC 3.7V**
EUT : 2.4GHz wireless multifunction UFO Presenter Air Mouse	**Note : Mode 1: Transmit**

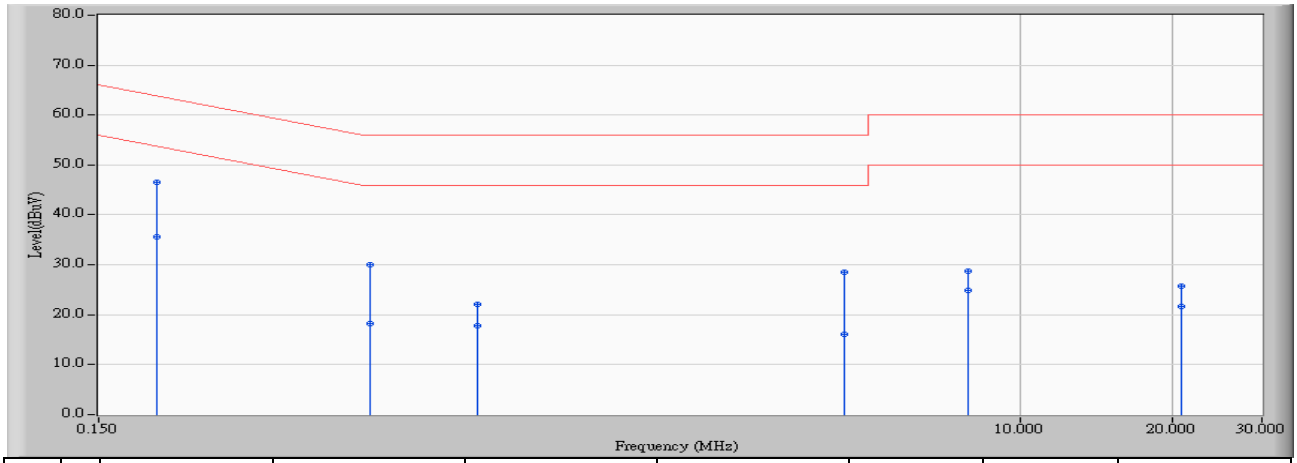


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.184	9.823	37.000	46.823	-17.463	64.286	QUASIPEAK
2	*	0.184	9.823	32.030	41.853	-12.433	54.286	AVERAGE
3		0.370	9.788	23.890	33.679	-24.814	58.493	QUASIPEAK
4		0.370	9.788	20.410	30.199	-18.294	48.493	AVERAGE
5		0.752	9.756	15.790	25.546	-30.454	56.000	QUASIPEAK
6		0.752	9.756	2.920	12.676	-33.324	46.000	AVERAGE
7		1.771	9.845	14.000	23.845	-32.155	56.000	QUASIPEAK
8		1.771	9.845	3.540	13.385	-32.615	46.000	AVERAGE
9		4.533	9.885	16.670	26.555	-29.445	56.000	QUASIPEAK
10		4.533	9.885	4.770	14.655	-31.345	46.000	AVERAGE
11		22.341	10.264	14.190	24.454	-35.546	60.000	QUASIPEAK
12		22.341	10.264	10.190	20.454	-29.546	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : SR3	**Time : 2010/07/26 - 18:25**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR3_LISN(16A) - Line2	**Power : DC 3.7V**
EUT : 2.4GHz wireless multifunction UFO Presenter Air Mouse	**Note : Mode 1: Transmit**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.195	9.830	36.630	46.461	-17.360	63.821	QUASIPEAK
2		0.195	9.830	25.850	35.681	-28.140	63.821	AVERAGE
3		0.515	9.764	20.320	30.084	-25.916	56.000	QUASIPEAK
4		0.515	9.764	8.430	18.194	-37.806	56.000	AVERAGE
5		0.845	9.757	12.330	22.088	-33.912	56.000	QUASIPEAK
6		0.845	9.757	8.010	17.768	-38.232	56.000	AVERAGE
7		4.487	9.897	18.650	28.547	-27.453	56.000	QUASIPEAK
8		4.487	9.897	6.100	15.997	-40.003	56.000	AVERAGE
9		7.890	10.064	18.710	28.774	-31.226	60.000	QUASIPEAK
10		7.890	10.064	14.780	24.844	-35.156	60.000	AVERAGE
11		20.815	10.448	15.310	25.758	-34.242	60.000	QUASIPEAK
12		20.815	10.448	11.250	21.698	-38.302	60.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

3. Radiated Emission

3.1. Test Equipment

The following test equipment are used during the test:

Fundamental Power / CB1

Instrument	Manufacturer	Type No.	Serial No	Next Cal. Date
Horn Antenna	Schwarzback	BBHA 9120D	743	2011/03/14
Spectrum Analyzer	Agilent	E4440A	MY46187335	2011/01/14
Coaxial Cable	Huber+Suhner AG	Sucoflex 102	25623/2	2011/04/07

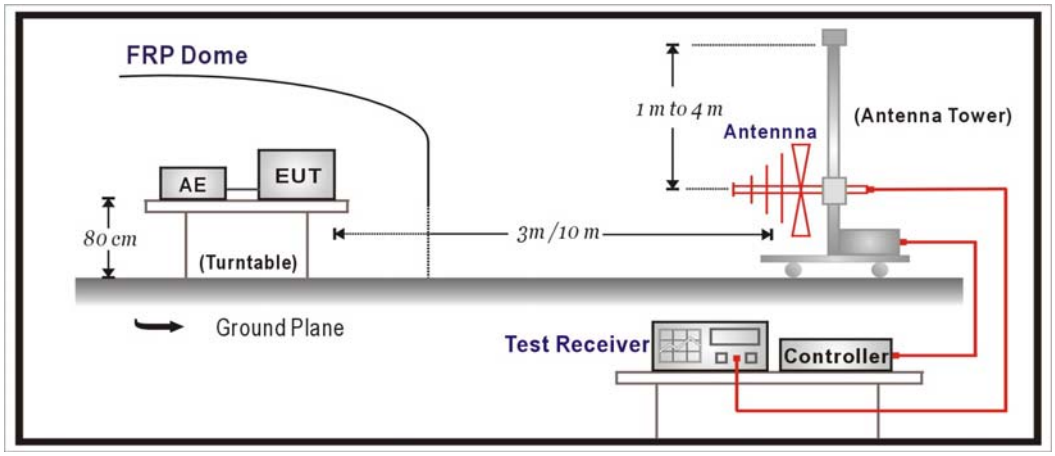
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895	2010/08/14
Horn Antenna	Schwarzback	BBHA 9120D	743	2011/03/14
Pre-Amplifier	MITEQ	AMF-4D-005180-24-10P	888003	2010/12/03
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2011/03/25
Spectrum Analyzer	Agilent	E4440A	MY46187335	2011/01/14
Coaxial Cable	Huber+Suhner AG	Sucoflex 102	25623/2	2011/04/07

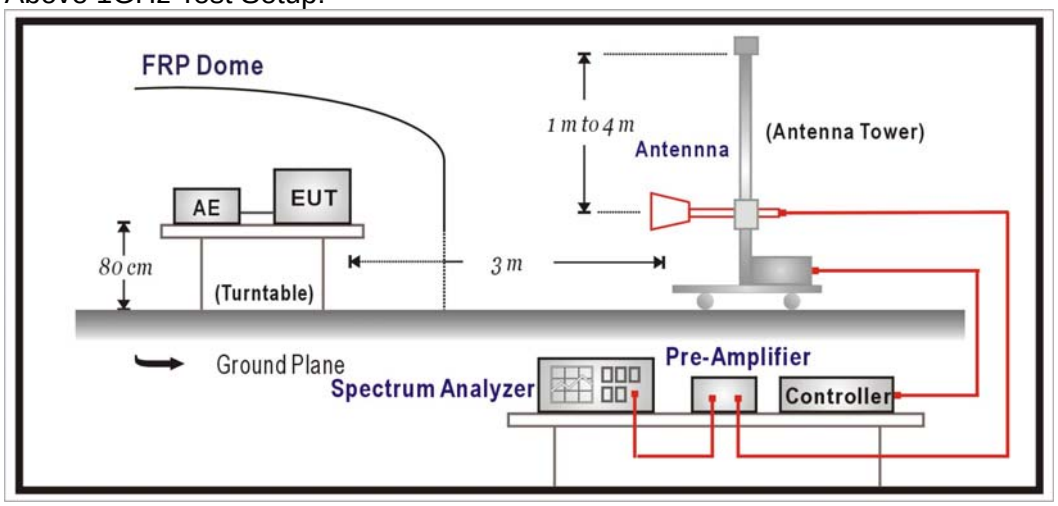
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

3.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



3.3. Limits

➢ Fundamental and Harmonics Emission Limits

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

Remarks : 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

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.

3. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

➢ Spurious electric field strength limits

FCC Part 15 Subpart C Paragraph 15.209 Limits			
Frequency MHz	uV/m	dBuV/m	Measurement distance (meter)
1.705-30	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Remarks : 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

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 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: 2009 on radiated measurement.

On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit. The bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

3.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.209 and Paragraph 15.249: 2009

3.6. Uncertainty

The measurement uncertainty
30MHz～1GHz as ±3.43dB
1GHz～26.5GHz as ±3.65dB

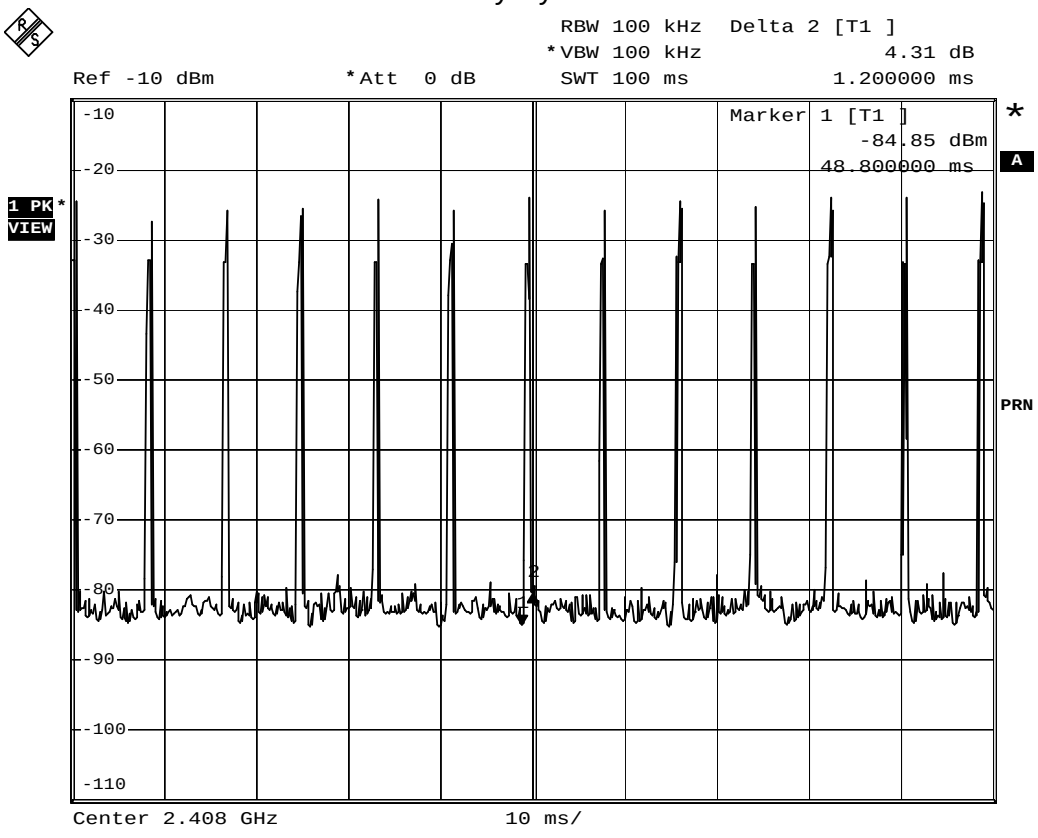
3.7. Test Result

Product	2.4GHz wireless multifunction UFO Presenter Air Mouse		
Test Item	Fundamental Radiated Emission		
Test Mode	Mode 1: Transmit (2408 MHz)		
Date of Test	2010/07/26	Test Site	CB1

Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Peak Measure Level (dBuV/m)	Average Measure Level (dBuV/m)	Peak Limit dBuV/m	Average Limit dBuV/m
Horizontal						
Peak Detector:						
2407.733	27.642	65.788	93.430	77.292	114.000	94.000
Vertical						
Peak Detector:						
2406.967	27.282	59.965	87.246	71.108	114.000	94.000

Note1:
Average Power Measure Level = Peak level + 20Log (Duty Cycle)
Duty Cycle = (Ton / (Ton+Toff)) = ((1.2*13) / 100) = 0.156
20Log (Duty Cycle) = -16.138

Duty Cycle



Product	2.4GHz wireless multifunction UFO Presenter Air Mouse		
Test Item	Fundamental Radiated Emission		
Test Mode	Mode 1: Transmit (2441 MHz)		
Date of Test	2010/07/26	Test Site	CB1

Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Peak Measure Level (dBuV/m)	Average Measure Level (dBuV/m)	Peak Limit dBuV/m	Average Limit dBuV/m
Horizontal						
Peak Detector:						
2440.030	29.500	62.230	91.730	75.592	114.000	94.000
Vertical						
Peak Detector:						
2440.620	27.561	62.010	89.571	73.433	114.000	94.000

Note1:

Average Power Measure Level = Peak level + 20Log (Duty Cycle)

Duty Cycle = (Ton / (Ton+Toff)) = ((1.2*13) / 100) = 0.156

20Log (Duty Cycle) = -16.138

Product	2.4GHz wireless multifunction UFO Presenter Air Mouse		
Test Item	Fundamental Radiated Emission		
Test Mode	Mode 1: Transmit (2472 MHz)		
Date of Test	2010/07/26	Test Site	CB1

Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Peak Measure Level (dBuV/m)	Average Measure Level (dBuV/m)	Peak Limit dBuV/m	Average Limit dBuV/m
Horizontal						
Peak Detector:						
2469.750	27.946	65.409	93.356	77.218	114.000	94.000
Vertical						
Peak Detector:						
2470.167	26.964	60.724	87.688	71.550	114.000	94.000

Note1:

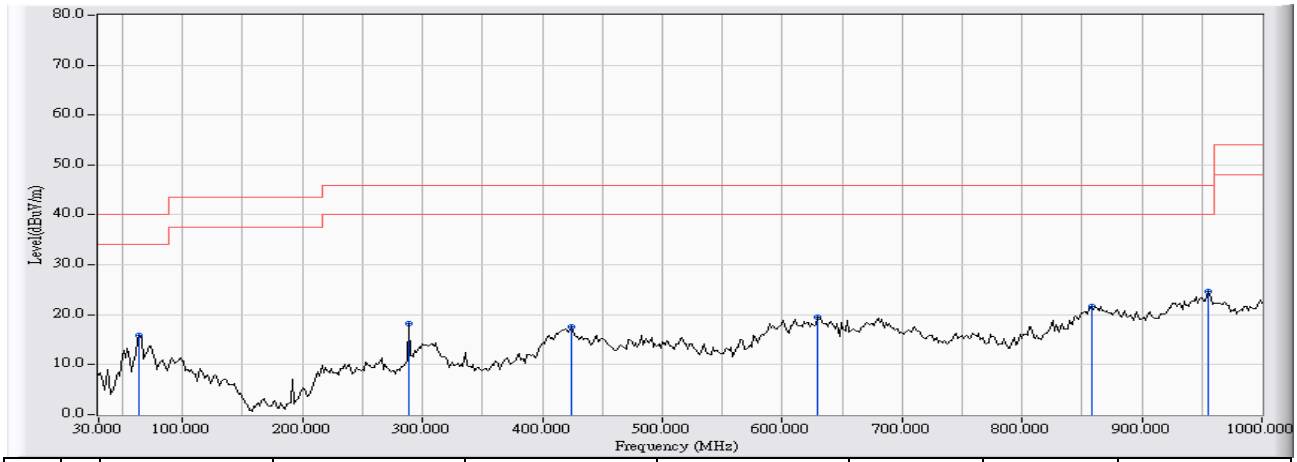
Average Power Measure Level = Peak level + 20Log (Duty Cycle)

Duty Cycle = (Ton / (Ton+Toff)) = ((1.2*13) / 100) = 0.156

20Log (Duty Cycle) = -16.138

30 MHz-1 GHz Spurious:

Site : CB1	**Time : 2010/07/25 - 15:18**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : FCC_30-1G(2009) - HORIZONTAL	**Power : DC 3.7V**
EUT : 2.4GHz wireless multifunction UFO Presenter Air Mouse	**Note : Mode 1: Transmit**

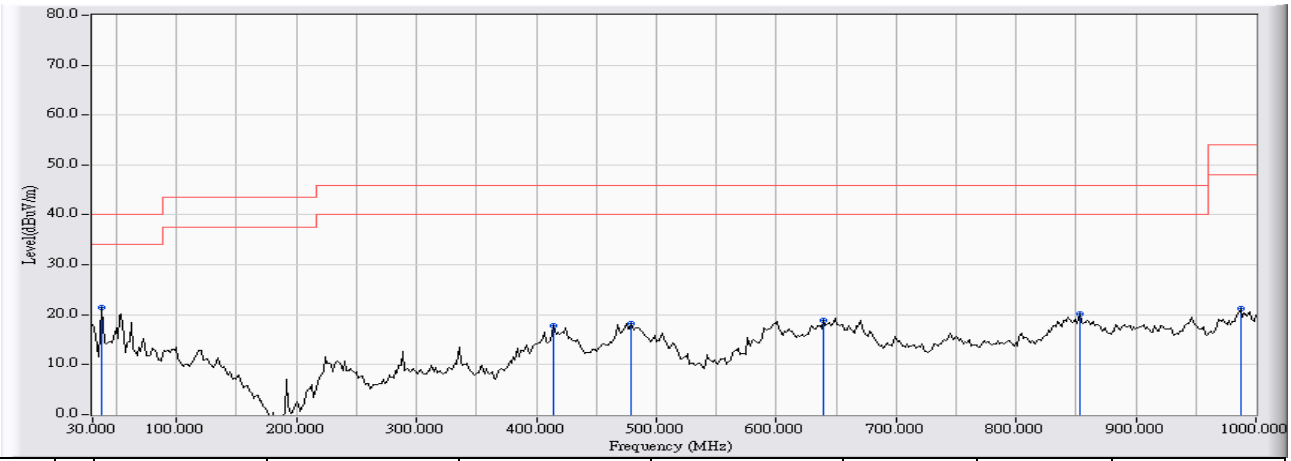


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		63.950	-14.854	30.795	15.941	-24.059	40.000	QUASIPEAK
2		288.667	-11.067	29.220	18.152	-27.848	46.000	QUASIPEAK
3		424.467	-4.510	22.043	17.533	-28.467	46.000	QUASIPEAK
4		629.783	-2.247	21.762	19.515	-26.485	46.000	QUASIPEAK
5		857.733	0.255	21.324	21.578	-24.422	46.000	QUASIPEAK
6	*	954.733	2.222	22.496	24.717	-21.283	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	**Time : 2010/07/25 - 15:21**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : FCC_30-1G(2009) - VERTICAL	**Power : DC 3.7V**
EUT : 2.4GHz wireless multifunction UFO Presenter Air Mouse	**Note : Mode 1: Transmit**



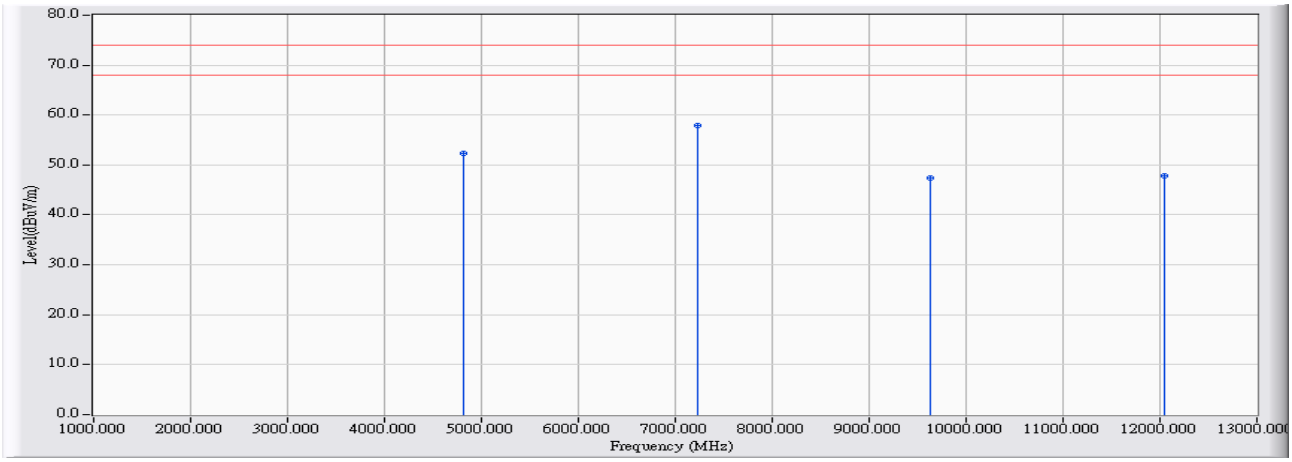
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	38.083	-10.525	32.046	21.521	-18.479	40.000	QUASIPEAK
2		414.767	-4.736	22.570	17.833	-28.167	46.000	QUASIPEAK
3		479.433	-4.681	22.911	18.230	-27.770	46.000	QUASIPEAK
4		639.483	-3.606	22.485	18.880	-27.120	46.000	QUASIPEAK
5		852.883	-2.547	22.736	20.188	-25.812	46.000	QUASIPEAK
6		987.067	-0.462	21.715	21.253	-32.747	54.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Above 1GHz Spurious：

Site : CB1	**Time : 2010/07/25 - 16:37**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : FCC_EFS_1-18G(2009-11) - HORIZONTAL	**Power : DC 3.7V**
EUT : 2.4GHz wireless multifunction UFO Presenter Air Mouse	**Note : Mode 1: Transmit-2408 MHz**

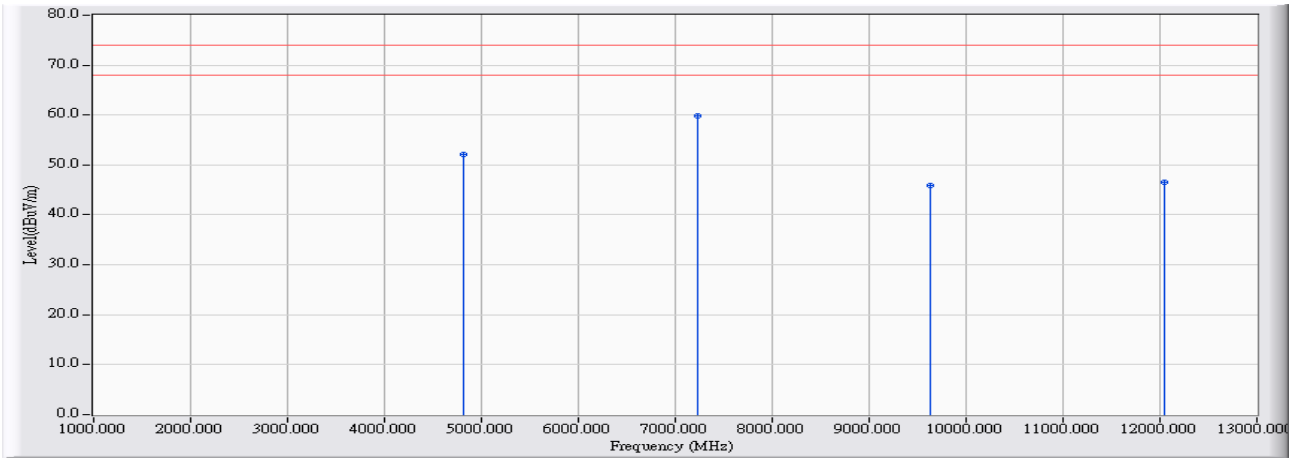


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4815.630	0.029	52.230	52.259	-21.741	74.000	54.00	PEAK
2	*	7232.930	5.872	51.950	57.821	-16.179	74.000	54.00	PEAK
3		9636.800	7.394	40.030	47.425	-26.575	74.000	54.00	PEAK
4		12046.330	11.949	35.980	47.928	-26.072	74.000	54.00	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. 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.

Site : CB1	**Time : 2010/07/25 - 16:48**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : FCC_EFS_1-18G(2009-11) - VERTICAL	**Power : DC 3.7V**
EUT : 2.4GHz wireless multifunction UFO Presenter Air Mouse	**Note : Mode 1: Transmit-2408 MHz**

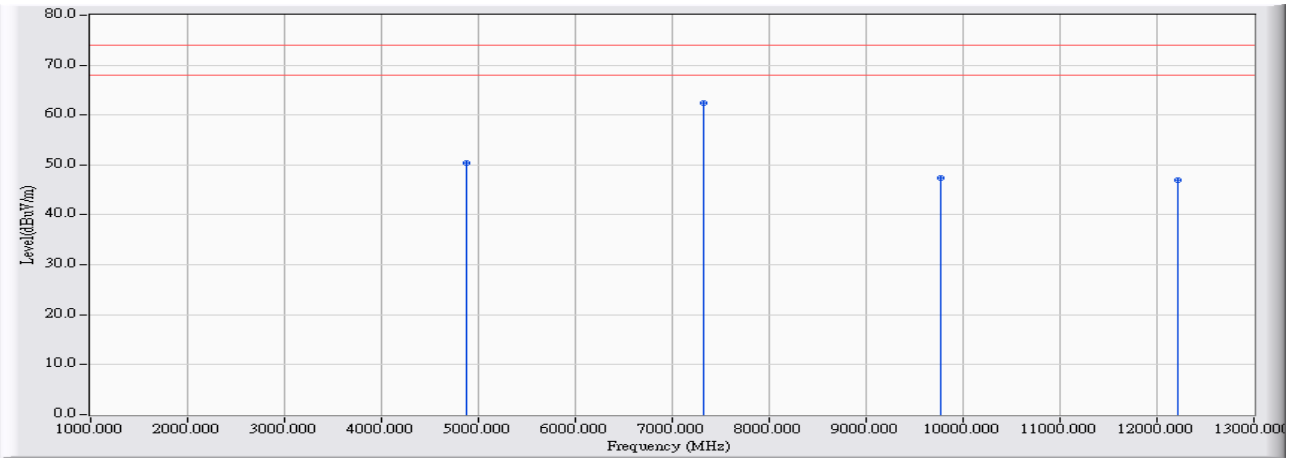


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4815.540	-0.086	52.100	52.014	-21.986	74.000	54.00	PEAK
2	*	7232.690	5.969	53.820	59.788	-14.212	74.000	54.00	PEAK
3		9636.780	7.622	38.290	45.912	-28.088	74.000	54.00	PEAK
4		12046.270	10.843	35.660	46.503	-27.497	74.000	54.00	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. 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.

Site : CB1	**Time : 2010/07/25 - 16:58**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : FCC_EFS_1-18G(2009-11) - HORIZONTAL	**Power : DC 3.7V**
EUT : 2.4GHz wireless multifunction UFO Presenter Air Mouse	**Note : Mode 1: Transmit-2441 MHz**

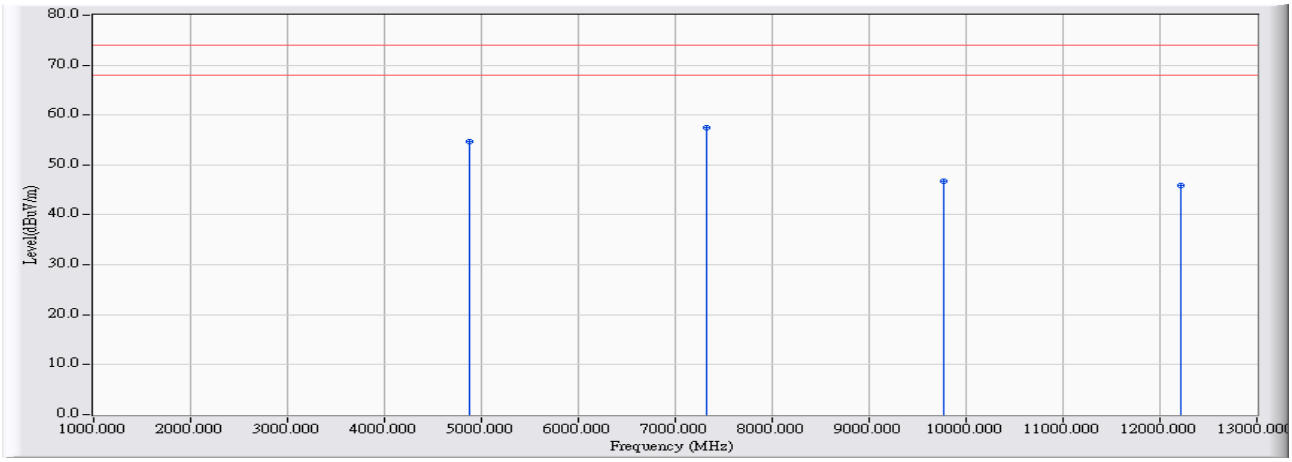


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4879.570	0.051	50.310	50.361	-23.639	74.000	54.00	PEAK
2	*	7319.700	6.465	56.040	62.506	-11.494	74.000	54.00	PEAK
3		9766.600	7.938	39.410	47.349	-26.651	74.000	54.00	PEAK
4		12210.170	11.250	35.620	46.871	-27.129	74.000	54.00	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. 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.

Site : CB1	**Time : 2010/07/25 - 17:06**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : FCC_EFS_1-18G(2009-11) - VERTICAL	**Power : DC 3.7V**
EUT : 2.4GHz wireless multifunction UFO Presenter Air Mouse	**Note : Mode 1: Transmit-2441 MHz**

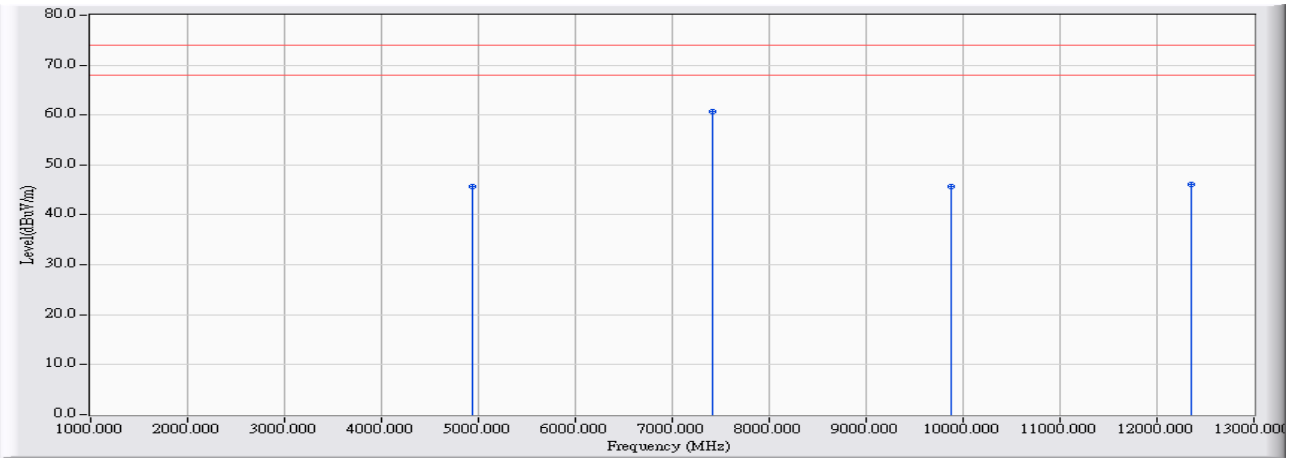


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4878.890	0.017	54.690	54.707	-19.293	74.000	54.00	PEAK
2	*	7319.700	6.212	51.340	57.552	-16.448	74.000	54.00	PEAK
3		9766.430	8.086	38.680	46.766	-27.234	74.000	54.00	PEAK
4		12210.650	10.160	35.690	45.850	-28.150	74.000	54.00	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. 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.

Site : CB1	**Time : 2010/07/25 - 17:20**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : FCC_EFS_1-18G(2009-11) - HORIZONTAL	**Power : DC 3.7V**
EUT : 2.4GHz wireless multifunction UFO Presenter Air Mouse	**Note : Mode 1: Transmit-2472 MHz**

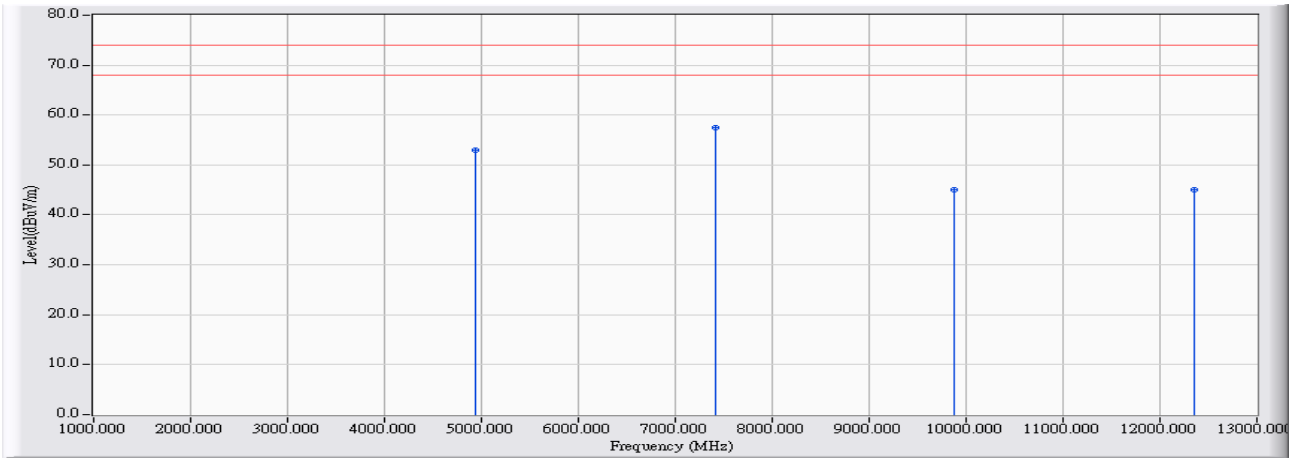


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4937.070	0.218	45.460	45.679	-28.321	74.000	54.00	PEAK
2	*	7409.200	7.136	53.510	60.645	-13.355	74.000	54.00	PEAK
3		9883.130	8.297	37.300	45.597	-28.403	74.000	54.00	PEAK
4		12352.630	10.278	35.910	46.188	-27.812	74.000	54.00	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. 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.

Site : CB1	**Time : 2010/07/25 - 17:27**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : FCC_EFS_1-18G(2009-11) - VERTICAL	**Power : DC 3.7V**
EUT : 2.4GHz wireless multifunction UFO Presenter Air Mouse	**Note : Mode 1: Transmit-2472 MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4937.280	0.244	52.650	52.894	-21.106	74.000	54.00	PEAK
2	*	7409.520	6.520	50.990	57.510	-16.490	74.000	54.00	PEAK
3		9883.570	8.380	36.580	44.960	-29.040	74.000	54.00	PEAK
4		12352.450	9.201	35.770	44.971	-29.029	74.000	54.00	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. 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.

2408 MHz					
HORIZONTAL					
Frequency	Peak level	Duty cycle	Average level	Margin	Limit
4815.63	52.259	0.156	36.121	-17.879	54
7232.93	57.821		41.683	-12.317	54
9636.8	47.425		31.287	-22.713	54
12046.33	47.928		31.790	-22.210	54

2408 MHz					
VERTICAL					
Frequency	Peak level	Duty cycle	Average level	Margin	Limit
4815.54	52.014	0.156	35.876	-18.124	54
7232.69	59.788		43.650	-10.350	54
9636.78	45.912		29.774	-24.226	54
12046.27	46.503		30.365	-23.635	54

2441 MHz					
HORIZONTAL					
Frequency	Peak level	Duty cycle	Average level	Margin	Limit
4879.57	50.361	0.156	34.223	-19.777	54
7319.7	62.506		46.368	-7.632	54
9766.6	47.349		31.211	-22.789	54
12210.17	46.871		30.733	-23.267	54

2441 MHz					
VERTICAL					
Frequency	Peak level	Duty cycle	Average level	Margin	Limit
4878.89	54.707	0.156	38.569	-15.431	54
7319.7	57.552		41.414	-12.586	54
9766.43	46.766		30.628	-23.372	54
12210.65	45.85		29.712	-24.288	54

2472 MHz					
HORIZONTAL					
Frequency	Peak level	Duty cycle	Average level	Margin	Limit
4937.07	45.679	0.156	29.541	-24.459	54
7409.2	60.645		44.507	-9.493	54
9883.13	45.597		29.459	-24.541	54
12352.63	46.188		30.050	-23.950	54

2472 MHz					
VERTICAL					
Frequency	Peak level	Duty cycle	Average level	Margin	Limit
4937.28	52.894	0.156	36.756	-17.244	54
7409.52	57.51		41.372	-12.628	54
9883.57	44.96		28.822	-25.178	54
12352.45	44.971		28.833	-25.167	54

Note:

Average level ＝Peak level+ 20 log duty cycle

Duty cycle = (1.2ms*13) / 100ms = 0.156

20Log (Duty Cycle) = -16.138

4. Band Edge

4.1. Test Equipment

The following test equipment are used during the test:

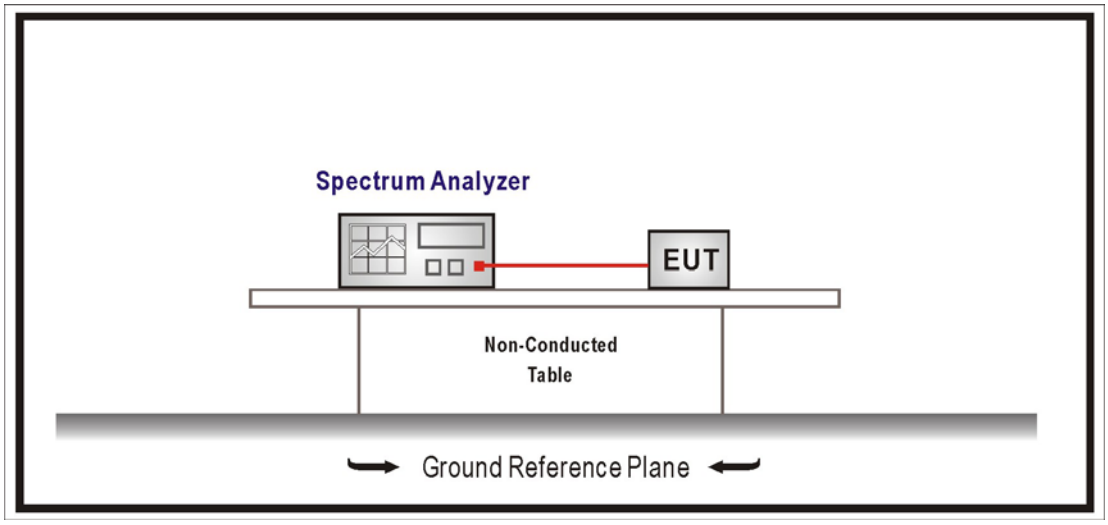
Band Edge / CB1

Instrument	Manufacturer	Type No.	Serial No	Next Cal. Date
Horn Antenna	Schwarzback	BBHA 9120D	743	2011/03/14
Spectrum Analyzer	Agilent	E4440A	MY46187335	2011/01/14
Coaxial Cable	Huber+Suhner AG	Sucoflex 102	25623/2	2011/04/07

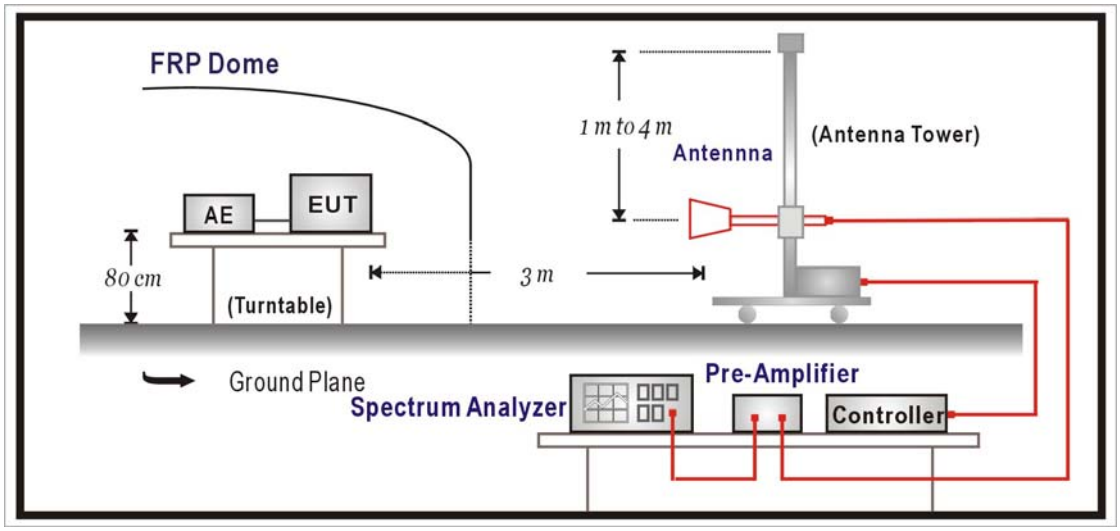
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

4.2. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:



4.3. Limits

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: 2009 on radiated measurement.

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

4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.249: 2009

4.6. Uncertainty

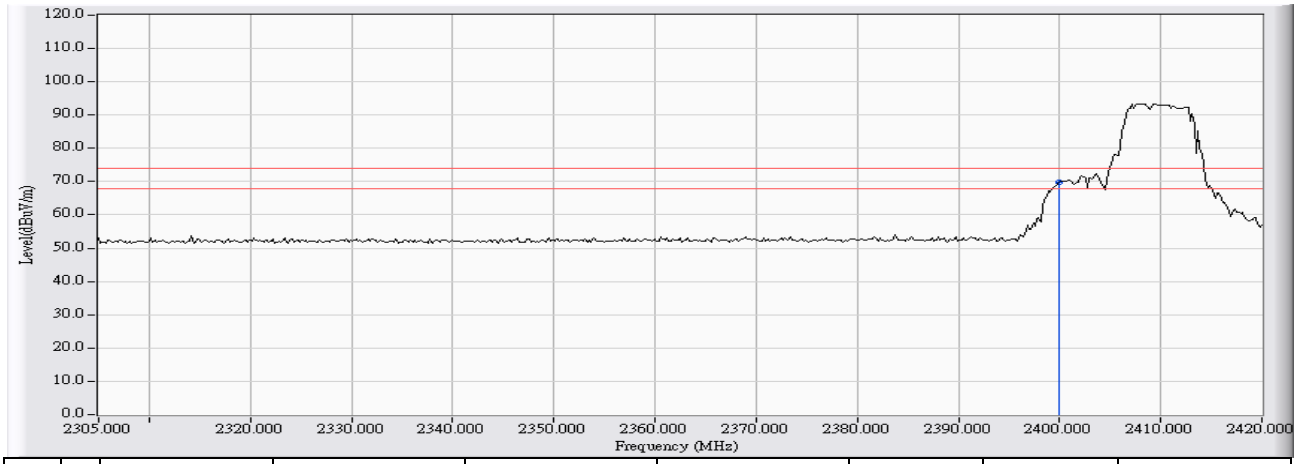
The measurement uncertainty

Conducted is defined as ± 1.27dB

Radiated is defined as ± 3.9dB

4.7. Test Result

Site : CB1	**Time : 2010/07/29 - 18:03**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : FCC_EFS_1-18G(2009-11) - HORIZONTAL	**Power : DC 3.7V**
EUT : 2.4GHz wireless multifunction UFO Presenter Air Mouse	**Note : Mode 1: Transmit-2408 MHz**

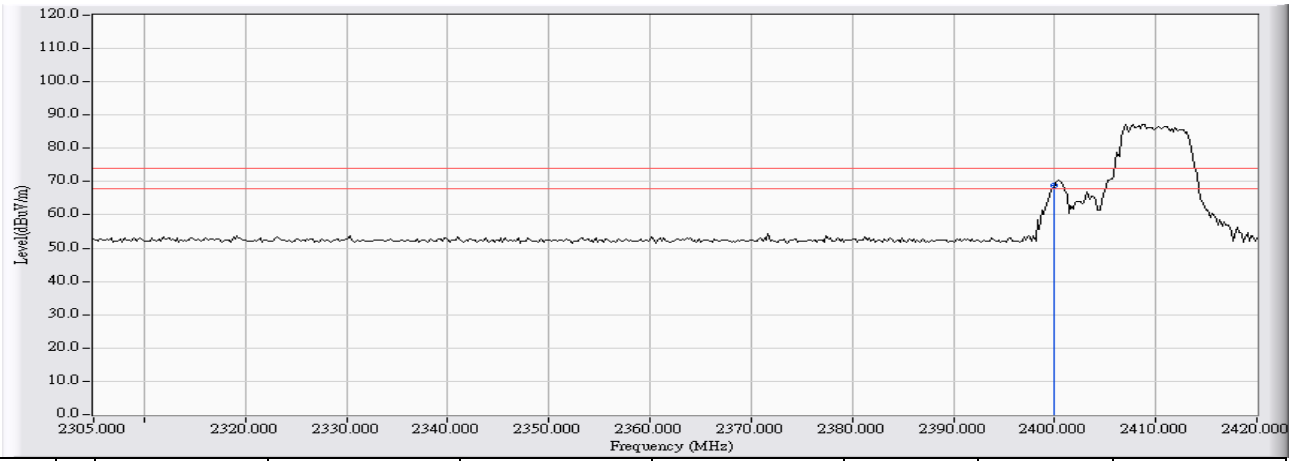


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2400.000	27.600	42.322	69.922	-4.078	74.000	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. 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.

Site : CB1	**Time : 2010/07/29 - 18:04**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : FCC_EFS_1-18G(2009-11) - VERTICAL	**Power : DC 3.7V**
EUT : 2.4GHz wireless multifunction UFO Presenter Air Mouse	**Note : Mode 1: Transmit-2408 MHz**

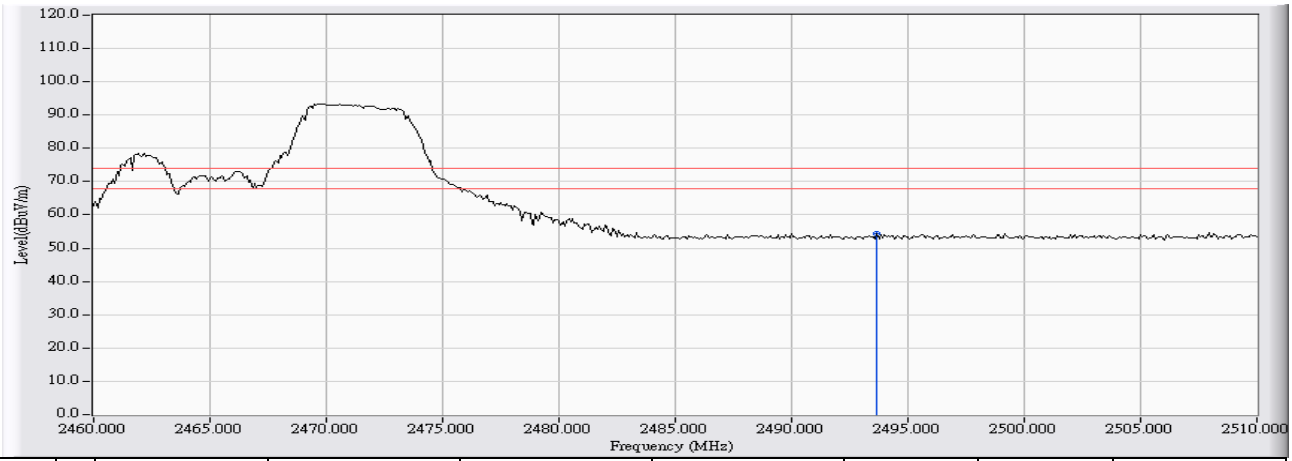


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2400.000	27.318	41.685	69.003	-4.997	74.000	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. 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.

Site : CB1	**Time : 2010/07/25 - 18:47**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : FCC_EFS_1-18G(2009-11) - HORIZONTAL	**Power : DC 3.7V**
EUT : 2.4GHz wireless multifunction UFO Presenter Air Mouse	**Note : Mode 1: Transmit-2472 MHz**

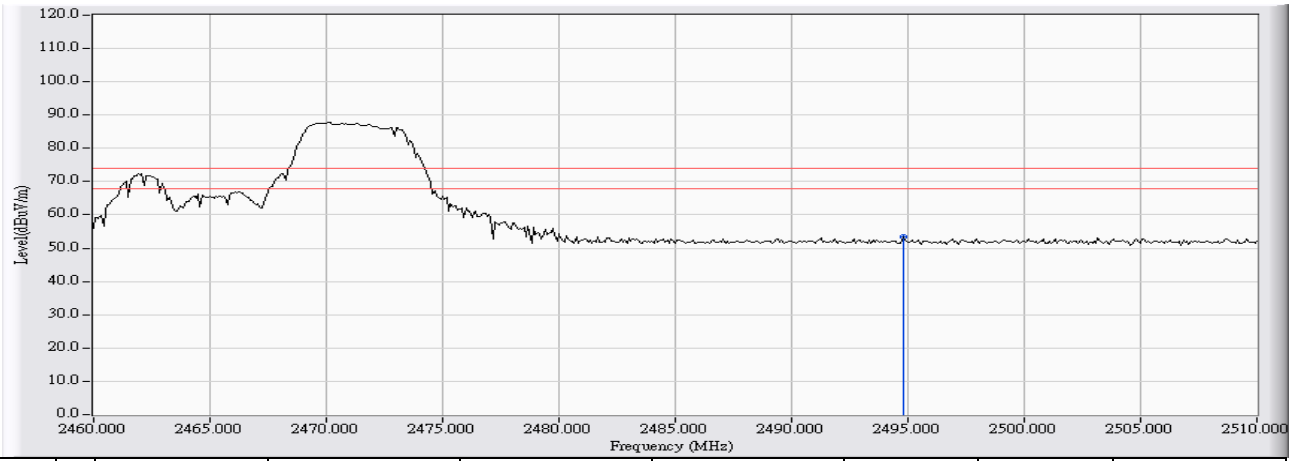


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2493.667	28.067	26.438	54.505	-19.495	74.000	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. 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.

Site : CB1	**Time : 2010/07/25 - 18:52**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : FCC_EFS_1-18G(2009-11) - VERTICAL	**Power : DC 3.7V**
EUT : 2.4GHz wireless multifunction UFO Presenter Air Mouse	**Note : Mode 1: Transmit-2472MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2494.833	26.830	26.499	53.329	-20.671	74.000	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. 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.

TX Channel 2408 MHz					
HORIZONTAL					
Frequency	Peak level	Duty cycle	Average level	Margin	Limit
2400	69.922	0.156	53.784	-0.216	54

TX Channel 2408 MHz					
VERTICAL					
Frequency	Peak level	Duty cycle	Average level	Margin	Limit
2400	69.003	0.156	52.865	-1.135	54

TX Channel 2472 MHz					
HORIZONTAL					
Frequency	Peak level	Duty cycle	Average level	Margin	Limit
2493.667	54.505	0.156	38.367	-15.633	54

TX Channel 2472 MHz					
VERTICAL					
Frequency	Peak level	Duty cycle	Average level	Margin	Limit
2494.833	53.329	0.156	37.191	-16.809	54

Note:

Average level ＝Peak level+ 20 log duty cycle

Duty cycle = 15.6ms / 100ms = 0.156

20Log (Duty Cycle) = -16.138