Test Report

Product Name ： RF-SP6W Module
Model No. ： RF-SP6W-01
FCC ID. ： ZYJ-RF23010321

Applicant ： EVEREST Display Inc.
Address ： 4F, No. 1, Li-Hsin Rd. 6, Science Based Industrial Park, 300. Hsinchu, Taiwan

Date of Receipt ： 2012/04/06
Issued Date ： 2012/11/08
Report No. ： 124190R-RFUSP44V01
Report Version ： V1.0

Testing Laboratory
1313

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.

Test Report Certification

Issued Date : 2012/11/08
Report No. : 124190R-RFUSP44V01

Product Name	:	RF-SP6W Module
Applicant	:	EVEREST Display Inc.
Address	:	4F, No. 1, Li-Hsin Rd. 6, Science Based Industrial Park, 300. Hsinchu, Taiwan
Manufacturer	:	EVEREST Display Inc.
Model No.	:	RF-SP6W-01
Trade Name	:	EVEREST
FCC ID.	:	ZYJ-RF23010321
EUT Voltage	:	DC 5V
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C Section 15.249: 2011
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 : Demi Chang

(Demi Chang / Engineering Adm. Specialist)

Reviewed By : Ben Huang

(Ben Huang / Engineer)

Approved By : Roy Wang

(Roy Wang / Manager)

Laboratory Information

We, **QuieTek Corporation**, are an independent RF consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted (audited or listed) by the following related bodies in compliance with ISO 17025 specified testing scopes:

Taiwan R.O.C.	**:**	**TAF, Accreditation Number: 1313**
USA	**:**	**FCC, Registration Number: 365520**
Canada	**:**	**IC, Submission No: 150981**

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site:http://www.quietek.com/tw/ctg/cts/accreditations.htm
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/
If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

HsinChu Testing Laboratory:
No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.
TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com

LinKou Testing Laboratory:
No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451, Taiwan, R.O.C.
TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com

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1. General Information

1.1. EUT Description

Product Name	RF-SP6W Module
Trade Name	EVEREST
Model No.	RF-SP6W-01
Frequency Range	2402~2478MHz
Antenna Gain	0.6461dBi
Channel Number	77
Type of Modulation	GFSK
Channel Control	Auto
Antenna Type	External Cable Antenna

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01	2402 MHz	Channel 21	2422 MHz	Channel 41	2442MHz	Channel 61	2462 MHz
Channel 02	2403 MHz	Channel 22	2423 MHz	Channel 42	2443MHz	Channel 62	2463 MHz
Channel 03	2404 MHz	Channel 23	2424 MHz	Channel 43	2444 MHz	Channel 63	2464 MHz
Channel 04	2405 MHz	Channel 24	2425 MHz	Channel 44	2445 MHz	Channel 64	2465 MHz
Channel 05	2406 MHz	Channel 25	2426 MHz	Channel 45	2446 MHz	Channel 65	2466 MHz
Channel 06	2407 MHz	Channel 26	2427 MHz	Channel 46	2447 MHz	Channel 66	2467 MHz
Channel 07	2408 MHz	Channel 27	2428 MHz	Channel 47	2448 MHz	Channel 67	2468 MHz
Channel 08	2409 MHz	Channel 28	2429 MHz	Channel 48	2449 MHz	Channel 68	2469 MHz
Channel 09	2410 MHz	Channel 29	2430 MHz	Channel 49	2450 MHz	Channel 69	2470 MHz
Channel 10	2411 MHz	Channel 30	2431 MHz	Channel 50	2451 MHz	Channel 70	2471 MHz
Channel 11	2412 MHz	Channel 31	2432 MHz	Channel 51	2452 MHz	Channel 71	2472 MHz
Channel 12	2413 MHz	Channel 32	2433 MHz	Channel 52	2453 MHz	Channel 72	2473 MHz
Channel 13	2414 MHz	Channel 33	2434 MHz	Channel 53	2454 MHz	Channel 73	2474 MHz
Channel 14	2415 MHz	Channel 34	2435 MHz	Channel 54	2455 MHz	Channel 74	2475 MHz
Channel 15	2416 MHz	Channel 35	2436 MHz	Channel 55	2556 MHz	Channel 75	2476 MHz
Channel 16	2417 MHz	Channel 36	2437 MHz	Channel 56	2457 MHz	Channel 76	2477 MHz
Channel 17	2418 MHz	Channel 37	2438 MHz	Channel 57	2458 MHz	Channel 77	2478 MHz
Channel 18	2419 MHz	Channel 38	2439 MHz	Channel 58	2459 MHz		
Channel 19	2420 MHz	Channel 39	2440 MHz	Channel 59	2460 MHz		
Channel 20	2421 MHz	Channel 40	2441 MHz	Channel 60	2461 MHz		

Note:

1. This device is a RF-SP6W Module included a 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. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.
5. 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 is124190R-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

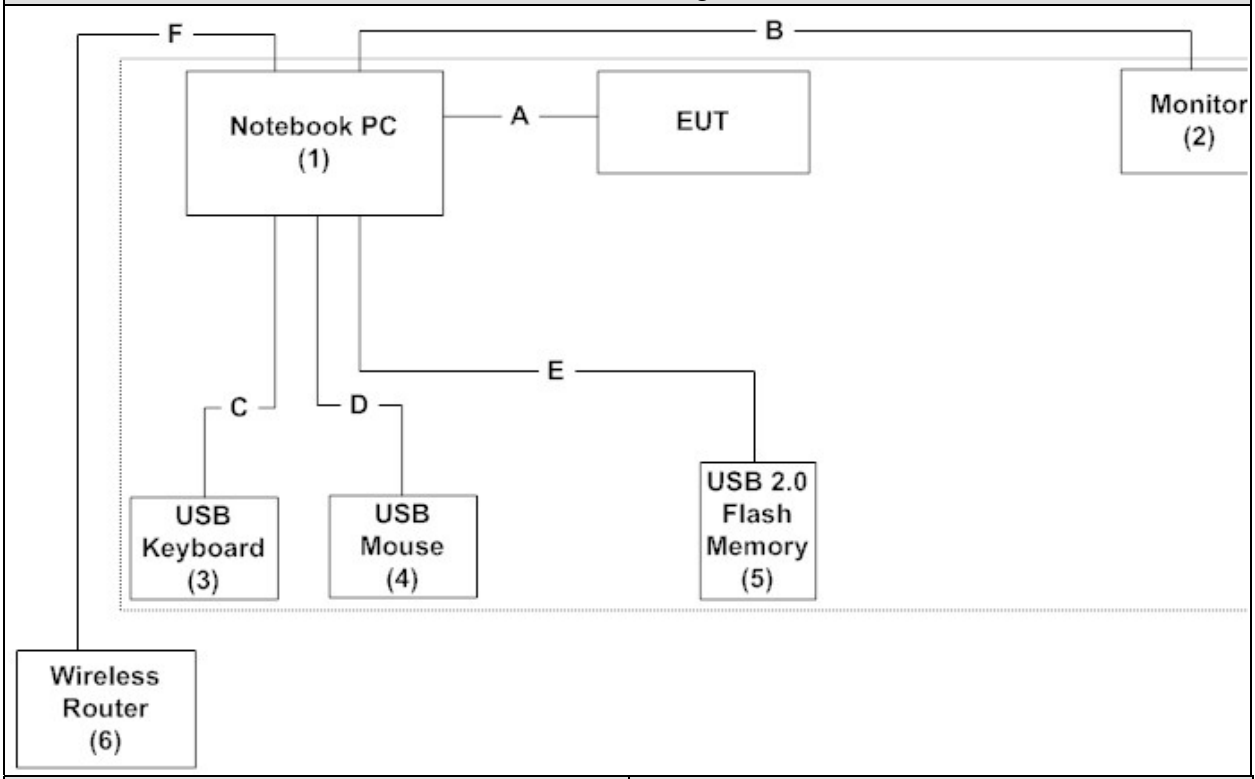
Emission	
Performed Item	Test
Conducted Emission	No
Fundamental Power	Yes
Radiated Emission	Yes
Band Edge	Yes

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.	FCC ID	Power Cord
1	Notebook PC	DELL	PP26L	66TLZ1S	DoC	Non-Shielded, 1.8m
2	Monitor	DELL	U2410f	CN-0J257M-72872-0CN-0AHL	DoC	Non-Shielded, 1.8m
3	USB Keyboard	DELL	SK-8115	1437	DoC	--
4	USB Mouse	Logitech	M-UV83	LZE35150307	DoC	--
5	USB 2.0 Flash Memory	Apacer	AH223	N/A	DoC	--
6	Wireless Router	ASUS	RT-N10	92IEG0123503	DoC	Non-Shielded, 1.5m

1.5. Configuration of tested System

Connection Diagram


Signal Cable Type		Signal cable Description
A	USB Cable	Shielded, 1.8m
B	VGA Cable	Shielded, 1.0m
C	USB Keyboard Cable	Shielded, 2.0m, one ferrite core bonded.
D	USB Mouse Cable	Shielded, 1.5m
E	USB 2.0 Flash Memory Cable	Shielded, 1.0m
F	LAN Cable	Non-Shielded, 3.0m

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 15.209 Fundamental Power	15 - 35	25
Humidity (%RH)		25 - 75	65
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

2. Fundamental Power

2.1. Test Equipment

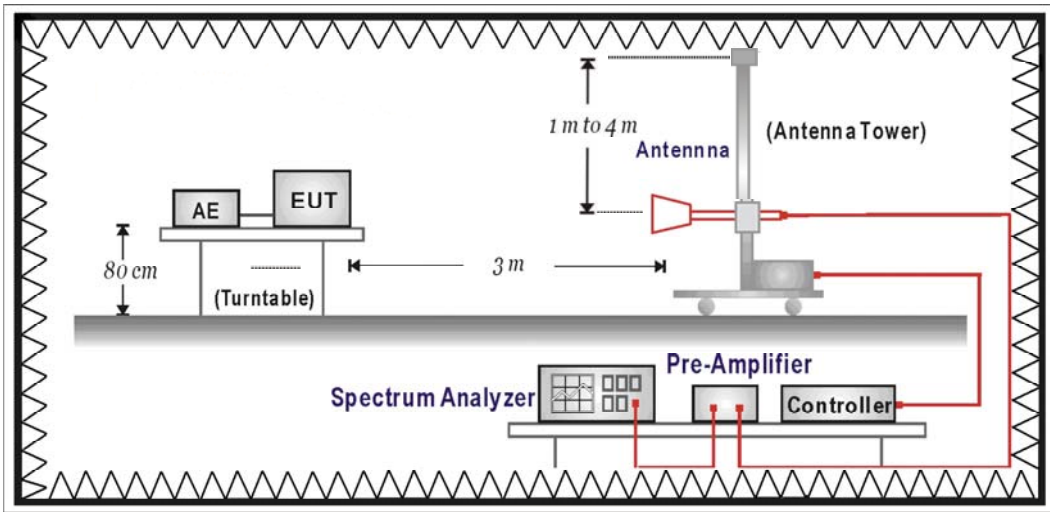
The following test equipments are used during the test:

Fundamental Power / CB1

Instrument	Manufacturer	Type No.	Serial No	Next Cal. Date
Horn Antenna	Schwarzback	BBHA 9120D	743	2013/03/14
Spectrum Analyzer	Agilent	E4440A	MY46187335	2013/01/14
Coaxial Cable	Huber+Suhner AG	Sucoflex 102	25623/2	2013/04/07

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

2.2. Test Setup



2.3. 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.

2.4. 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.

2.5. Test Specification

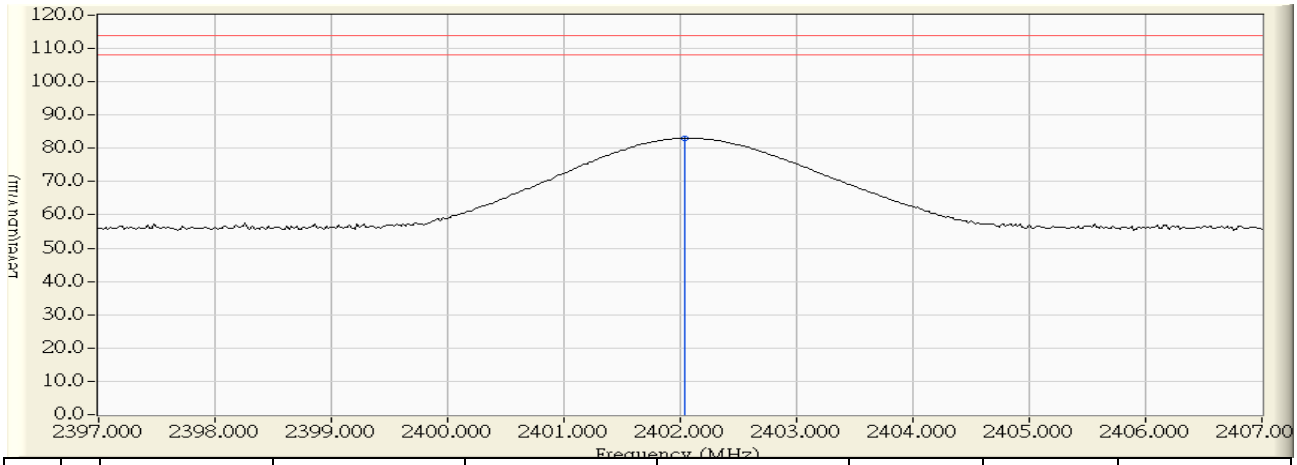
According to FCC Part 15 Subpart C Paragraph 15.249: 2009

2.6. Uncertainty

The measurement uncertainty: 1GHz～26.5GHz as ±3.65dB

2.7. Test Result

Site : CB1	**Time : 2012/10/08 - 16:17**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2402MHz_X**

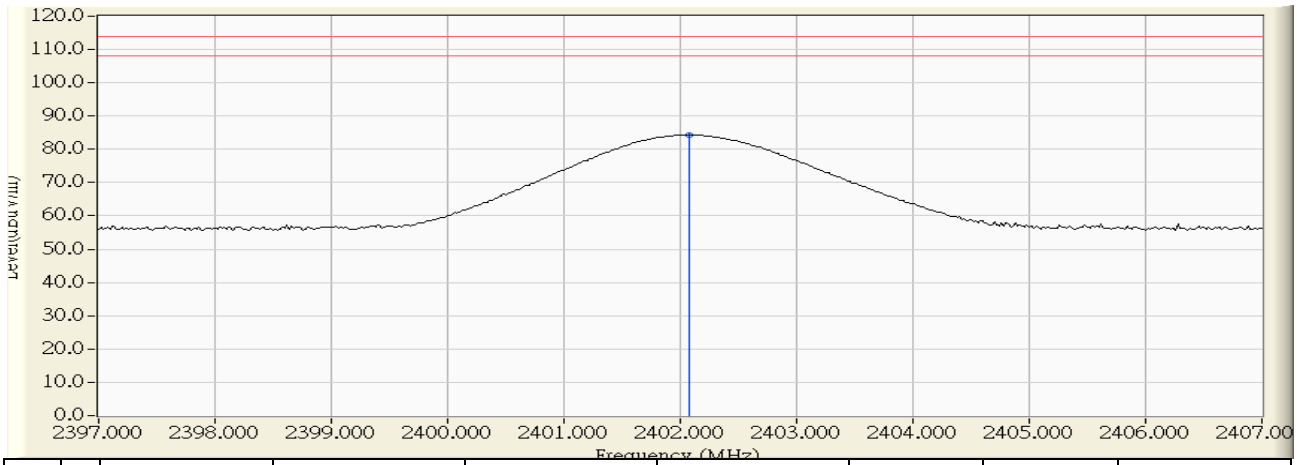


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2402.040	30.698	52.373	83.071	-30.929	114.000	PEAK

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 : 2012/10/08 - 16:27**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2402MHz_X**

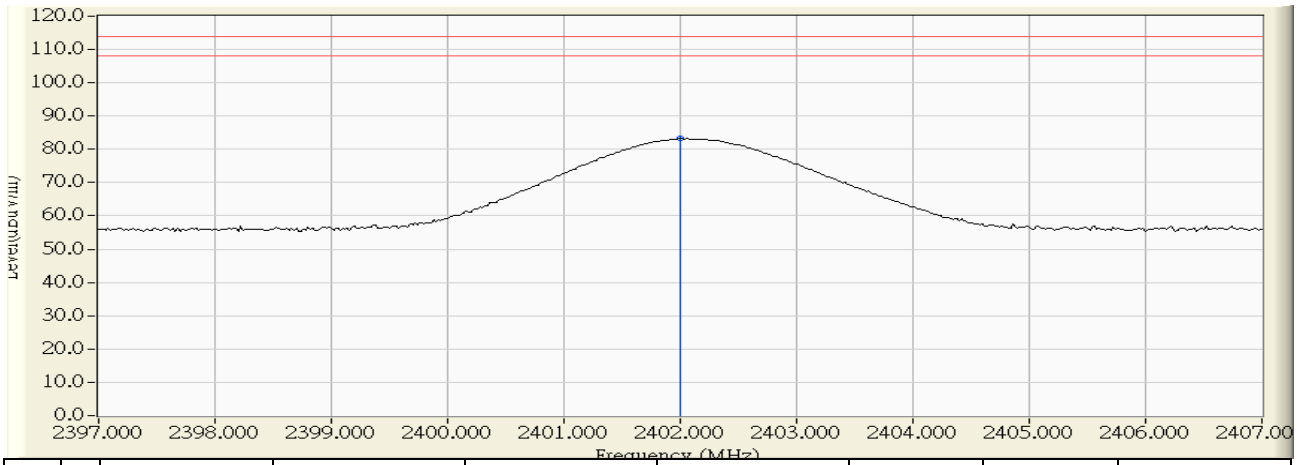


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2402.080	30.698	53.592	84.291	-29.709	114.000	PEAK

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 : 2012/10/08 - 16:32**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2402MHz_Y**

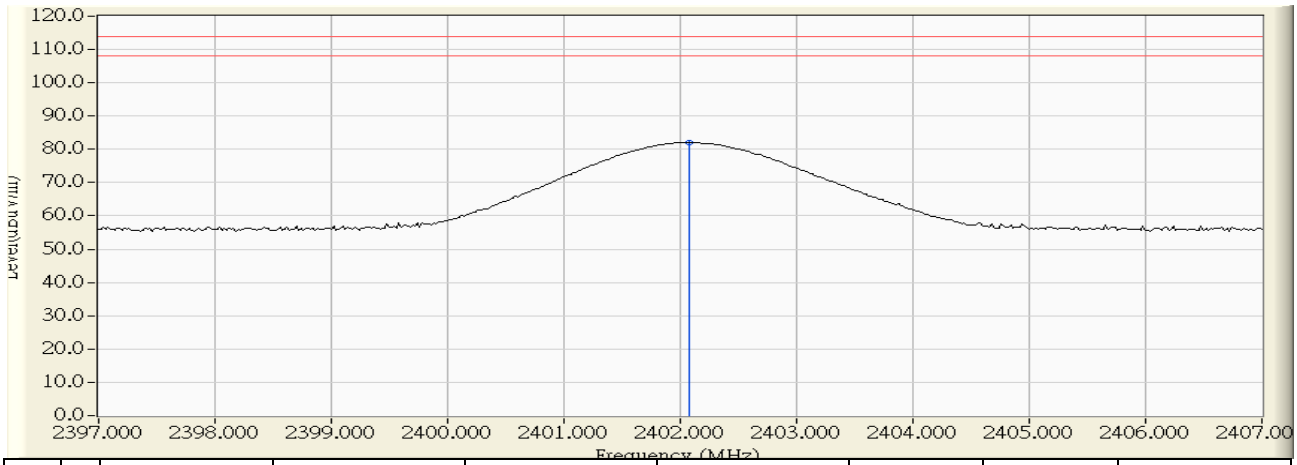


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2402.000	30.697	52.511	83.209	-30.791	114.000	PEAK

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 : 2012/10/08 - 16:35**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2402MHz_Y**

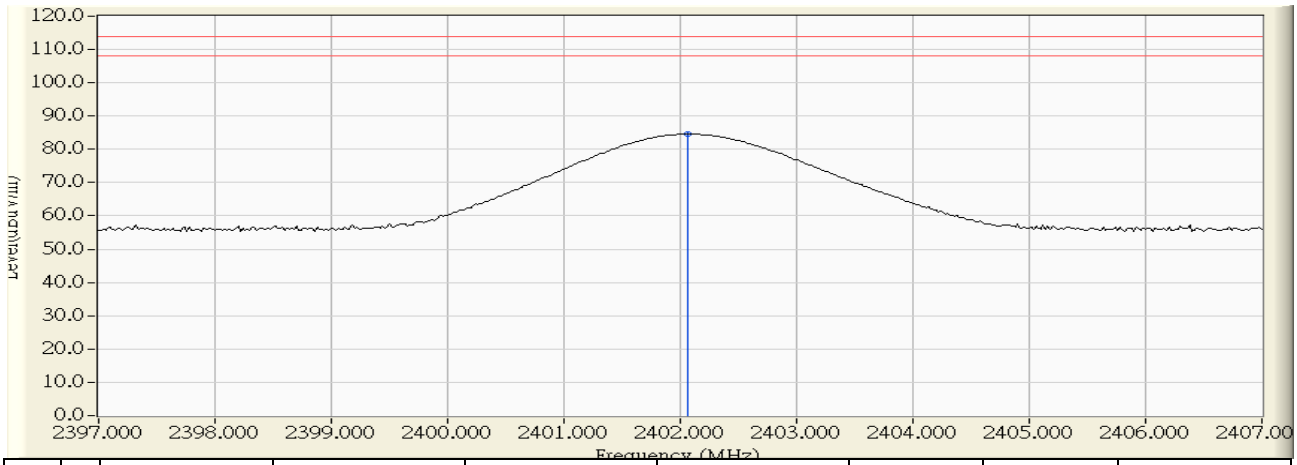


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2402.080	30.698	51.365	82.064	-31.936	114.000	PEAK

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 : 2012/10/08 - 16:44**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2402MHz_Z**

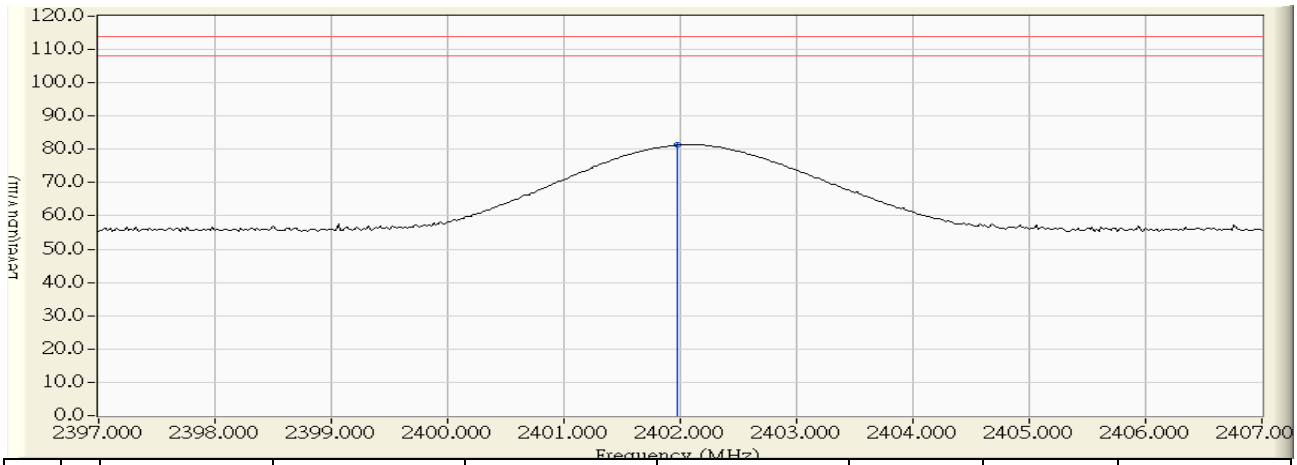


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2402.060	30.698	53.898	84.596	-29.404	114.000	PEAK

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 : 2012/10/08 - 16:47**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2402MHz_Z**

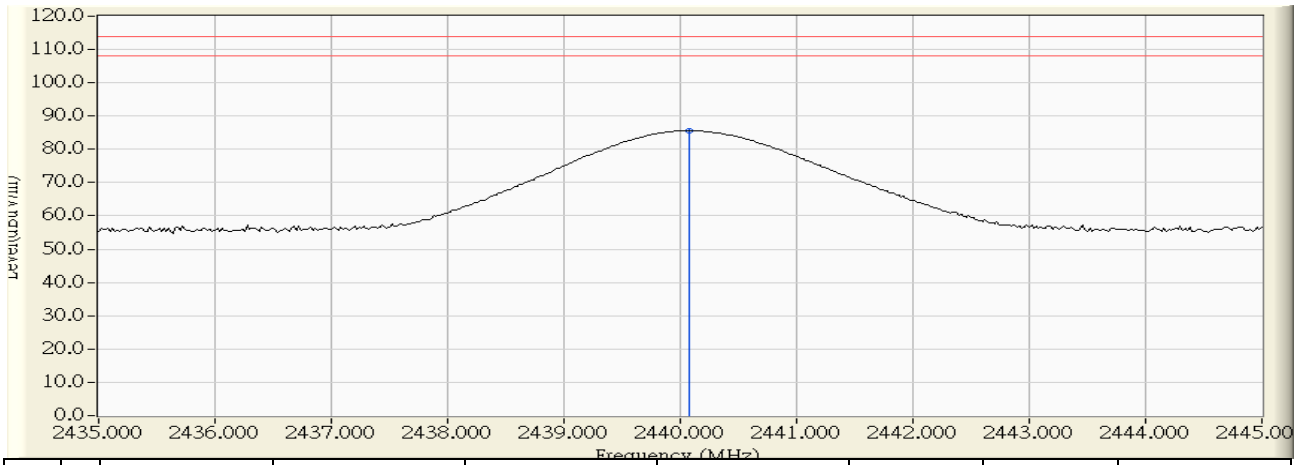


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2401.980	30.697	50.706	81.404	-32.596	114.000	PEAK

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 : 2012/10/08 - 17:52**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2440MHz_Z**

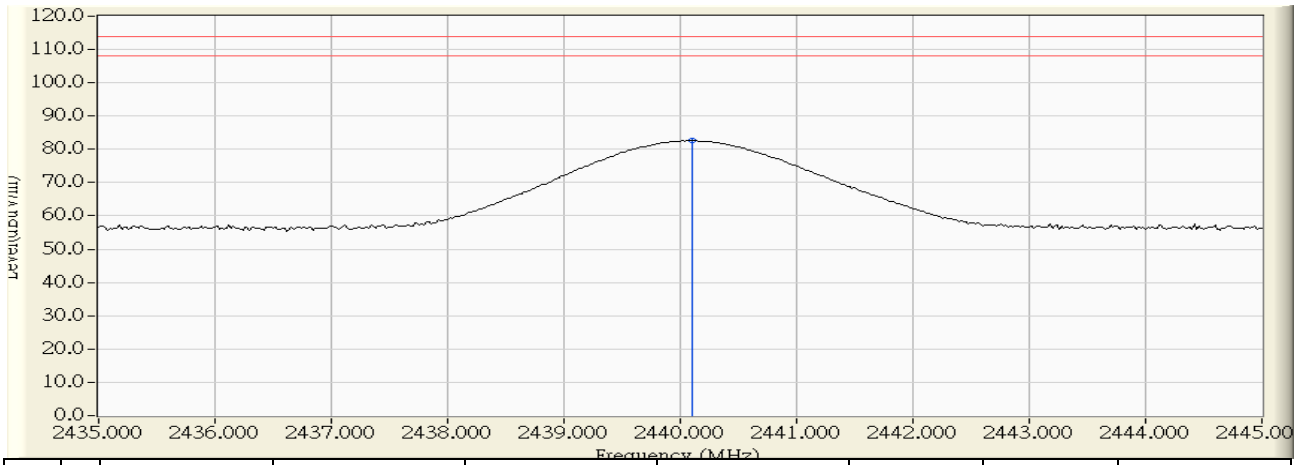


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2440.080	31.078	54.498	85.576	-28.424	114.000	PEAK

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 : 2012/10/08 - 17:55**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2440MHz_Z**

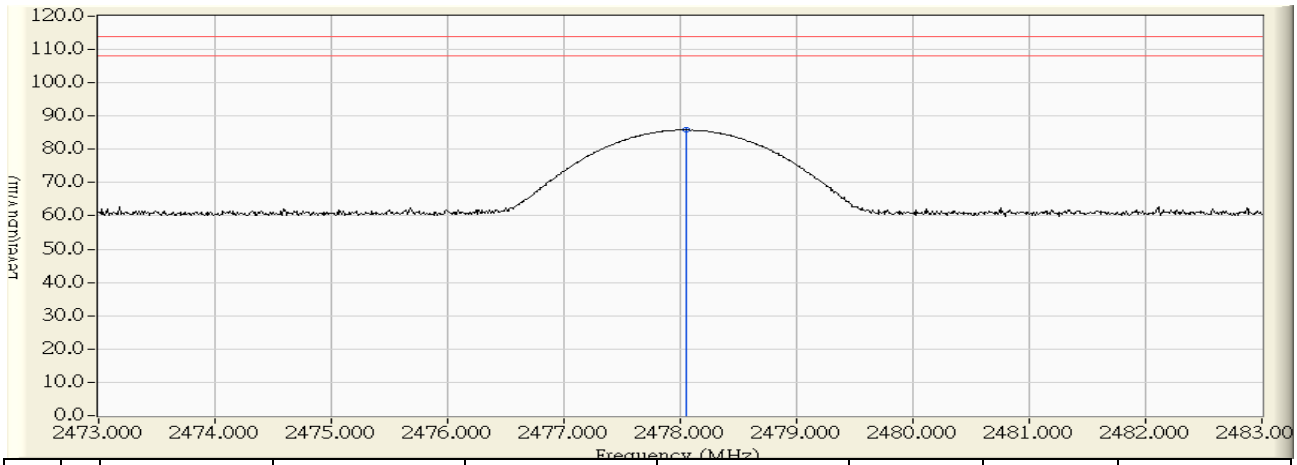


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2440.100	31.078	51.505	82.583	-31.417	114.000	PEAK

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 : 2012/11/26 - 11:17**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2478MHz_Z**

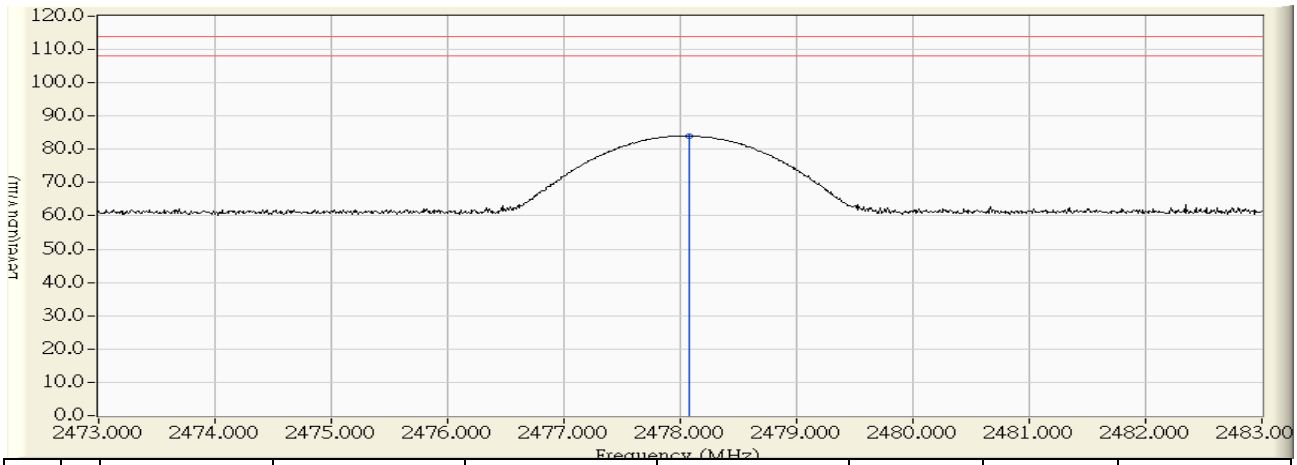


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2478.050	31.457	54.403	85.860	-28.140	114.000	PEAK

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 : 2012/11/26 - 11:24**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2478MHz_Z**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2478.080	31.457	52.636	84.094	-29.906	114.000	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.

3. Radiated Emission

3.1. Test Equipment

The following test equipment are used during the test:

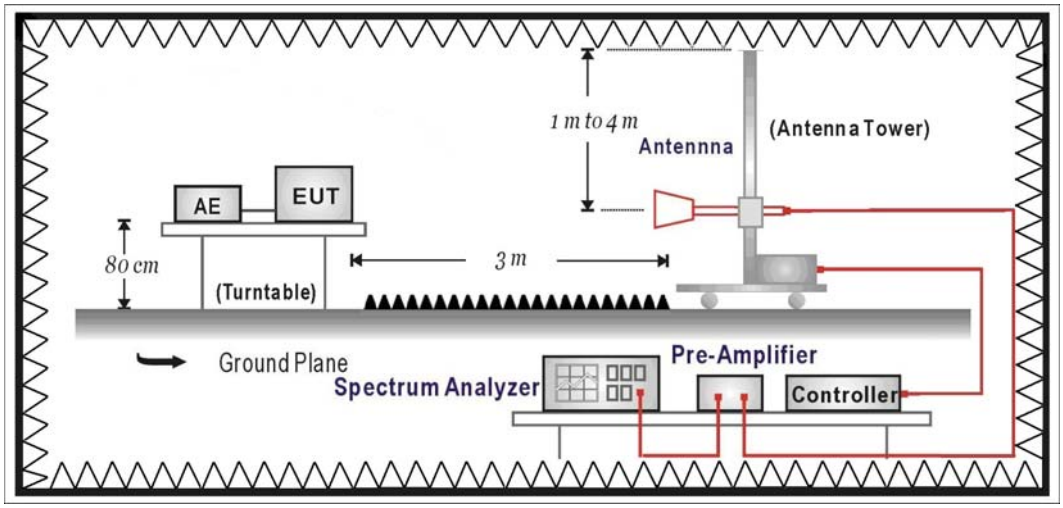
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895	2013/08/14
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120D	743	2013/02/02
Pre-Amplifier	MITEQ	AMF-4D-005180-24-10P	888003	2012/12/05
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2013/03/01
Spectrum Analyzer	Agilent	E4440A	MY46187335	2013/02/07
Coaxial Cable	Huber+Suhner AG	Sucoflex 102	25623/2	2013/03/04

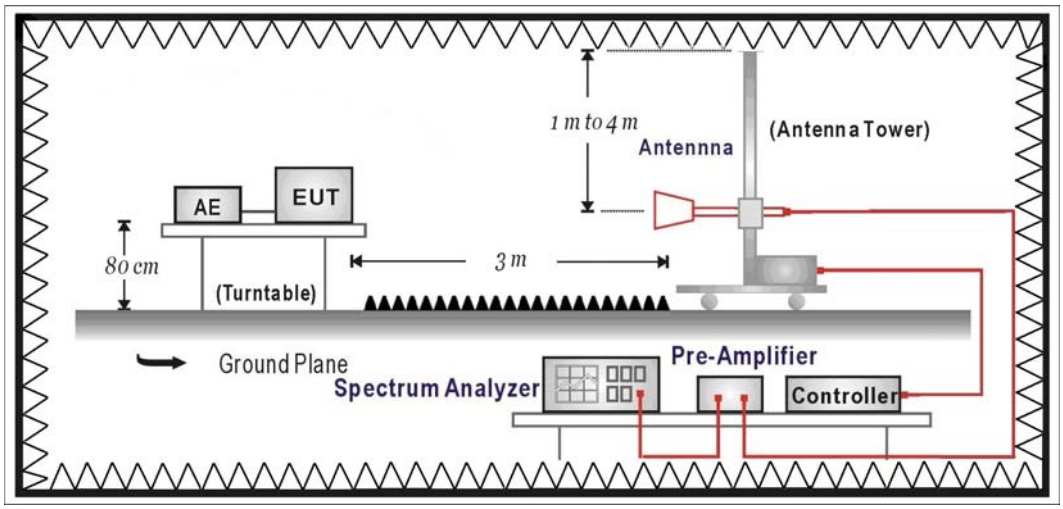
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

3.2. Test Setup

Above 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: 2011

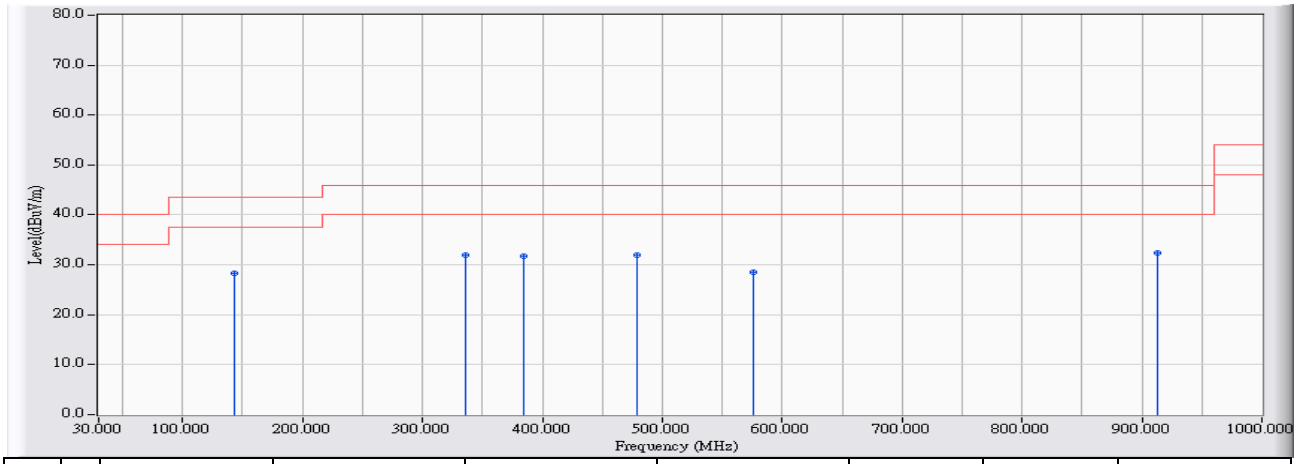
3.6. Uncertainty

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

3.7. Test Result

30 MHz-1 GHz Spurious:

Site : CB1	**Time : 2012/10/09 - 19:06**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit**

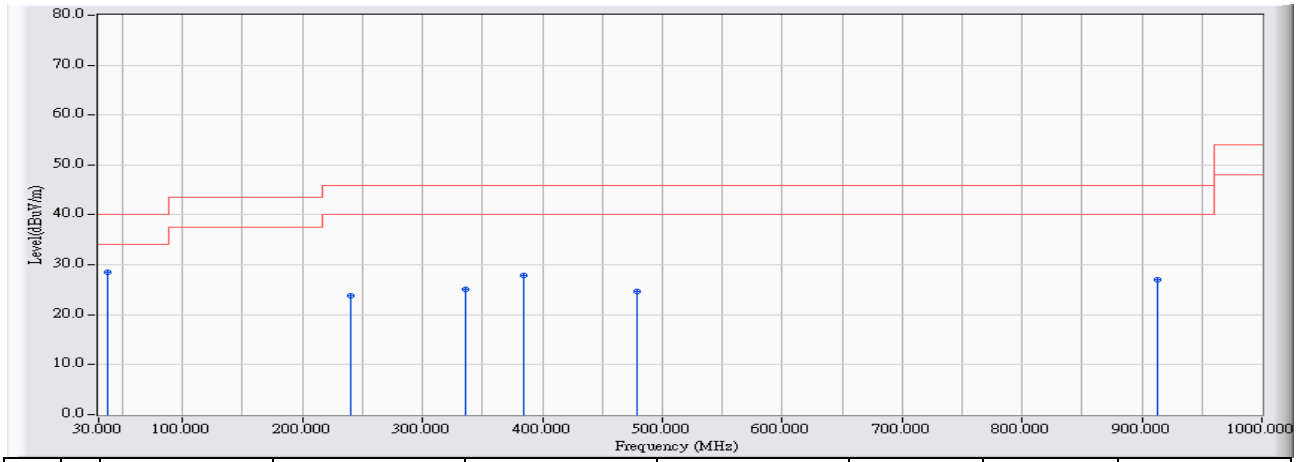


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		143.167	-13.105	41.392	28.287	-15.213	43.500	QUASIPEAK
2		335.550	-9.236	41.093	31.857	-14.143	46.000	QUASIPEAK
3		384.050	-7.831	39.551	31.720	-14.280	46.000	QUASIPEAK
4		479.433	-5.770	37.667	31.897	-14.103	46.000	QUASIPEAK
5		576.433	-4.518	33.087	28.569	-17.431	46.000	QUASIPEAK
6	*	912.700	-1.868	34.169	32.302	-13.698	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 : 2012/10/09 - 19:15**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - VERTICAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit**



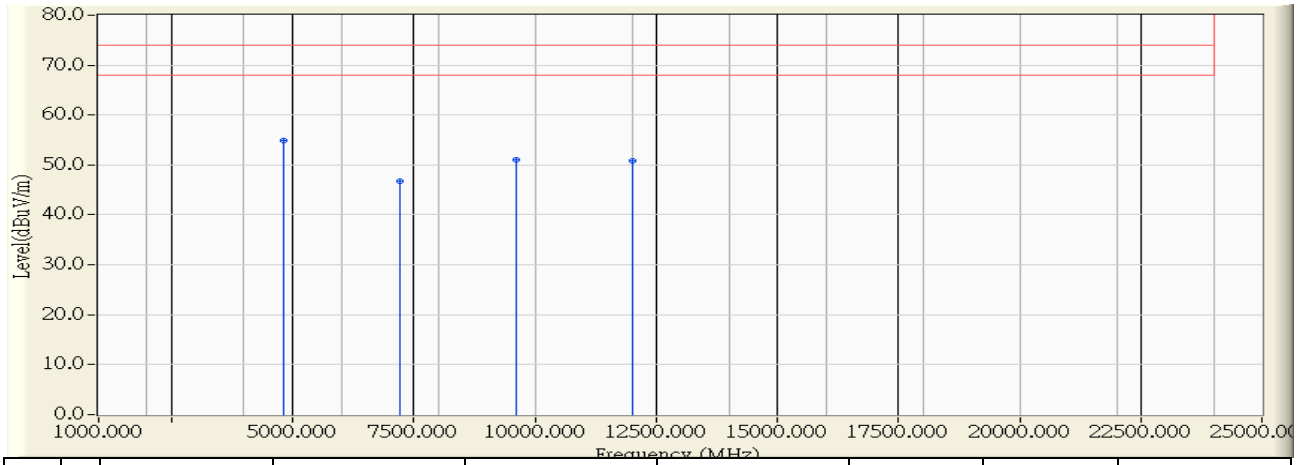
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	38.083	-11.772	40.336	28.565	-11.435	40.000	QUASIPEAK
2		240.167	-11.784	35.617	23.833	-22.167	46.000	QUASIPEAK
3		335.550	-9.236	34.374	25.138	-20.862	46.000	QUASIPEAK
4		384.050	-7.831	35.787	27.956	-18.044	46.000	QUASIPEAK
5		479.433	-5.770	30.464	24.694	-21.306	46.000	QUASIPEAK
6		912.700	-1.868	28.860	26.993	-19.007	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

Above 1GHz Spurious：

Site : CB1	**Time : 2012/10/08 - 18:28**
Limit : FCC_SpartC_15.249_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2402MHz_Z**

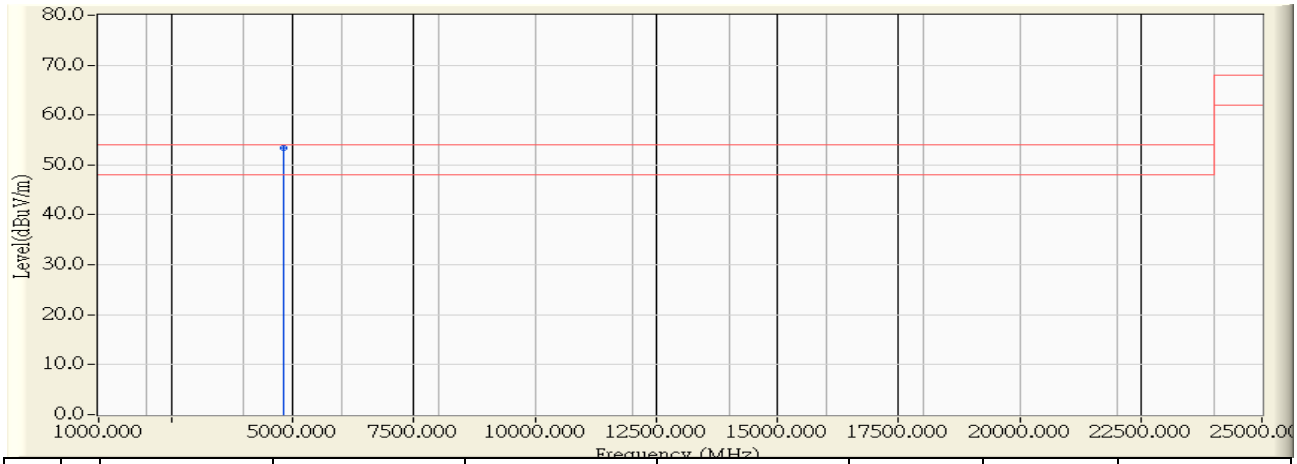


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4804.160	-0.855	55.810	54.955	-19.015	73.970	PEAK
2		7205.960	5.424	41.360	46.784	-27.186	73.970	PEAK
3		9608.060	8.941	42.030	50.971	-22.999	73.970	PEAK
4		12009.920	11.544	39.200	50.744	-23.226	73.970	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 : 2012/10/08 - 18:28**
Limit : FCC_SpartC_15.249_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2402MHz_Z**

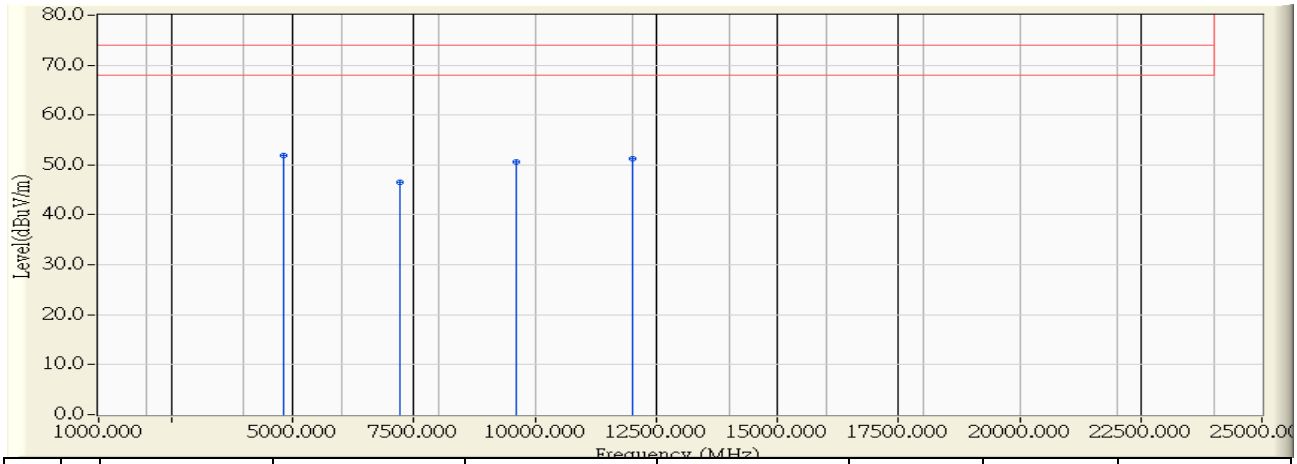


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4804.160	-0.855	54.280	53.425	-0.545	53.970	AVERAGE

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 : 2012/10/08 - 18:36**
Limit : FCC_SpartC_15.249_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2402MHz_Z**

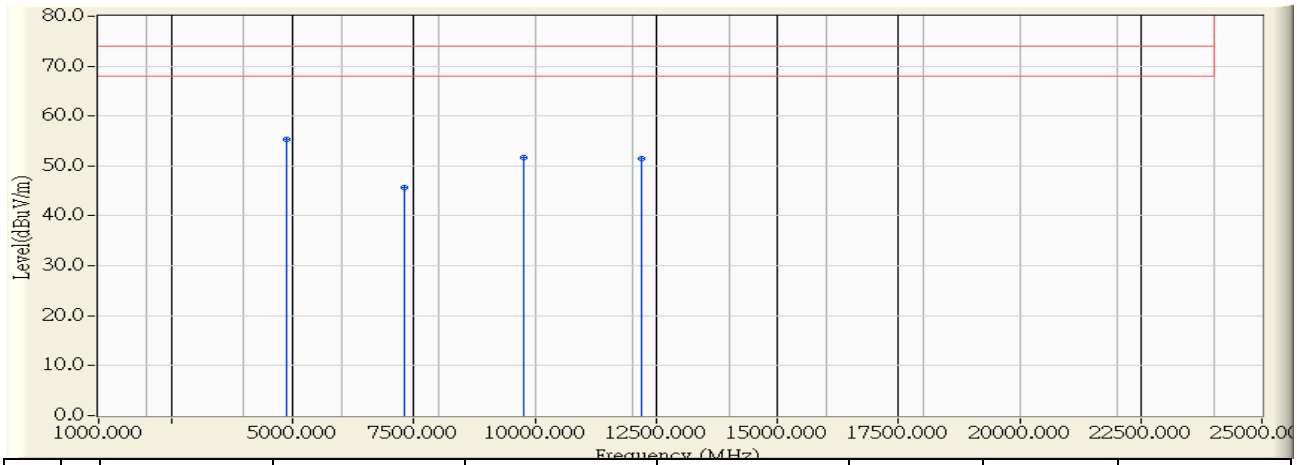


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4804.220	-0.854	52.680	51.825	-22.145	73.970	PEAK
2		7206.120	5.424	41.040	46.464	-27.506	73.970	PEAK
3		9608.400	8.943	41.570	50.514	-23.456	73.970	PEAK
4		12008.560	11.545	39.810	51.355	-22.615	73.970	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 : 2012/10/08 - 18:38**
Limit : FCC_SpartC_15.249_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2440MHz_Z**

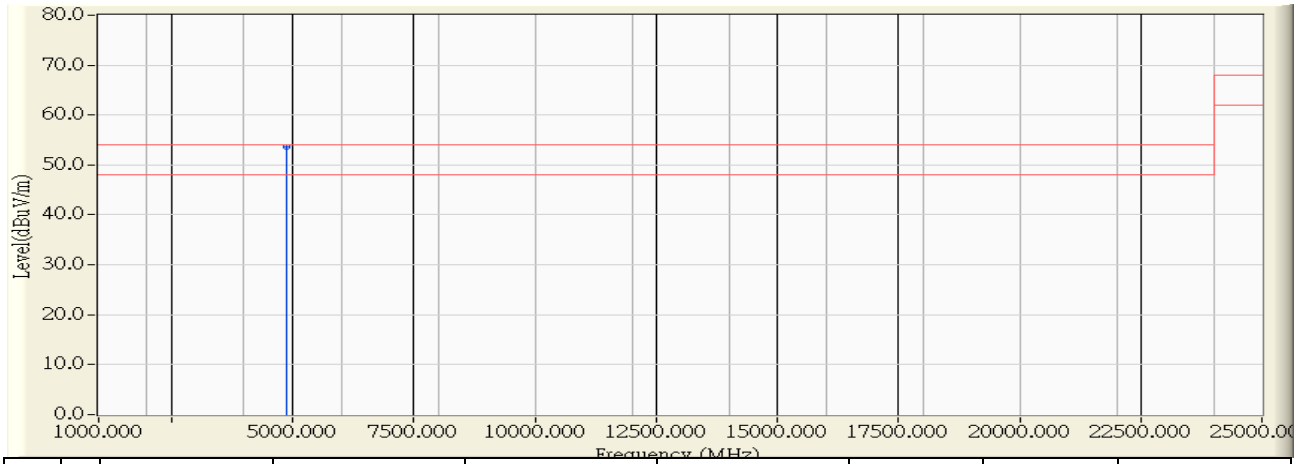


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4880.120	-0.656	55.940	55.284	-18.686	73.970	PEAK
2		7320.120	5.699	40.020	45.719	-28.251	73.970	PEAK
3		9760.260	10.045	41.550	51.594	-22.376	73.970	PEAK
4		12199.330	11.476	39.980	51.456	-22.514	73.970	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 : 2012/10/08 - 18:40**
Limit : FCC_SpartC_15.249_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2440MHz_Z**

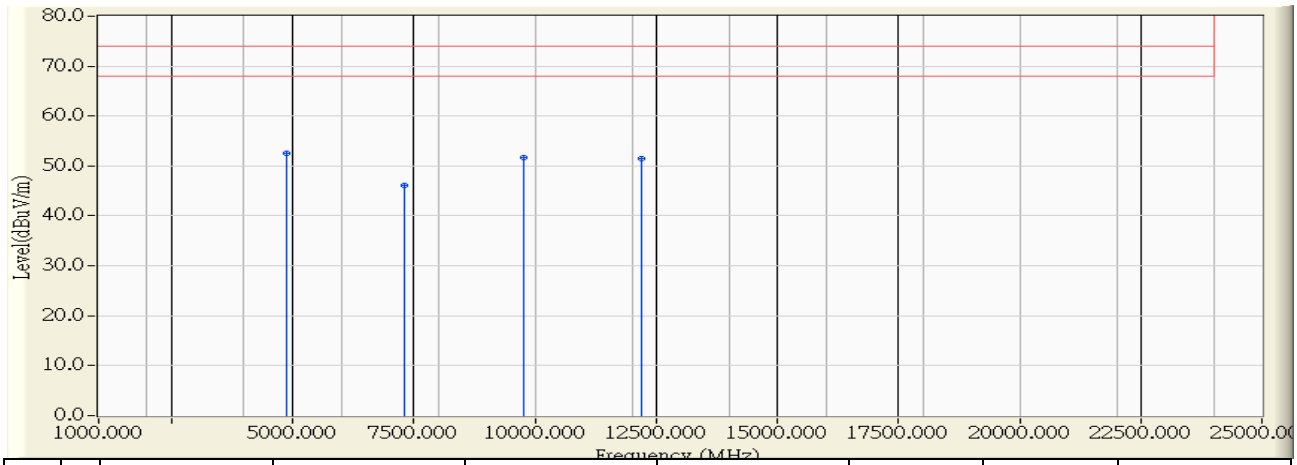


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4880.120	-0.656	54.220	53.564	-0.406	53.970	PEAK

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 : 2012/10/08 - 18:48**
Limit : FCC_SpartC_15.249_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2440MHz_Z**

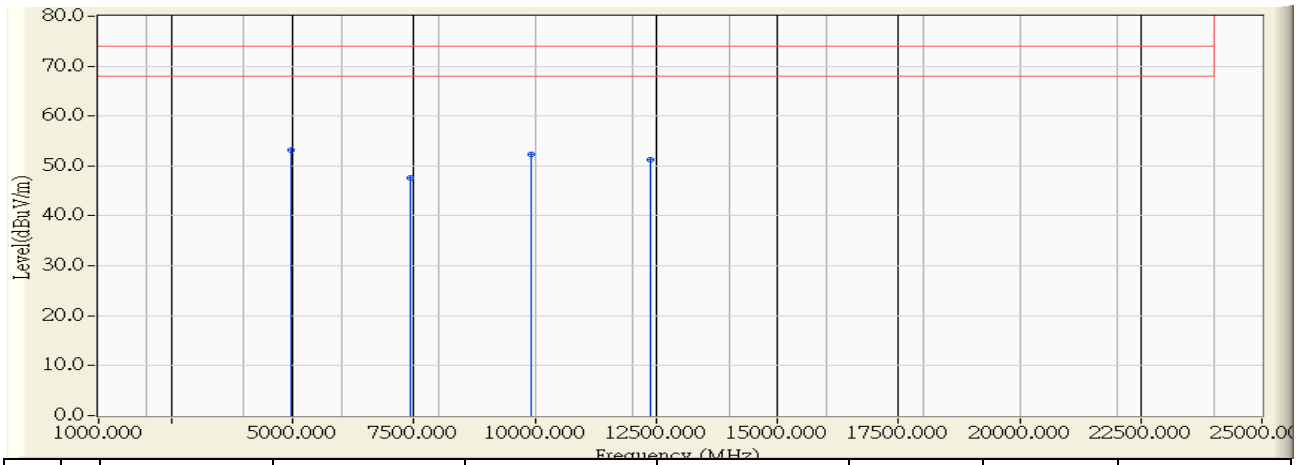


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4880.260	-0.656	53.230	52.575	-21.395	73.970	PEAK
2		7319.340	5.698	40.350	46.048	-27.922	73.970	PEAK
3		9760.820	10.048	41.580	51.628	-22.342	73.970	PEAK
4		12200.300	11.476	40.070	51.546	-22.424	73.970	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 : 2012/10/08 - 18:55**
Limit : FCC_SpartC_15.249_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2478MHz_Z**

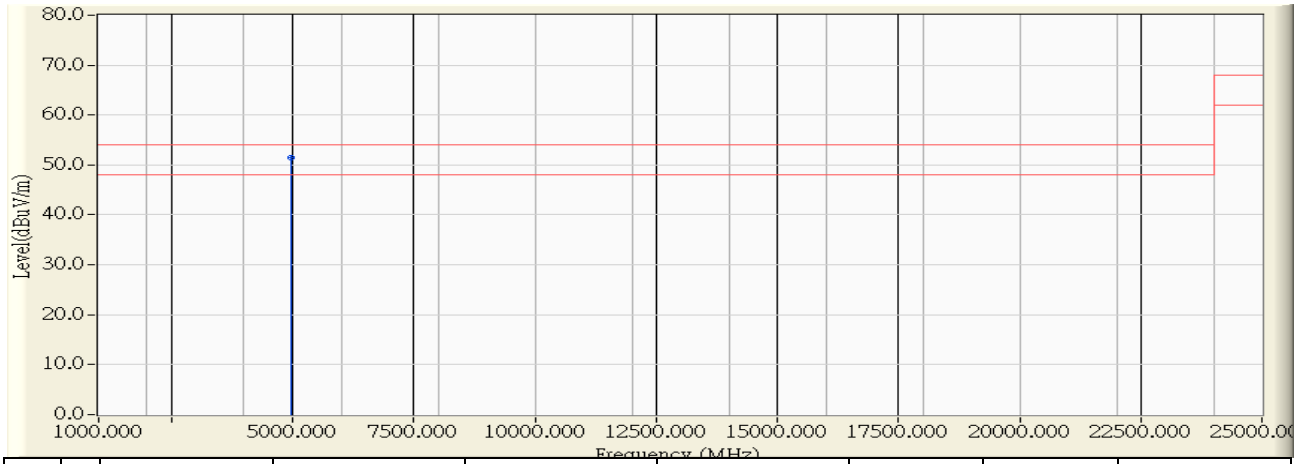


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4956.060	-0.457	53.610	53.153	-20.817	73.970	PEAK
2		7437.360	5.983	41.560	47.542	-26.428	73.970	PEAK
3		9913.540	11.155	41.240	52.395	-21.575	73.970	PEAK
4		12390.000	11.409	39.810	51.219	-22.751	73.970	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 : 2012/10/08 - 18:56**
Limit : FCC_SpartC_15.249_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2478MHz_Z**

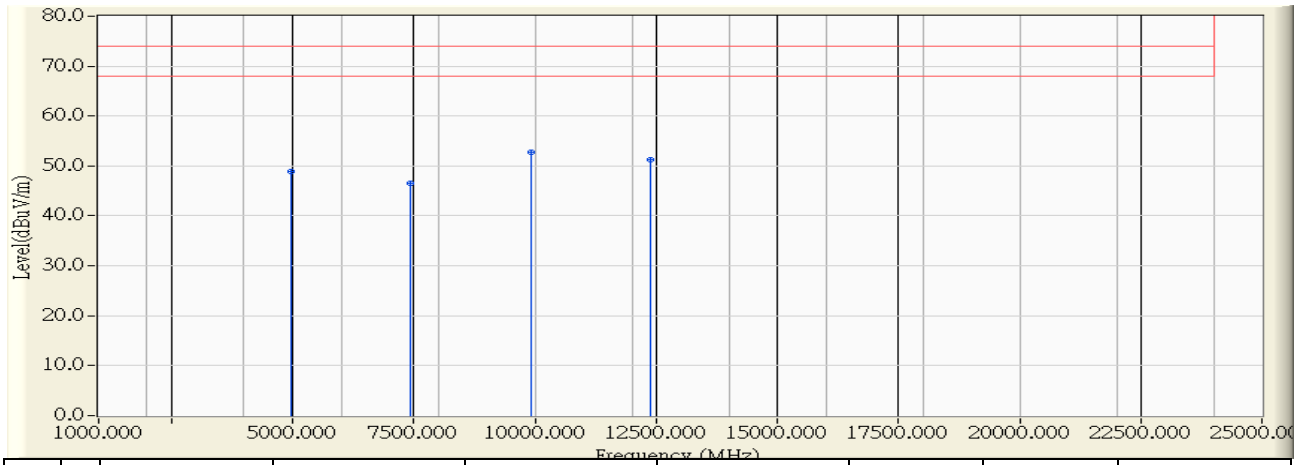


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4956.140	-0.457	51.850	51.394	-2.576	53.970	AVERAGE

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 : 2012/10/08 - 19:02**
Limit : FCC_SpartC_15.249_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2478MHz_Z**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4956.120	-0.457	49.440	48.984	-24.986	73.970	PEAK
2		7434.200	5.974	40.570	46.545	-27.425	73.970	PEAK
3	*	9912.620	11.149	41.580	52.729	-21.241	73.970	PEAK
4		12388.460	11.409	39.820	51.229	-22.741	73.970	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.

4. Band Edge

4.1. Test Equipment

The following test equipment are used during the test:

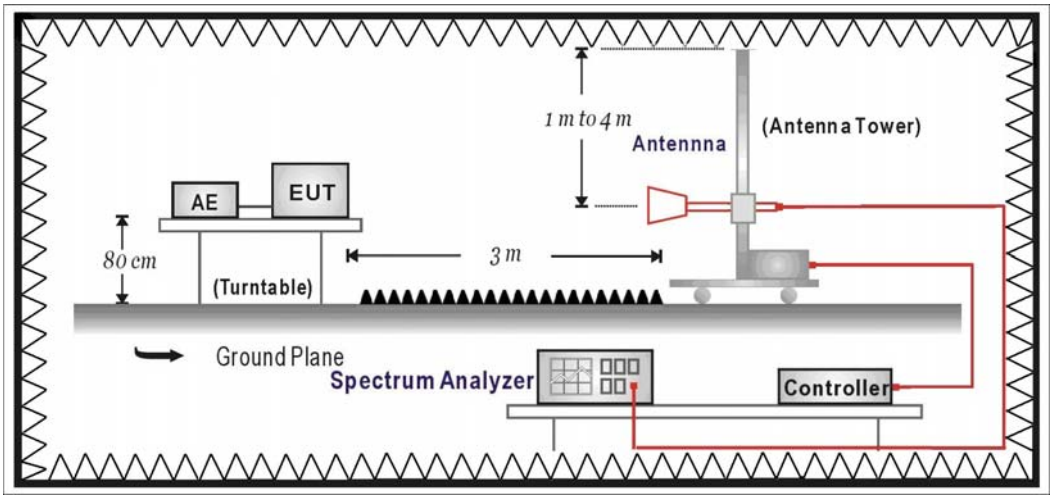
Band Edge / CB1

Instrument	Manufacturer	Type No.	Serial No	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120D	743	2013/02/02
Spectrum Analyzer	Agilent	E4440A	MY46187335	2013/02/07
Coaxial Cable	Huber+Suhner AG	Sucoflex 102	25623/2	2013/03/04

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

4.2. Test Setup

RF Radiated Measurement:



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)).

4.3. 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.

4.4. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.249: 2011

4.5. Uncertainty

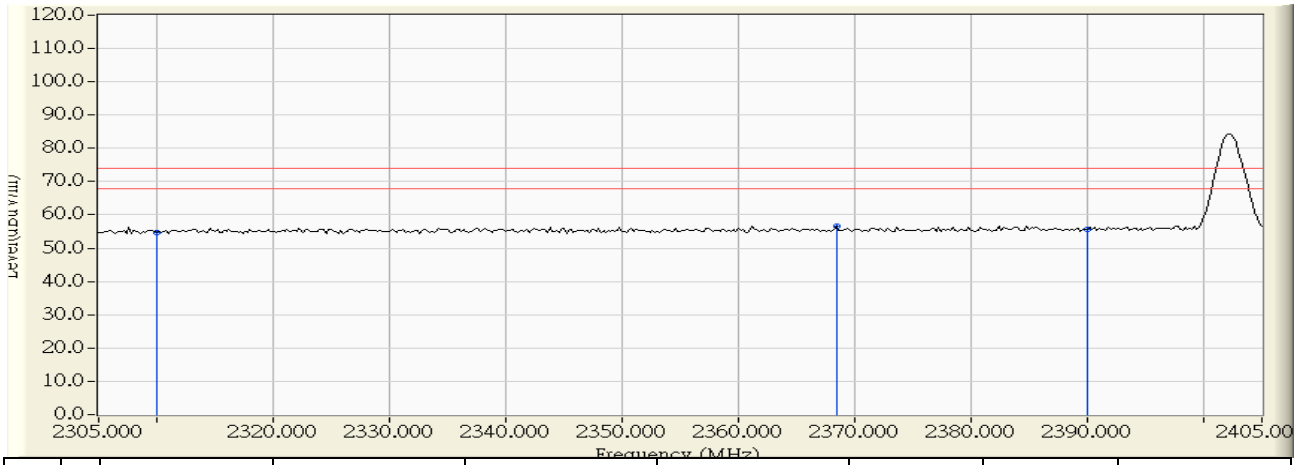
The measurement uncertainty

Conducted is defined as ± 1.27dB

Radiated is defined as ± 3.9dB

4.6. Test Result

Site : CB1	**Time : 2012/10/08 - 19:33**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2402MHz_Z**

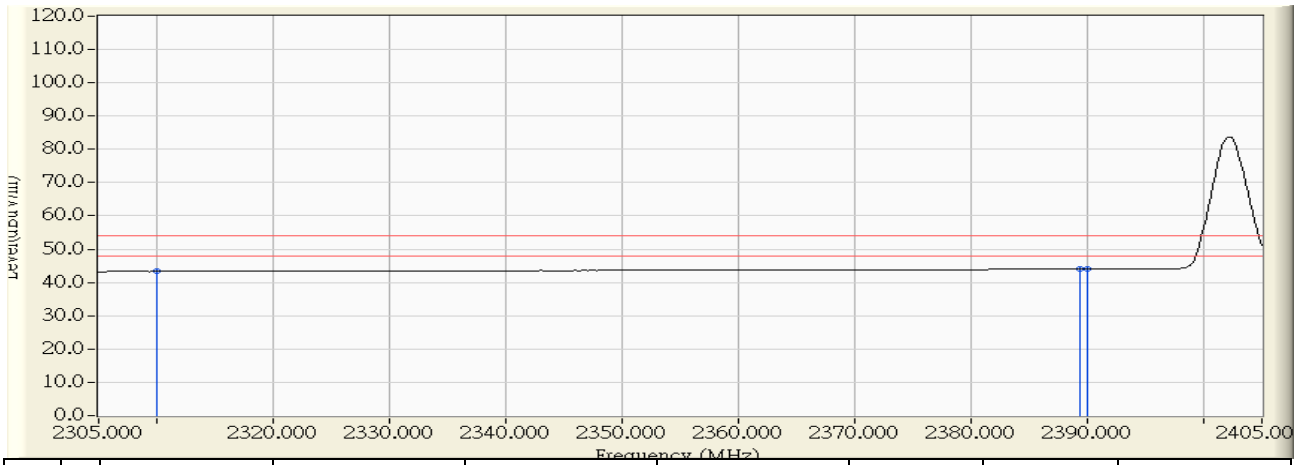


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	25.067	54.846	-19.154	74.000	PEAK
2	*	2368.400	30.362	26.244	56.606	-17.394	74.000	PEAK
3		2390.000	30.578	25.067	55.645	-18.355	74.000	PEAK

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 : 2012/10/08 - 19:33**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2402MHz_Z**

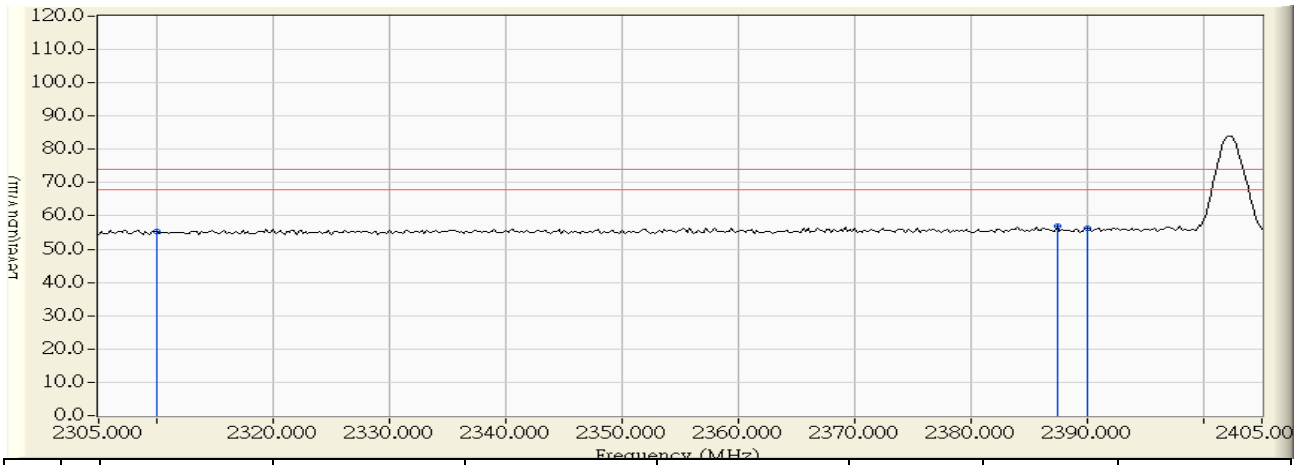


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	13.506	43.285	-10.715	54.000	AVERAGE
2	*	2389.400	30.571	13.463	44.035	-9.965	54.000	AVERAGE
3		2390.000	30.578	13.445	44.023	-9.977	54.000	AVERAGE

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 : 2012/10/08 - 19:36**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2402MHz_Z**

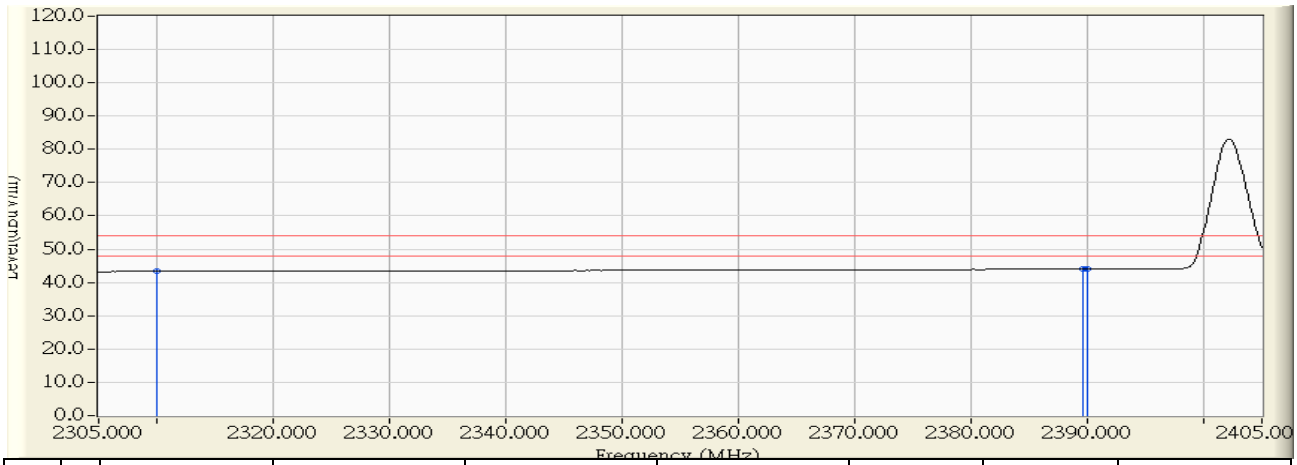


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	25.587	55.366	-18.634	74.000	PEAK
2	*	2387.400	30.552	26.460	57.012	-16.988	74.000	PEAK
3		2390.000	30.578	25.562	56.140	-17.860	74.000	PEAK

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 : 2012/10/08 - 19:37**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2402MHz_Z**

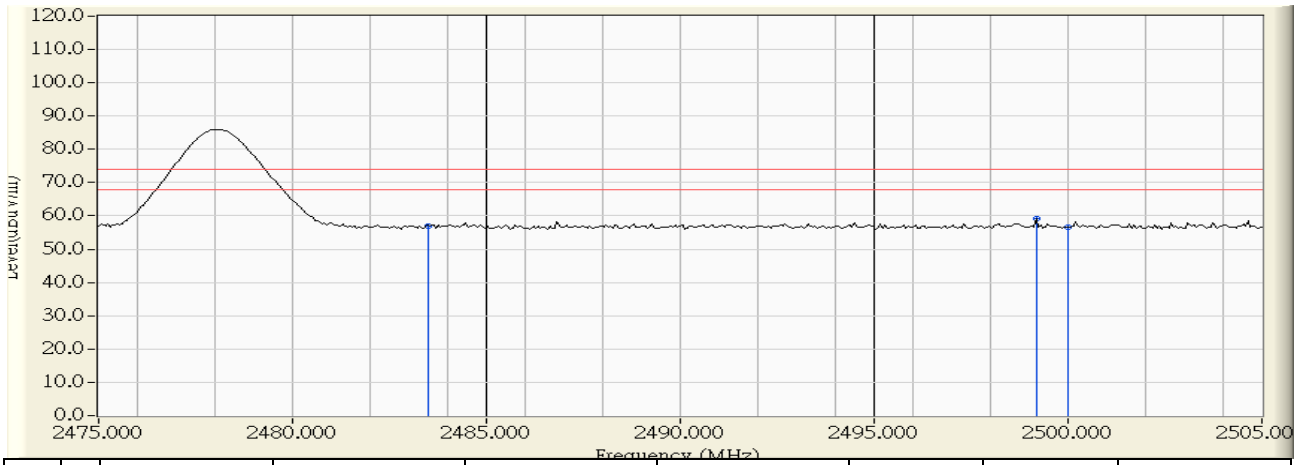


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	13.524	43.303	-10.697	54.000	AVERAGE
2		2389.600	30.574	13.442	44.016	-9.984	54.000	AVERAGE
3	*	2390.000	30.578	13.460	44.038	-9.962	54.000	AVERAGE

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 : 2012/10/08 - 19:23**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2478MHz_Z**

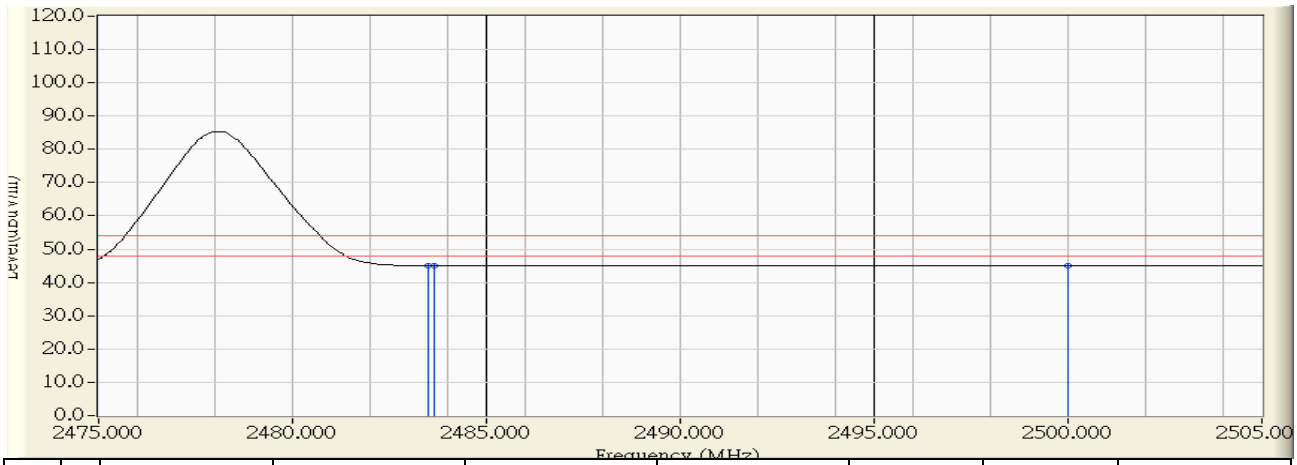


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.512	25.475	56.987	-17.013	74.000	PEAK
2	*	2499.180	31.639	27.402	59.040	-14.960	74.000	PEAK
3		2500.000	31.638	24.995	56.634	-17.366	74.000	PEAK

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 : 2012/10/08 - 19:24**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2478MHz_Z**

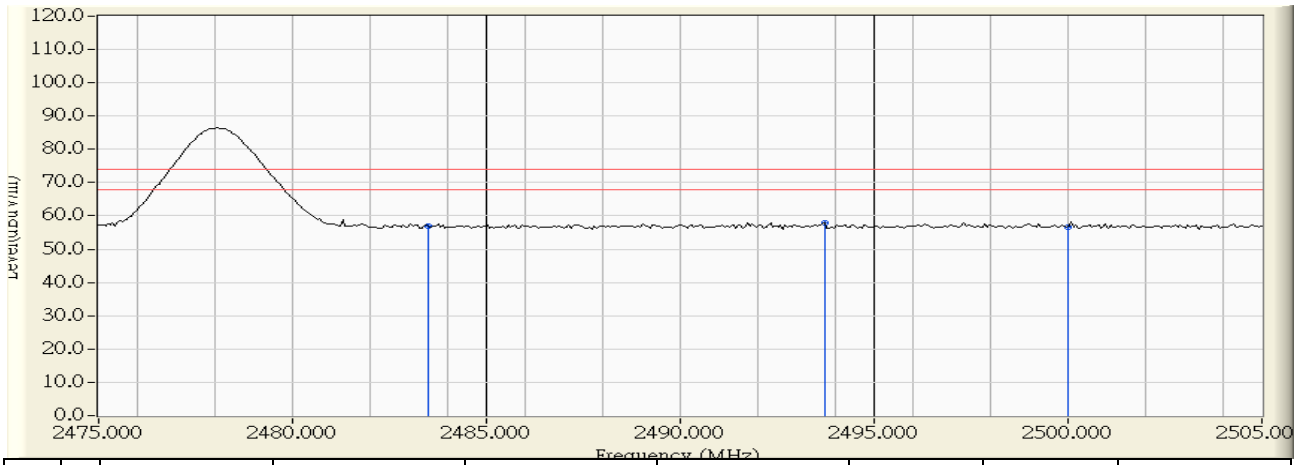


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.512	13.489	45.001	-8.999	54.000	AVERAGE
2		2483.640	31.513	13.458	44.971	-9.029	54.000	AVERAGE
3	*	2500.000	31.638	13.395	45.034	-8.966	54.000	AVERAGE

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 : 2012/10/08 - 19:28**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2478MHz_Z**

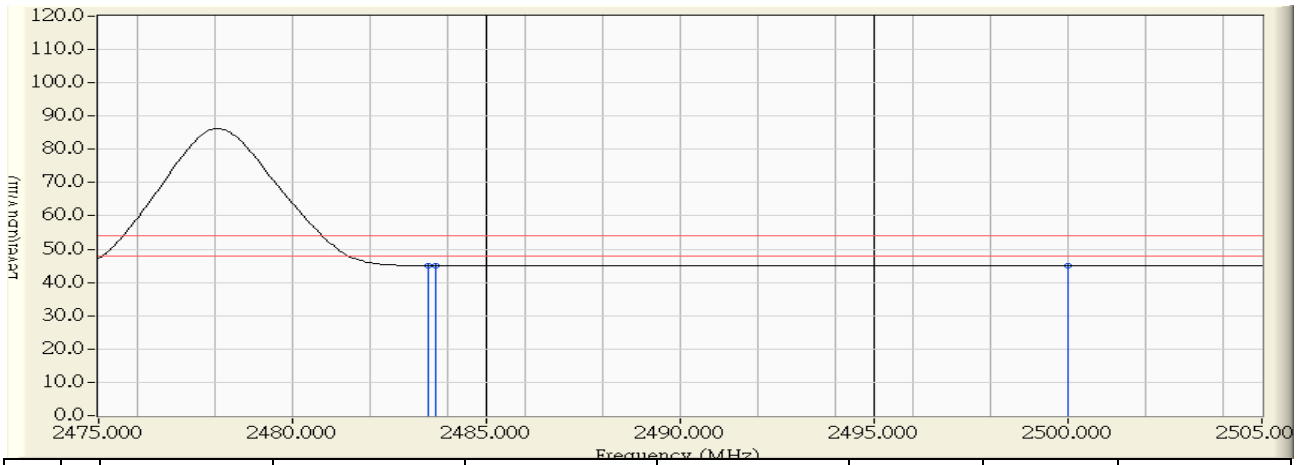


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.512	25.301	56.813	-17.187	74.000	PEAK
2	*	2493.720	31.614	26.241	57.855	-16.145	74.000	PEAK
3		2500.000	31.638	25.117	56.756	-17.244	74.000	PEAK

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 : 2012/10/08 - 19:29**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V**
EUT : RF-SP6W Module	**Note : Mode 1: Transmit_2478MHz_Z**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.512	13.496	45.008	-8.992	54.000	AVERAGE
2		2483.700	31.514	13.491	45.005	-8.995	54.000	AVERAGE
3	*	2500.000	31.638	13.422	45.061	-8.939	54.000	AVERAGE

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.