FCC Test Report

for

2.4GHz RF Modular

Model Number	**:**	**DZ-ZB-G**
FCC ID	**:**	**YCMDZZBG**
Report Number	**:**	**RF-D230-1208-349**
Date of Receipt	**:**	**September 6, 2012**
Date of Report	**:**	**December 11, 2012**

Prepared for

DiZiC Co., Ltd.

3Fl., No 4-2 Jin Xi Street, Zhong Shan District, 104 Taipei, TAIWAN

Prepared by

Central Research Technology Co.

EMC Test Laboratory

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NVLAP LAB CODE 200575-0

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Verification of Compliance

Equipment under Test	**:** 2.4GHz RF Modular
Model No.	**:** DZ-ZB-G
FCC ID	**:** YCMDZZBG
Manufacturer	**:** DiZiC Co., Ltd.
Applicant	**:** DiZiC Co., Ltd.
Address	**:** 3Fl., No 4-2 Jin Xi Street, Zhong Shan District, 104 Taipei, TAIWAN
Applicable Standards	**:** 47 CFR part 15, Subpart C
Date of Testing	**:** November 17 ~ 30, 2012
Deviation	**:** N/A
Condition of Test Sample	**:** Mass Production

We, **Central Research Technology Co**., hereby certify that one sample of the designated product was tested in our facility during the period mentioned above. The test records, data evaluation and Equipment Under Test (EUT) configurations shown in the present report are true and accurate representation of the measurements of the sample's RF characteristics under the conditions herein specified.

The test results show that the EUT as described in the present report is in compliance with the requirements set forth in the standards mentioned above and apply to the tested sample identified in the present report only. The test report shall not be reproduced, except in its entirety, without the written approval of Central Research Technology Co.

PREPARED BY : Cathy Chen , **DATE :** Dec. 11, 2012
(Cathy Chen/ Technical Manager)

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(Tsun-Yu Shih/General Manager)

Contents

1 General Description 5

1.1 General Description of EUT 5
1.2 Test Mode 6
1.3 Applied standards 7
1.4 The Support Units 9
1.5 Layout of Setup 9
1.6 Test Capability 10
1.7 Measurement Uncertainty 12

2 Maximum Peak Output Power 13

2.1 Applied standard 13
2.2 Test Instruments 13
2.3 Measurement Procedure 14
2.4 Test configuration 14
2.5 Test Data 15

3 Band Edge 17

3.1 Applied standard 17
3.2 Test Instruments 18
3.3 Measurement Procedure 19
3.4 Test configuration 19
3.5 Test Data 20

4 6dB Bandwidth 32

4.1 Applied standard 32
4.2 Test Instruments 32
4.3 Measurement Procedure 33
4.4 Test configuration 33
4.5 Test Data 34

5 Peak Power Spectral Density 36

5.1 Applied standard 36
5.2 Test Instruments 36
5.3 Measurement Procedure 37
5.4 Test configuration 37
5.5 Test Data 38

6 Radiated Emission 40

6.1 Applied standard 40
6.2 Test Instruments 41
6.3 Measurement Procedure 43
6.4 Test configuration 44
6.5 Test Data 45

7 Antenna Requirement 93

7.1 Applied standard 93
7.2 Antenna Information 93
7.3 Result 93

Attachment 1 – Photographs of the Test Configurations

Attachment 2 –External Photographs of EUT

Attachment 3 –Internal Photographs of EUT

1 General Description

1.1 General Description of EUT

Equipment under Test	:	2.4GHz RF Modular
Model No.	:	DZ-ZB-G
Power in	:	3Vdc
Test Voltage	:	3Vdc by batteries
Manufacturer	:	DiZiC Co. Ltd.
Channel Numbers	:	15
Frequency Range	:	2405~2475MHz
Function Modulation	:	OQPSK
Modular Function	:	IEEE 802.15.4 / Zigbee
Antenna Spec	:	SMD Antenna Gain : 1dBi
		Dipole Antenna Gain : 2dBi
Function Description	:	

The EUT is used to transmit and receive command both. Please refer to the user's manual for the details.

Perform the functions of EUT continuously by executing the test program supplied by manufacturer.

1.2 Test Mode

There are two test modes as the specification of manufacturer and which are shown as below.

Test Mode	Function
Mode 1	SMD antenna
Mode 2	Dipole antenna

1.3 Applied standards

(1) Conduction Emission Requirement

For intentional device, according to §15.207(a) line conduction emission limit is as below table.

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 – 0.5	66 to 56*	56 to 46*
0.5 - 5	56	46
5 - 30	60	50

* Decreases with the logarithm of the frequency.

(2) Radiated Emission Requirement

For intentional device, according to §15.209, the general requirement of field strength of radiated emissions from intentional radiator at a distance of 3 meters shall not exceed the below table.

Frequency (MHz)	Measurement Distance (m)	Field Strength (uV/m)	Field Strength (dBuV/m)
30 – 88	3	100	40.0
88 – 216	3	150	43.5
216 – 960	3	200	46.0
960 – 1610	3	500	54.0
above 1610	3	500	54.0

Note 1- The lower limit shall apply at the transition frequency.

(3) 6dB Bandwidth

According to 15.247(a)(2), Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

(4) Maximun Peak Output Power

According to 15.247(b)(3), For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

(5) 100kHz Bandedge

According to 15.247(d), in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 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).

(6) Power spectral density

According to 15.247(e),for digitally modulated systems,the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

(7) Restricted Band

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
[2]1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(2)
13.36 - 13.41			

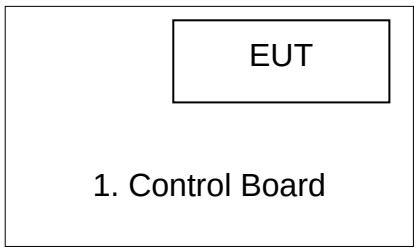
[1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2] Above 38.6

1.4 The Support Units

No.	Unit	Model No./ Serial No.	Trade Name	Power Code	Supported by lab.
1.	Control Board	DZ_ZBDMB02B	DiZiC	N/A	

1.5 Layout of Setup



Connecting Cables :

No.	Cable	Length	Shielded	Core	Shielded Backshell	Supported by lab.	Note
N/A	*	*	*	*	*	*	

1.6 Test Capability

Test Facility

The test facility used for evaluating the conformance of the EUT with each standard in the present report meets what required in CISPR16-1-4, CISPR16-2-3 and ANSI C63.4:2003.

Test Room	Type of Test Room	Descriptions
TR1	10m semi-anechoic chamber (23m×14m×9m)	Complying with the NSA requirements in documents CISPR 22 and ANSI C63.4:2003. For the radiated emission measurement.
TR11	3m semi-anechoic chamber (9m × 6m × 6m)	
TR13	Test Site	For the RF conducted emission measurement.
TR5	Shielding Room (8m×5m×4m)	For the conducted emission measurement.

Test Laboratory Competence Information

Central Research Technology Co. has been accredited / filed / authorized by the agencies listed in the following table.

Certificate	Nation	Agency	Code	Mark
Accreditation Certificate	USA	NVLAP	200575-0	ISO/IEC 17025
	R.O.C. (Taiwan)	TAF	0905	ISO/IEC 17025
	R.O.C. (Taiwan)	BSMI	SL2-IN-E-0033, SL2-IS-E-0033, SL2-R1/R2-E-0033, SL2-A1-E-0033 SL2-L1-E-0033	ISO/IEC 17025
Site Filing Document	USA	FCC	474046, TW1053	Test facility list & NSA/SVSWR Data
	Canada	IC	4699A-1,-3	Test facility list & NSA Data
	Japan	VCCI	R-1527,C-1609,T-1441, G-10, C-4400, G-614, T-1334	Test facility list & NSA/SVSWR Data
Authorization Certificate	Germany	TUV	10021687	ISO/IEC 17025
	Norway	Nemko	ELA212	ISO/IEC 17025

The copy of each certificate can be downloaded from our web site: www.crc-lab.com

1.7 Measurement Uncertainty

The assessed measurement uncertainty with a suitable coverage factor K to ensure 95% confidence level for the normal distribution are shown as below, the values are less than U_{cispr} in table 1 of CISPR 16-4-2.

Test Item	Measurement Uncertainty	
Radiated Emission: (30MHz~200MHz)	Horizontal 3.5dB；Vertical 3.8dB	
Radiated Emission: (200MHz~1GHz)	Horizontal 3.9dB；Vertical 3.9dB	
Radiated Emission: (1GHz~18GHz)	Horizontal 3.5dB；Vertical 3.6dB	
Radiated Emission: (18GHz~26.5GHz)	Horizontal 4.4dB；Vertical 4.5dB	
Line Conducted Emission	ESH2-Z5	3.1dB
	ENV 4200	2.8dB

2 Maximum Peak Output Power

Result: Pass

2.1 Applied standard

According to 15.247(b)(3), For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

2.2 Test Instruments

Test Site and Equipment	Manufacturer	Model No./ Serial No.	Last Calibration Date	Calibration Due Date
Spectrum Analyzer	Agilent	E4405B/ MY45106706	March 29, 2012	March 29, 2013
Test Site	N.A.	TR13	NCR	NCR

Note:

1.The calibrations are traceable to NML/ROC.

2.NCR : No Calibration Required.

Instrument Setting

RBW	VBW	Detector	Trace	Comment
3MHz	3MHz	Peak	Maxhold	

Climatic Condition

Ambient Temperature：21℃ Relative Humidity : 54%

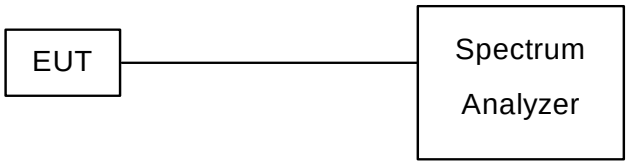
2.3 Measurement Procedure

a. The EUT was set up per the test configuration figured in the next section of this chapter to simulate the typical usage per the user's manual.

b. The software provided by client enabled the EUT to transmit data at lowest, middle and highest channel frequencies individually.

c. Measurement the maximum peak output and compare with the required limit.

2.4 Test configuration



2.5 Test Data

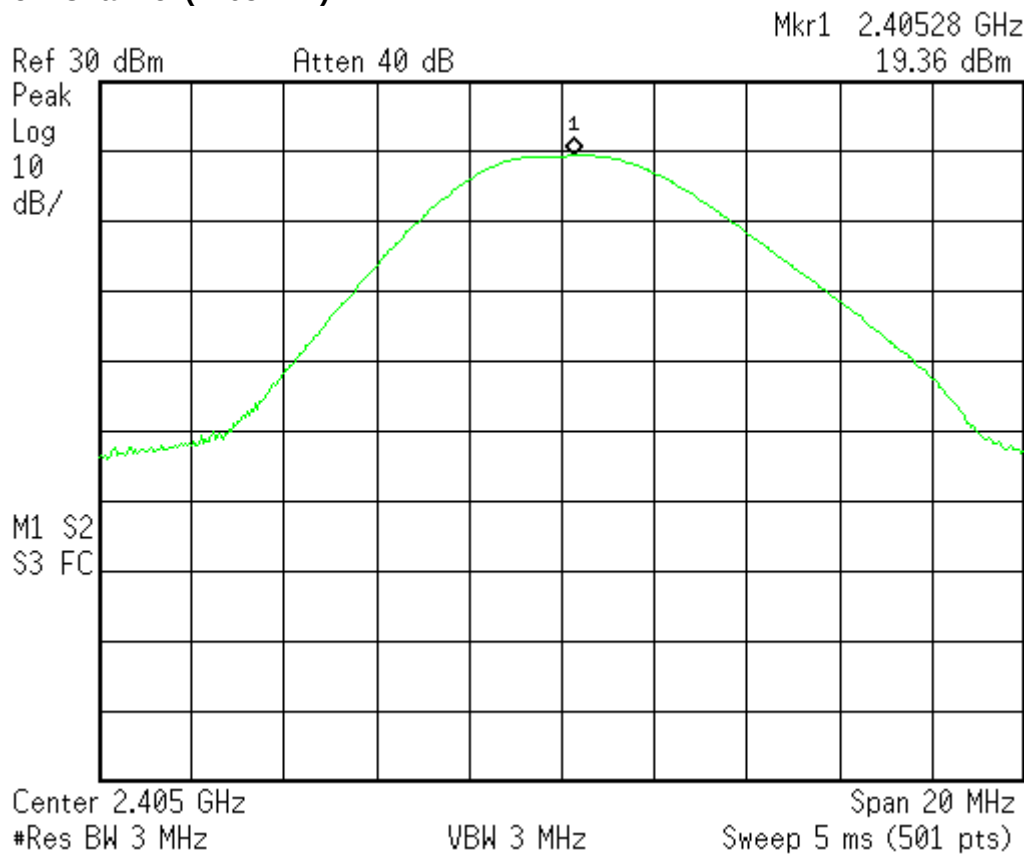
Test Mode : Continuous Transmitting **Tester :** Jun

Operating Frequency (MHz)	Reading Data (dBm)	Correction Factor (dB)	Emission (dBm)	Limit (dBm)	Margin (dB)
2405	19.36	0.8	20.16	30	9.84
2440	19.44	0.8	20.24	30	9.76
2475	6.82	0.8	7.62	30	22.38

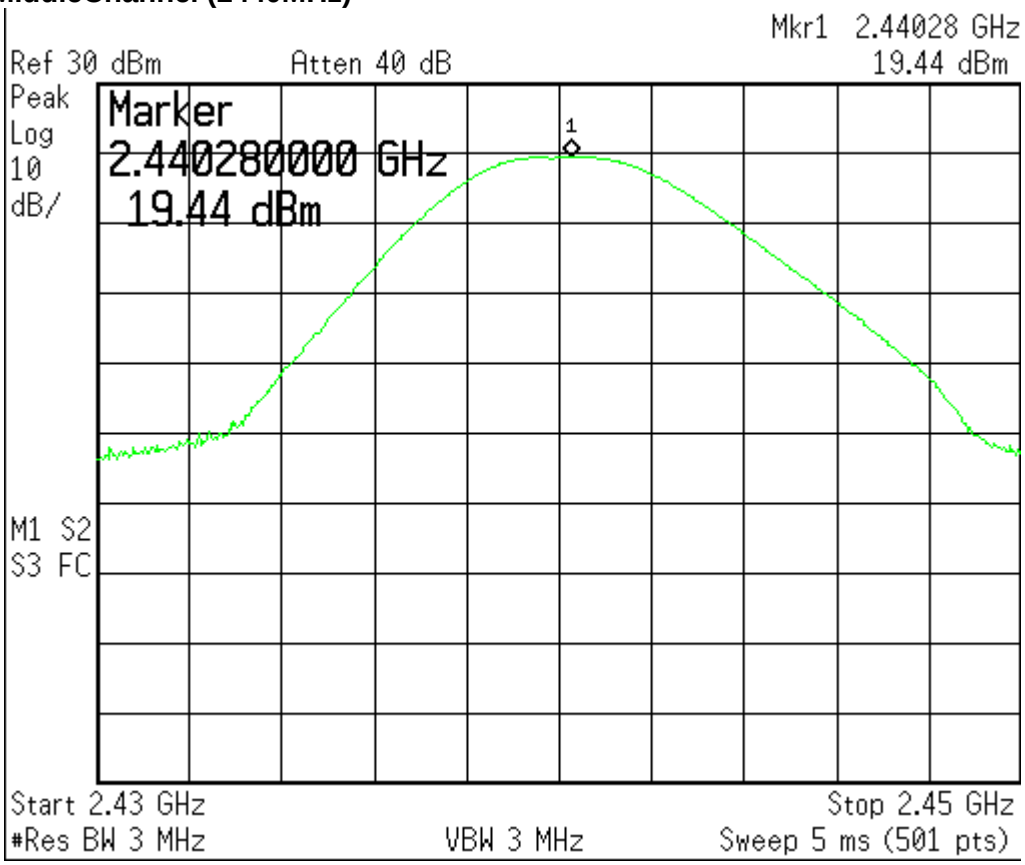
Note:

1. Correction Factor (dB) = Cable Loss + Attenuator
2. Emission (dBm) = Reading Data + Correction Factor
3. Margin (dB) = Limit – Emission

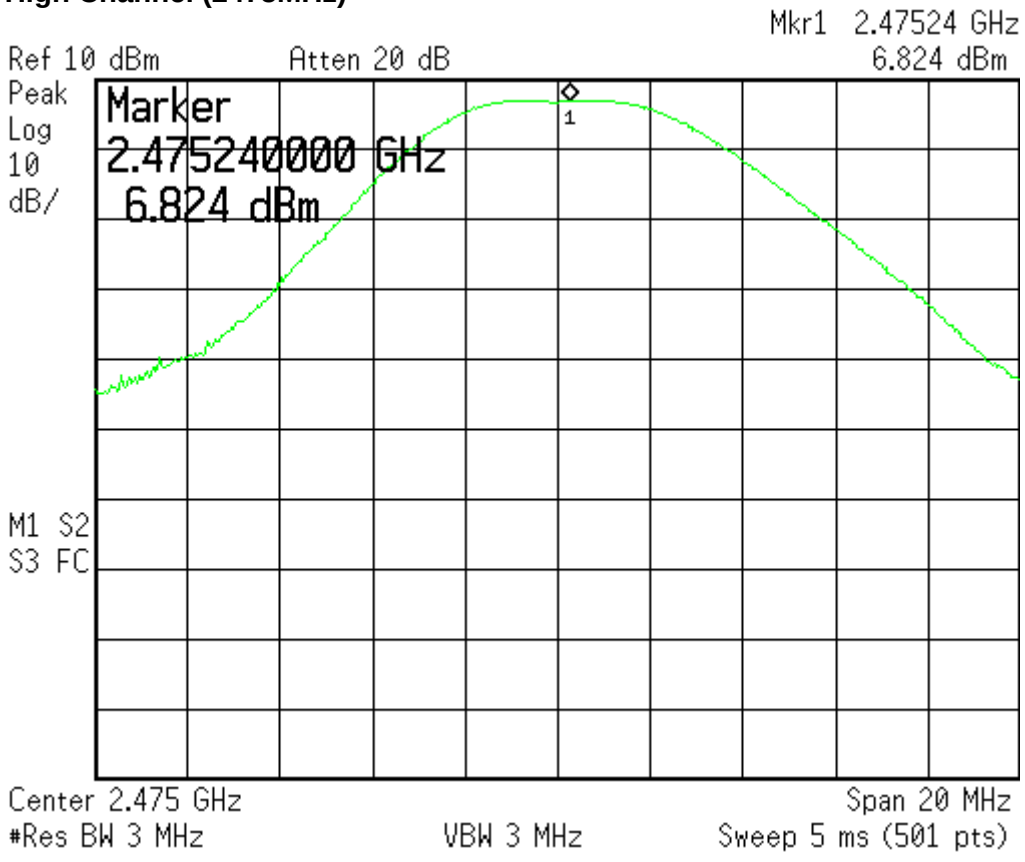
Low Channel (2405MHz)



MiddleChannel (2440MHz)



High Channel (2475MHz)



3 Band Edge

Result: Pass

3.1 Applied standard

According to 15.247(c),in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 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).

3.2 Test Instruments

Test Site and Equipment	Manufacturer	Model No./ Serial No.	Last Calibration Date	Calibration Due Date
Spectrum Analyzer	Agilent	E4405B/ MY45106706	March 29, 2012	March 29, 2013
Test Site	N.A.	TR13	NCR	NCR
Spectrum Analyzer	Agilent	FSP40/ 100031	July 11, 2012	July 11, 2013
Antenna	EMCO	3117/ 00082847	March 1, 2012	March 1, 2013
PRE-AMPLIFIER	MITEQ	JS4-00101800-28 -10P/1498979	Dec. 21, 2011	Dec. 21, 2012
PRE-AMPLIFIER	MITEQ	JS4-00101800-28 -5A/742309	Dec. 14, 2011	Dec. 14, 2012
Semi - anechoic Chamber	ETS. LINDGREN	TR11/ 906-A	Feb. 12, 2012	Feb. 12, 2013

Note:

1.The calibrations are traceable to NML/ROC.

2.NCR : No Calibration Required.

Instrument Setting

RBW	VBW	Detector	Trace	Comment
100kHz	300kHz	Peak	Maxhold	100kHz Bandedge
1MHz	3MHz	Peak	Maxhold	Bandedge Peak
1MHz	10Hz	Peak	Maxhold	Bandedge Average

Climatic Condition

Ambient Temperature：24℃ Relative Humidity : 54%

3.3 Measurement Procedure

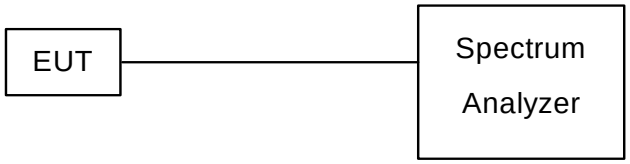
a. The EUT was set up per the test configuration figured in the next section of this chapter to simulate the typical usage per the user's manual.

b. The software provided by client enabled the EUT to transmit data at lowest and highest channel frequencies individually.

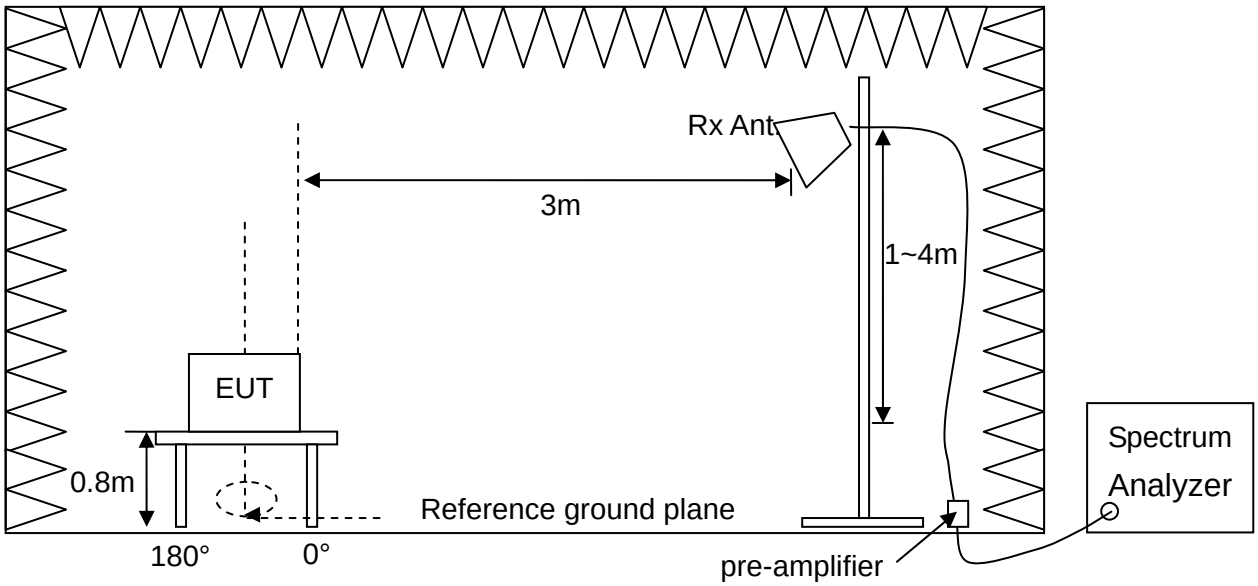
c. Measurement the band edge and compare with the required limit.

3.4 Test configuration

100kHz Bandedge



Restricted Bandedge Measurement



3.5 Test Data

100KHz Bandedge Measurement

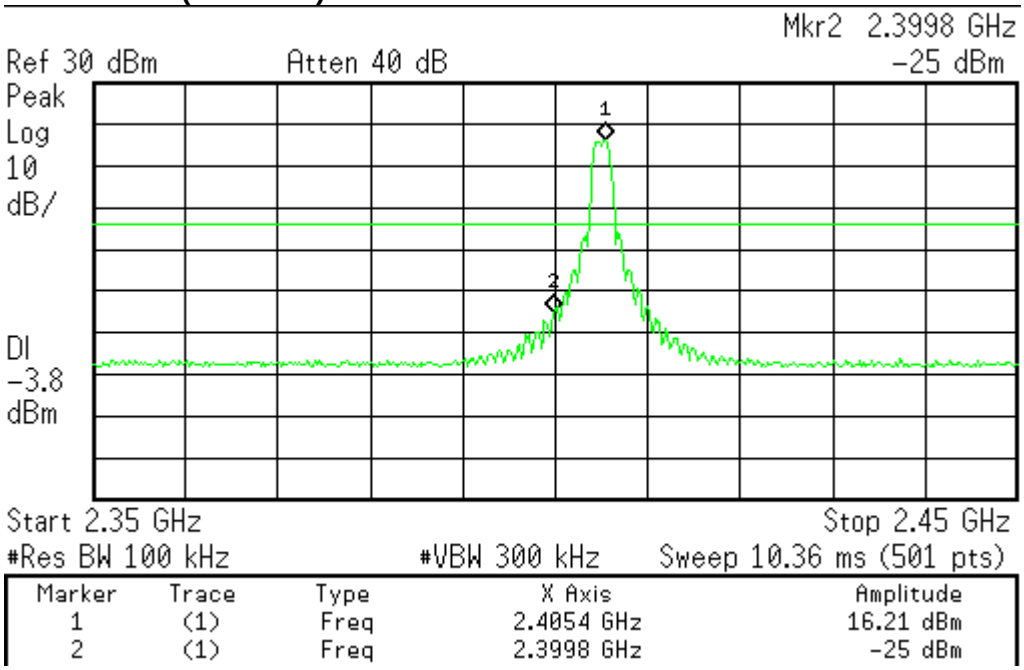
Test Mode : Continuous Transmitting **Tester :** Jun

Operation Frequency (MHz)	Maximum Emission Level (dBm)	Emission Frequency (MHz)	Emission Level of out band (dBm)	Attenuation (dB)	Limit (dB)	Margin (dB)
2405	16.21	2399.8	-25.00	41.21	20	21.21
2475	2.85	2483.7	-47.97	50.82	20	30.82

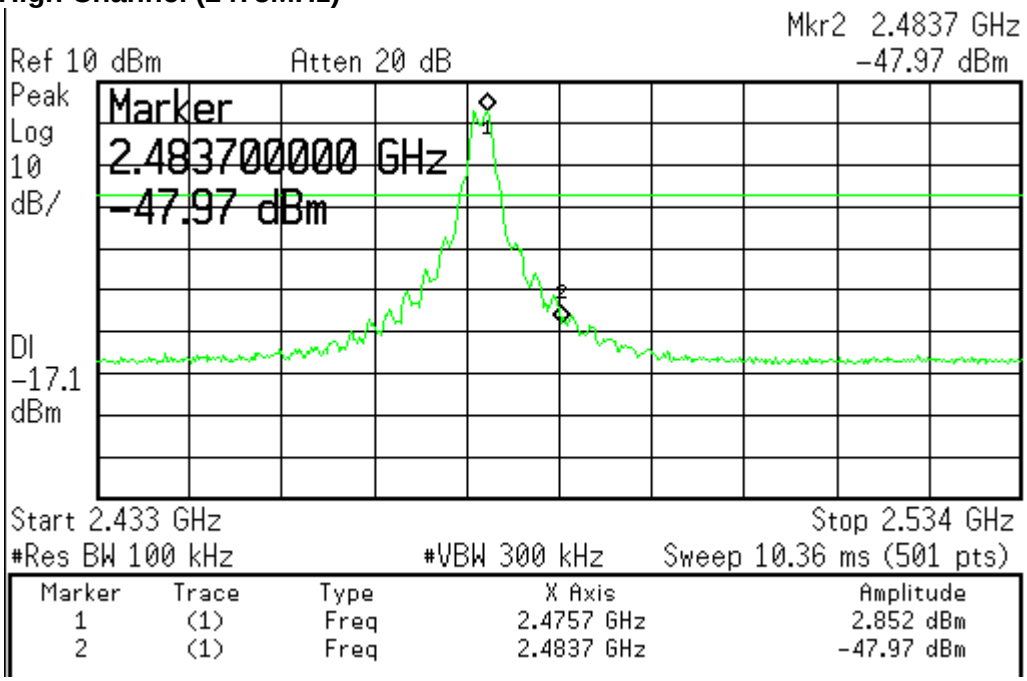
Note:

1. Attenuation (dB) = Maximum Emission Level - Emission Level
2. Margin (dB) = Attenuation – Limit

Low Channel (2405MHz)



High Channel (2475MHz)



Restricted Bandedge Measurement

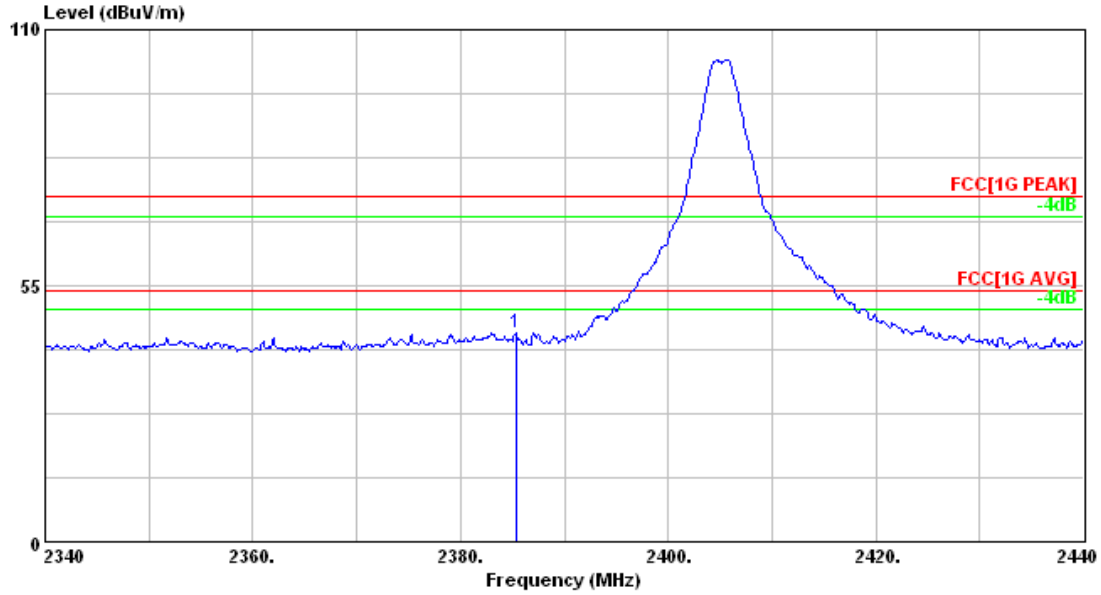
Test Mode :Mode 1, Continuous Transmitting **Tester :** Liu

Operation frequency : 2405MHz							
Frequency (MHz)	**Reading Data (dBuV)**	**Correction Factor (dB/m)**	**Emission (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Polarization**	**Remark**
2385.30	47.32	-2.30	45.02	74	28.98	Horizontal	Peak
2385.30	36.08	-2.30	33.78	54	20.22	Horizontal	Average
2390.00	49.78	-2.30	47.48	74	26.52	Vertical	Peak
2390.00	39.91	-2.30	37.61	54	16.39	Vertical	Average
Operation frequency : 2475MHz							
2483.5	62.07	-2.14	59.93	74	14.07	Horizontal	Peak
2483.5	51.42	-2.14	49.28	54	4.72	Horizontal	Average
2483.5	56.83	-2.14	54.69	74	19.31	Vertical	Peak
2483.5	45.23	-2.14	43.09	54	10.91	Vertical	Average

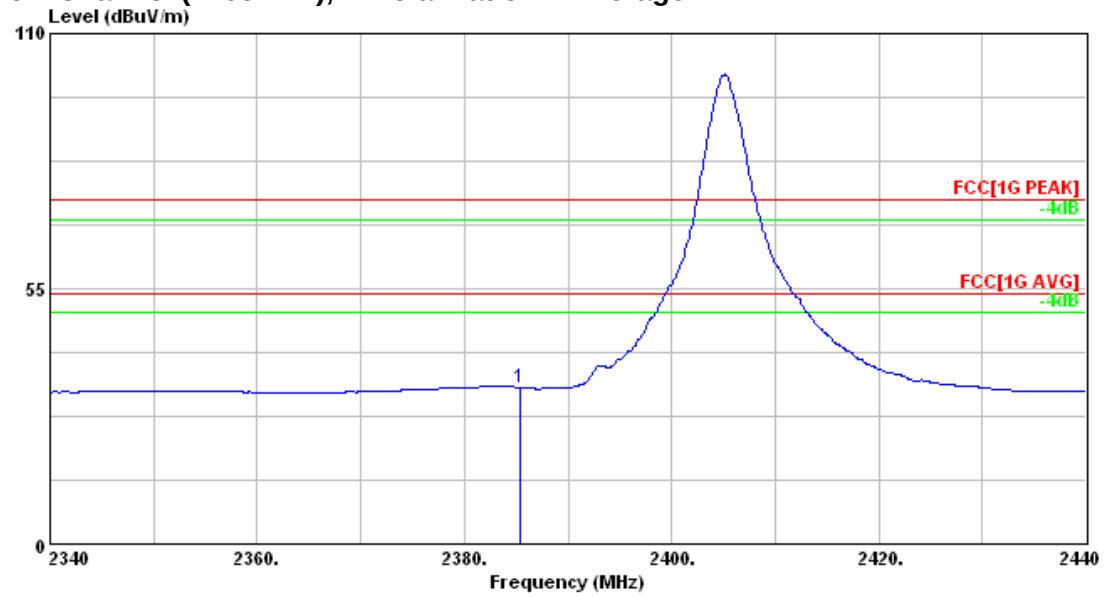
Note:

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Pre-amplifier
2. Emission (dBuV/m) = Reading Data + Correction Factor
3. Margin(dB) = Limit – Emission

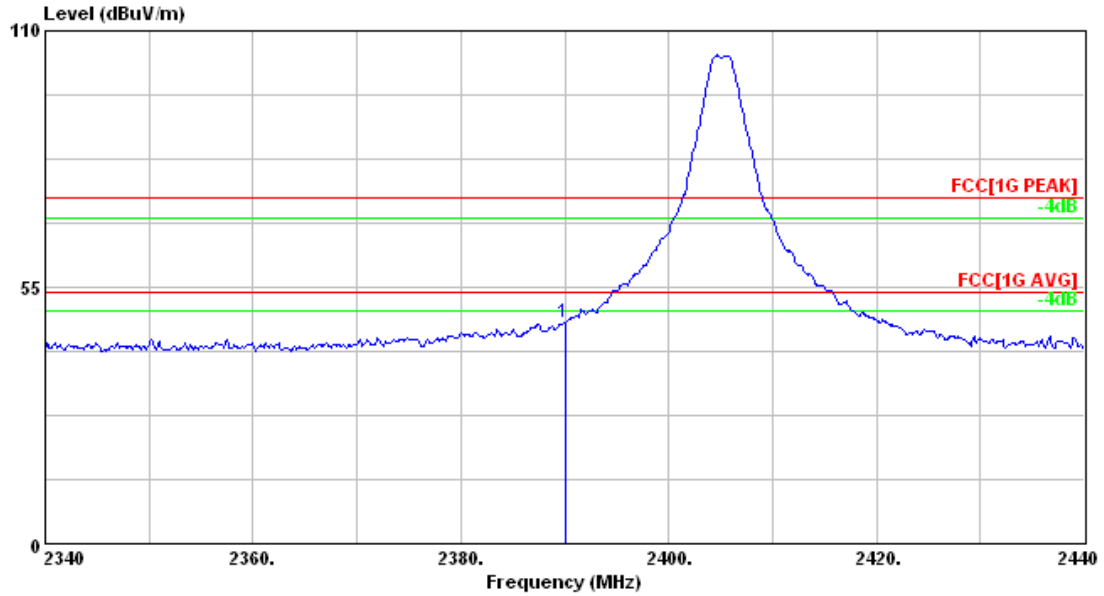
Low Channel (2405MHz), H Polarization – Peak



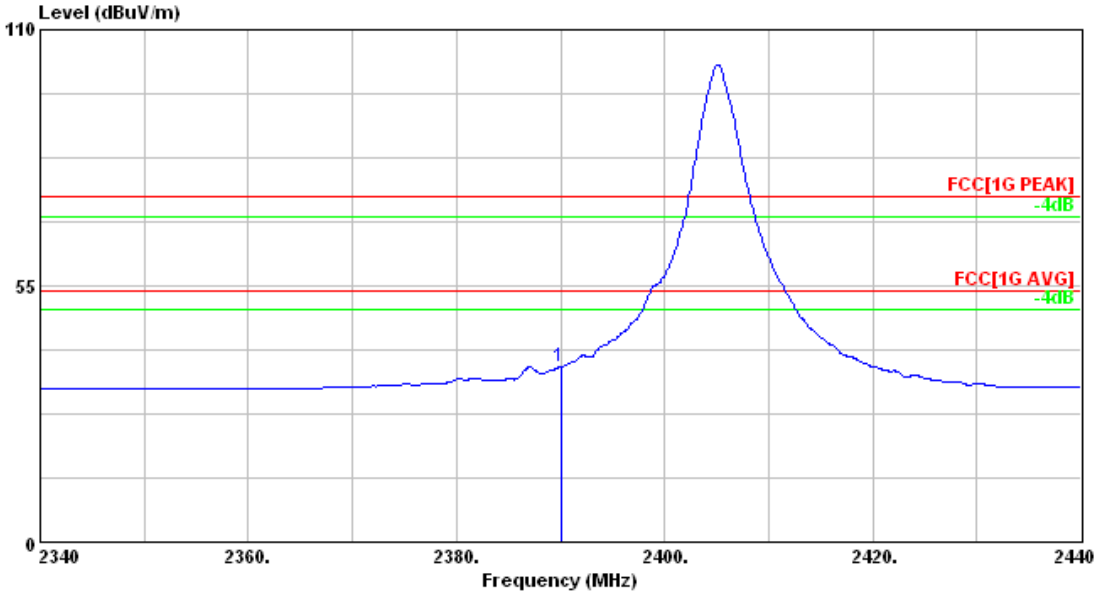
Low Channel (2405MHz), H Polarization – Average



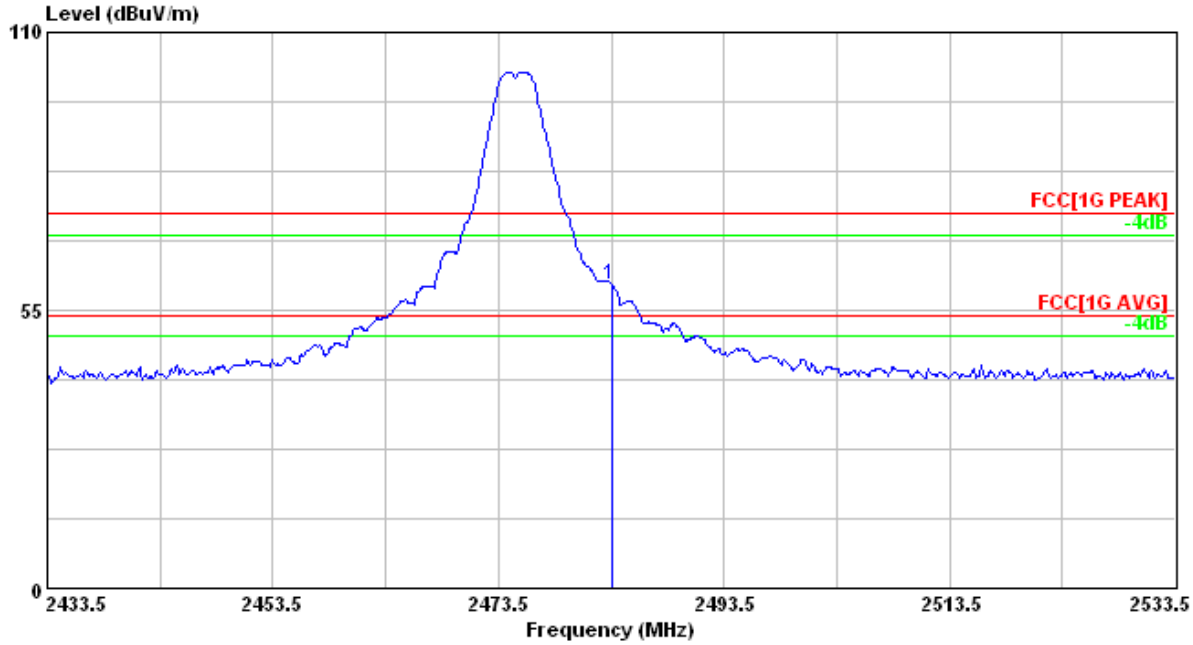
Low Channel (2405MHz), V Polarization – Peak



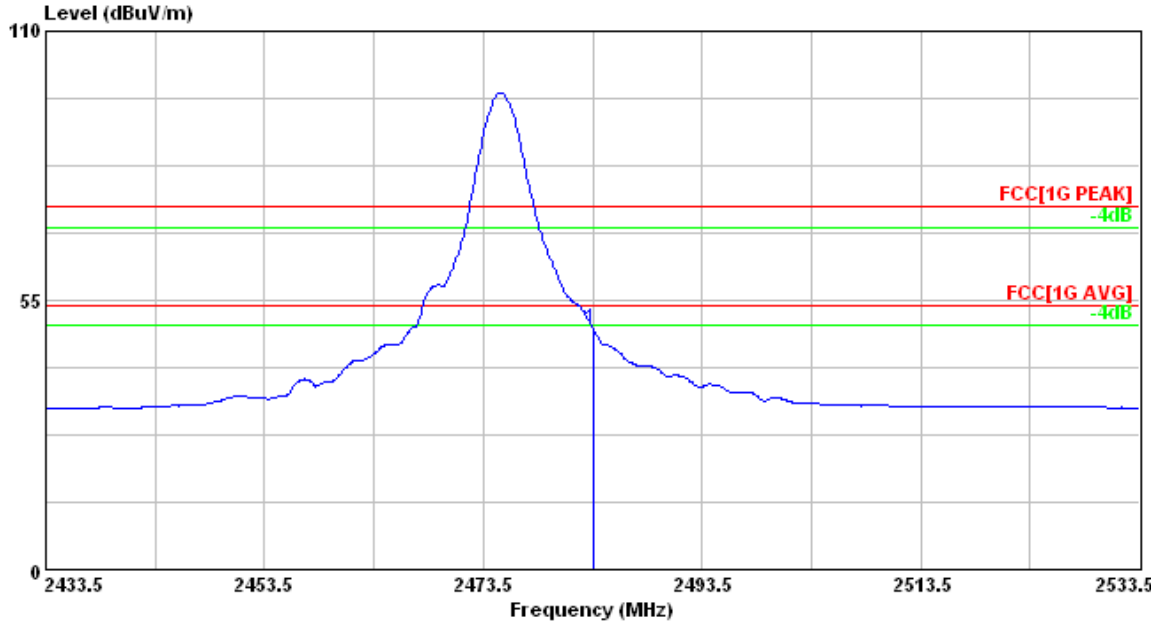
Low Channel (2405MHz), V Polarization – Average



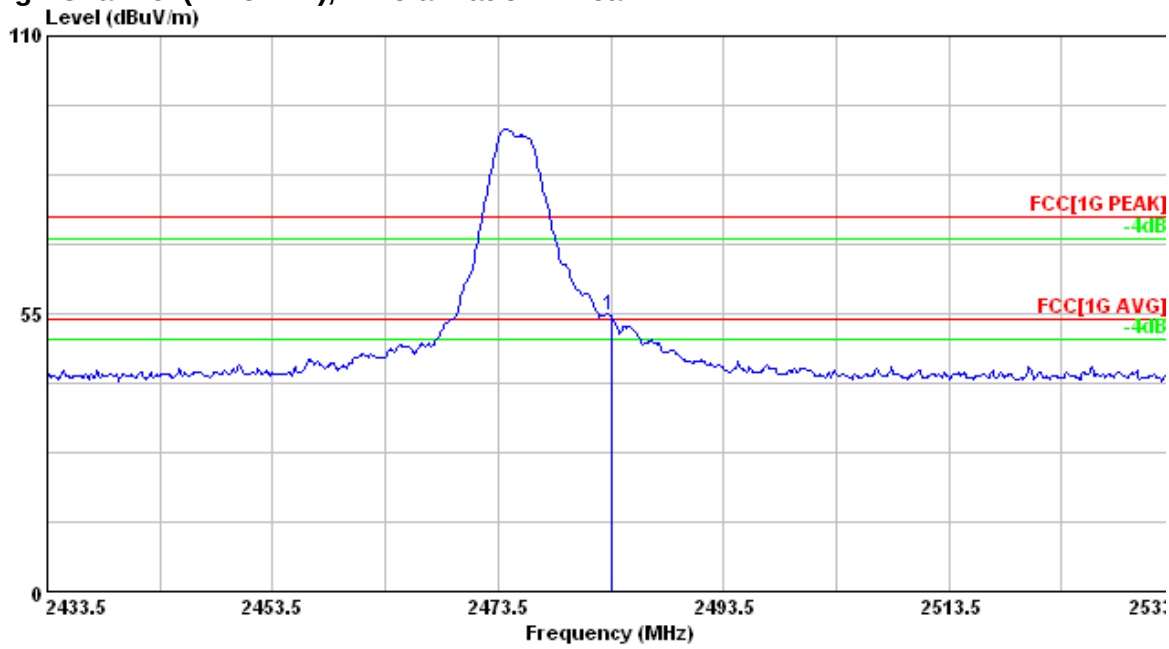
High Channel (2475MHz), H Polarization – Peak



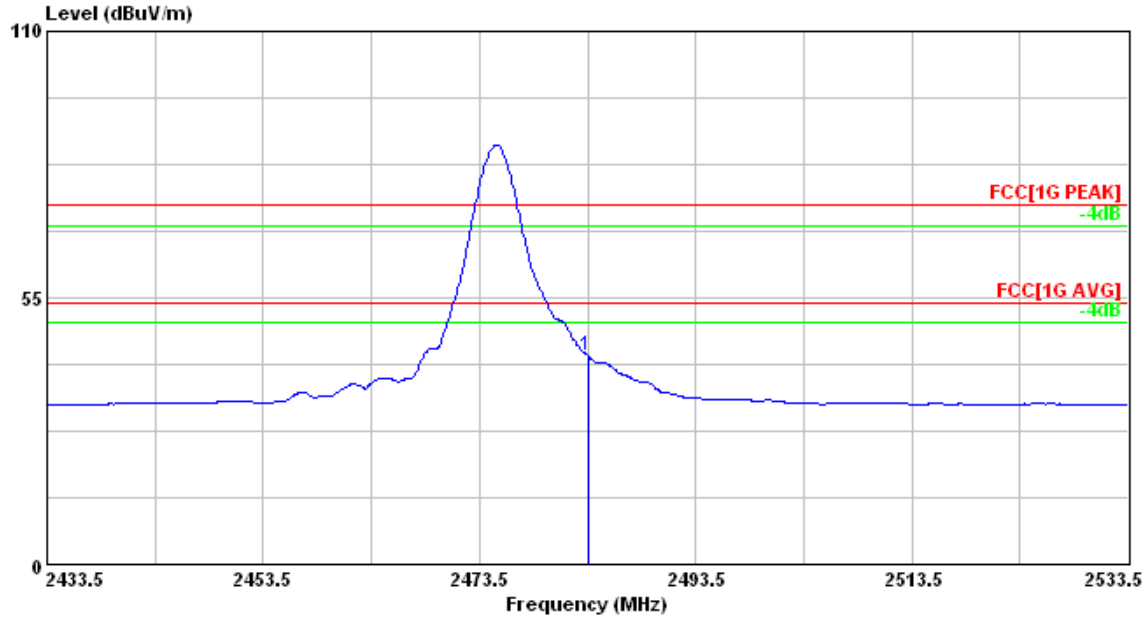
High Channel (2475MHz), H Polarization – Average



High Channel (2475MHz), V Polarization – Peak



High Channel (2475MHz), V Polarization – Average



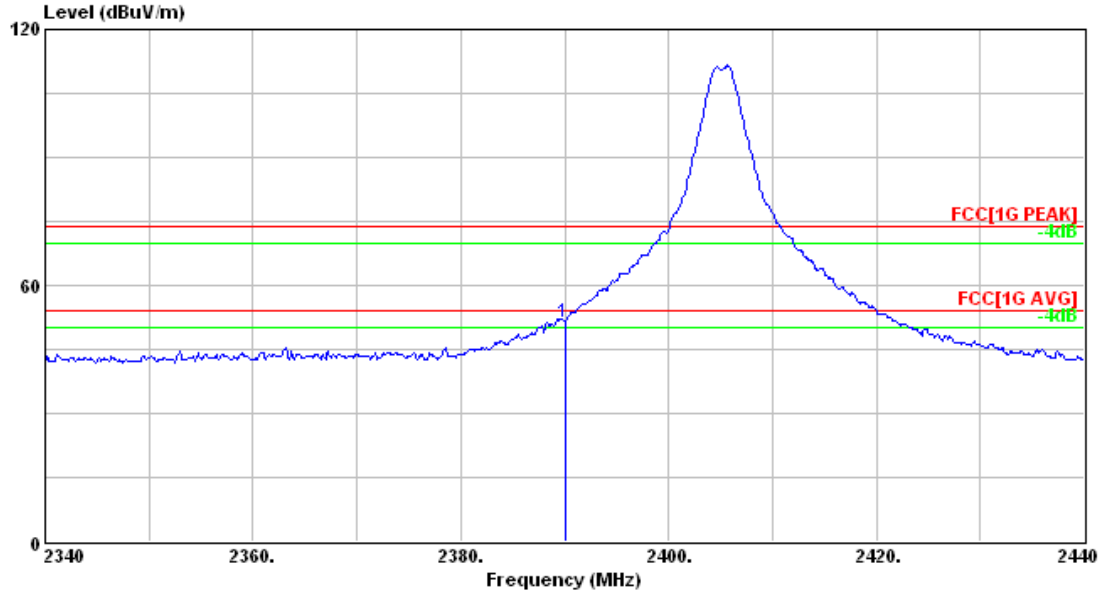
Test Mode :Mode 2, Continuous Transmitting **Tester :** Liu

Operation frequency : 2405MHz							
Frequency (MHz)	**Reading Data (dBuV)**	**Correction Factor (dB/m)**	**Emission (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Polarization**	**Remark**
2390.00	53.63	-2.30	51.33	74	22.67	Horizontal	Peak
2390.00	44.15	-2.30	41.85	54	12.15	Horizontal	Average
2390.00	57.12	-2.30	54.82	74	19.18	Vertical	Peak
2390.00	47.09	-2.30	44.79	54	9.21	Vertical	Average
Operation frequency : 2475MHz							
2483.5	56.91	-2.14	54.77	74	19.23	Horizontal	Peak
2483.5	46.31	-2.14	44.17	54	9.83	Horizontal	Average
2483.5	66.11	-2.14	63.97	74	10.03	Vertical	Peak
2483.5	55.11	-2.14	52.97	54	1.03	Vertical	Average

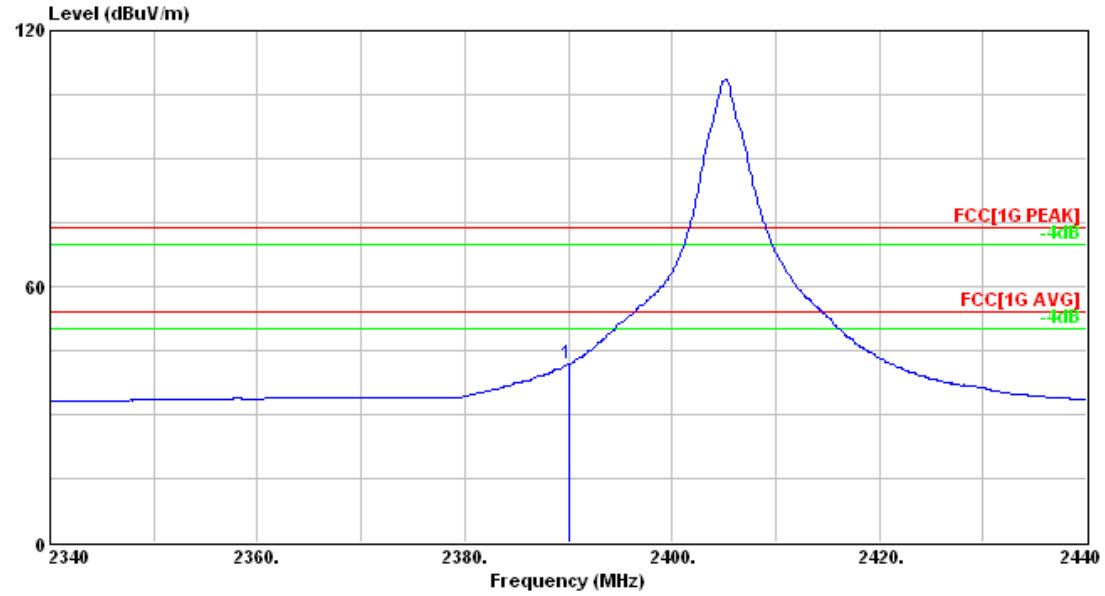
Note:

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Pre-amplifier
2. Emission (dBuV/m) = Reading Data + Correction Factor
3. Margin(dB) = Limit – Emission

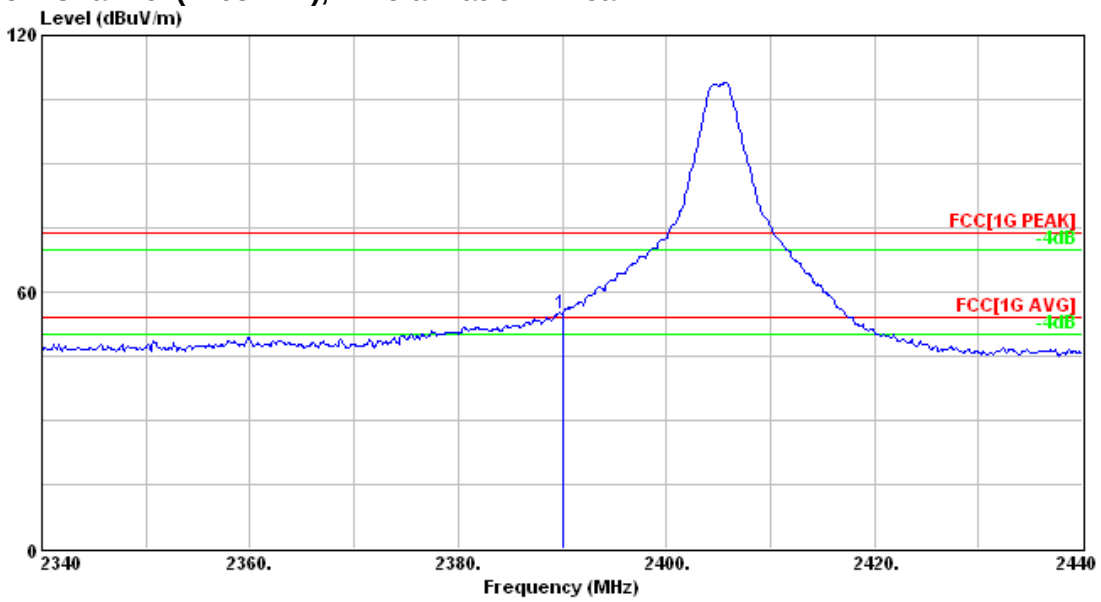
Low Channel (2405MHz), H Polarization – Peak



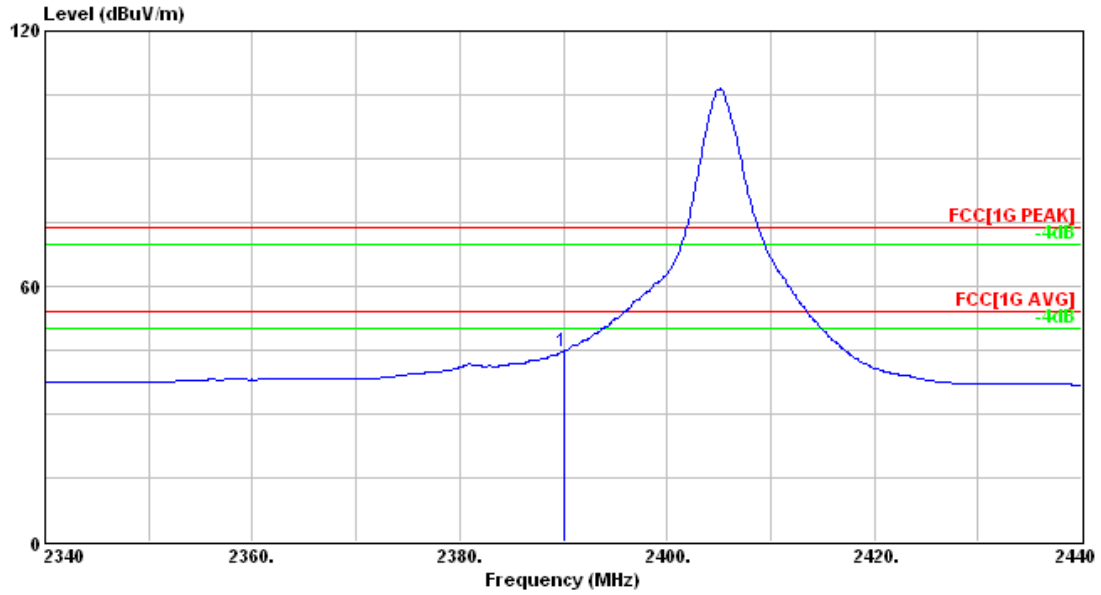
Low Channel (2405MHz), H Polarization – Average



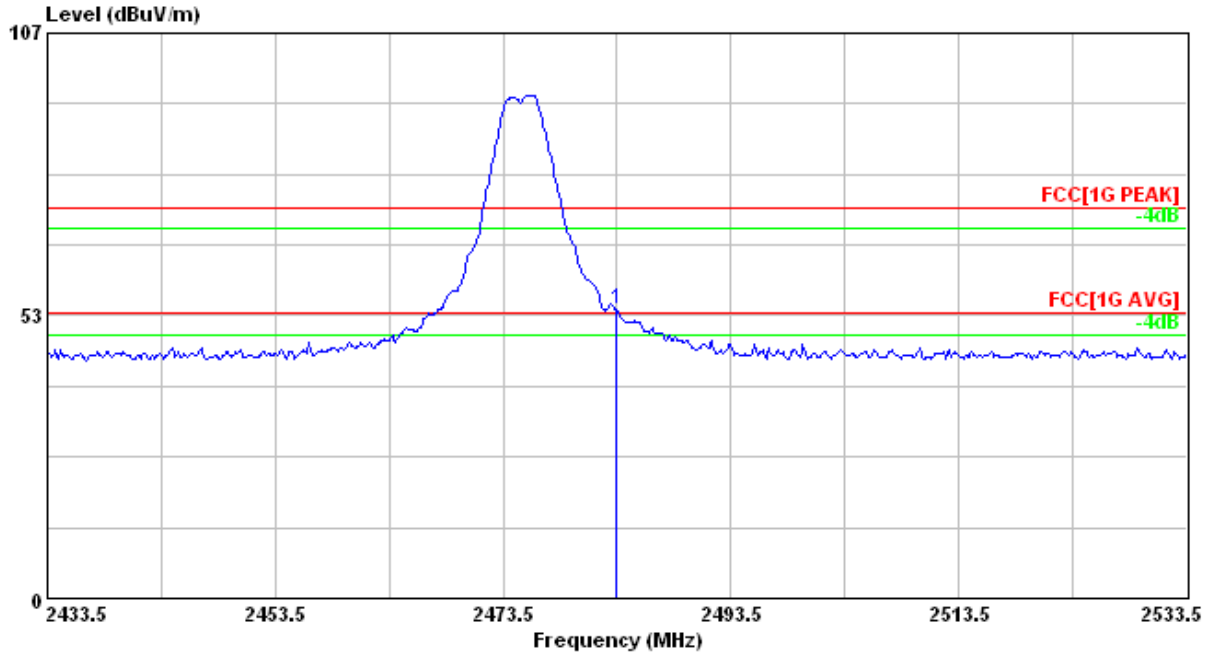
Low Channel (2405MHz), V Polarization – Peak



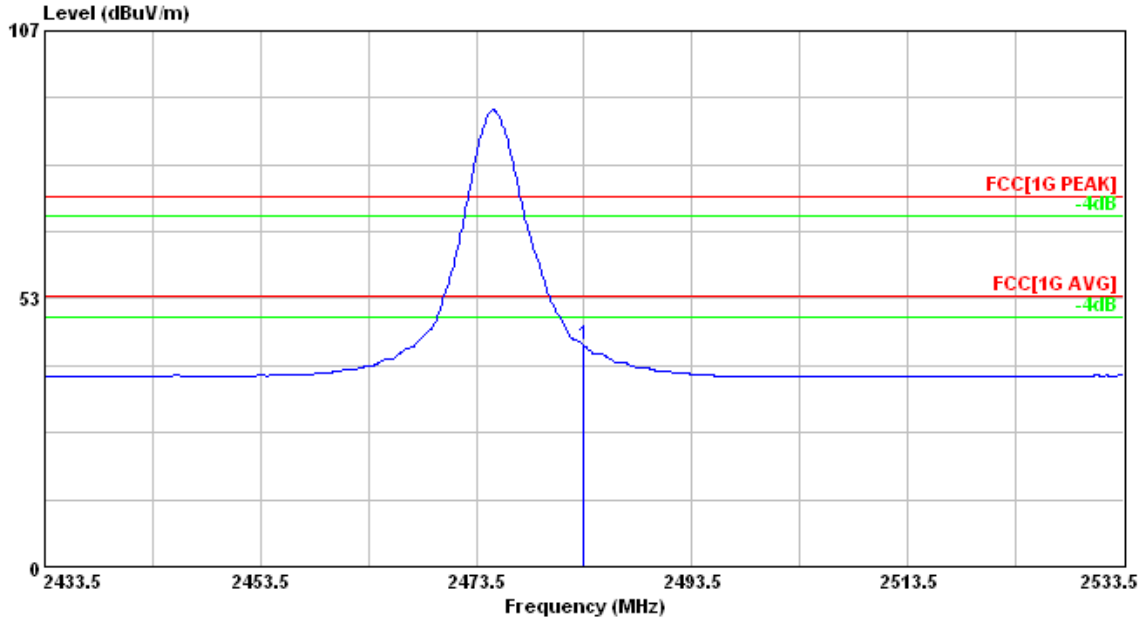
Low Channel (2405MHz), V Polarization – Average



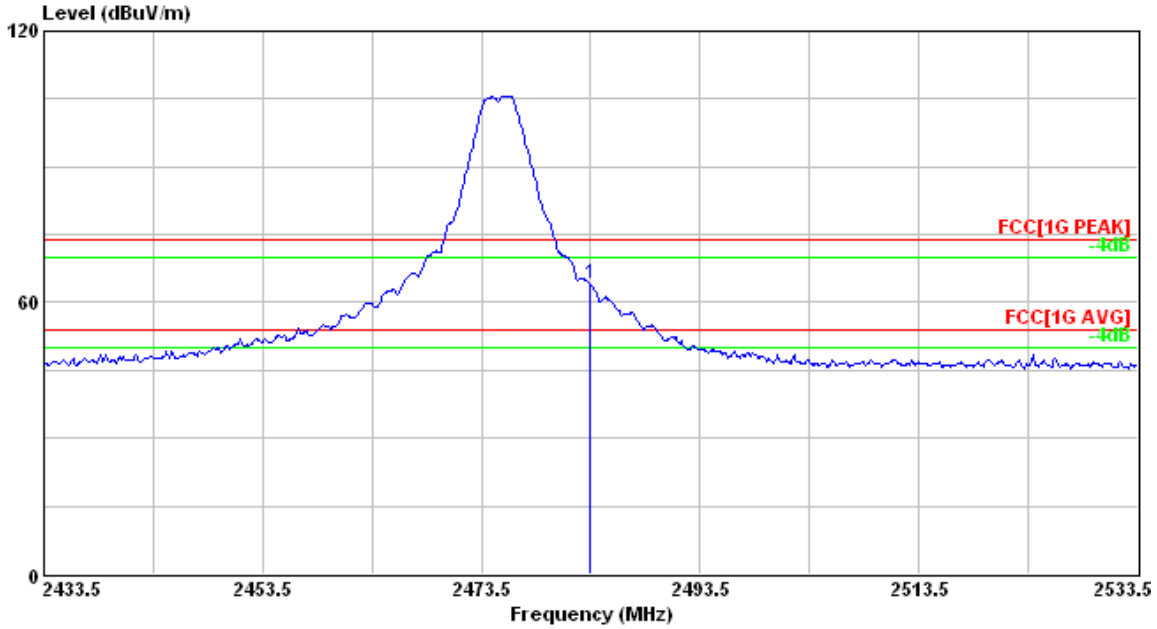
High Channel (2475MHz), H Polarization – Peak



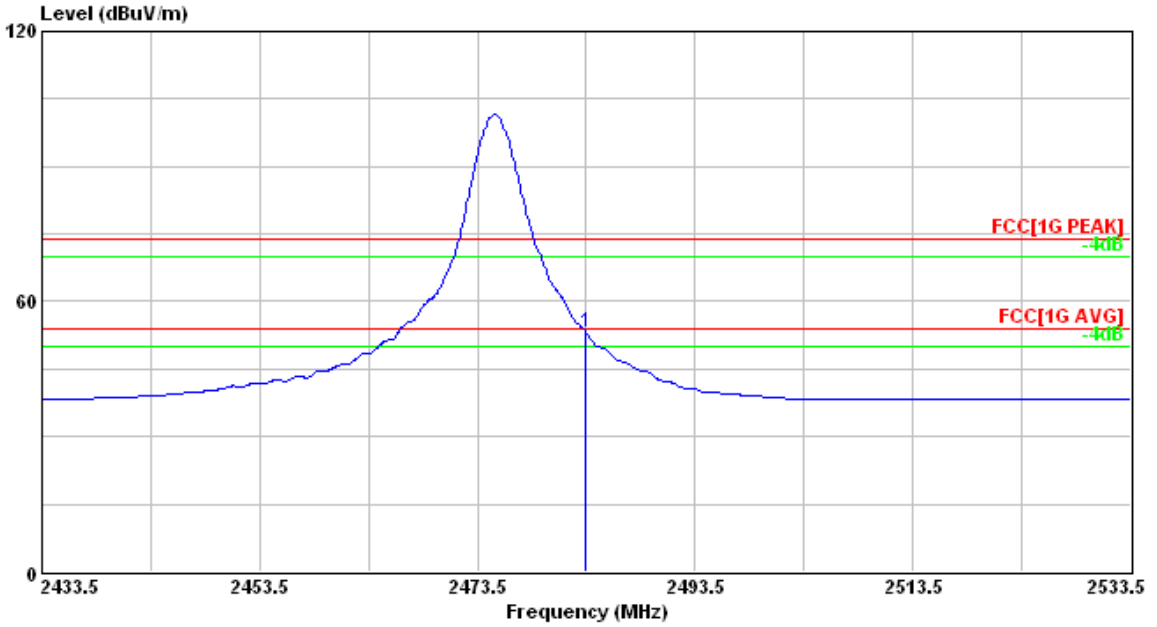
High Channel (2475MHz), H Polarization – Average



High Channel (2475MHz), V Polarization – Peak



High Channel (2475MHz), V Polarization – Average



4 6dB Bandwidth

Result: Pass

4.1 Applied standard

According to 15.247(a)(2), Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

4.2 Test Instruments

Test Site and Equipment	Manufacturer	Model No. /Serial No.	Last Calibration Date	Calibration Due Date
Spectrum Analyzer	Agilent	E4405B/ MY45106706	March 29, 2012	March 29, 2013
Test Site	N.A.	TR13	NCR	NCR

Note:

1. The calibrations are traceable to NML/ROC.
2. NCR:No Calibration Required.

Instrument Setting

RBW	VBW	Detector	Trace	Comment
30kHz	100kHz	Peak	Maxhold	

Climatic Condition

Ambient Temperature：22℃ Relative Humidity :60%

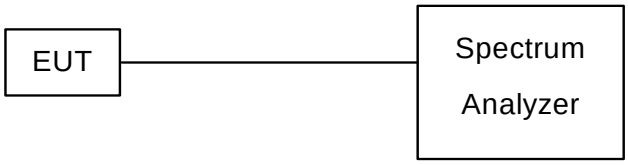
4.3 Measurement Procedure

a. The EUT was set up per the test configuration figured in the next section of this chapter to simulate the typical usage per the user's manual.

b. A software provided by client enabled the EUT to transmit data at low, middle and high channel frequencies individually.

c. Measure the 6dB bandwidth and compare with the required limit.

4.4 Test configuration

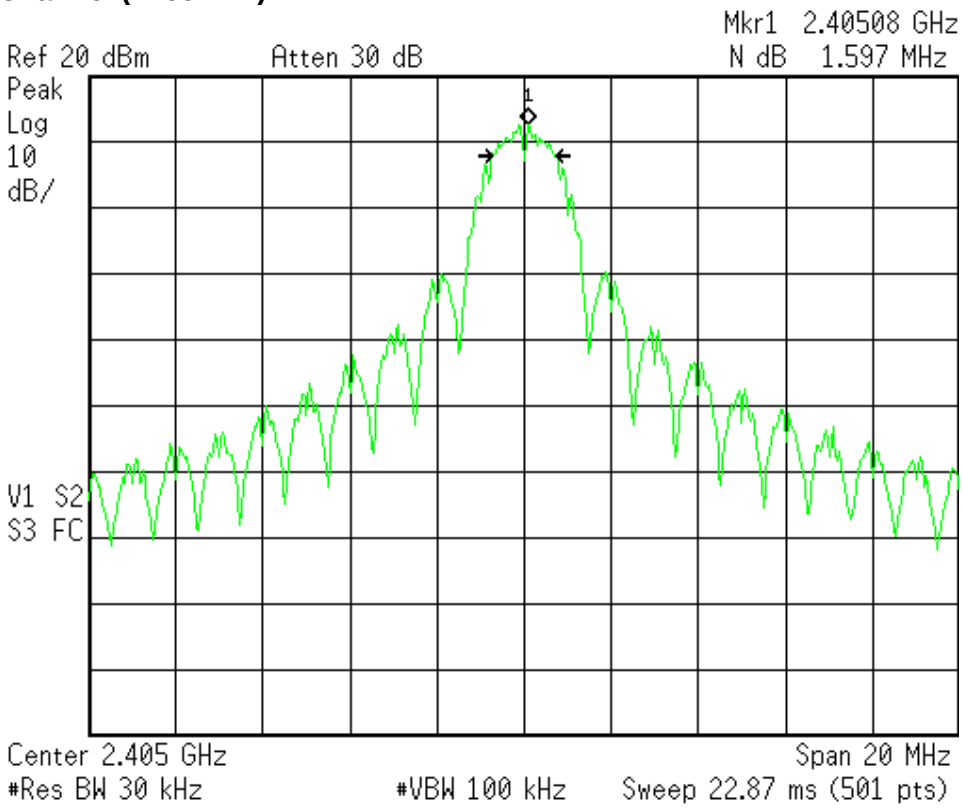


4.5 Test Data

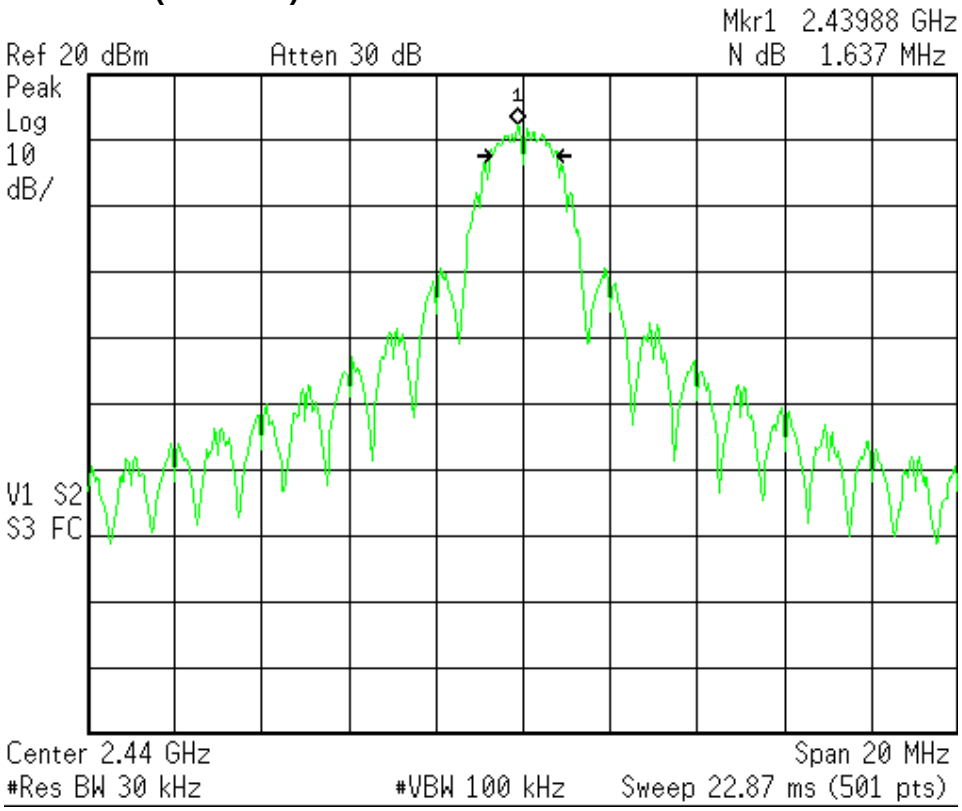
Test Mode : Continuous Transmitting **Tester** **:** Jun

Operating Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (kHz)
2405	1.597	500
2440	1.637	500
2475	2.320	500

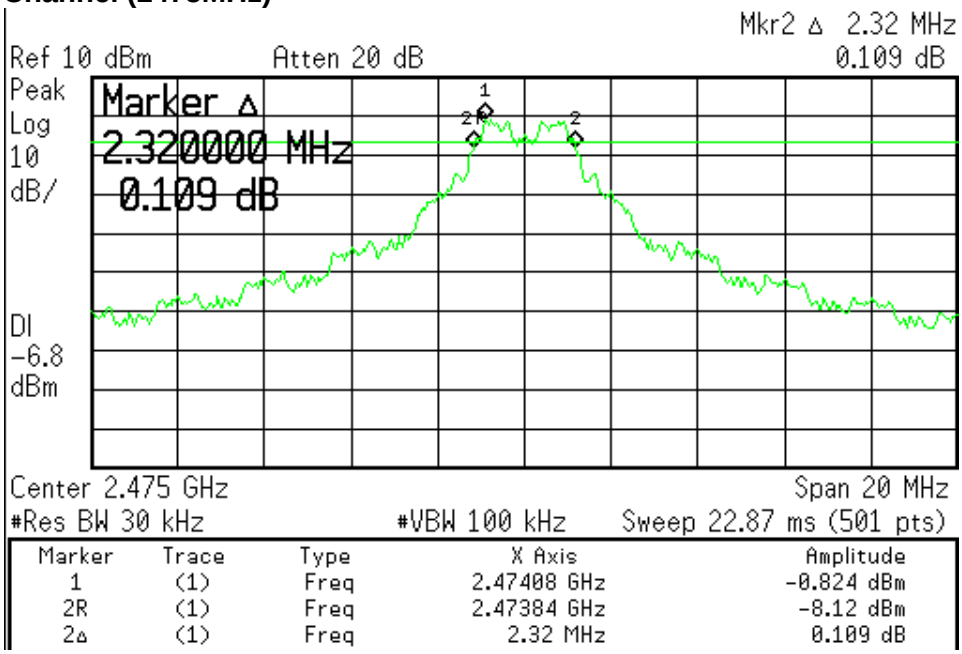
Low Channel (2405MHz)



Middle Channel (2440MHz)



High Channel (2475MHz)



Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.47408 GHz	-0.824 dBm
2R	(1)	Freq	2.47384 GHz	-8.12 dBm
2Δ	(1)	Freq	2.32 MHz	0.109 dB

5 Peak Power Spectral Density

Result: Pass

5.1 Applied standard

According to 15.247(e),for digitally modulated systems,the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

5.2 Test Instruments

Test Site and Equipment	Manufacturer	Model No. /Serial No.	Last Calibration Date	Calibration Due Date
Spectrum Analyzer	Agilent	E4405B/ MY45106706	March 29, 2012	March 29, 2013
Test Site	N.A.	TR13	NCR	NCR

Note:

1. The calibrations are traceable to NML/ROC.
2. NCR:No Calibration Required.

Instrument Setting

RBW	VBW	Detector	Trace	Comment
3kHz	10kHz	Peak	Maxhold	

Climatic Condition

Ambient Temperature：22℃ Relative Humidity :60%

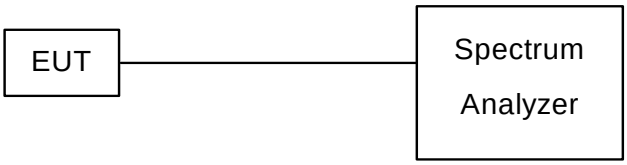
5.3 Measurement Procedure

a. The EUT was set up per the test configuration figured in the next section of this chapter to simulate the typical usage per the user's manual.

b. A software provided by client enabled the EUT to transmit data at low, middle and high channel frequencies individually.

c. Measure the peak power spectrum density and compare with the required limit.

5.4 Test configuration



5.5 Test Data

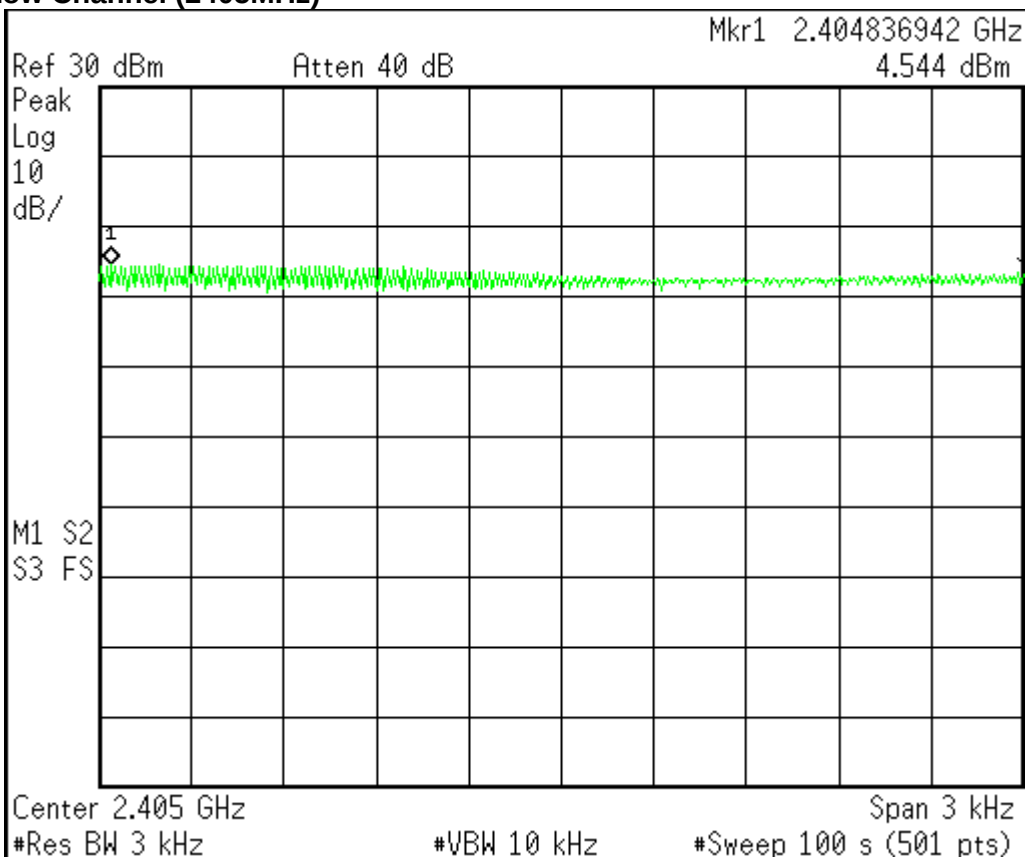
Test Mode : Continuous Transmitting **Tester** **:** Jun

Operating Frequency (MHz)	Reading Data (dBm)	Correction Factor (dB)	Emission (dBm)	Limit (dBm)	Margin (dBm)
2405	4.54	0.8	5.34	8	2.66
2440	2.84	0.8	3.64	8	4.36
2475	-9.83	0.8	-9.03	8	17.03

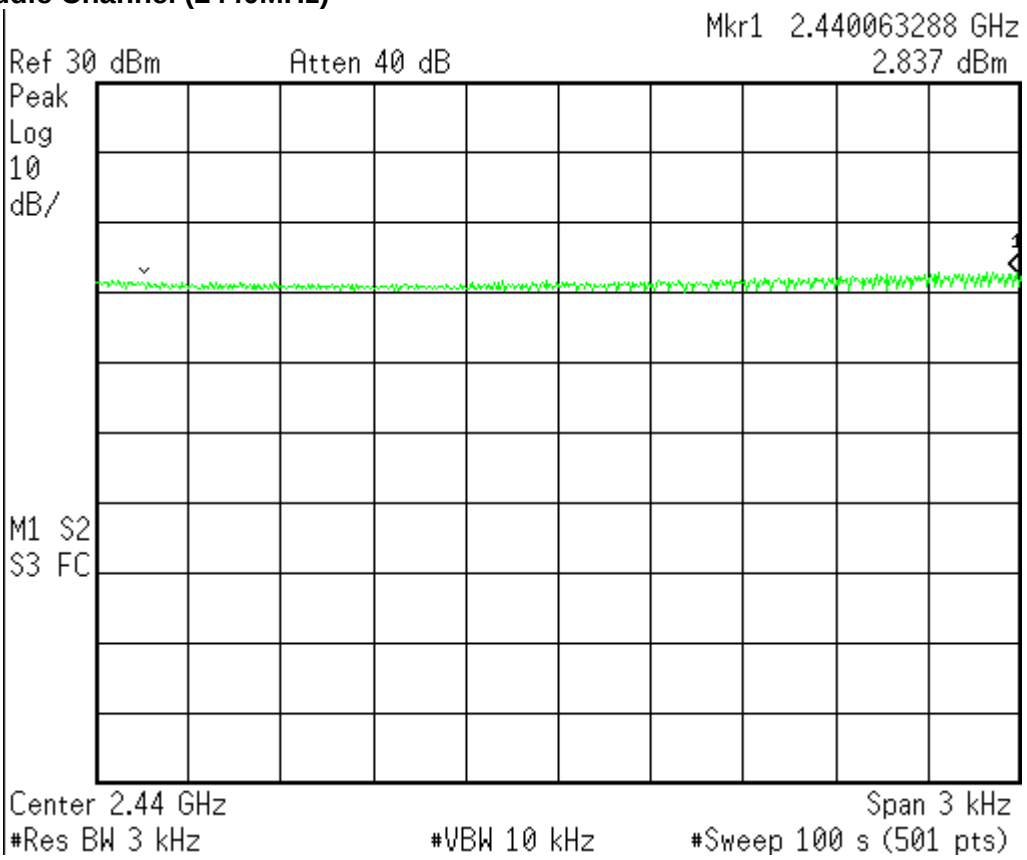
Note:

1. Correction Factor (dB) = Cable Loss + Attenuator
2. Emission (dBm) = Reading Data + Correction Factor
3. Margin (dB) = Limit – Emission

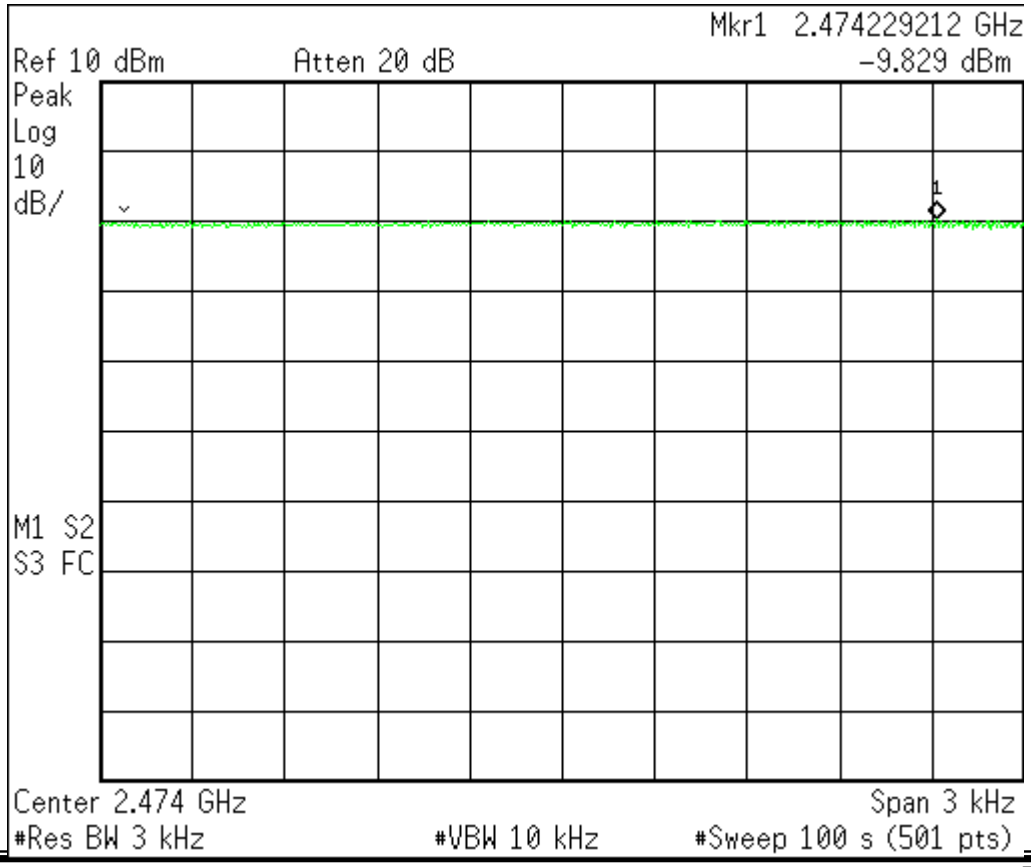
Low Channel (2405MHz)



Middle Channel (2440MHz)



High Channel (2475MHz)



6 Radiated Emission

Result: Pass

6.1 Applied standard

According to 15.247(c),in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 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).

6.2 Test Instruments

Test Site and Equipment	Manufacturer	Model No./ Serial No.	Last Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESCS 30/ 836858/020	Sept. 10, 2012	Sept. 10, 2013
Spectrum Analyzer	Agilent	FSP40/ 100031	July 11, 2012	July 11, 2013
Broadband Antenna	R&S	HL-562/ 830547/010	May 2, 2012	May 2, 2013
Antenna	EMCO	3117/ 00082847	March 1, 2012	March 1, 2013
Pre-Amplifier	Mini Circuit	ZKL-2/ 001	July 16, 2012	Jan.16, 2013
Pre-Amplifier	Mini Circuit	ZKL-2/ 002	July 16, 2012	Jan.16, 2013
PRE-AMPLIFIER	MITEQ	JS4-00101800-28-10P/1498979	Dec. 21, 2011	Dec. 21, 2012
PRE-AMPLIFIER	MITEQ	JS4-00101800-28-5A/742309	Dec. 14, 2011	Dec. 14, 2012
RF Cable	JYEBAO	0214/ C0049	July 16, 2012	Jan.16, 2013
RF Cable	JYEBAO	0214/ C0050	July 16, 2012	Jan.16, 2013
RF Cable	H+S	Sucoflex 104/ C0081	Oct. 15, 2012	April 15, 2013
Semi - anechoic Chamber	ETS. LINDGREN	TR11/ 906-A	Feb. 12, 2012	Feb. 12, 2013

Note:

1. The calibrations are traceable to NML/ROC.
2. NCR : No Calibration Required.
3. The calibration date of the semi-anechoic chamber listed above is the date of NSA measurement.

Instrument Setting

RBW	VBW	Detector	Trace	Comment
120kHz	N/A	Quasi-Peak	Maxhold	Below 1GHz
1MHz	3MHz	Peak	Maxhold	Above 1GHz, Peak
1MHz	10Hz	Peak	Maxhold	Above 1GHz, Average

Climatic Condition

Ambient Temperature：24℃ Relative Humidity :53%

6.3 Measurement Procedure

a. The EUT was set up per the test configuration figured in the next section of this chapter to simulate the typical usage per the user's manual.

b. A software provided by client enabled the EUT to transmit and receive data at operating frequency.(if necessary)

c. If the EUT is tabletop equipment, it should be placed on a wooden table with a height of 0.8 meters above the reference ground plane in the semi-anechoic chamber. If the EUT is floor-standing equipment, it should be placed on a non-conducted support with a height of 12 millimeters above the reference ground plane in the semi-anechoic chamber.

d. The EUT is set 3m away from the interference receiving antenna.

e. Rapidly sweep the signal in the test frequency range by using the spectrum through the Maximum-peak detector.

f. Rotate the EUT from 0° to 360° and position the receiving antenna at heights from 1 to 4 meters above the reference ground plane continuously to determine at least six frequencies associated with higher emission levels and record them.

g. Then measure each frequency found from step f. by using the spectrum with rotating the EUT and positioning the receiving antenna height to determine the maximum level.

h. For measurement of frequency below 1000MHz, set the receiver detector to be Quasi-Peak per CISPR 16-1 to find out the maximum level occurred.

i. For measurement of frequency above 1000MHz, set the spectrum detector to be Peak or Average to find out the maximum level occurred, if any.

j. Record frequency, azimuth angle of the turntable, height, and polarization of the receiving antenna and compare the maximum level with the required limit.

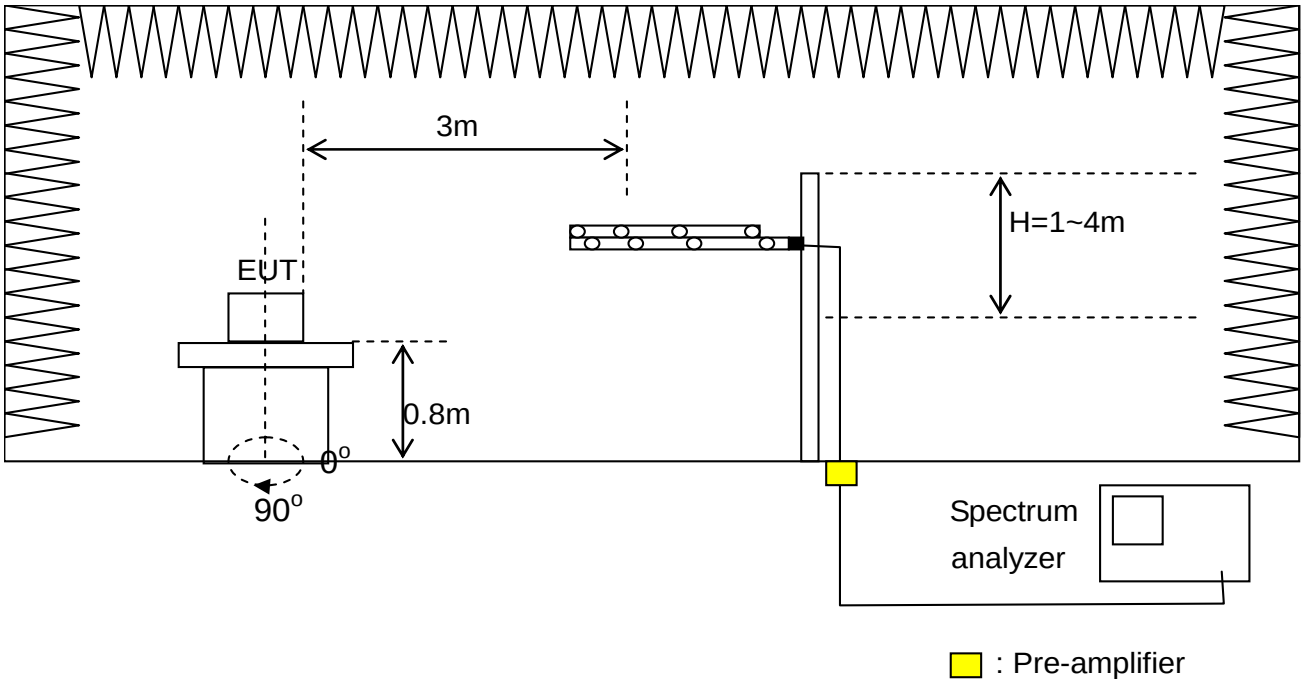
k. Change the receiving antenna to another polarization to measure radiated emission by following step e. to j. again.

l. If the peak emission level below 1000MHz measured from step f. is 4dB lower than the limit specified, then the emission values presented will be the peak value only. Otherwise, accurate Q.P. value will be measured and presented.

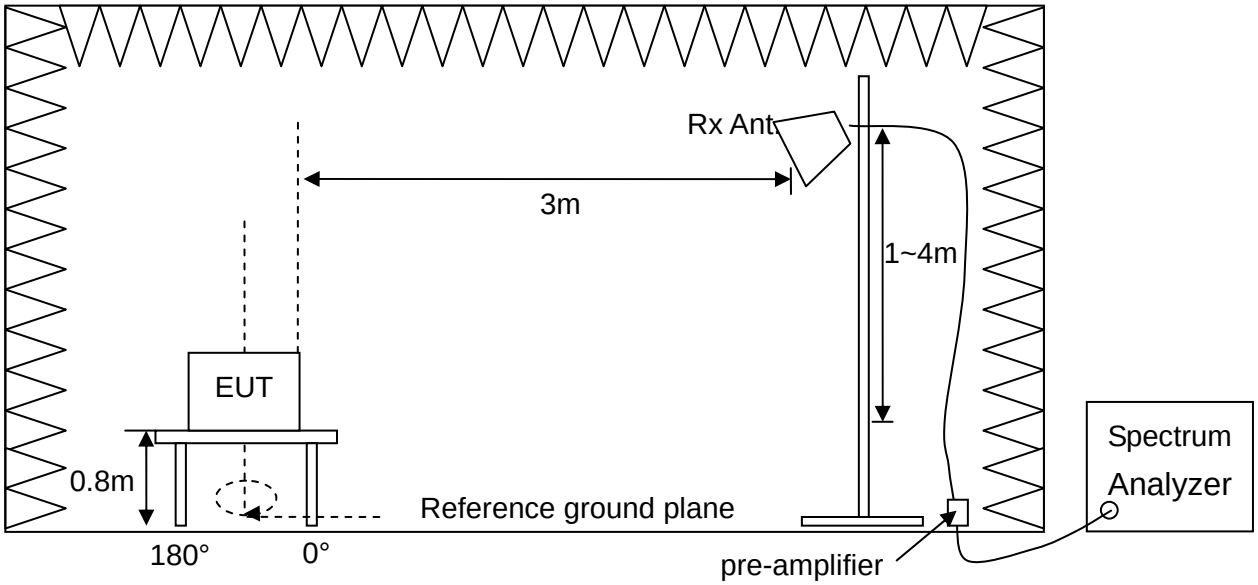
m. If the peak emission level above 1000MHz measured from step f. is 20dB lower than the limit specified, then the emission values presented will be the peak value only. Otherwise, accurate A.V. value will be measured and presented.

6.4 Test configuration

Below 1GHz



Above 1GHz



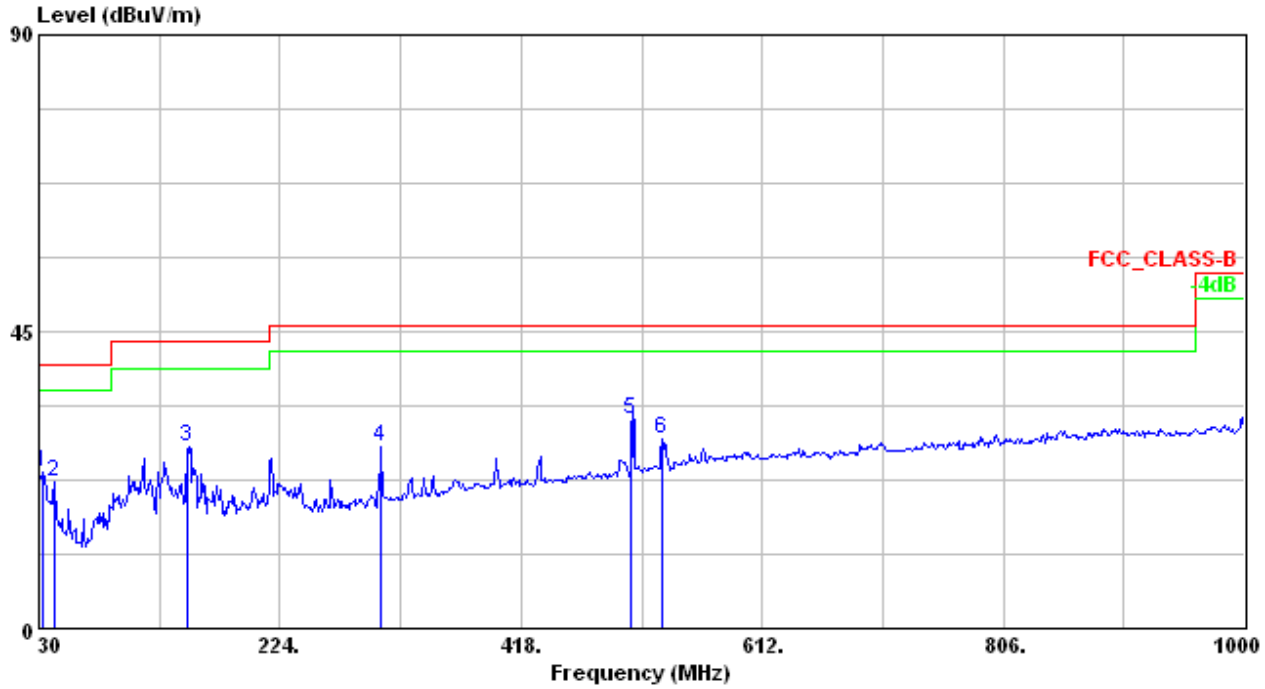
6.5 Test Data

Radiated Emission Measurement below 1000MHz

Test Mode : **Mode 1, 2405MHz, Continuous Transmitting**

Test Distance : 3m **Tester** : Liu

Polarization : Horizontal **Frequency Range** : 30MHz~1000MHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	33.780	23.64	33.96	-10.32	40.00	-16.36	---	---	HORIZONTAL	Peak
2	41.880	22.26	36.66	-14.40	40.00	-17.74	---	---	HORIZONTAL	Peak
3	150.150	27.57	44.70	-17.13	43.50	-15.93	---	---	HORIZONTAL	Peak
4	304.900	27.57	39.37	-11.80	46.00	-18.43	---	---	HORIZONTAL	Peak
5	507.021	31.77	38.60	-6.83	46.00	-14.23	159	237	HORIZONTAL	QP
6	531.000	28.68	34.72	-6.04	46.00	-17.32	---	---	HORIZONTAL	Peak

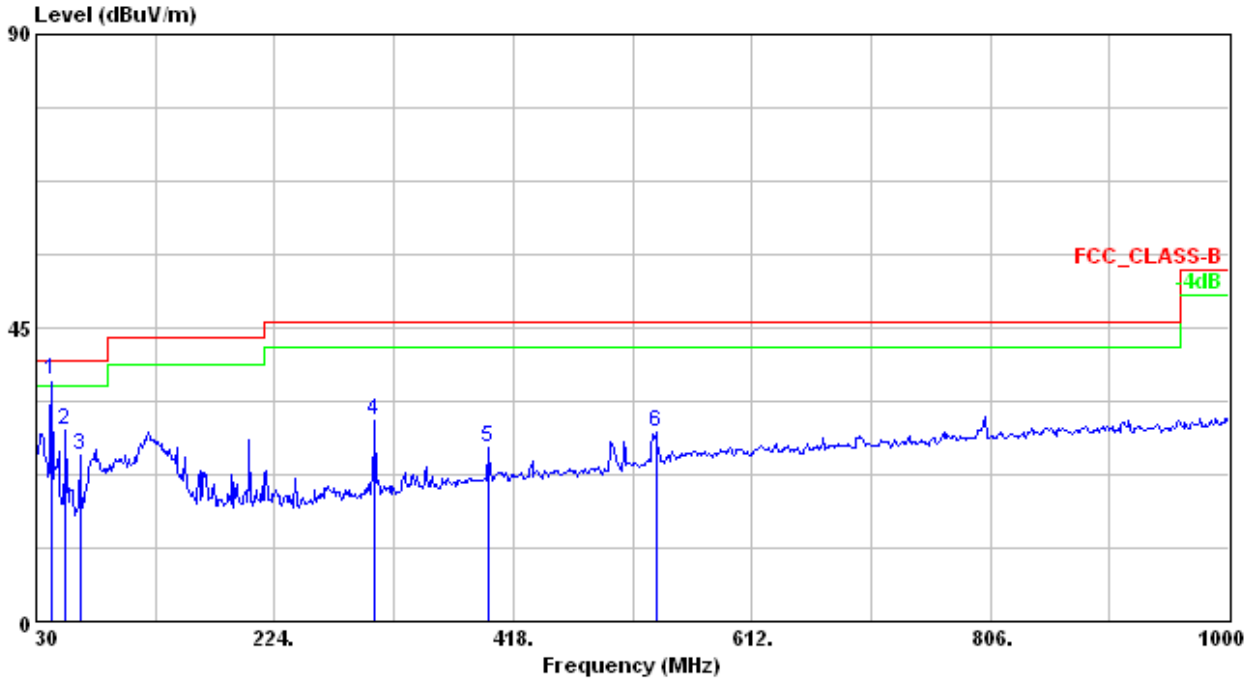
Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode : **Mode 1, 2405MHz, Continuous Transmitting**

Test Distance : 3m **Tester** : Liu

Polarization : Vertical **Frequency Range** : 30MHz~1000MHz

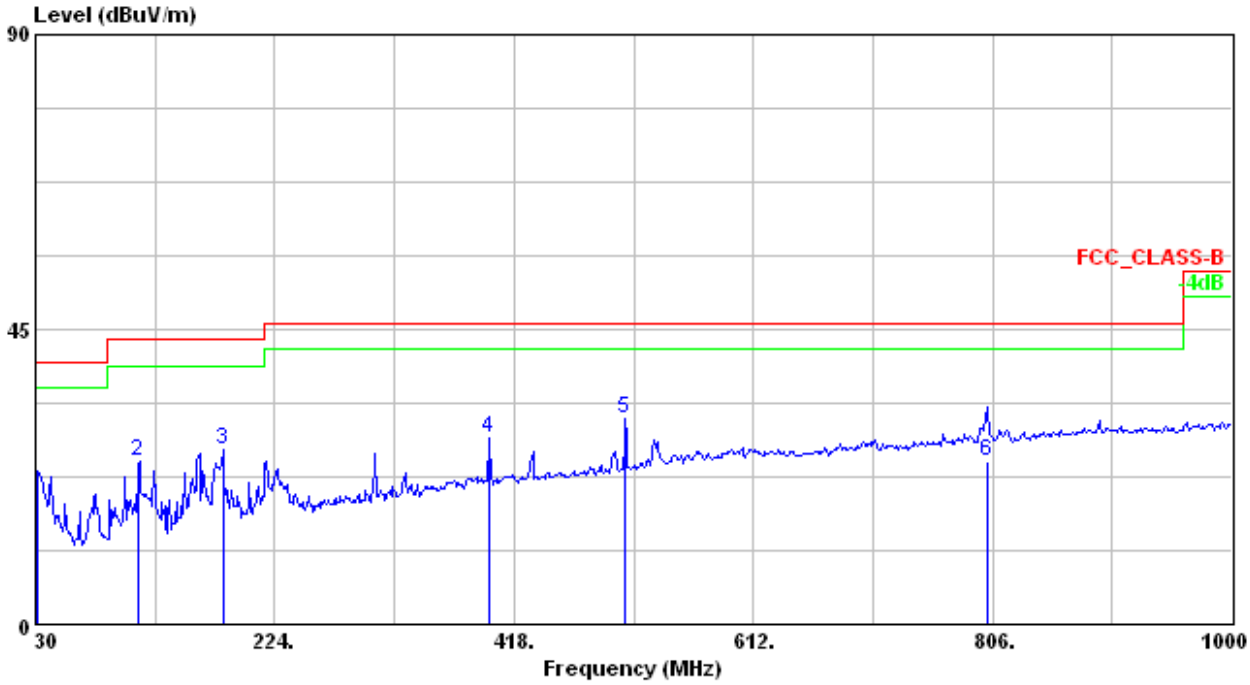


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1 !	41.989	36.86	51.31	-14.45	40.00	-3.14	100	100	VERTICAL	QP
2	54.030	29.32	47.19	-17.87	40.00	-10.68	---	---	VERTICAL	Peak
3	65.640	25.41	44.53	-19.12	40.00	-14.59	---	---	VERTICAL	Peak
4	304.900	30.72	42.52	-11.80	46.00	-15.28	---	---	VERTICAL	Peak
5	398.000	26.55	35.65	-9.10	46.00	-19.45	---	---	VERTICAL	Peak
6	534.500	28.98	34.91	-5.93	46.00	-17.02	---	---	VERTICAL	Peak

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 1, 2440MHz, Continuous Transmitting**				
Test Distance	**:** 3m	**Tester**	**:** Liu		
Polarization	**:** Horizontal	**Frequency Range**	**:** 30MHz~1000MHz		

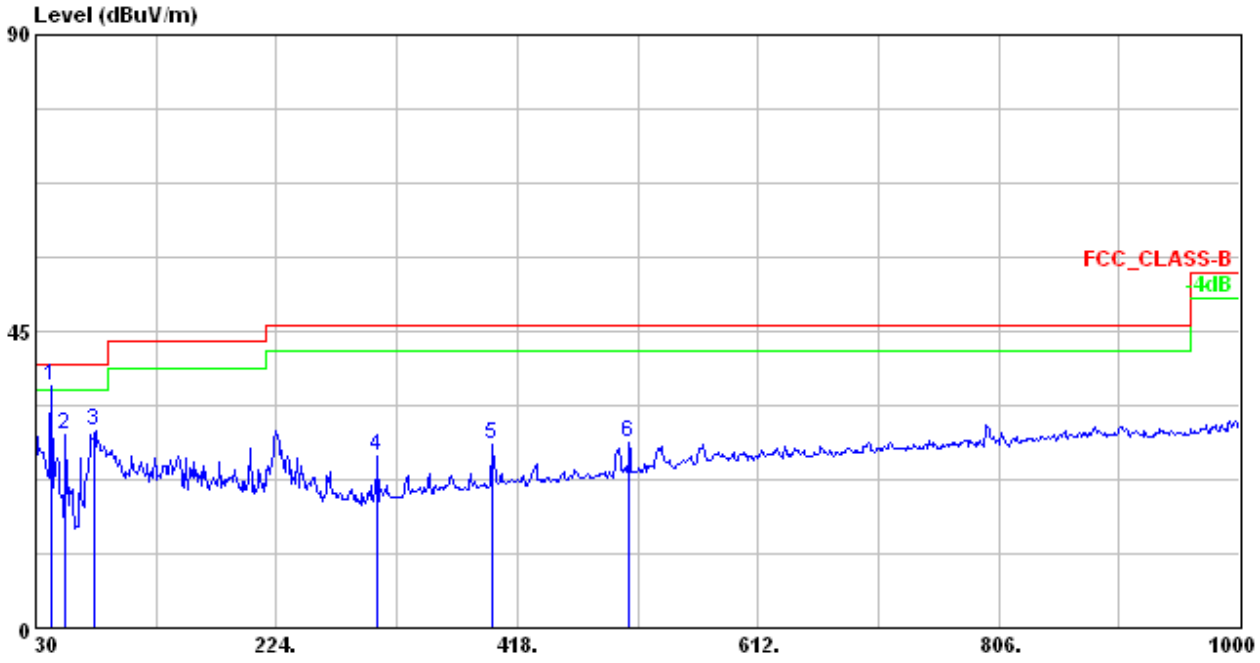


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	31.890	23.38	32.55	-9.17	40.00	-16.62	---	---	HORIZONTAL	Peak
2	113.700	24.95	43.77	-18.82	43.50	-18.55	---	---	HORIZONTAL	Peak
3	182.010	26.63	42.26	-15.63	43.50	-16.87	---	---	HORIZONTAL	Peak
4	398.000	28.29	37.39	-9.10	46.00	-17.71	---	---	HORIZONTAL	Peak
5	507.900	31.48	38.28	-6.80	46.00	-14.52	---	---	HORIZONTAL	Peak
6	801.200	24.81	26.98	-2.17	46.00	-21.19	100	287	HORIZONTAL	QP

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 1, 2440MHz, Continuous Transmitting**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Vertical	**Frequency Range**	**:** 30MHz~1000MHz

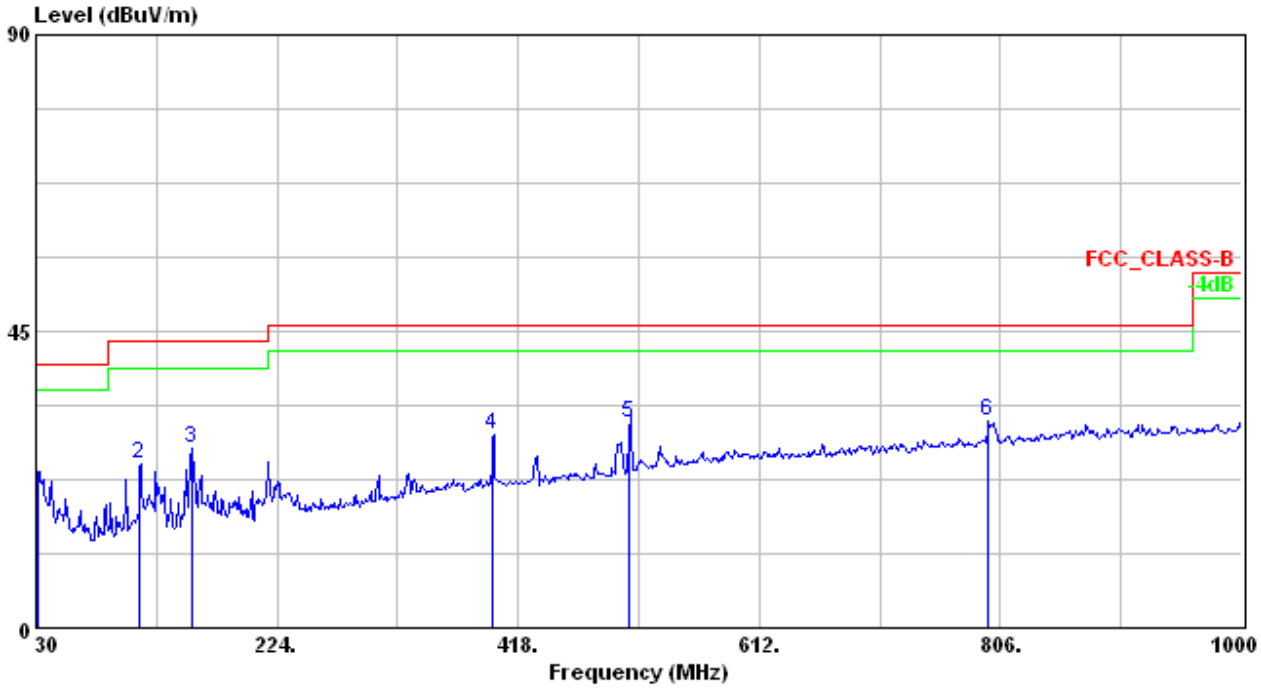


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1 !	41.986	36.65	51.09	-14.44	40.00	-3.35	100	334	VERTICAL	QP
2	54.030	29.33	47.20	-17.87	40.00	-10.67	---	---	VERTICAL	Peak
3	77.790	29.76	49.24	-19.48	40.00	-10.24	---	---	VERTICAL	Peak
4	304.900	25.91	37.71	-11.80	46.00	-20.09	---	---	VERTICAL	Peak
5	398.000	27.73	36.83	-9.10	46.00	-18.27	---	---	VERTICAL	Peak
6	507.900	28.06	34.86	-6.80	46.00	-17.94	---	---	VERTICAL	Peak

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 1, 2475MHz, Continuous Transmitting**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Horizontal	**Frequency Range**	**:** 30MHz~1000MHz

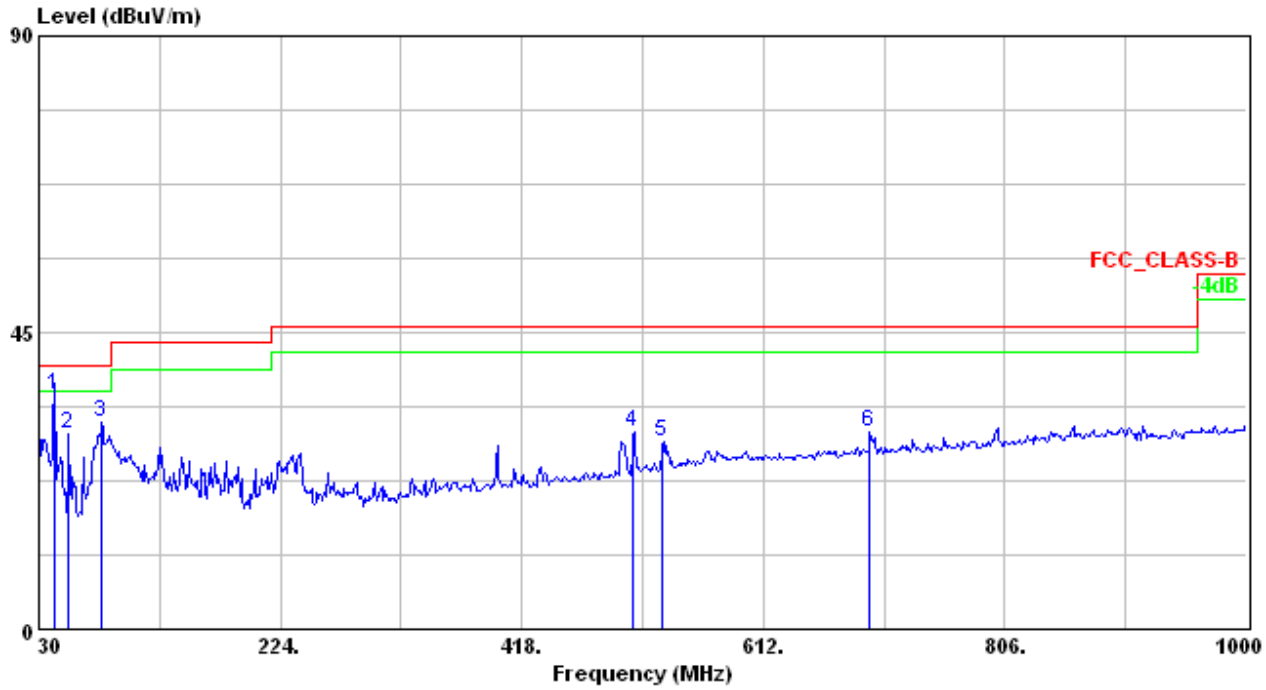


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	31.890	23.73	32.90	-9.17	40.00	-16.27	---	---	HORIZONTAL	Peak
2	113.700	24.89	43.71	-18.82	43.50	-18.61	---	---	HORIZONTAL	Peak
3	155.010	27.33	44.19	-16.86	43.50	-16.17	---	---	HORIZONTAL	Peak
4	398.000	29.20	38.30	-9.10	46.00	-16.80	---	---	HORIZONTAL	Peak
5	507.018	31.13	37.96	-6.83	46.00	-14.87	100	154	HORIZONTAL	QP
6	796.300	31.26	33.50	-2.24	46.00	-14.74	---	---	HORIZONTAL	Peak

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 1, 2475MHz, Continuous Transmitting**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Vertical	**Frequency Range**	**:** 30MHz~1000MHz

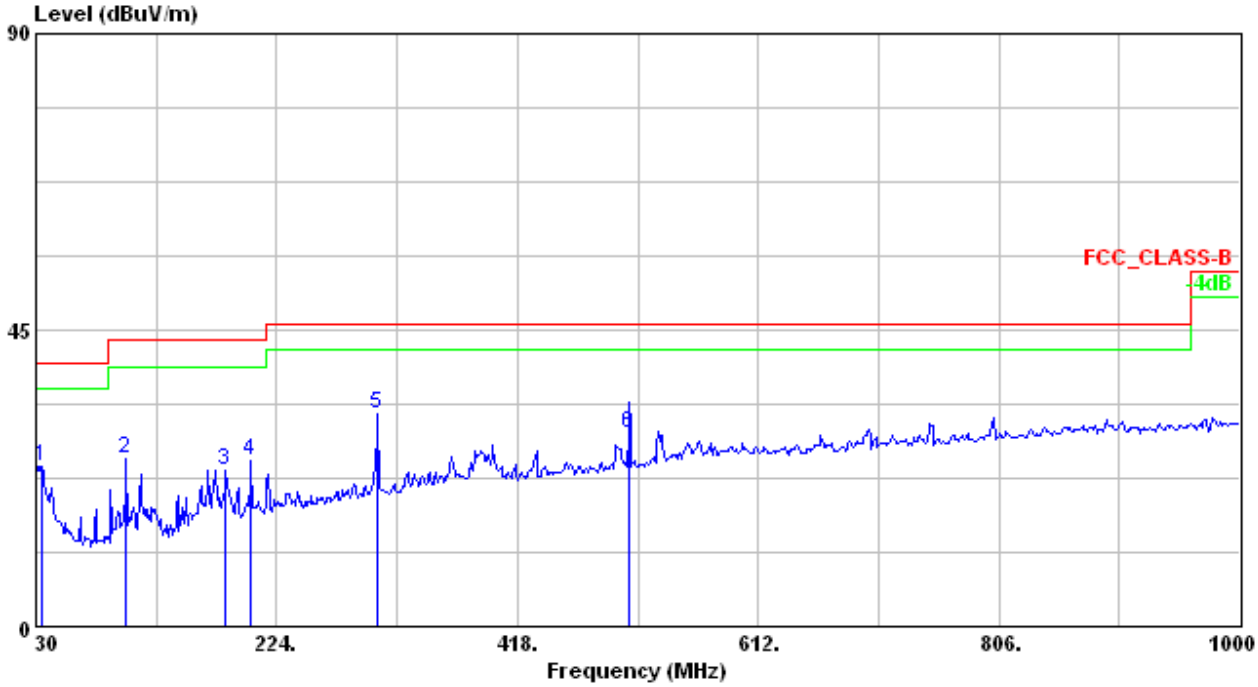


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	41.982	35.50	49.94	-14.44	40.00	-4.50	100	233	VERTICAL	QP
2	54.030	29.54	47.41	-17.87	40.00	-10.46	---	---	VERTICAL	Peak
3	80.490	31.29	50.76	-19.47	40.00	-8.71	---	---	VERTICAL	Peak
4	507.900	29.91	36.71	-6.80	46.00	-16.09	---	---	VERTICAL	Peak
5	531.000	28.35	34.39	-6.04	46.00	-17.65	---	---	VERTICAL	Peak
6	697.600	29.97	33.09	-3.12	46.00	-16.03	---	---	VERTICAL	Peak

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 2, 2405MHz, Continuous Transmitting**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Horizontal	**Frequency Range**	**:** 30MHz~1000MHz

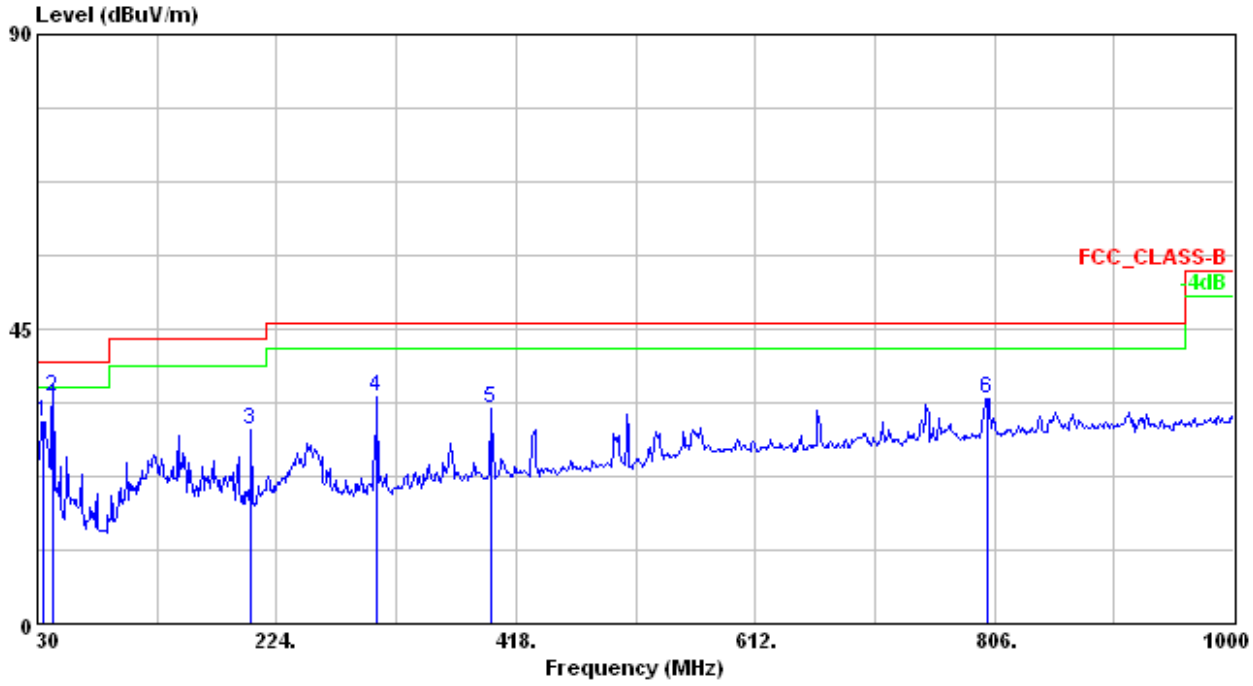


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	34.590	24.42	35.25	-10.83	40.00	-15.58	---	---	HORIZONTAL	Peak
2	102.090	25.53	43.83	-18.30	43.50	-17.97	---	---	HORIZONTAL	Peak
3	182.820	23.71	39.32	-15.61	43.50	-19.79	---	---	HORIZONTAL	Peak
4	203.070	25.21	40.58	-15.37	43.50	-18.29	---	---	HORIZONTAL	Peak
5	304.900	32.31	44.11	-11.80	46.00	-13.69	---	---	HORIZONTAL	Peak
6	507.900	29.19	35.99	-6.80	46.00	-16.81	100	78	HORIZONTAL	QP

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 2, 2405MHz, Continuous Transmitting**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Vertical	**Frequency Range**	**:** 30MHz~1000MHz

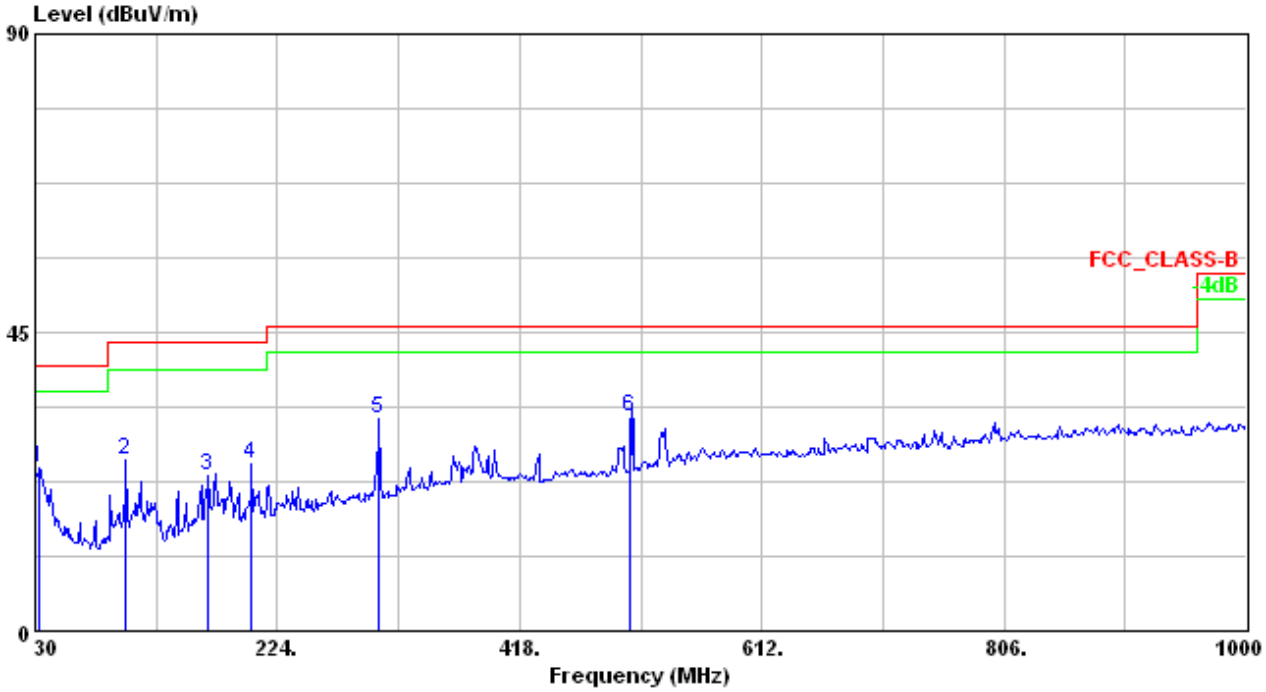


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	35.130	30.82	41.96	-11.14	40.00	-9.18	---	---	VERTICAL	Peak
2 @	41.993	34.55	49.00	-14.45	40.00	-5.45	101	212	VERTICAL	QP
3	203.070	29.67	45.04	-15.37	43.50	-13.83	---	---	VERTICAL	Peak
4	304.900	34.51	46.31	-11.80	46.00	-11.49	---	---	VERTICAL	Peak
5	398.000	32.87	41.97	-9.10	46.00	-13.13	---	---	VERTICAL	Peak
6	799.800	34.44	36.63	-2.19	46.00	-11.56	---	---	VERTICAL	Peak

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 2, 2440MHz, Continuous Transmitting**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Horizontal	**Frequency Range**	**:** 30MHz~1000MHz

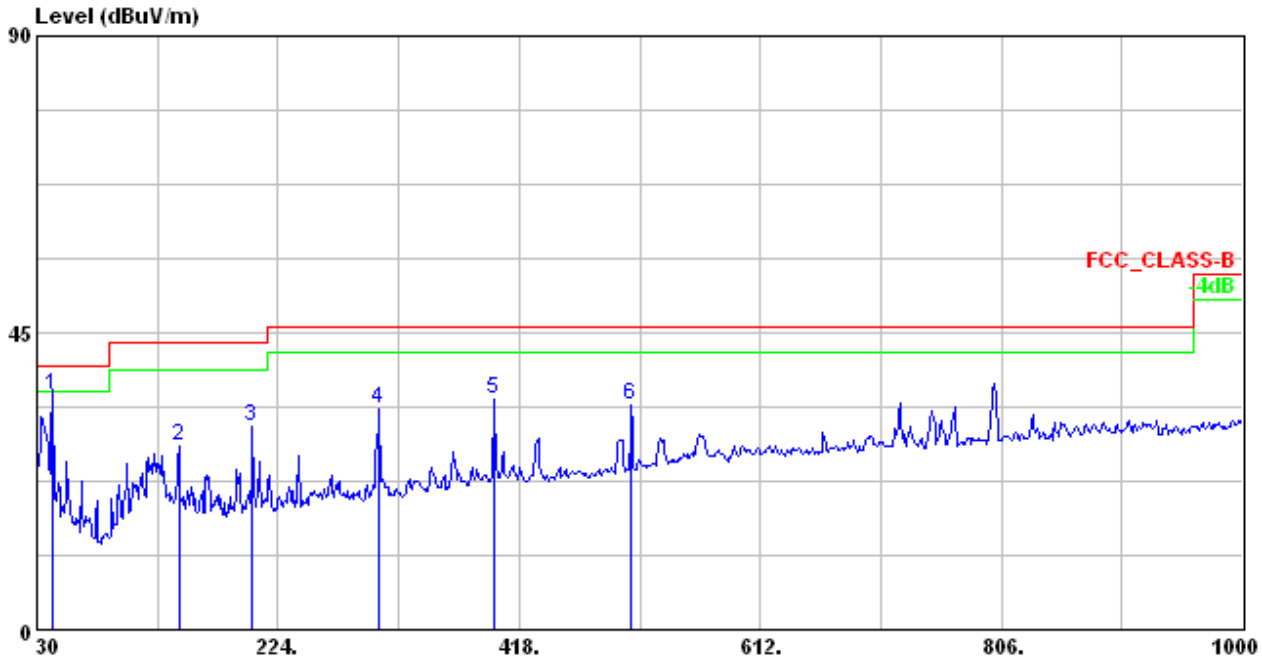


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	33.780	24.43	34.75	-10.32	40.00	-15.57	---	---	HORIZONTAL	Peak
2	102.090	25.82	44.12	-18.30	43.50	-17.68	---	---	HORIZONTAL	Peak
3	167.970	23.52	39.75	-16.23	43.50	-19.98	---	---	HORIZONTAL	Peak
4	203.070	25.19	40.56	-15.37	43.50	-18.31	---	---	HORIZONTAL	Peak
5	304.900	32.04	43.84	-11.80	46.00	-13.96	---	---	HORIZONTAL	Peak
6	507.042	32.40	39.23	-6.83	46.00	-13.60	101	68	HORIZONTAL	QP

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 2, 2440MHz, Continuous Transmitting**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Vertical	**Frequency Range**	**:** 30MHz~1000MHz

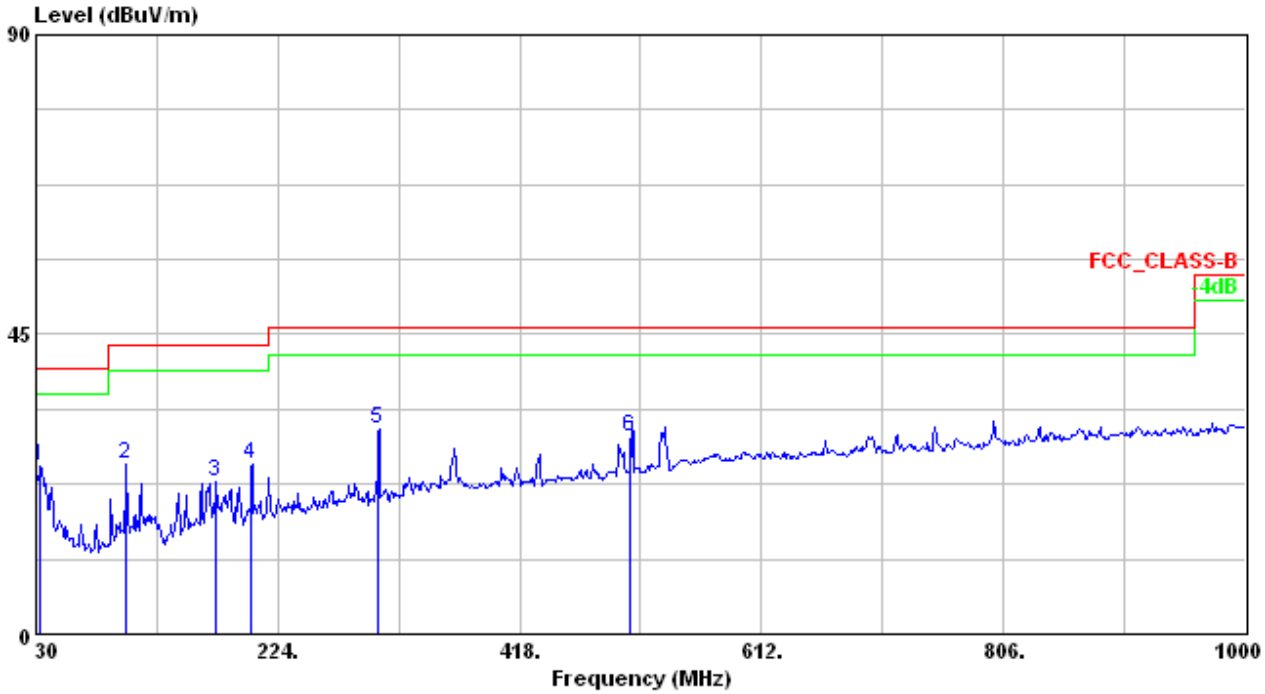


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1 @	42.001	35.67	50.12	-14.45	40.00	-4.33	101	72	VERTICAL	QP
2	144.210	27.72	45.53	-17.81	43.50	-15.78	---	---	VERTICAL	Peak
3	203.070	30.83	46.20	-15.37	43.50	-12.67	---	---	VERTICAL	Peak
4	304.900	33.39	45.19	-11.80	46.00	-12.61	---	---	VERTICAL	Peak
5	398.000	34.85	43.95	-9.10	46.00	-11.15	---	---	VERTICAL	Peak
6	507.900	34.06	40.86	-6.80	46.00	-11.94	---	---	VERTICAL	Peak

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 2, 2475MHz, Continuous Transmitting**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Horizontal	**Frequency Range**	**:** 30MHz~1000MHz

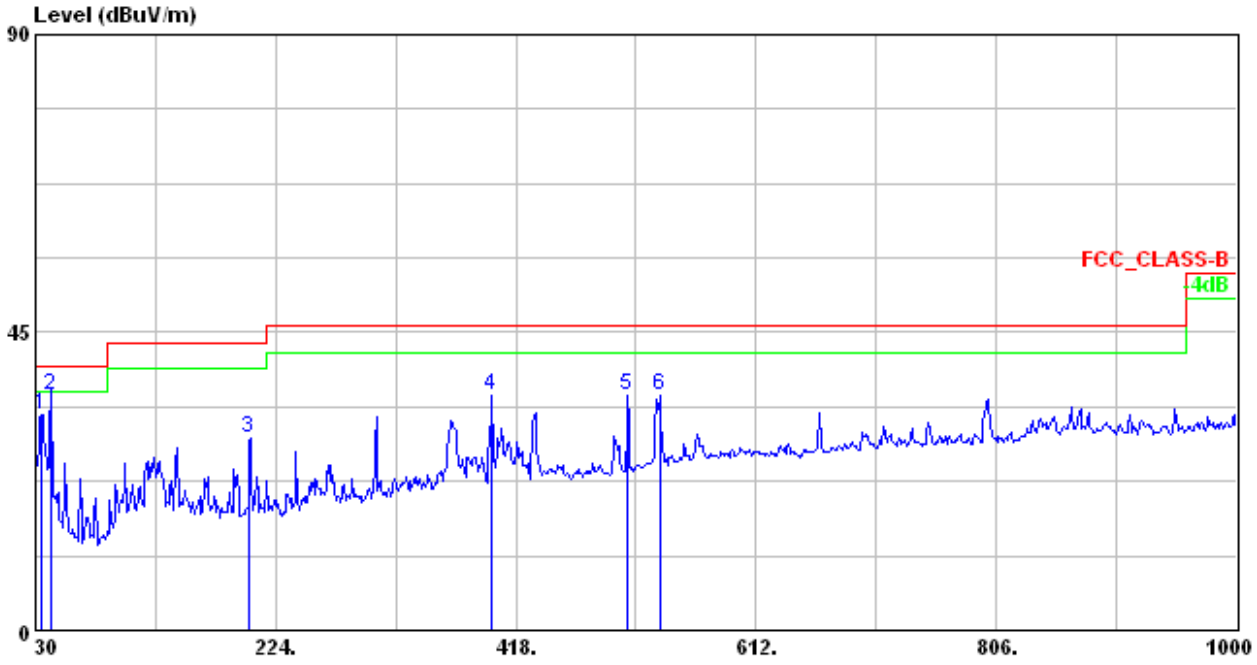


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	33.780	25.15	35.47	-10.32	40.00	-14.85	---	---	HORIZONTAL	Peak
2	102.090	25.42	43.72	-18.30	43.50	-18.08	---	---	HORIZONTAL	Peak
3	173.910	22.75	38.70	-15.95	43.50	-20.75	---	---	HORIZONTAL	Peak
4	203.070	25.39	40.76	-15.37	43.50	-18.11	---	---	HORIZONTAL	Peak
5	304.900	30.88	42.68	-11.80	46.00	-15.12	---	---	HORIZONTAL	Peak
6	507.057	29.52	36.35	-6.83	46.00	-16.48	101	326	HORIZONTAL	QP

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 2, 2475MHz, Continuous Transmitting**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Vertical	**Frequency Range**	**:** 30MHz~1000MHz

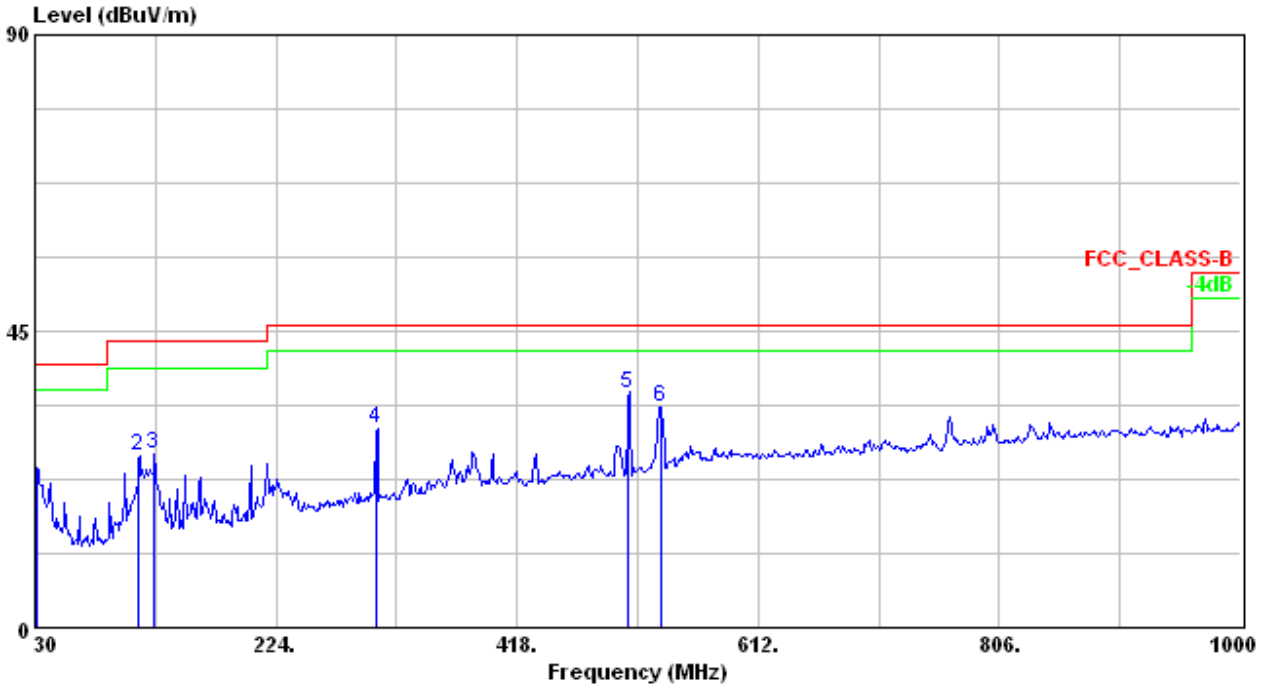


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	35.130	32.65	43.79	-11.14	40.00	-7.35	---	---	VERTICAL	Peak
2	42.008	35.38	49.83	-14.45	40.00	-4.62	101	134	VERTICAL	QP
3	203.070	29.09	44.46	-15.37	43.50	-14.41	---	---	VERTICAL	Peak
4	398.000	35.45	44.55	-9.10	46.00	-10.55	---	---	VERTICAL	Peak
5	507.900	35.60	42.40	-6.80	46.00	-10.40	---	---	VERTICAL	Peak
6	534.500	35.41	41.34	-5.93	46.00	-10.59	---	---	VERTICAL	Peak

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 1, 2405MHz, Continuous Receiving**				
Test Distance	**:** 3m	**Tester**	**:** Liu		
Polarization	**:** Horizontal	**Frequency Range**	**:** 30MHz~1000MHz		



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	31.890	24.30	33.47	-9.17	40.00	-15.70	---	---	HORIZONTAL	Peak
2	113.700	26.05	44.87	-18.82	43.50	-17.45	---	---	HORIZONTAL	Peak
3	125.850	26.25	45.26	-19.01	43.50	-17.25	---	---	HORIZONTAL	Peak
4	304.900	30.17	41.97	-11.80	46.00	-15.83	---	---	HORIZONTAL	Peak
5	507.025	35.46	42.29	-6.83	46.00	-10.54	201	168	HORIZONTAL	QP
6	534.500	33.51	39.44	-5.93	46.00	-12.49	---	---	HORIZONTAL	Peak

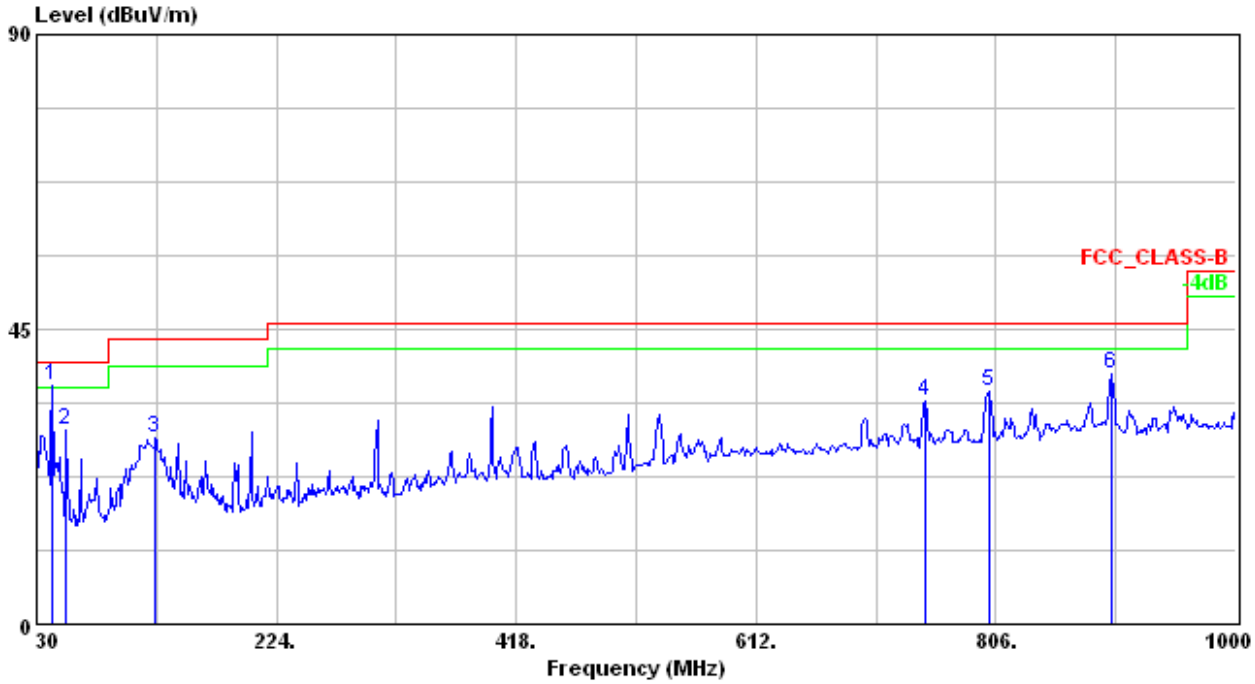
Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode : **Mode 1, 2405MHz, Continuous Receiving**

Test Distance : 3m **Tester** : Liu

Polarization : Vertical **Frequency Range** : 30MHz~1000MHz

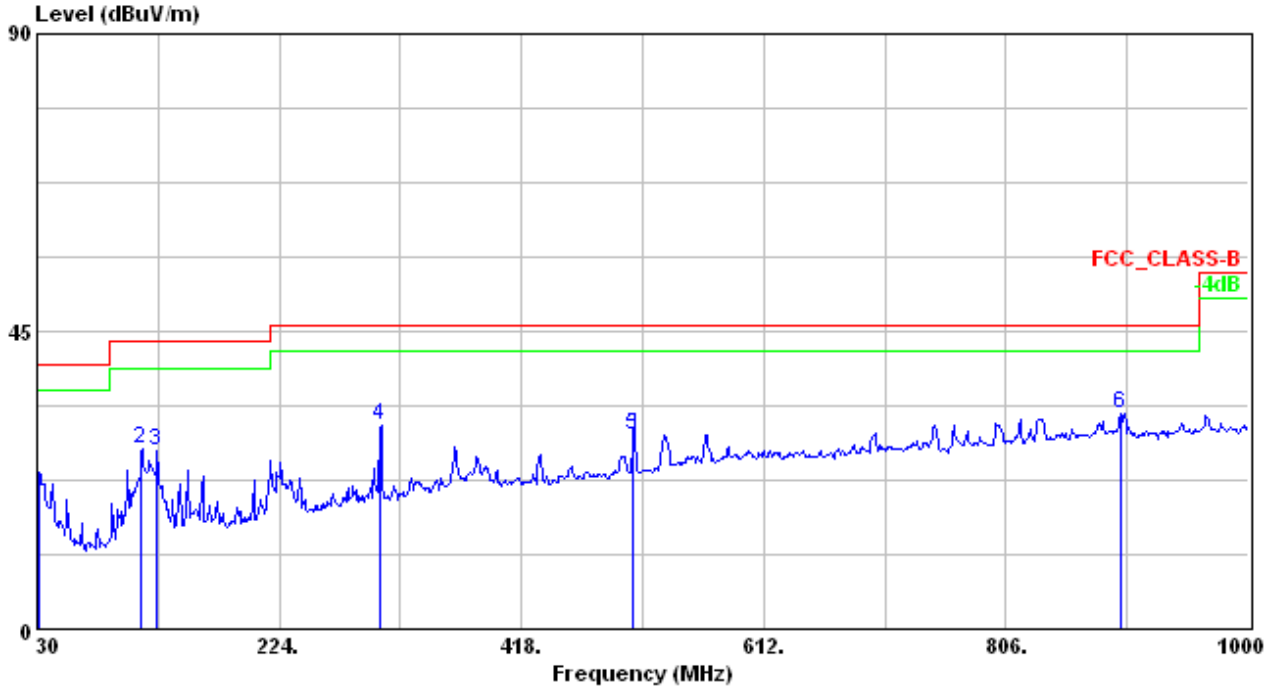


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1 !	41.981	36.48	50.92	-14.44	40.00	-3.52	100	70	VERTICAL	QP
2	54.030	29.53	47.40	-17.87	40.00	-10.47	---	---	VERTICAL	Peak
3	125.850	28.46	47.47	-19.01	43.50	-15.04	---	---	VERTICAL	Peak
4	748.700	33.95	36.86	-2.91	46.00	-12.05	---	---	VERTICAL	Peak
5	801.200	35.59	37.76	-2.17	46.00	-10.41	---	---	VERTICAL	Peak
6	899.200	38.30	38.85	-0.55	46.00	-7.70	---	---	VERTICAL	Peak

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 1, 2440MHz, Continuous Receiving**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Horizontal	**Frequency Range**	**:** 30MHz~1000MHz

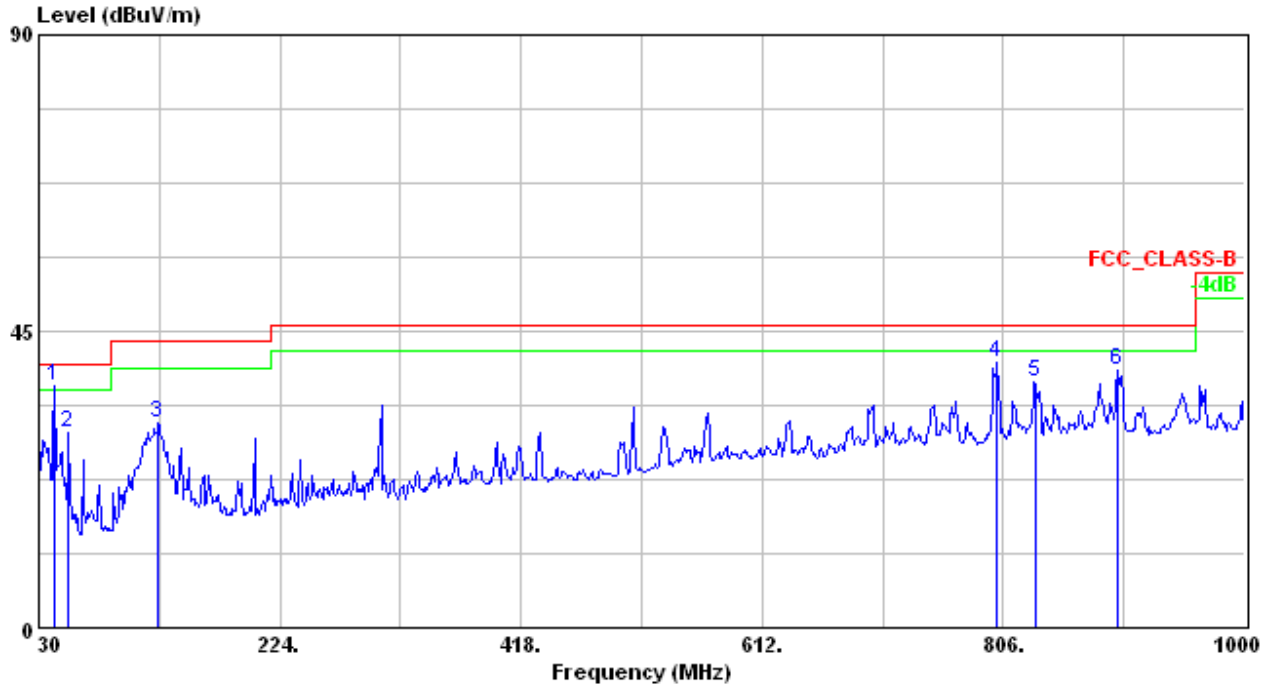


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	31.350	23.38	32.22	-8.84	40.00	-16.62	---	---	HORIZONTAL	Peak
2	113.700	27.17	45.99	-18.82	43.50	-16.33	---	---	HORIZONTAL	Peak
3	125.850	26.80	45.81	-19.01	43.50	-16.70	---	---	HORIZONTAL	Peak
4	304.900	30.66	42.46	-11.80	46.00	-15.34	---	---	HORIZONTAL	Peak
5	507.015	29.29	36.12	-6.83	46.00	-16.71	111	102	HORIZONTAL	QP
6	897.800	32.69	33.27	-0.58	46.00	-13.31	---	---	HORIZONTAL	Peak

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 1, 2440MHz, Continuous Receiving**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Vertical	**Frequency Range**	**:** 30MHz~1000MHz

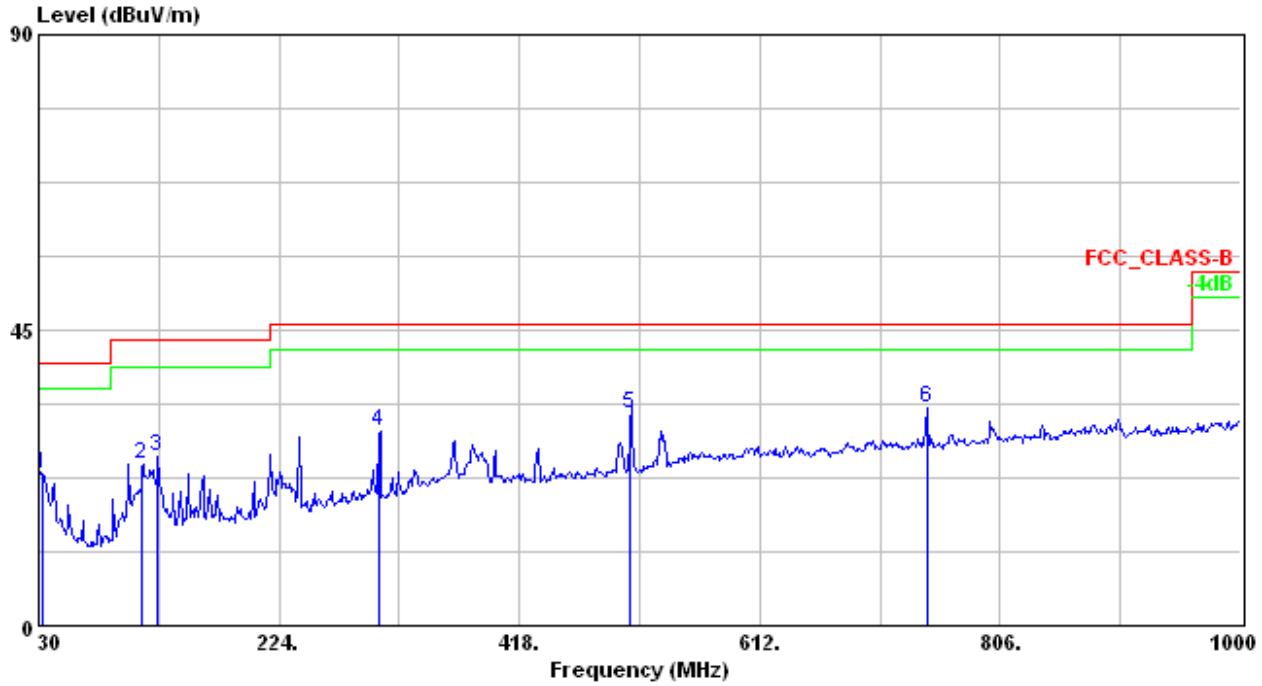


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1 !	41.983	36.76	51.20	-14.44	40.00	-3.24	100	99	VERTICAL	QP
2	54.030	29.62	47.49	-17.87	40.00	-10.38	---	---	VERTICAL	Peak
3	125.850	31.22	50.23	-19.01	43.50	-12.28	---	---	VERTICAL	Peak
4	801.200	40.13	42.30	-2.17	46.00	-5.87	---	---	VERTICAL	Peak
5	831.300	37.40	39.08	-1.68	46.00	-8.60	---	---	VERTICAL	Peak
6	897.800	39.09	39.67	-0.58	46.00	-6.91	---	---	VERTICAL	Peak

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Model	**: Mode 1, 2475MHz, Continuous Receiving**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Horizontal	**Frequency Range**	**:** 30MHz~1000MHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	32.430	23.19	32.69	-9.50	40.00	-16.81	---	---	HORIZONTAL	Peak
2	113.700	24.69	43.51	-18.82	43.50	-18.81	---	---	HORIZONTAL	Peak
3	125.850	25.88	44.89	-19.01	43.50	-17.62	---	---	HORIZONTAL	Peak
4	304.900	29.72	41.52	-11.80	46.00	-16.28	---	---	HORIZONTAL	Peak
5	507.020	32.41	39.24	-6.83	46.00	-13.59	147	97	HORIZONTAL	QP
6	746.600	33.02	35.95	-2.93	46.00	-12.98	---	---	HORIZONTAL	Peak

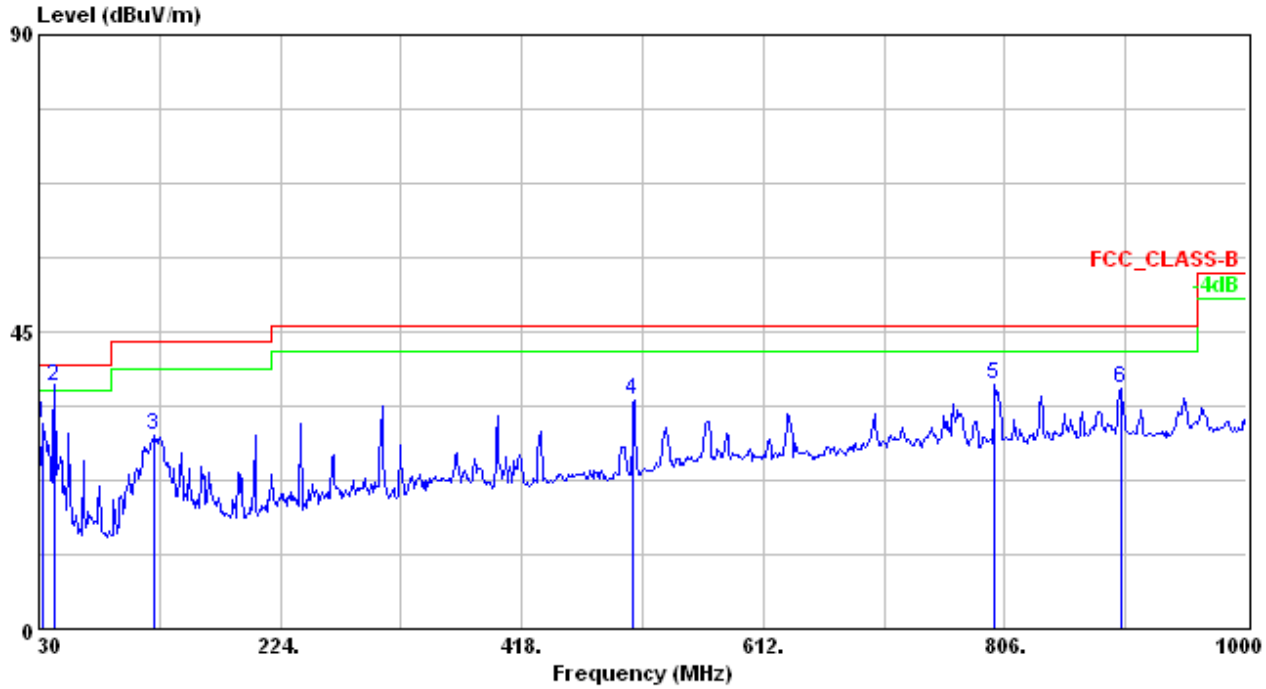
Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Model **: Mode 1, 2475MHz, Continuous Receiving**

Test Distance **:** 3m **Tester** **:** Liu

Polarization **:** Vertical **Frequency Range :** 30MHz~1000MHz

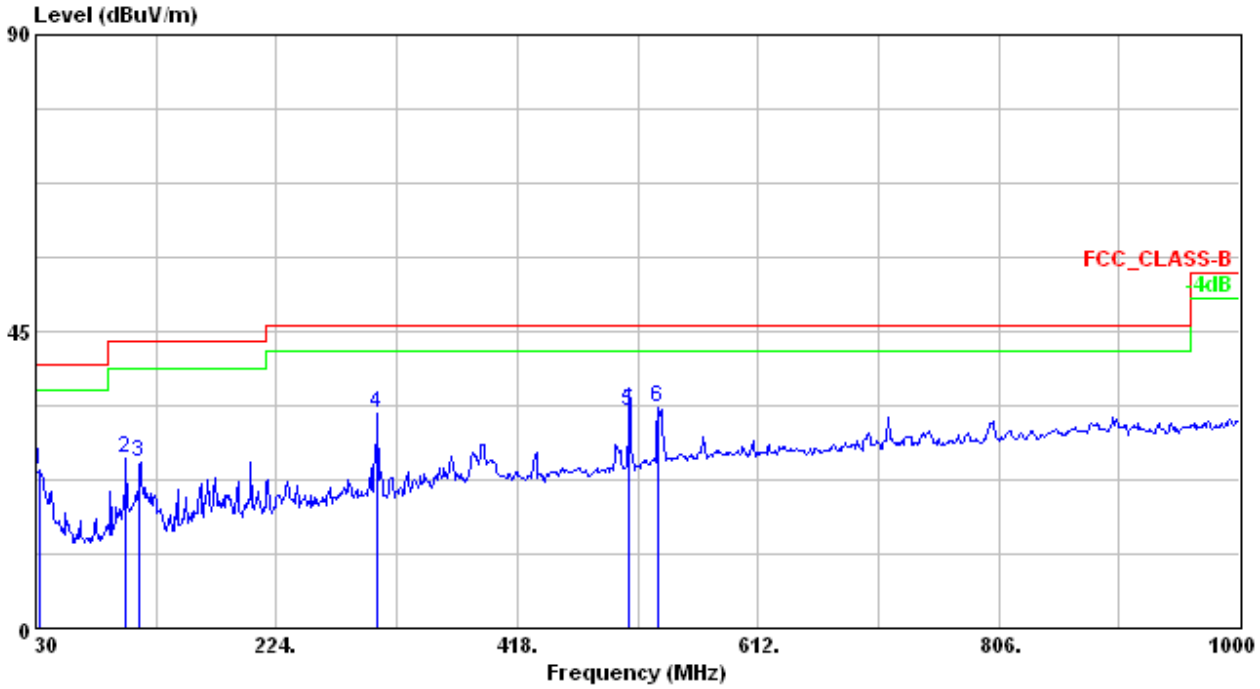


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	33.240	31.21	41.21	-10.00	40.00	-8.79	---	---	VERTICAL	Peak
2 !	41.980	36.70	51.14	-14.44	40.00	-3.30	102	49	VERTICAL	QP
3	122.610	29.43	48.49	-19.06	43.50	-14.07	---	---	VERTICAL	Peak
4	507.900	34.75	41.55	-6.80	46.00	-11.25	---	---	VERTICAL	Peak
5	797.700	36.88	39.11	-2.23	46.00	-9.12	---	---	VERTICAL	Peak
6	899.200	36.40	36.95	-0.55	46.00	-9.60	---	---	VERTICAL	Peak

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 2, 2405MHz, Continuous Receiving**				
Test Distance	**:** 3m	**Tester**	**:** Liu		
Polarization	**:** Horizontal	**Frequency Range**	**:** 30MHz~1000MHz		

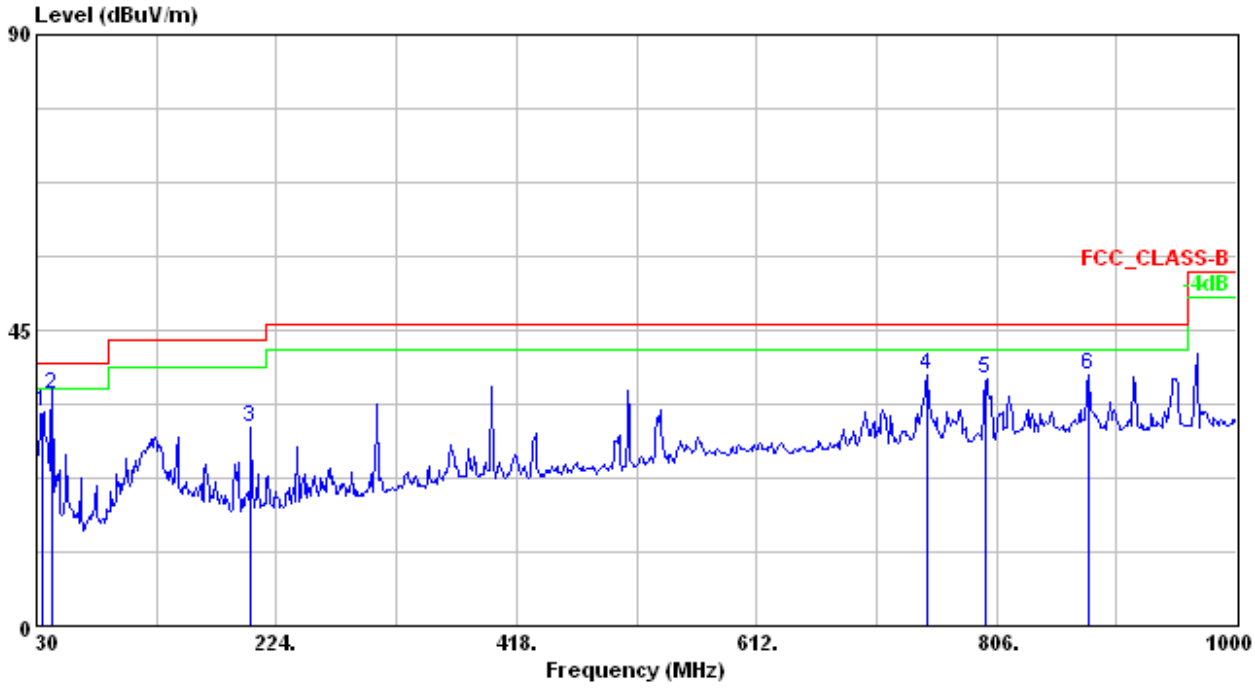


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	32.430	24.05	33.55	-9.50	40.00	-15.95	---	---	HORIZONTAL	Peak
2	102.090	25.74	44.04	-18.30	43.50	-17.76	---	---	HORIZONTAL	Peak
3	113.700	25.29	44.11	-18.82	43.50	-18.21	---	---	HORIZONTAL	Peak
4	304.900	32.46	44.26	-11.80	46.00	-13.54	---	---	HORIZONTAL	Peak
5	507.900	33.00	39.80	-6.80	46.00	-13.00	100	88	HORIZONTAL	QP
6	531.000	33.32	39.36	-6.04	46.00	-12.68	---	---	HORIZONTAL	Peak

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 2, 2405MHz, Continuous Receiving**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Vertical	**Frequency Range**	**:** 30MHz~1000MHz

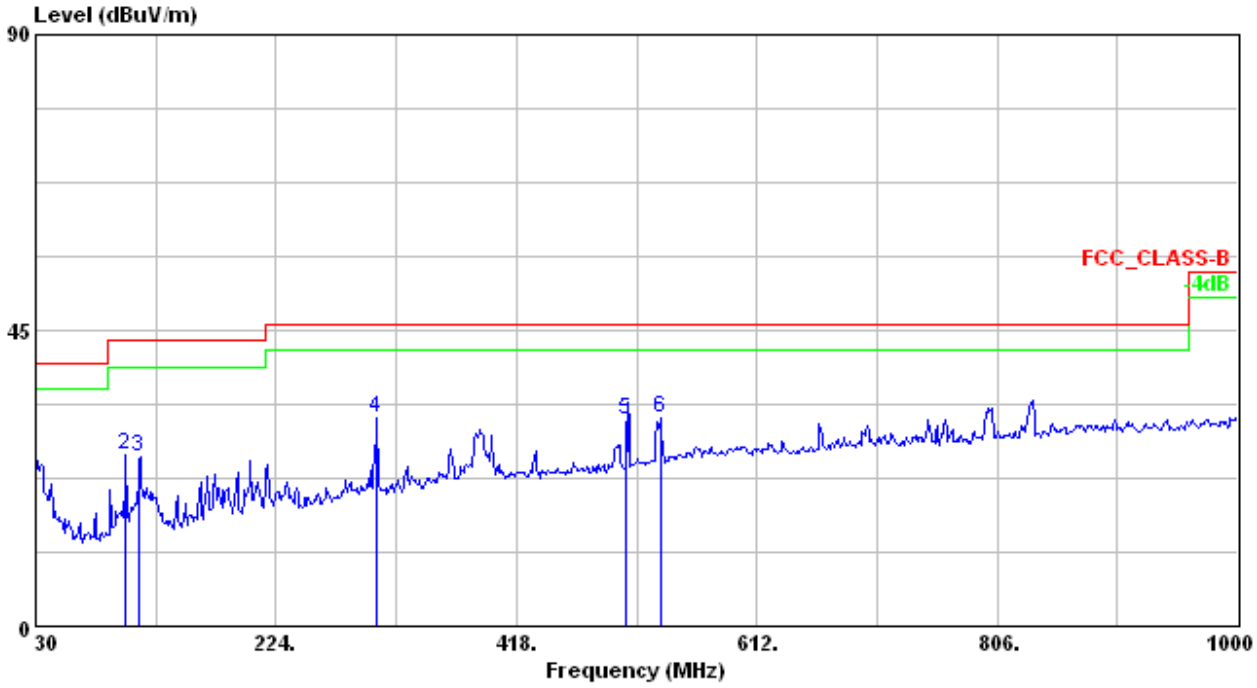


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	35.130	32.63	43.77	-11.14	40.00	-7.37	---	---	VERTICAL	Peak
2 @	41.880	35.16	49.56	-14.40	40.00	-4.84	100	208	VERTICAL	QP
3	203.070	30.18	45.55	-15.37	43.50	-13.32	---	---	VERTICAL	Peak
4	750.100	38.09	41.00	-2.91	46.00	-7.91	---	---	VERTICAL	Peak
5	797.700	37.68	39.91	-2.23	46.00	-8.32	---	---	VERTICAL	Peak
6	880.300	38.31	39.19	-0.88	46.00	-7.69	---	---	VERTICAL	Peak

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 2, 2440MHz, Continuous Receiving**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Horizontal	**Frequency Range**	**:** 30MHz~1000MHz

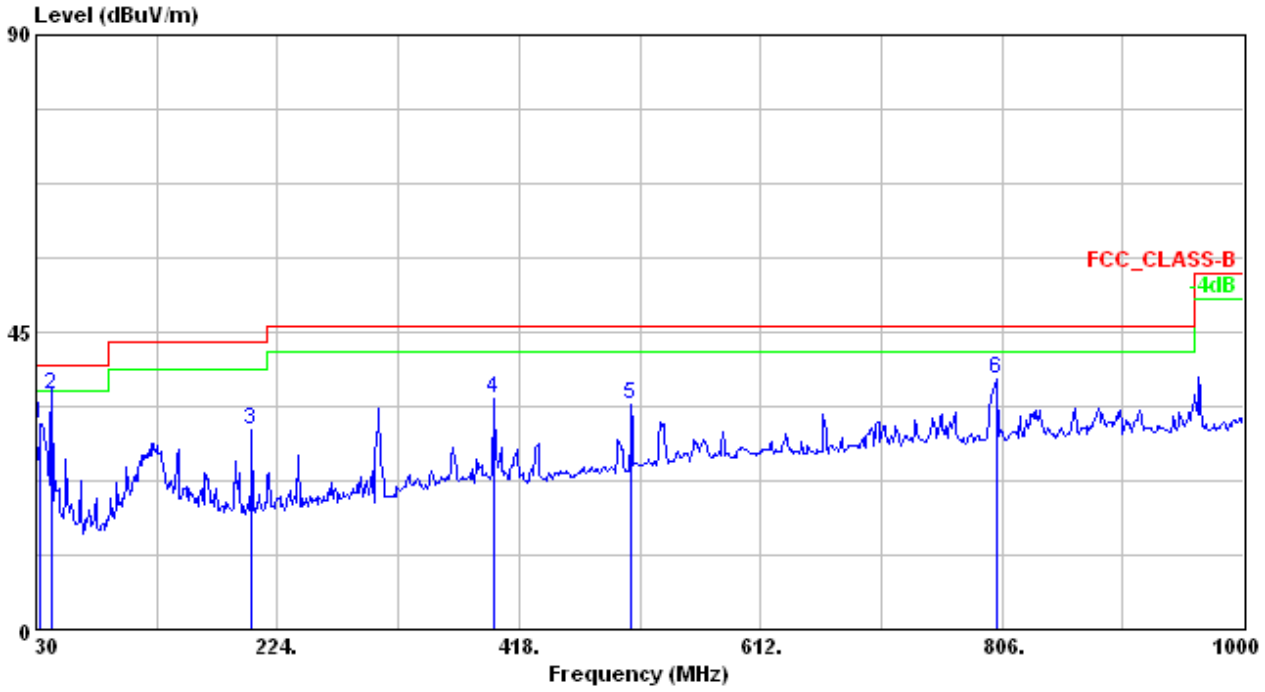


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	30.540	25.10	33.44	-8.34	40.00	-14.90	---	---	HORIZONTAL	Peak
2	102.090	25.91	44.21	-18.30	43.50	-17.59	---	---	HORIZONTAL	Peak
3	113.700	25.76	44.58	-18.82	43.50	-17.74	---	---	HORIZONTAL	Peak
4	304.900	31.81	43.61	-11.80	46.00	-14.19	---	---	HORIZONTAL	Peak
5	507.062	31.43	38.26	-6.83	46.00	-14.57	101	64	HORIZONTAL	QP
6	534.500	31.62	37.55	-5.93	46.00	-14.38	---	---	HORIZONTAL	Peak

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Mode	**: Mode 2, 2440MHz, Continuous Receiving**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Vertical	**Frequency Range**	**:** 30MHz~1000MHz

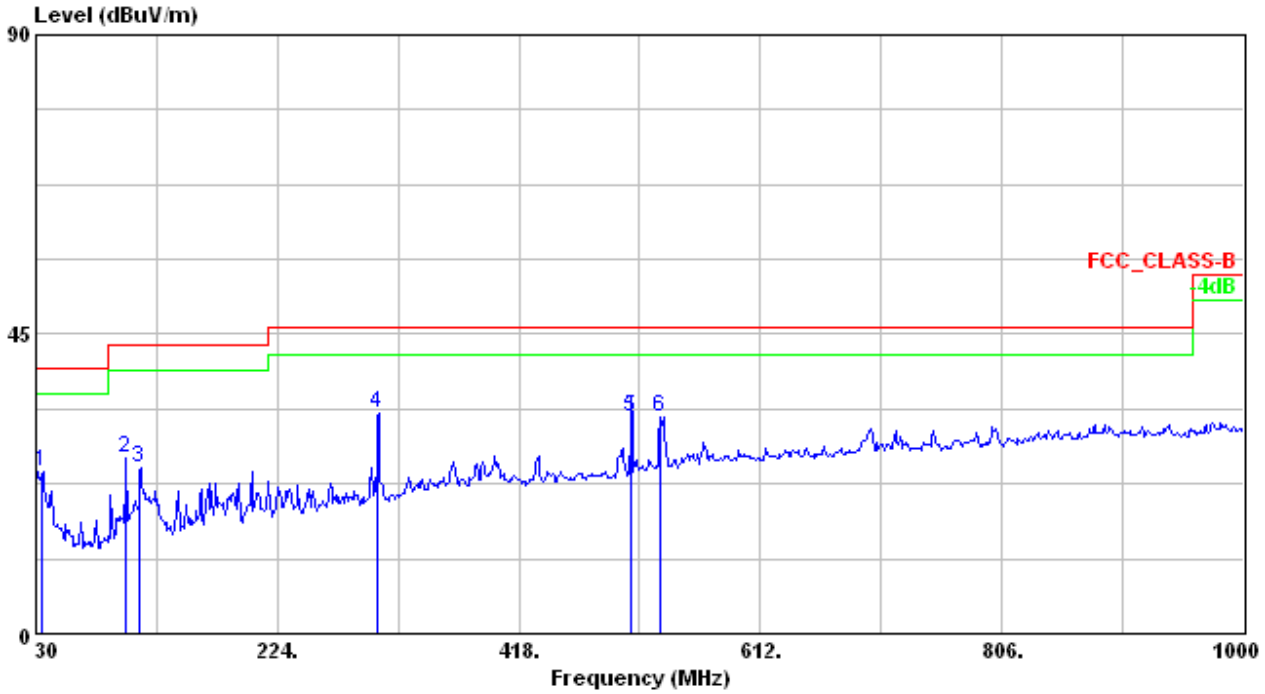


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	33.780	31.20	41.52	-10.32	40.00	-8.80	---	---	VERTICAL	Peak
2	42.005	35.40	49.85	-14.45	40.00	-4.60	101	29	VERTICAL	QP
3	203.070	30.13	45.50	-15.37	43.50	-13.37	---	---	VERTICAL	Peak
4	398.000	35.04	44.14	-9.10	46.00	-10.96	---	---	VERTICAL	Peak
5	507.900	33.93	40.73	-6.80	46.00	-12.07	---	---	VERTICAL	Peak
6	801.200	37.96	40.13	-2.17	46.00	-8.04	---	---	VERTICAL	Peak

Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Model	**: Mode 2, 2475MHz, Continuous Receiving**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Horizontal	**Frequency Range**	**:** 30MHz~1000MHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	35.130	24.26	35.40	-11.14	40.00	-15.74	---	---	HORIZONTAL	Peak
2	102.090	26.48	44.78	-18.30	43.50	-17.02	---	---	HORIZONTAL	Peak
3	113.700	24.98	43.80	-18.82	43.50	-18.52	---	---	HORIZONTAL	Peak
4	304.900	33.04	44.84	-11.80	46.00	-12.96	---	---	HORIZONTAL	Peak
5	507.900	32.43	39.23	-6.80	46.00	-13.57	100	96	HORIZONTAL	QP
6	531.000	32.59	38.63	-6.04	46.00	-13.41	---	---	HORIZONTAL	Peak

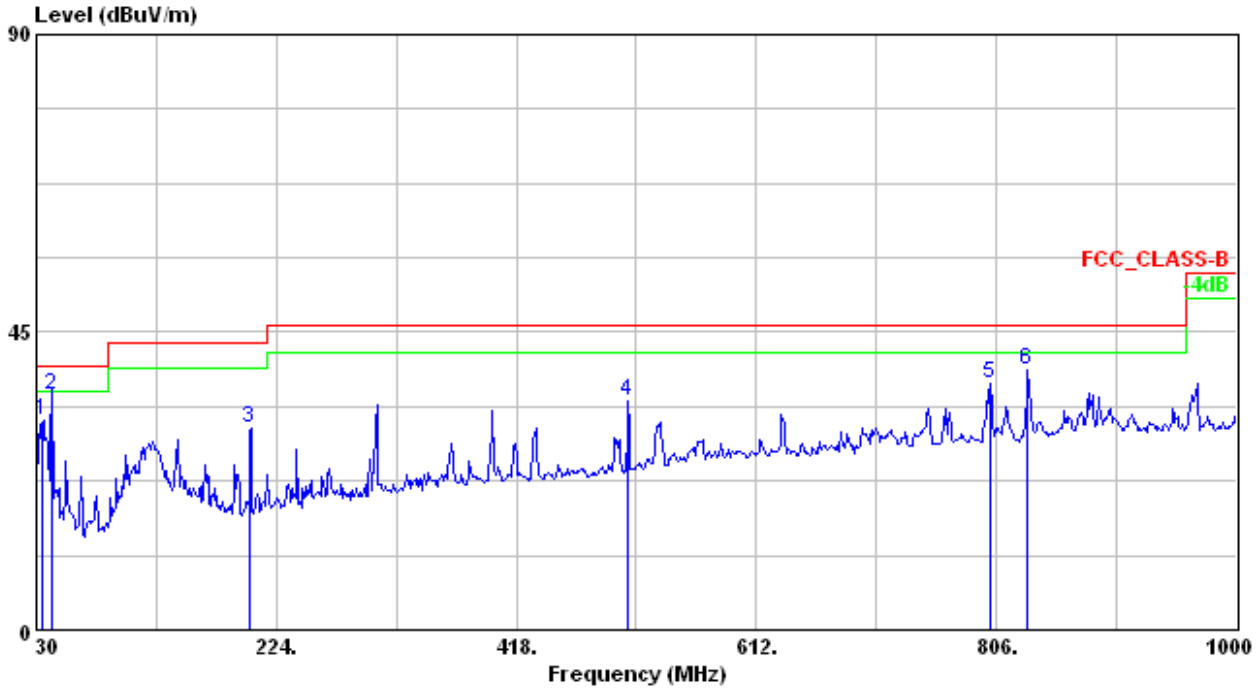
Note：

1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Test Model **: Mode 2, 2475MHz, Continuous Receiving**

Test Distance **:** 3m **Tester** **:** Liu

Polarization **:** Vertical **Frequency Range :** 30MHz~1000MHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	35.130	31.71	42.85	-11.14	40.00	-8.29	---	---	VERTICAL	Peak
2 @	42.001	35.53	49.98	-14.45	40.00	-4.47	101	121	VERTICAL	QP
3	203.070	30.55	45.92	-15.37	43.50	-12.95	---	---	VERTICAL	Peak
4	507.900	34.55	41.35	-6.80	46.00	-11.45	---	---	VERTICAL	Peak
5	801.200	37.16	39.33	-2.17	46.00	-8.84	---	---	VERTICAL	Peak
6	831.300	39.38	41.06	-1.68	46.00	-6.62	---	---	VERTICAL	Peak

Note：

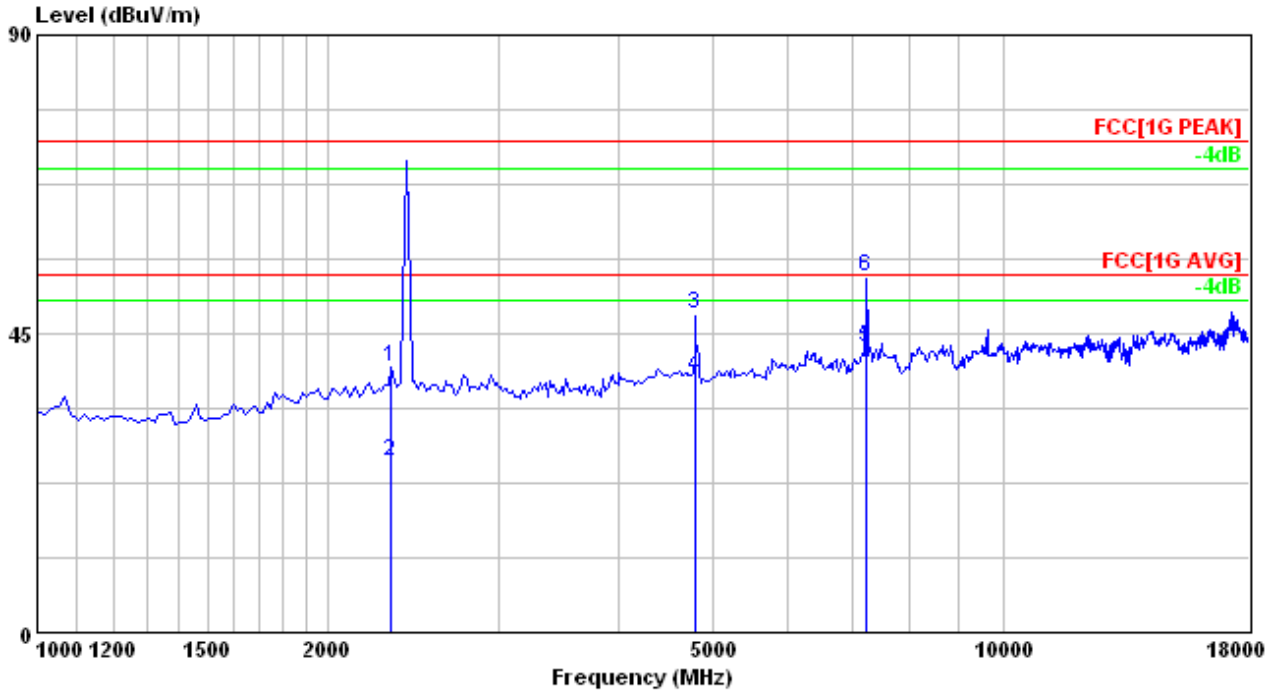
1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Radiated Emission Measurement above 1000MHz

Test Model : **Mode 1, 2405MHz, Continuous Transmitting**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Horizontal **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2326.000	39.99	79.50	-39.51	74.00	-34.01	122	168	HORIZONTAL	Peak
2	2326.000	25.75	65.26	-39.51	54.00	-28.25	122	168	HORIZONTAL	Average
3	4809.015	47.91	83.47	-35.56	74.00	-26.09	128	206	HORIZONTAL	Peak
4	4809.015	38.56	74.12	-35.56	54.00	-15.44	128	206	HORIZONTAL	Average
5	7213.480	42.82	73.13	-30.31	54.00	-11.18	177	339	HORIZONTAL	Average
6	7213.480	53.68	83.99	-30.31	74.00	-20.32	177	339	HORIZONTAL	Peak

Note:

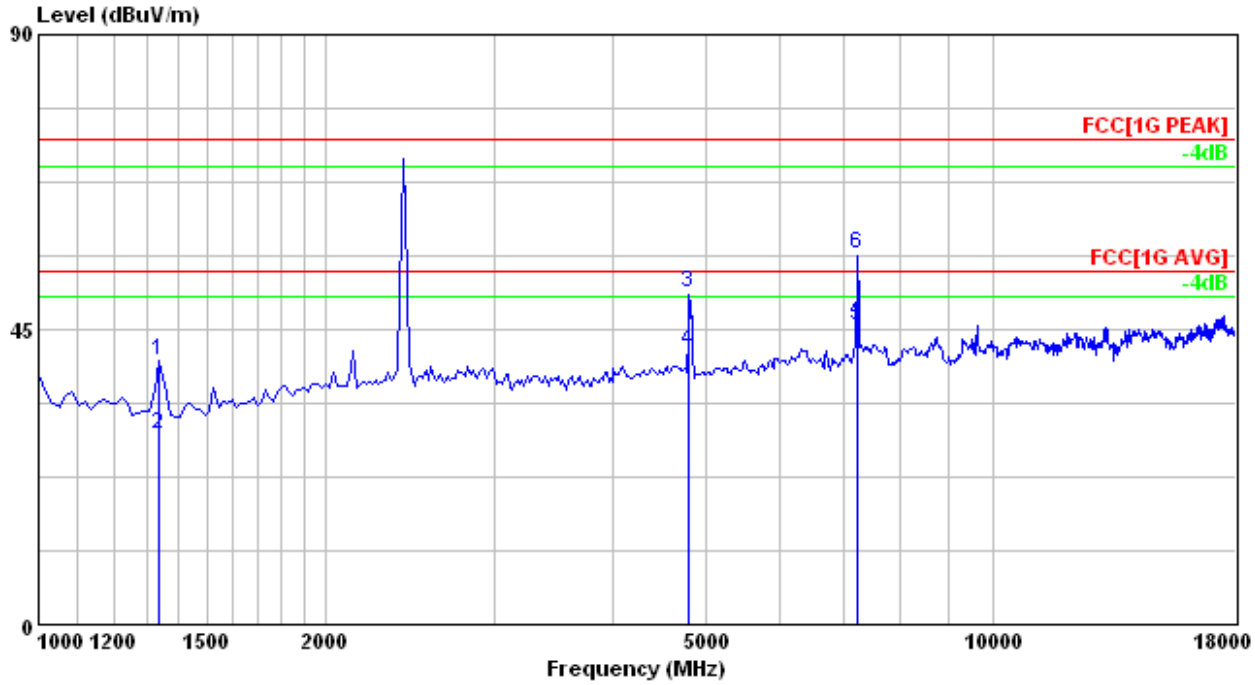
1. Emission Level (dBuV/m) = Reading Value + Correction Factor.
2. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 1, 2405MHz, Continuous Transmitting**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Vertical **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	1340.000	40.41	84.61	-44.20	74.00	-33.59	100	125	VERTICAL	Peak
2	1340.000	28.94	73.14	-44.20	54.00	-25.06	100	125	VERTICAL	Average
3	4811.080	50.73	86.29	-35.56	74.00	-23.27	124	150	VERTICAL	Peak
4	4811.080	41.85	77.41	-35.56	54.00	-12.15	124	150	VERTICAL	Average
5	7213.505	45.72	76.03	-30.31	54.00	-8.28	176	357	VERTICAL	Average
6	7213.505	56.42	86.73	-30.31	74.00	-17.58	176	357	VERTICAL	Peak

Note:

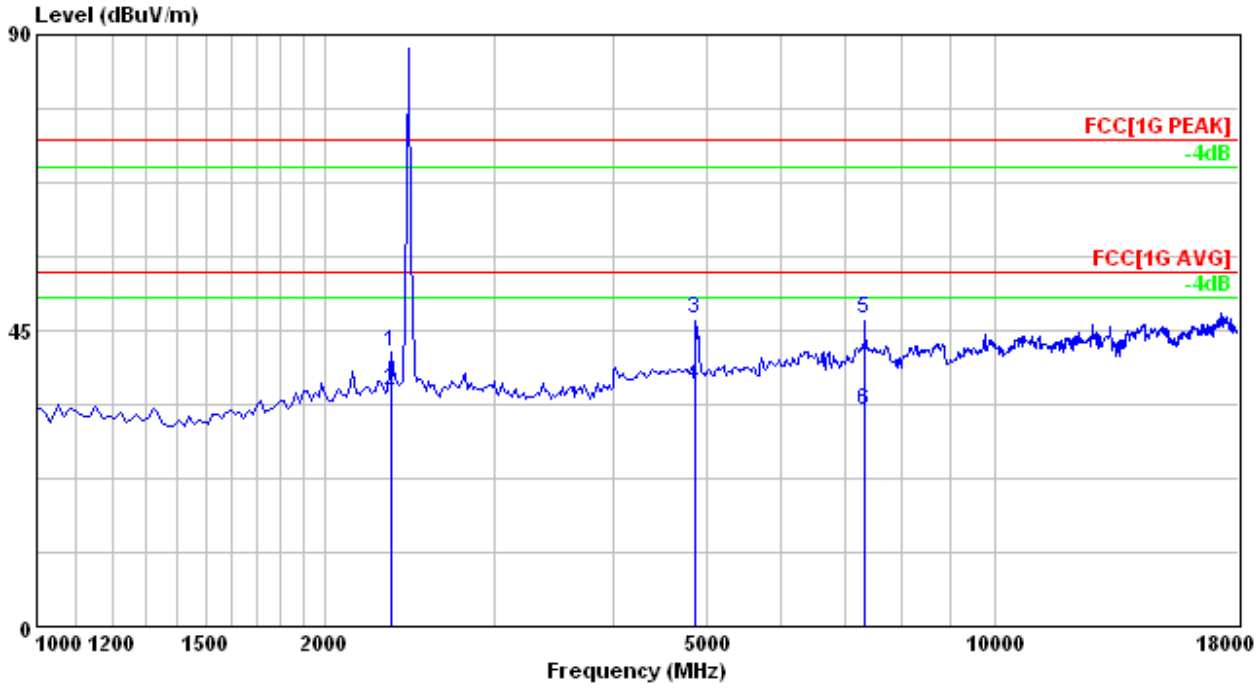
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 1, 2440MHz, Continuous Transmitting**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Horizontal **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2344.000	41.65	81.12	-39.47	74.00	-32.35	122	85	HORIZONTAL	Peak
2	2344.000	35.67	75.14	-39.47	54.00	-18.33	122	85	HORIZONTAL	Average
3	4881.000	46.86	82.36	-35.50	74.00	-27.14	130	277	HORIZONTAL	Peak
4	4881.000	36.79	72.29	-35.50	54.00	-17.21	130	277	HORIZONTAL	Average
5	7321.645	46.76	76.86	-30.10	74.00	-27.24	154	197	HORIZONTAL	Peak
6	7321.645	33.00	63.10	-30.10	54.00	-21.00	154	197	HORIZONTAL	Average

Note:

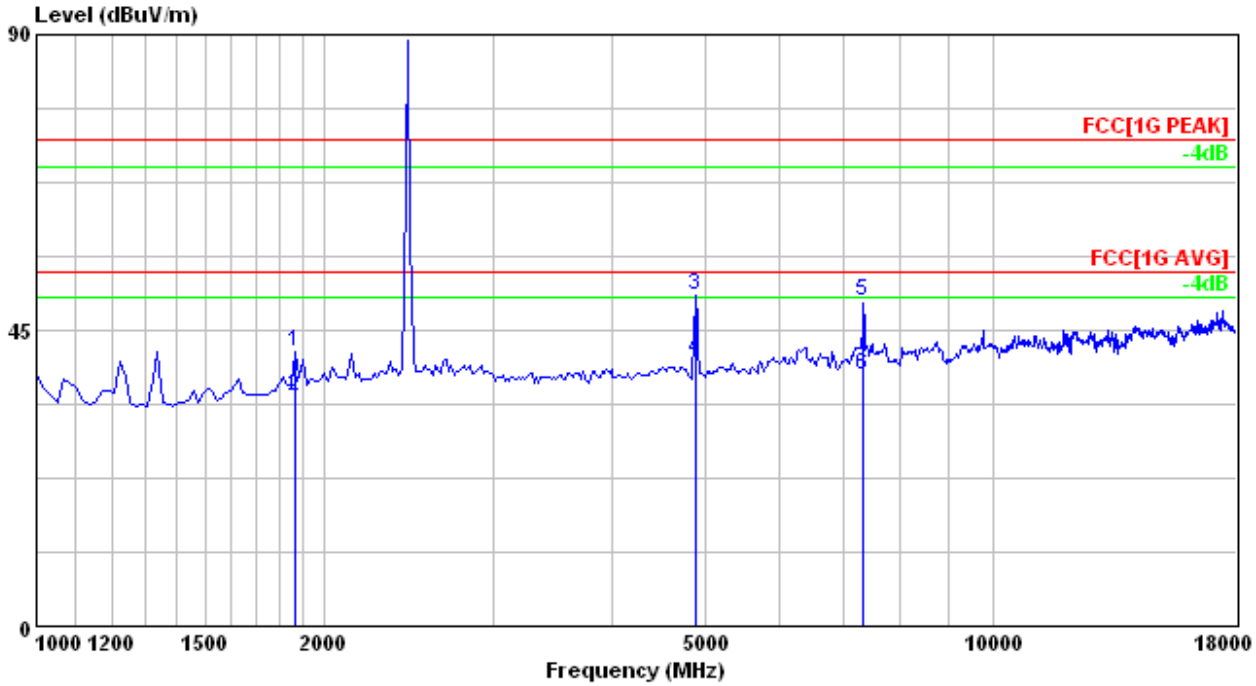
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 1, 2440MHz, Continuous Transmitting**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Vertical **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	1861.000	41.88	83.23	-41.35	74.00	-32.12	100	111	VERTICAL	Peak
2	1861.000	34.88	76.23	-41.35	54.00	-19.12	100	111	VERTICAL	Average
3	4896.000	50.41	85.90	-35.49	74.00	-23.59	126	151	VERTICAL	Peak
4	4896.000	40.46	75.95	-35.49	54.00	-13.54	126	151	VERTICAL	Average
5	7321.627	49.43	79.53	-30.10	74.00	-24.57	167	74	VERTICAL	Peak
6	7321.627	38.07	68.17	-30.10	54.00	-15.93	167	74	VERTICAL	Average

Note:

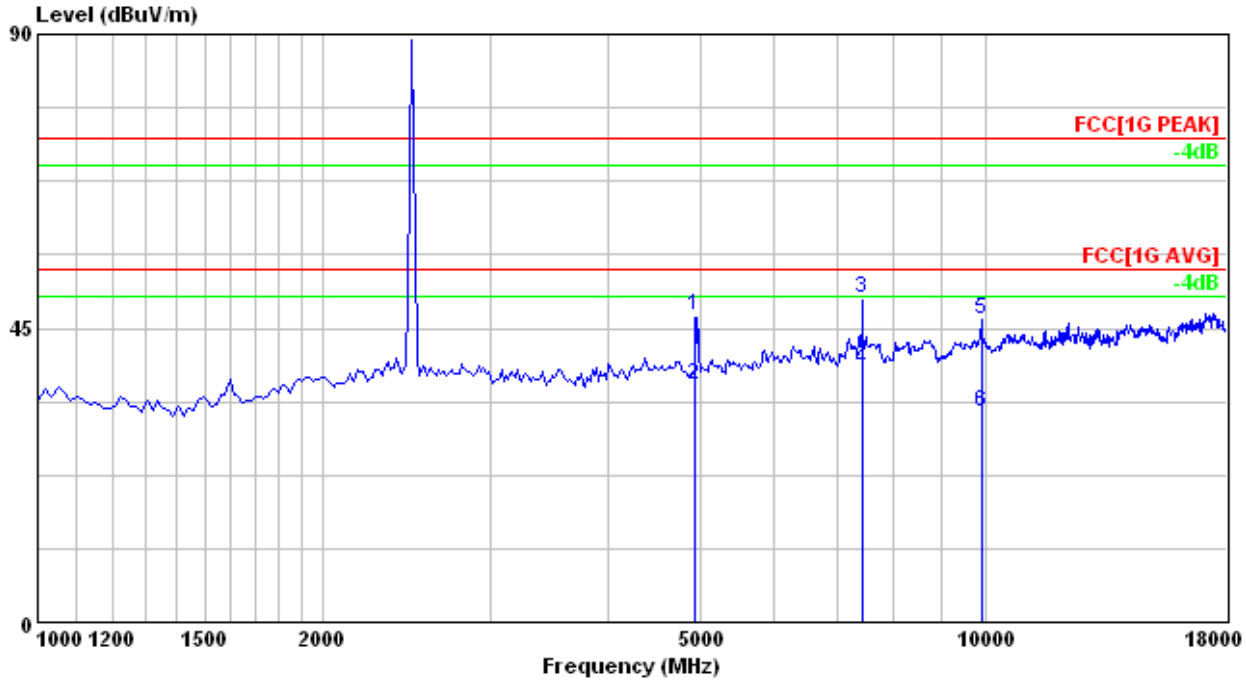
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 1, 2475MHz, Continuous Transmitting**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Horizontal **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	4948.678	46.78	82.15	-35.37	74.00	-27.22	100	249	HORIZONTAL	Peak
2	4948.678	36.23	71.60	-35.37	54.00	-17.77	100	249	HORIZONTAL	Average
3	7427.944	49.59	79.40	-29.81	74.00	-24.41	116	70	HORIZONTAL	Peak
4	7427.944	38.59	68.40	-29.81	54.00	-15.41	116	70	HORIZONTAL	Average
5	9922.000	46.37	70.90	-24.53	74.00	-27.63	145	17	HORIZONTAL	Peak
6	9922.000	32.17	56.70	-24.53	54.00	-21.83	145	17	HORIZONTAL	Average

Note:

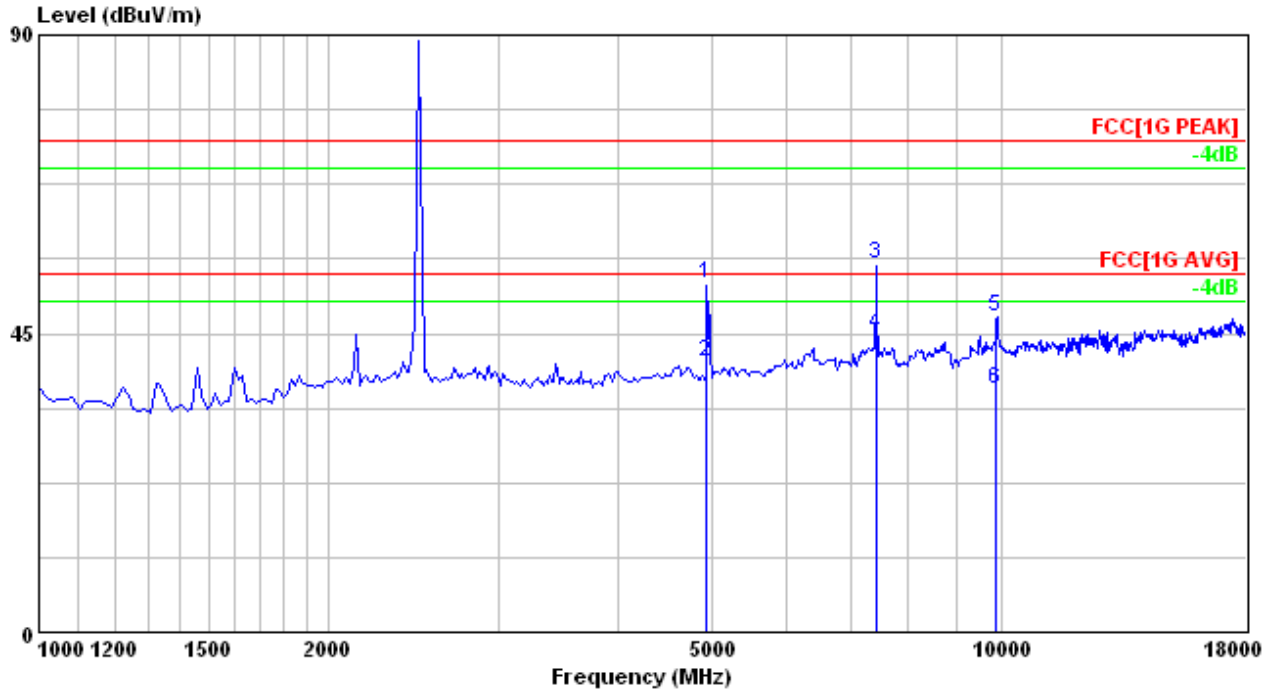
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 1, 2475MHz, Continuous Transmitting**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Vertical **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	4951.713	52.66	88.03	-35.37	74.00	-21.34	193	168	VERTICAL	Peak
2	4951.713	40.79	76.16	-35.37	54.00	-13.21	193	168	VERTICAL	Average
3	7427.264	55.48	85.29	-29.81	74.00	-18.52	163	59	VERTICAL	Peak
4 @	7427.264	44.95	74.76	-29.81	54.00	-9.05	163	59	VERTICAL	Average
5	9897.615	47.46	72.03	-24.57	74.00	-26.54	100	338	VERTICAL	Peak
6	9897.615	36.54	61.11	-24.57	54.00	-17.46	100	338	VERTICAL	Average

Note:

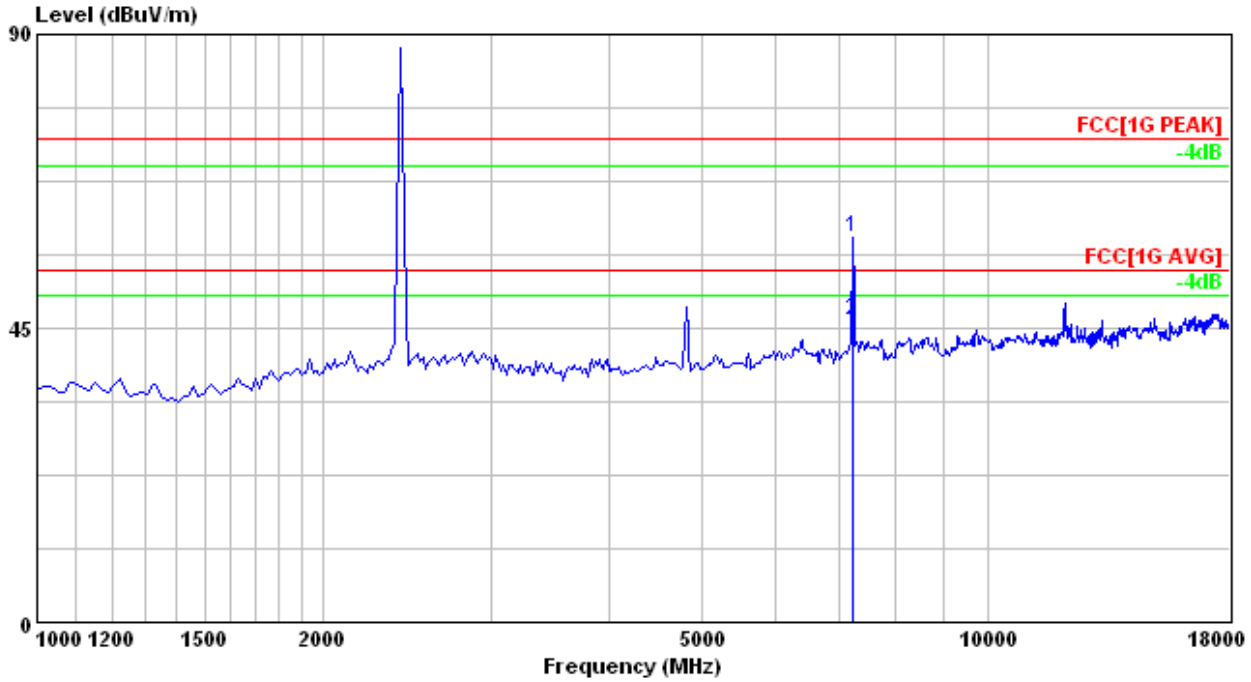
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 2, 2405MHz, Continuous Transmitting**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Horizontal **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	7220.000	58.93	89.22	-30.29	74.00	-15.07	260	284	HORIZONTAL	Peak
2	7220.000	46.17	76.46	-30.29	54.00	-7.83	260	284	HORIZONTAL	Average

Note:

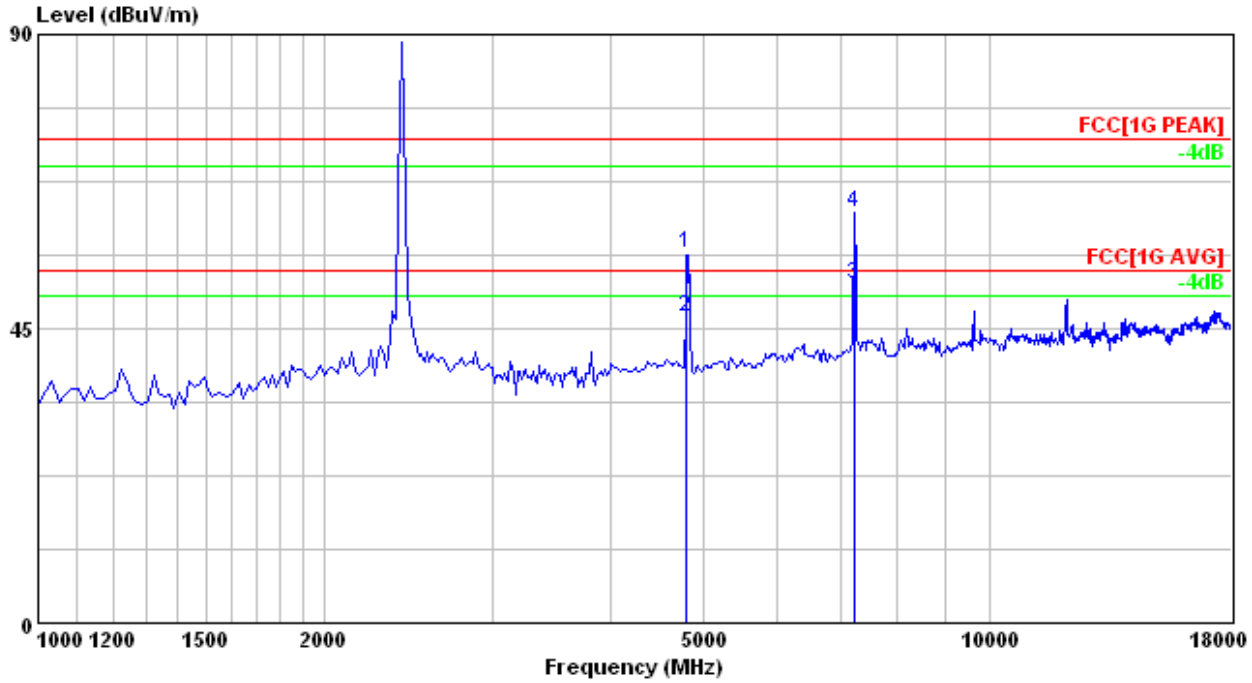
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 2, 2405MHz, Continuous Transmitting**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Vertical **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	4809.040	56.52	92.08	-35.56	74.00	-17.48	101	140	VERTICAL	Peak
2	4809.040	46.67	82.23	-35.56	54.00	-7.33	101	140	VERTICAL	Average
3 @	7220.000	51.90	82.19	-30.29	54.00	-2.10	146	139	VERTICAL	Average
4	7220.000	62.85	93.14	-30.29	74.00	-11.15	146	139	VERTICAL	Peak

Note:

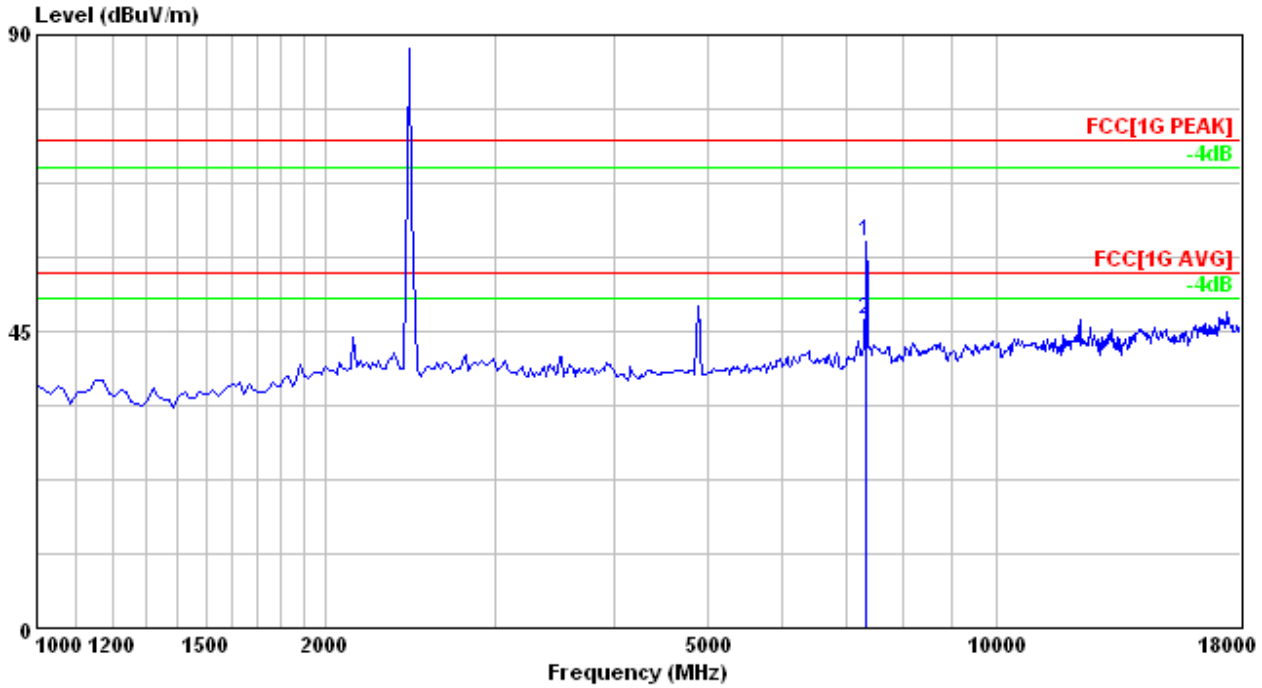
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 2, 2440MHz, Continuous Transmitting**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Horizontal **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	7318.000	58.72	88.83	-30.11	74.00	-15.28	123	243	HORIZONTAL	Peak
2	7318.000	46.86	76.97	-30.11	54.00	-7.14	123	243	HORIZONTAL	Average

Note:

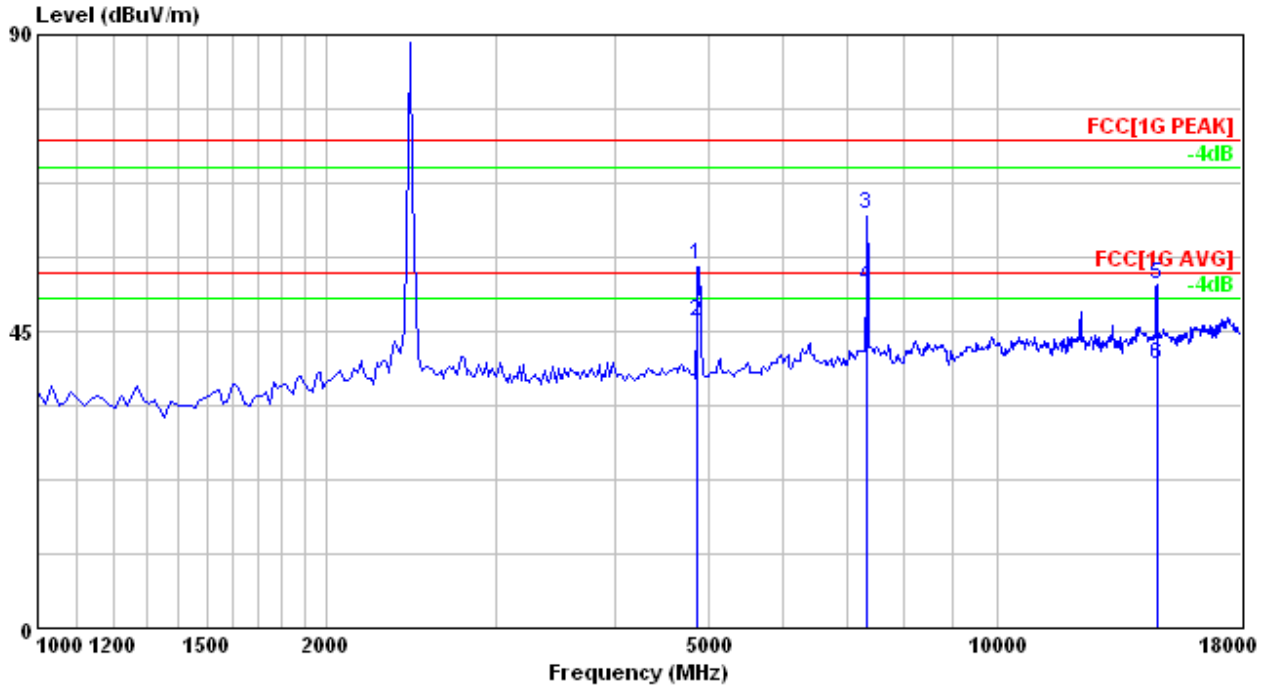
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 2, 2440MHz, Continuous Transmitting**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Vertical **Frequency Range** :1GHz~25GHz



		Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
		MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1		4880.970	55.18	90.68	-35.50	74.00	-18.82	158	155	VERTICAL	Peak
2		4880.970	46.47	81.97	-35.50	54.00	-7.53	158	155	VERTICAL	Average
3		7321.514	62.68	92.78	-30.10	74.00	-11.32	192	98	VERTICAL	Peak
4	!	7321.514	51.90	82.00	-30.10	54.00	-2.10	192	98	VERTICAL	Average
5		14696.000	52.10	69.68	-17.58	74.00	-21.90	100	190	VERTICAL	Peak
6		14696.000	39.87	57.45	-17.58	54.00	-14.13	100	190	VERTICAL	Average

Note:

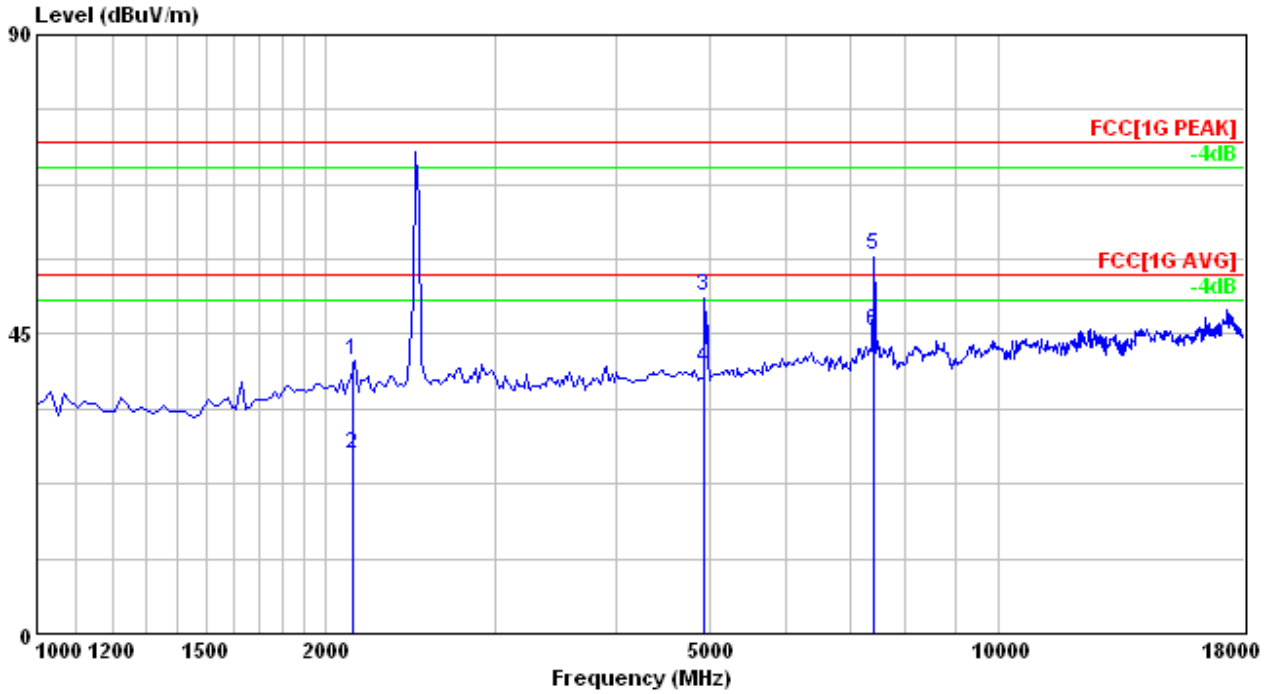
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 2, 2475MHz, Continuous Transmitting**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Horizontal **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2134.000	40.93	80.87	-39.94	74.00	-33.07	152	68	HORIZONTAL	Peak
2	2134.000	26.88	66.82	-39.94	54.00	-27.12	152	68	HORIZONTAL	Average
3	4948.626	50.81	86.18	-35.37	74.00	-23.19	169	196	HORIZONTAL	Peak
4	4948.626	39.75	75.12	-35.37	54.00	-14.25	169	196	HORIZONTAL	Average
5	7426.786	56.76	86.58	-29.82	74.00	-17.24	195	82	HORIZONTAL	Peak
6	7426.786	45.59	75.41	-29.82	54.00	-8.41	195	82	HORIZONTAL	Average

Note:

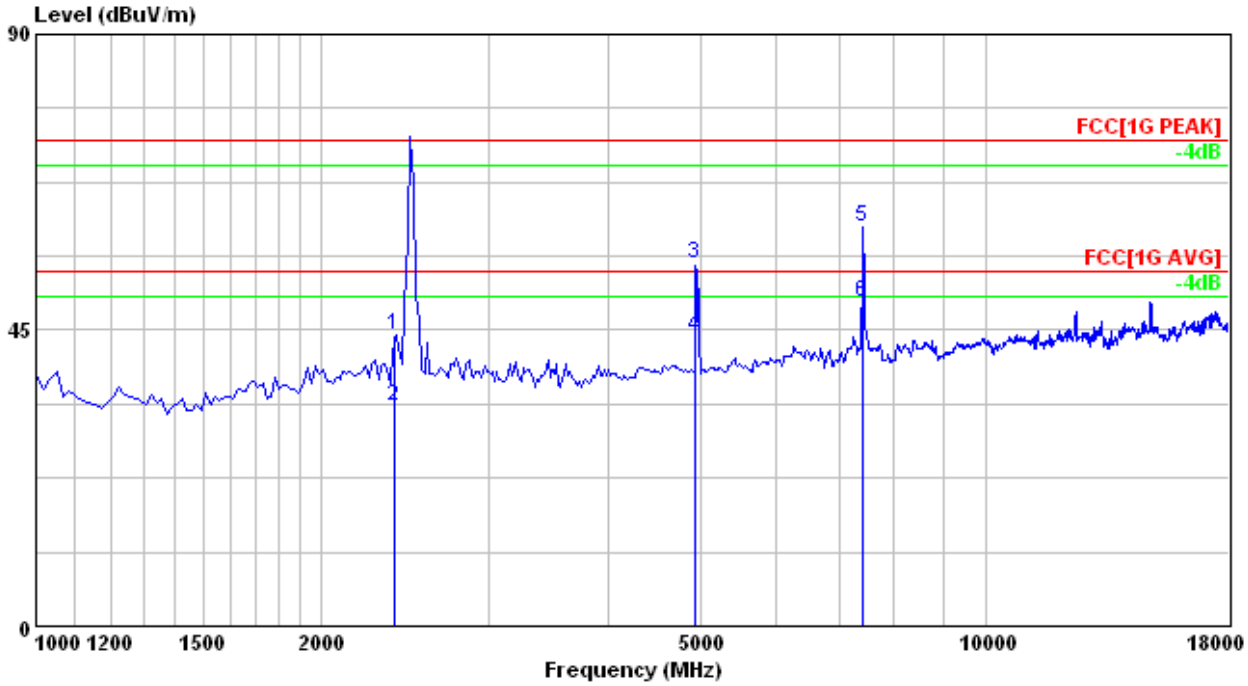
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 2, 2475MHz, Continuous Transmitting**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Vertical **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2380.000	44.35	83.73	-39.38	74.00	-29.65	112	58	VERTICAL	Peak
2	2380.000	33.40	72.78	-39.38	54.00	-20.60	112	58	VERTICAL	Average
3	4948.008	55.01	90.38	-35.37	74.00	-18.99	169	88	VERTICAL	Peak
4	4948.008	43.95	79.32	-35.37	54.00	-10.05	169	88	VERTICAL	Average
5	7427.875	60.74	90.55	-29.81	74.00	-13.26	181	2	VERTICAL	Peak
6 @	7427.875	49.34	79.15	-29.81	54.00	-4.66	181	2	VERTICAL	Average

Note:

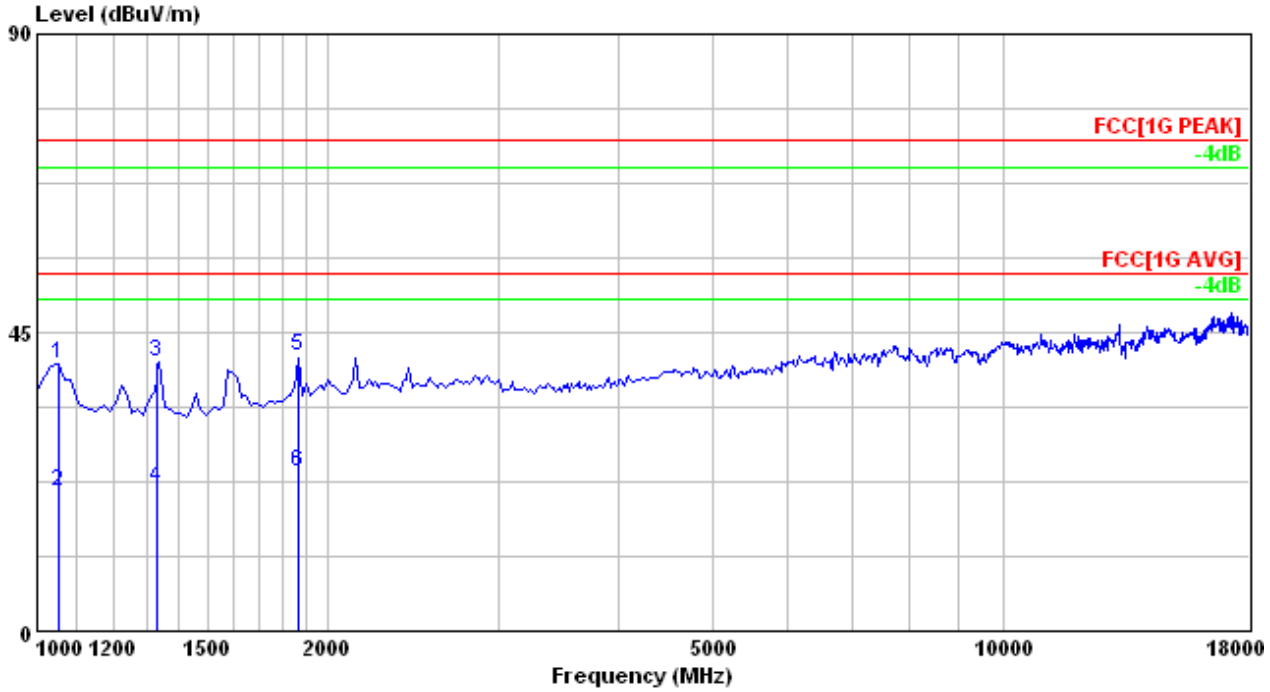
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 1, 2405MHz, Continuous Receiving**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Horizontal **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	1051.000	40.25	84.52	-44.27	74.00	-33.75	135	30	HORIZONTAL	Peak
2	1051.000	21.08	65.35	-44.27	54.00	-32.92	135	30	HORIZONTAL	Average
3	1330.000	40.57	84.79	-44.22	74.00	-33.43	100	208	HORIZONTAL	Peak
4	1330.000	21.52	65.74	-44.22	54.00	-32.48	100	208	HORIZONTAL	Average
5	1860.938	41.53	82.88	-41.35	74.00	-32.47	100	245	HORIZONTAL	Peak
6	1860.938	23.87	65.22	-41.35	54.00	-30.13	100	245	HORIZONTAL	Average

Note:

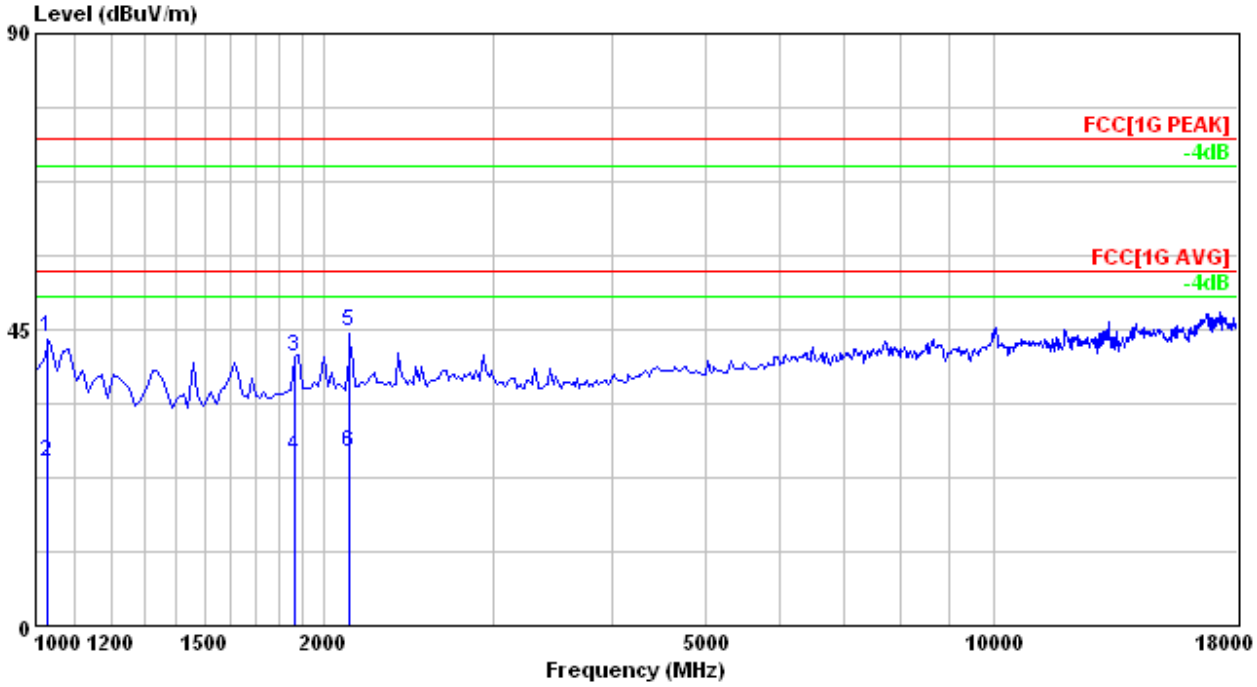
1. Emission Level (dBuV/m) = Reading Value + Correction Factor.
2. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 1, 2405MHz, Continuous Receiving**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Vertical **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	1027.432	43.68	87.97	-44.29	74.00	-30.32	100	159	VERTICAL	Peak
2	1027.432	24.75	69.04	-44.29	54.00	-29.25	100	159	VERTICAL	Average
3	1864.458	40.92	82.26	-41.34	74.00	-33.08	100	200	VERTICAL	Peak
4	1864.458	25.63	66.97	-41.34	54.00	-28.37	100	200	VERTICAL	Average
5	2125.000	44.70	84.68	-39.98	74.00	-29.30	100	236	VERTICAL	Peak
6	2125.000	26.23	66.21	-39.98	54.00	-27.77	100	236	VERTICAL	Average

Note:

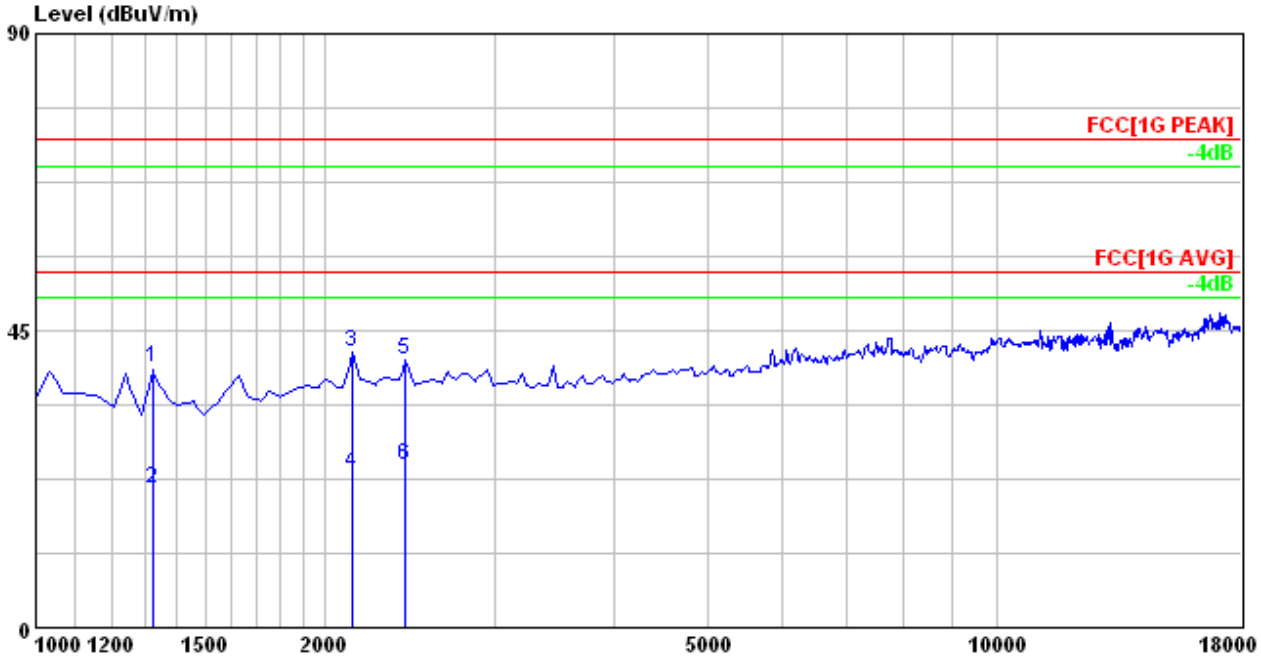
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 1, 2440MHz, Continuous Receiving**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Horizontal **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	1322.845	39.49	83.72	-44.23	74.00	-34.51	101	253	HORIZONTAL	Peak
2	1322.845	20.93	65.16	-44.23	54.00	-33.07	101	253	HORIZONTAL	Average
3	2139.000	41.64	81.57	-39.93	74.00	-32.36	100	360	HORIZONTAL	Peak
4	2139.000	23.33	63.26	-39.93	54.00	-30.67	100	360	HORIZONTAL	Average
5	2428.000	40.47	79.75	-39.28	74.00	-33.53	100	270	HORIZONTAL	Peak
6 @	2428.000	24.57	63.85	-39.28	54.00	-29.43	100	270	HORIZONTAL	Average

Note:

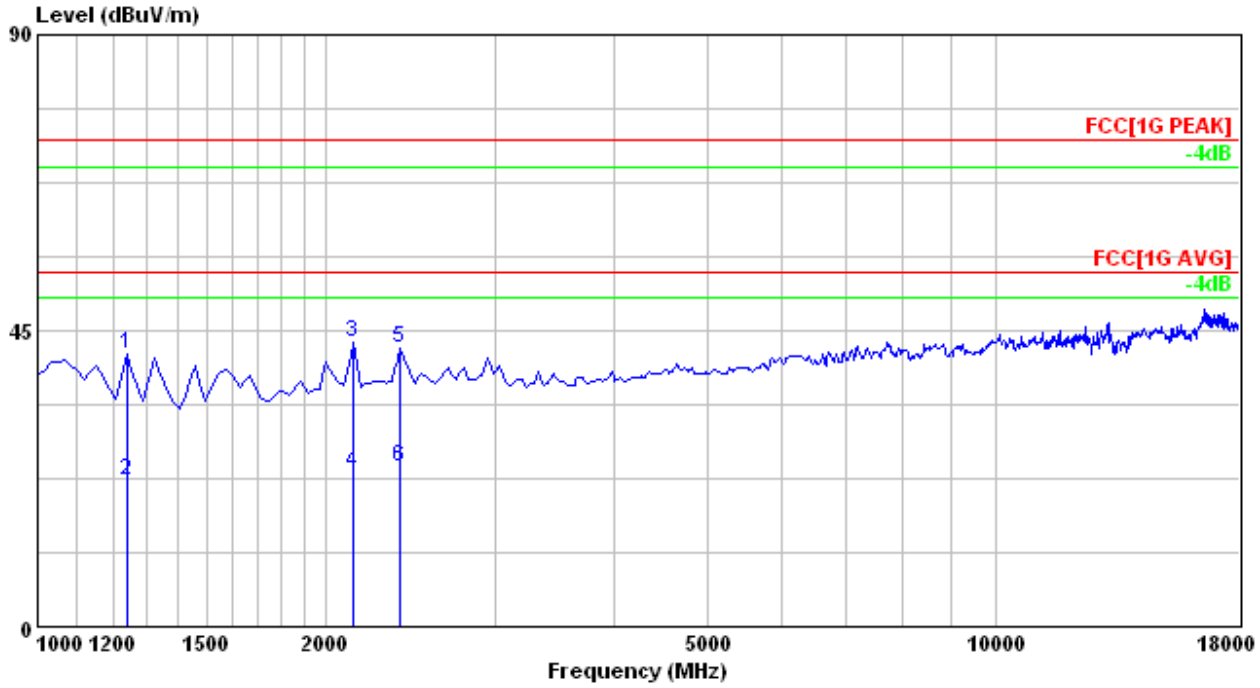
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 1, 2440MHz, Continuous Receiving**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Vertical **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	1238.000	41.36	85.58	-44.22	74.00	-32.64	101	126	VERTICAL	Peak
2	1238.000	22.08	66.30	-44.22	54.00	-31.92	101	126	VERTICAL	Average
3	2139.000	43.21	83.14	-39.93	74.00	-30.79	101	359	VERTICAL	Peak
4	2139.000	23.42	63.35	-39.93	54.00	-30.58	101	359	VERTICAL	Average
5	2394.000	42.36	81.71	-39.35	74.00	-31.64	100	312	VERTICAL	Peak
6	2394.000	24.34	63.69	-39.35	54.00	-29.66	100	312	VERTICAL	Average

Note:

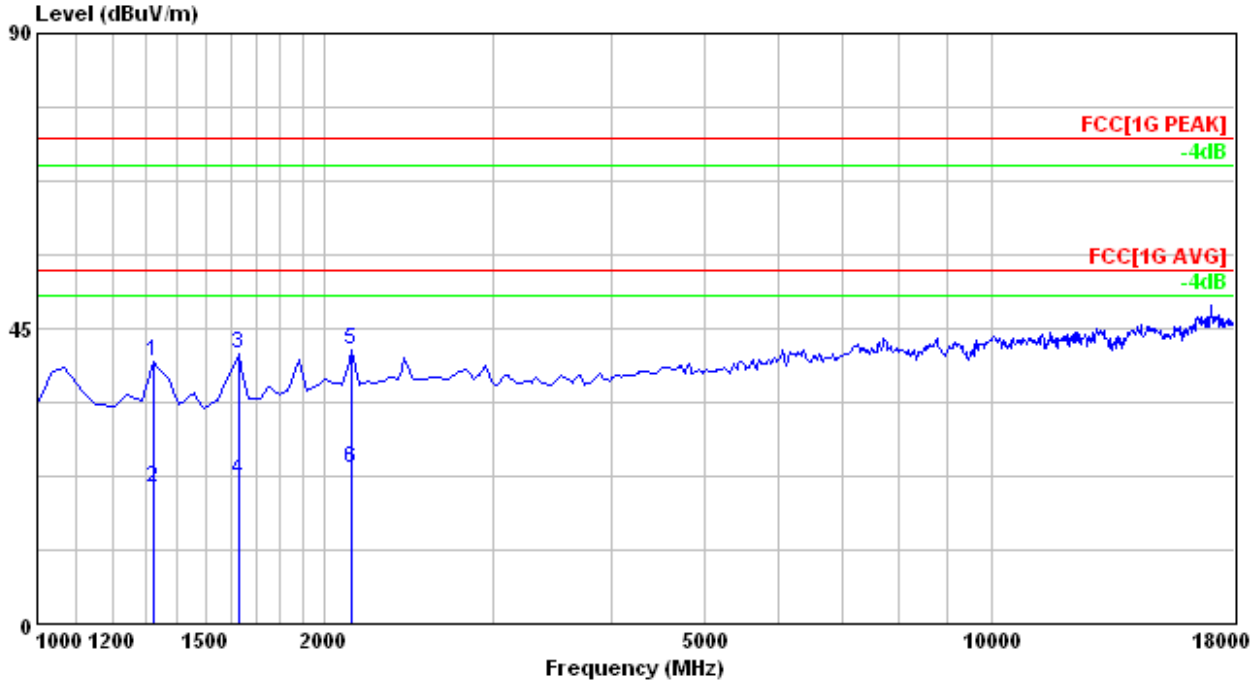
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 1, 2475MHz, Continuous Receiving**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Horizontal **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	1323.000	39.97	84.20	-44.23	74.00	-34.03	100	98	HORIZONTAL	Peak
2	1323.000	20.69	64.92	-44.23	54.00	-33.31	100	98	HORIZONTAL	Average
3	1629.000	41.09	84.18	-43.09	74.00	-32.91	100	228	HORIZONTAL	Peak
4	1629.000	21.81	64.90	-43.09	54.00	-32.19	100	228	HORIZONTAL	Average
5	2139.000	41.60	81.53	-39.93	74.00	-32.40	123	350	HORIZONTAL	Peak
6	2139.000	23.73	63.66	-39.93	54.00	-30.27	123	350	HORIZONTAL	Average

Note:

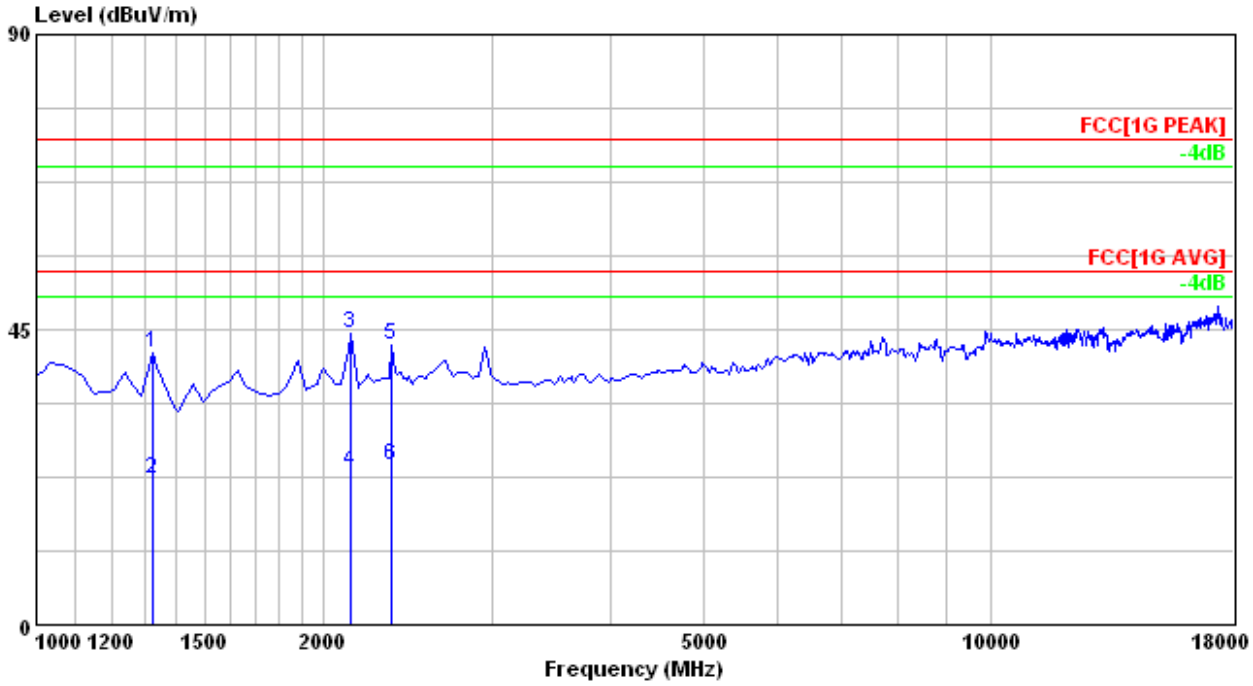
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 1, 2475MHz, Continuous Receiving**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Vertical **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	1323.000	41.43	85.66	-44.23	74.00	-32.57	100	72	VERTICAL	Peak
2	1323.000	22.16	66.39	-44.23	54.00	-31.84	100	72	VERTICAL	Average
3	2139.000	44.35	84.28	-39.93	74.00	-29.65	100	310	VERTICAL	Peak
4	2139.000	23.45	63.38	-39.93	54.00	-30.55	100	310	VERTICAL	Average
5	2360.000	42.59	82.03	-39.44	74.00	-31.41	100	53	VERTICAL	Peak
6	2360.000	24.40	63.84	-39.44	54.00	-29.60	100	53	VERTICAL	Average

Note:

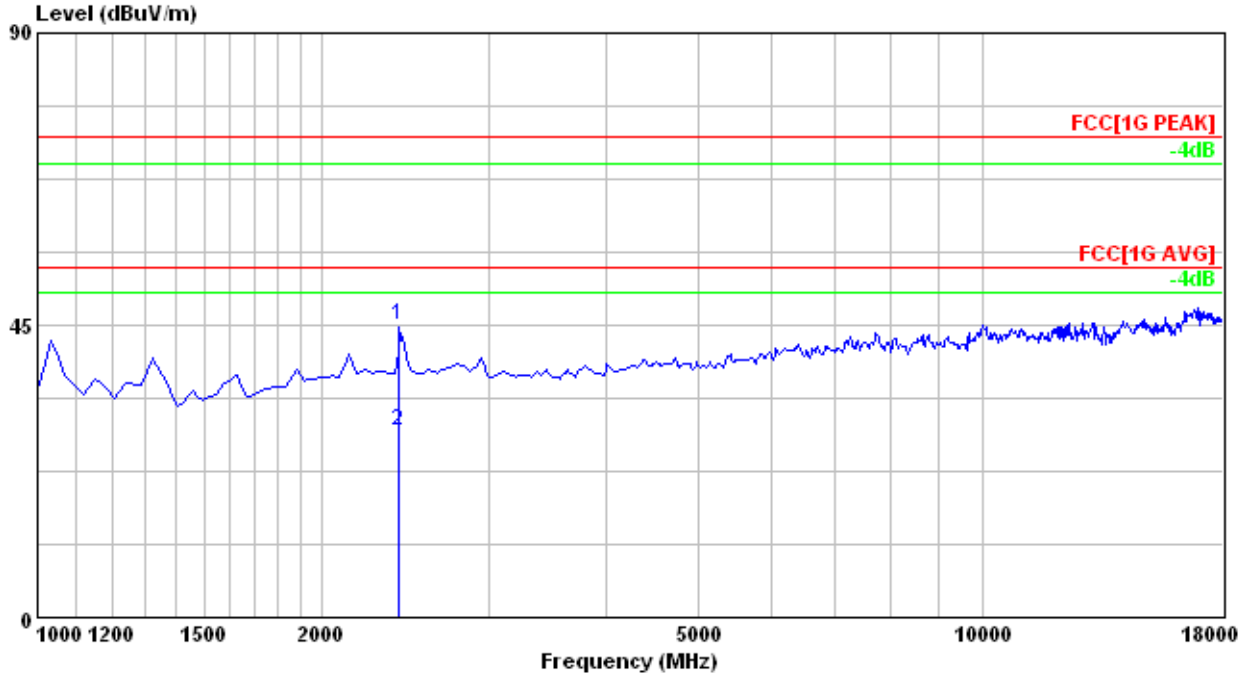
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 2, 2405MHz, Continuous Receiving**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Horizontal **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2410.421	45.05	84.37	-39.32	74.00	-28.95	100	212	HORIZONTAL	Peak
2 @	2410.421	28.60	67.92	-39.32	54.00	-25.40	100	212	HORIZONTAL	Average

Note:

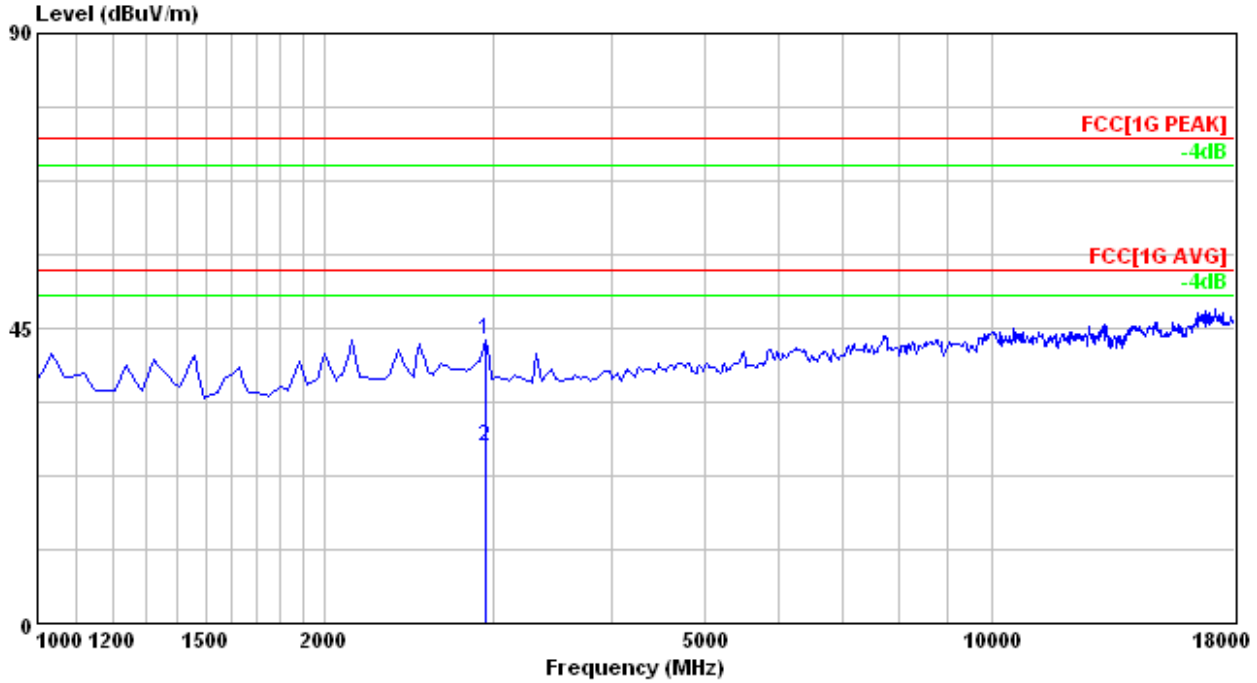
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model **: Mode 2, 2405MHz, Continuous Receiving**

Test Distance **:** 3m **Tester** **:** Liu

Antenna Polarization **:** Vertical **Frequency Range :**1GHz~25GHz



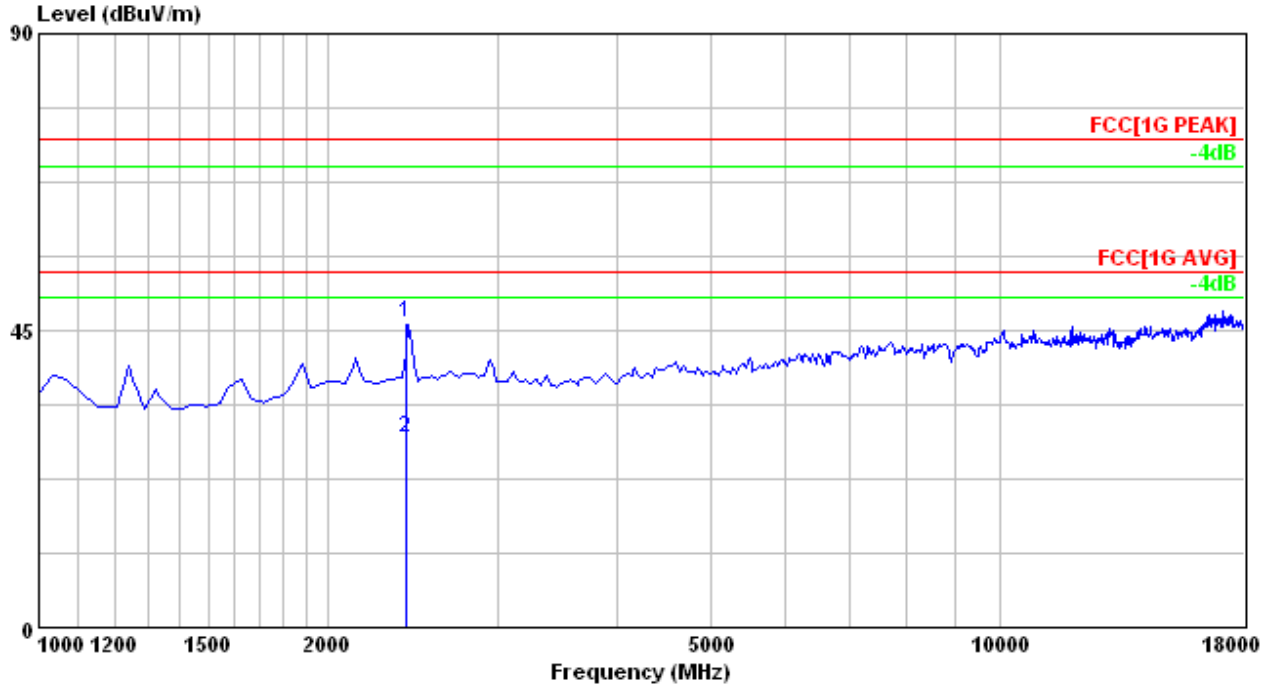
	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2955.000	43.26	81.56	-38.30	74.00	-30.74	100	146	VERTICAL	Peak
2	2955.000	26.81	65.11	-38.30	54.00	-27.19	100	146	VERTICAL	Average

Note:

1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model	**: Mode 2, 2440MHz, Continuous Receiving**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Antenna Polarization	**:** Horizontal	**Frequency Range :**	1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2411.009	46.26	85.57	-39.31	74.00	-27.74	101	176	HORIZONTAL	Peak
2 @	2411.009	28.74	68.05	-39.31	54.00	-25.26	101	176	HORIZONTAL	Average

Note:

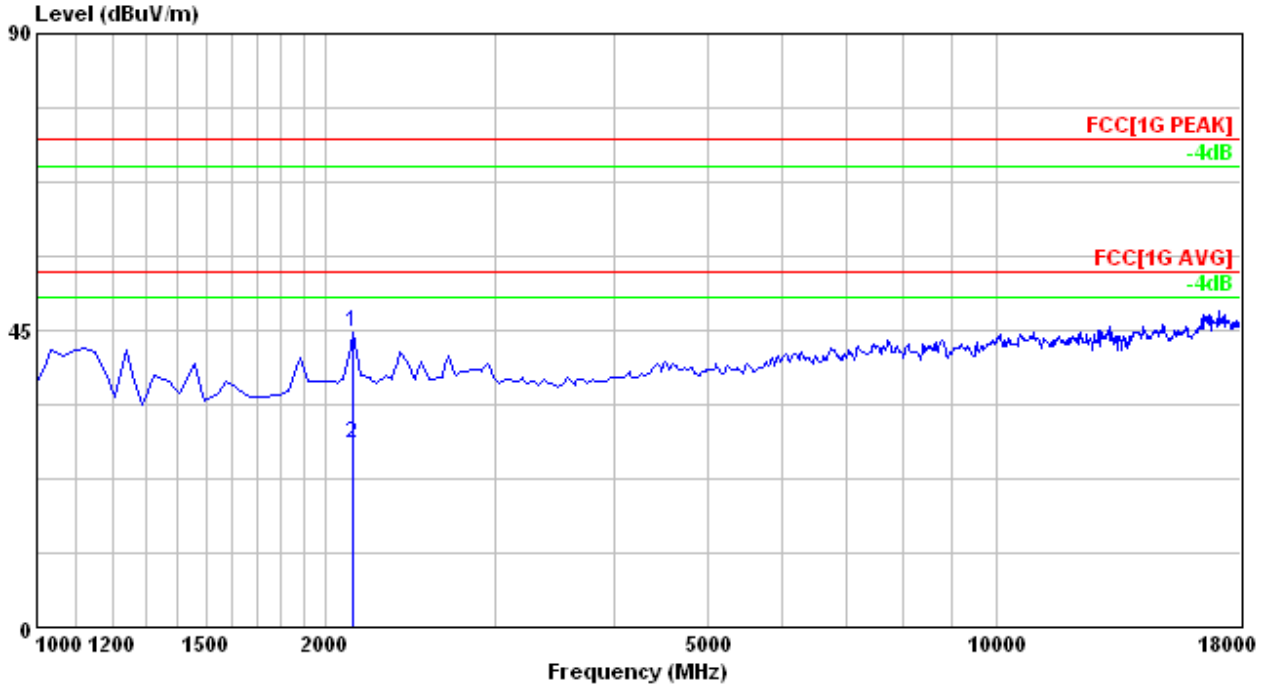
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model **: Mode 2, 2440MHz, Continuous Receiving**

Test Distance **:** 3m **Tester** **:** Liu

Antenna Polarization **:** Vertical **Frequency Range :**1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2139.000	44.67	84.60	-39.93	74.00	-29.33	100	71	VERTICAL	Peak
2 @	2139.000	27.70	67.63	-39.93	54.00	-26.30	100	71	VERTICAL	Average

Note:

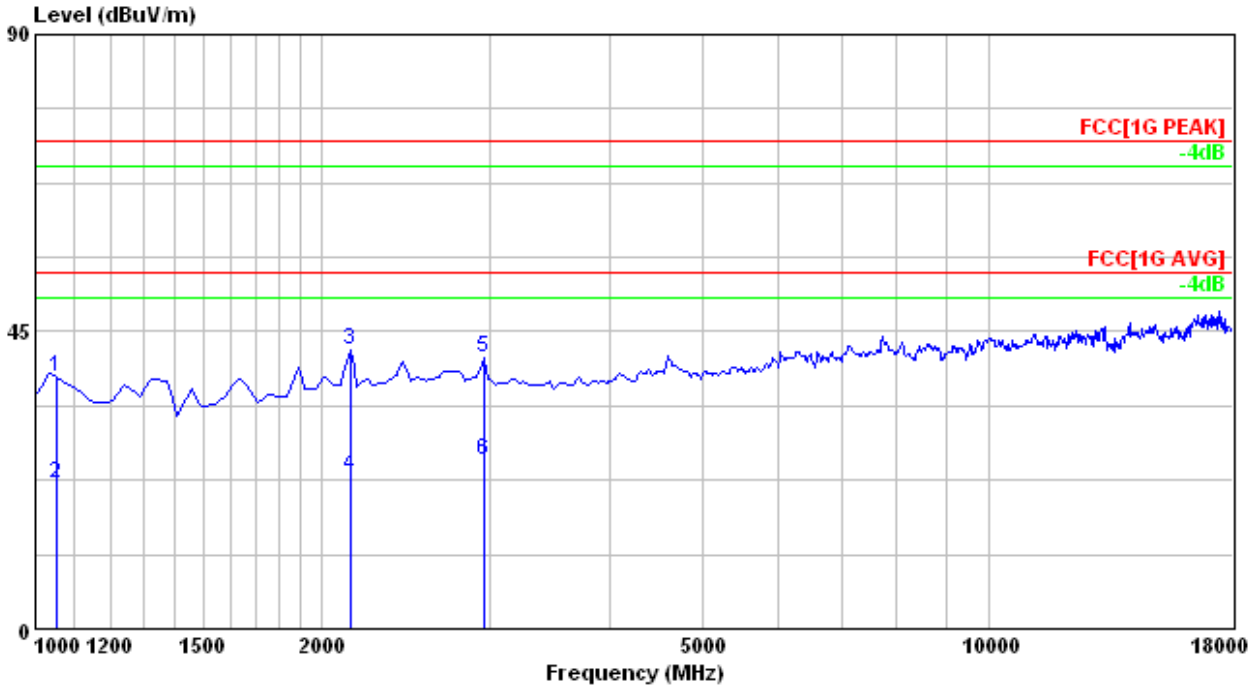
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 2, 2475MHz, Continuous Receiving**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Horizontal **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	1051.000	38.20	82.47	-44.27	74.00	-35.80	100	238	HORIZONTAL	Peak
2	1051.000	21.94	66.21	-44.27	54.00	-32.06	100	238	HORIZONTAL	Average
3	2139.000	42.24	82.17	-39.93	74.00	-31.76	140	335	HORIZONTAL	Peak
4	2139.000	23.07	63.00	-39.93	54.00	-30.93	140	335	HORIZONTAL	Average
5	2955.000	41.09	79.39	-38.30	74.00	-32.91	120	304	HORIZONTAL	Peak
6	2955.000	25.52	63.82	-38.30	54.00	-28.48	120	304	HORIZONTAL	Average

Note:

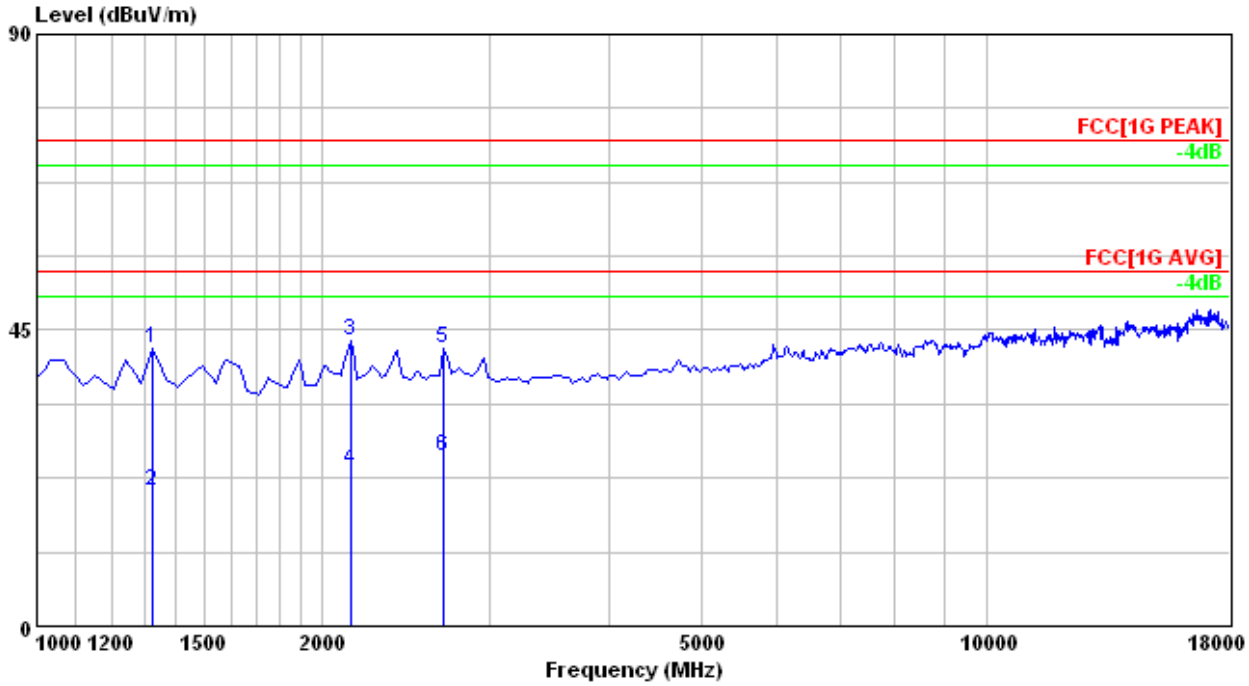
1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

Test Model : **Mode 2, 2475MHz, Continuous Receiving**

Test Distance : 3m **Tester** : Liu

Antenna Polarization : Vertical **Frequency Range** :1GHz~25GHz



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	1323.000	42.19	86.42	-44.23	74.00	-31.81	100	52	VERTICAL	Peak
2	1323.000	20.47	64.70	-44.23	54.00	-33.53	100	52	VERTICAL	Average
3	2139.000	43.35	83.28	-39.93	74.00	-30.65	100	360	VERTICAL	Peak
4	2139.000	23.61	63.54	-39.93	54.00	-30.39	100	360	VERTICAL	Average
5	2683.000	42.31	81.06	-38.75	74.00	-31.69	100	160	VERTICAL	Peak
6	2683.000	25.88	64.63	-38.75	54.00	-28.12	100	160	VERTICAL	Average

Note:

1. Level (dBuV/m) = Read level + Factor.
2. Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. Over Limit (dB) = Level – Limit line
4. PK. and AV. are abbreviation of peak and average respectively.

No signal can be detected from 18GHz to 25GHz, so the graphs are omitted above 18GHz.

7 Antenna Requirement

7.1 Applied standard

According to 15.247(4), The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi

7.2 Antenna Information

This antenna's relative information as follow:

Brand	Model	Frequency Range (MHz)	Gain (dBi)	Comment
DiZiC	DZ-ANT-DP01	2400-2483.5	2.00	Dipole
RainSun	AN0835	2400-2483.5	1.00	SMD

7.3 Result

Gain of the antenna is less than 6dBi.