FCC Test Report

for

RF Control Kit

Model Number	**:**	**MB953**
FCC ID	**:**	**YCPSTM32WLCDL**
Report Number	**:**	**RF-D230-1103-093**
Date of Receipt	**:**	**March 15, 2011**
Date of Report	**:**	**May 12, 2011**

Prepared for

STMicroelectronics SAS

190 Avenue Célestin Coq, 13106 Rousset Cedex, France

Prepared by

Central Research Technology Co.

EMC Test Laboratory

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NVLAP LAB CODE 200575-0

Verification of Compliance

Equipment under Test	**: RF Control Kit**
Model No.	**: MB953**
FCC ID	**: YCPSTM32WLCDL**
Manufacturer	**: DIZIC Co. Ltd.**
Applicant	**: STMicroelectronics SAS**
Address	**: 190 Avenue Célestin Coq, 13106 Rousset Cedex, France**
Applicable Standards	**: 47 CFR part 15, Subpart C**
Date of Testing	**: March 15 ~ April 16, 2011**
Deviation	**: N/A**
Condition of Test Sample	**: Engineering Sample**

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 :** May 12, 2011
(Cathy Chen/ Technical Manager)

APPROVED BY : T. Y. Shih , **DATE :** May 12, 2011
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Attachment 2 –External Photographs of EUT

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1 General Description

1.1 General Description of EUT

Equipment under Test	:	RF Control Kit
Model No.	:	MB953
Power in	:	3Vdc
Test Voltage	:	3Vdc by batteries
Manufacturer	:	DIZIC Co. Ltd.
Channel Numbers	:	16
Frequency Range	:	2405~2480MHz
Modulation	:	Zigbee
Antenna Spec	:	Printed Antenna 1.95dBi
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 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

1.3 The Support Units

No.	Unit	Model No./ Serial No.	Trade Name	Power Code	Supported by lab.
N/A	*	*	*	*	*

1.4 Layout of Setup

Connecting Cables :

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

1.5 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 Data
	Canada	IC	4699A-1,-3	Test facility list & NSA Data
	Japan	VCCI	R-1527,C-1609,T-131,T-1441, G-10	Test facility list & NSA Data
Authorization Certificate	Germany	TUV	10021687-2010	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

1.6 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.

Filed strength tranfers to peak output power is as below：

$$P = \frac{(ExD)^2}{30 \times G}$$

Note:
P : output power (W)
E : Field strength (V/m)
D : measurement distance = 3m
G : EUT antenna gain = 1.95dBi

Transfer:
P(dBm) = E(dBuV/m) – 90 + 20log3 – 10log30 – 1.95
= E(dBuV/m) – 90 + 9.54 – 14.77 – 1.95
= E(dBuV/m) – 97.18

2.2 Test Instruments

Test Site and Equipment	Manufacturer	Model No./ Serial No.	Last Calibration Date	Calibration Due Date
Spectrum Analyzer	Agilent	E4407B/ MY45106795	2010/5/3	2011/5/3
Antenna	EMCO	3117/57416	2011/3/4	2012/3/4
RF Cable	N/A	N/A/C0080	2010/2/7	2011/8/7
RF Cable	N/A	N/A/C0081	2010/10/20	2011/4/20
Semi - anechoic Chamber	ETS. LINDGREN	TR11/ 906-A	2010/4/19	2011/4/19

Note:

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

Instrument Setting

RBW	VBW	Detector	Trace	Comment
1MHz	3MHz	Peak	Maxhold	

Climatic Condition

Ambient Temperature：21℃ Relative Humidity : 54%

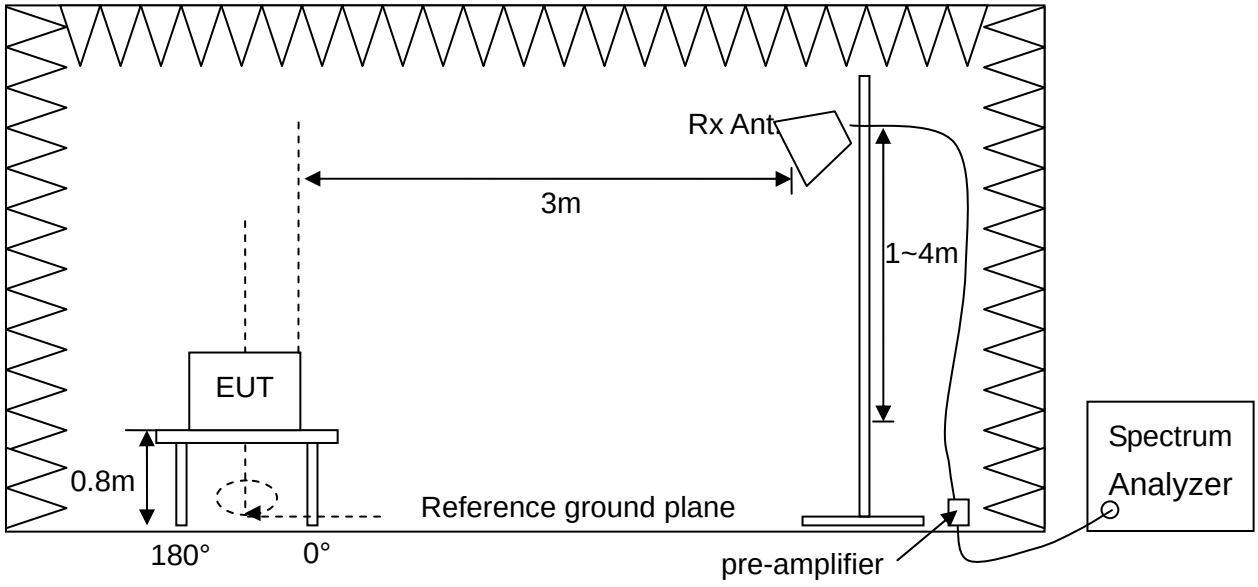
2.3 Measurement Procedure

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

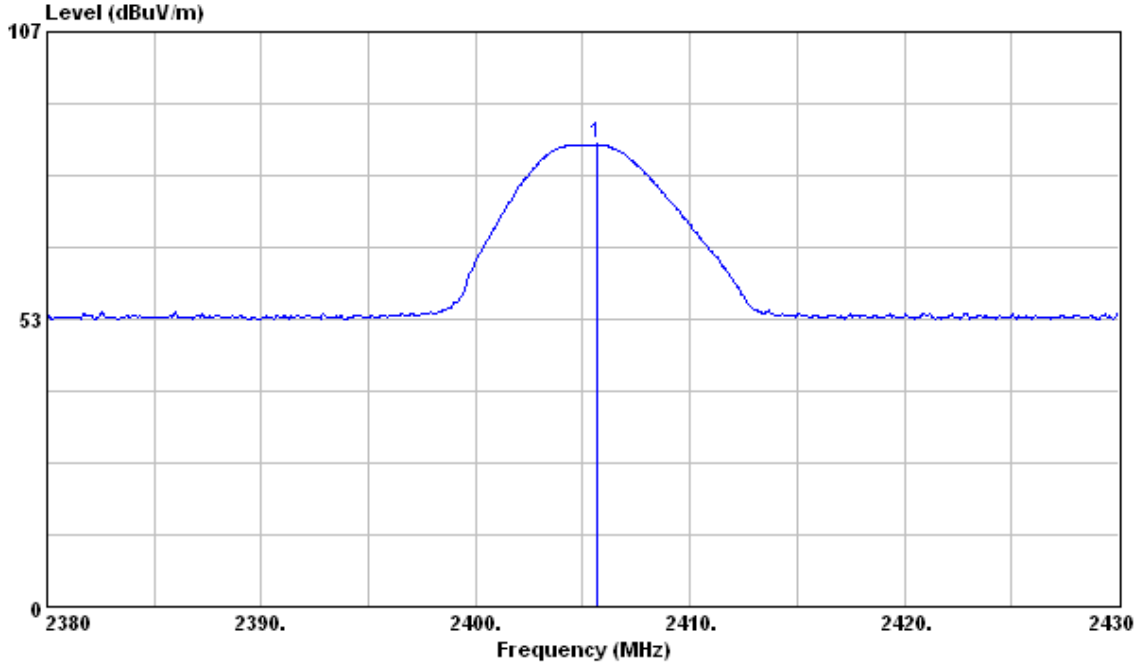
Test Mode : Continuous Transmitting **Tester : Liu**

Frequency (MHz)	Polarization	Reading Data (dBuV)	Correction Factor (dB/m)	Emission (dBuV/m)	Peak output power (dBm)	Limit (dBm)	Margin (dB)
2405.65	Vertical	84.75	1.31	86.06	-11.12	30	41.12
2405.62	Horizontal	83.64	1.31	84.95	-12.23	30	42.23
2439.54	Vertical	84.9	1.37	86.27	-10.91	30	40.91
2440.54	Horizontal	86.81	1.38	88.19	-8.99	30	38.99
2479.50	Vertical	85.2	1.46	86.66	-10.52	30	40.52
2480.58	Horizontal	84.02	1.46	85.48	-11.70	30	41.70

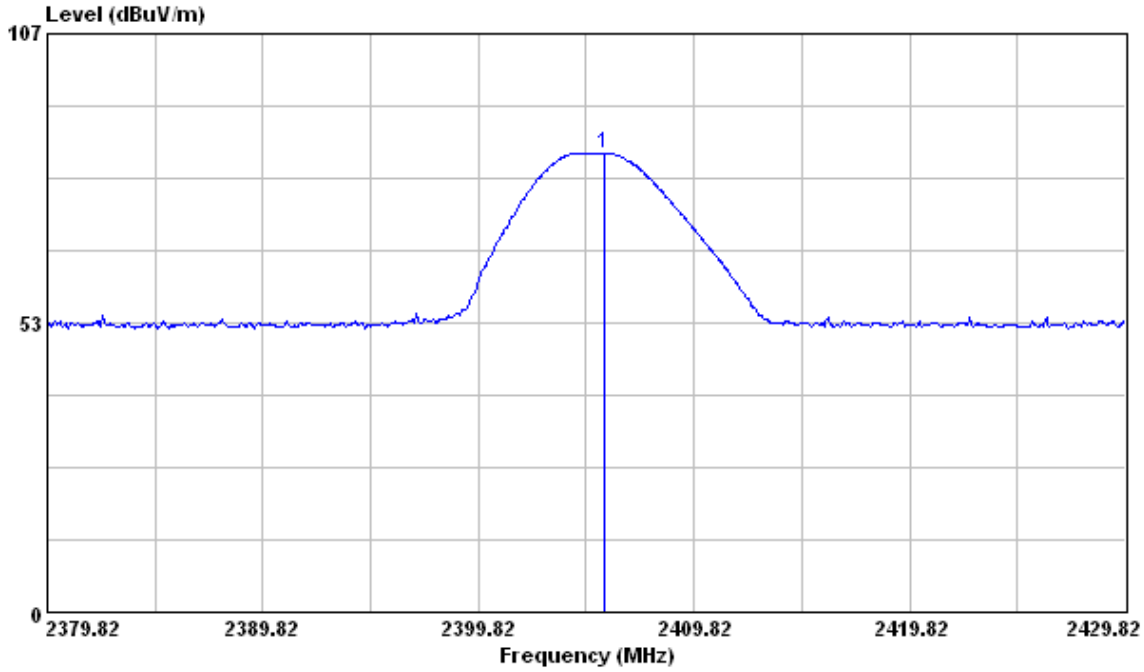
Note:

1. Correction Factor (dB) = Antenna factor + Cable Loss - pre-amplifier
2. Emission (dBuV/m) = Reading Data + Correction Factor
3. Peak output power (dBm) = Emission – 97.18(see section 2.1)
4. Margin (dB) = Limit – Peak output power

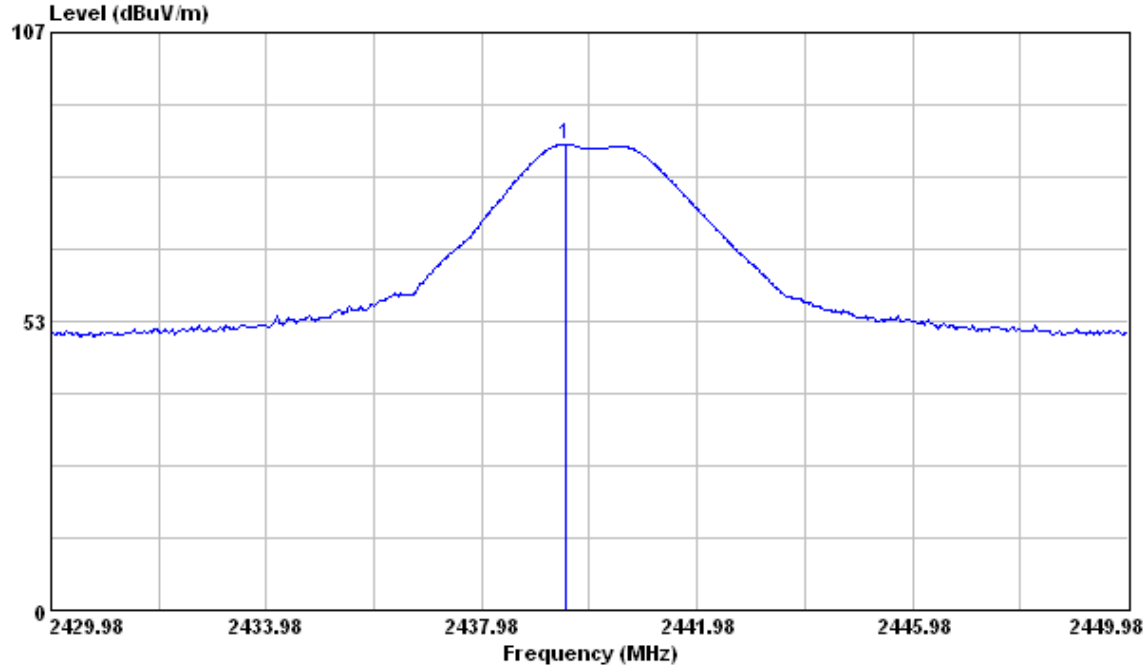
Low Channel (2405MHz)- Vertical



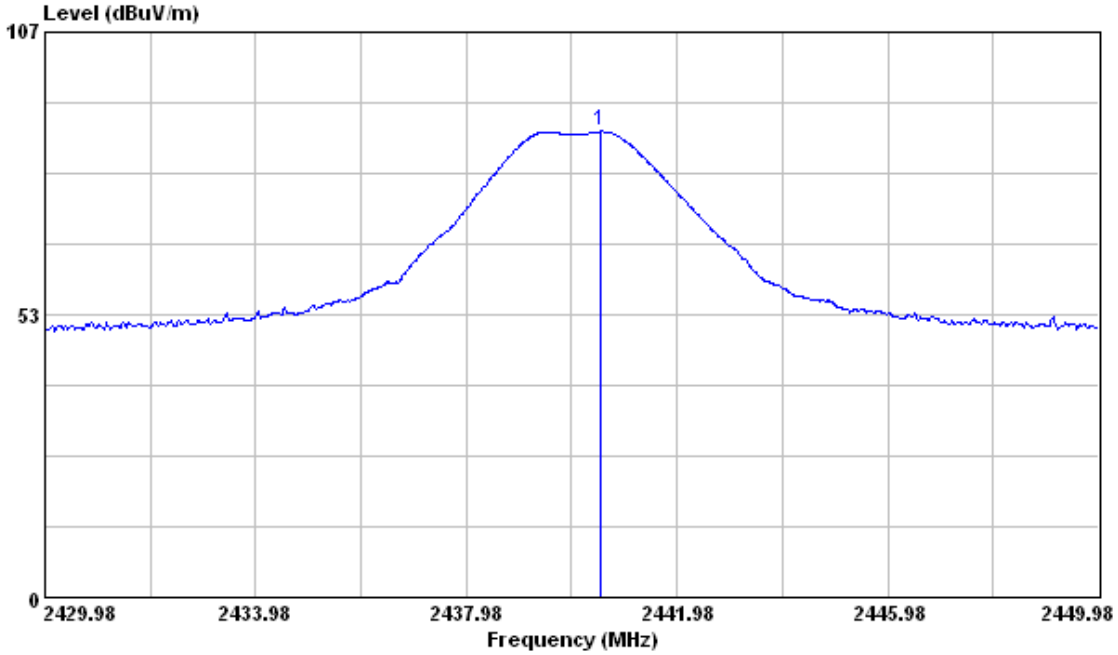
Low Channel (2405MHz)- Horizontal



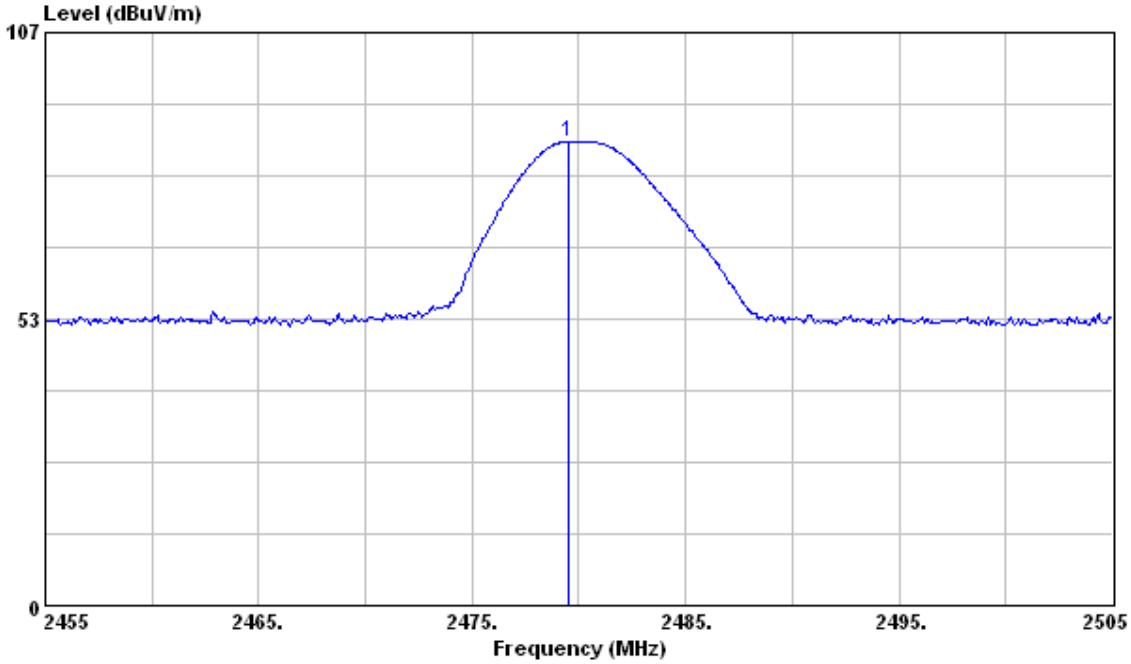
MiddleChannel (2440MHz)- Vertical



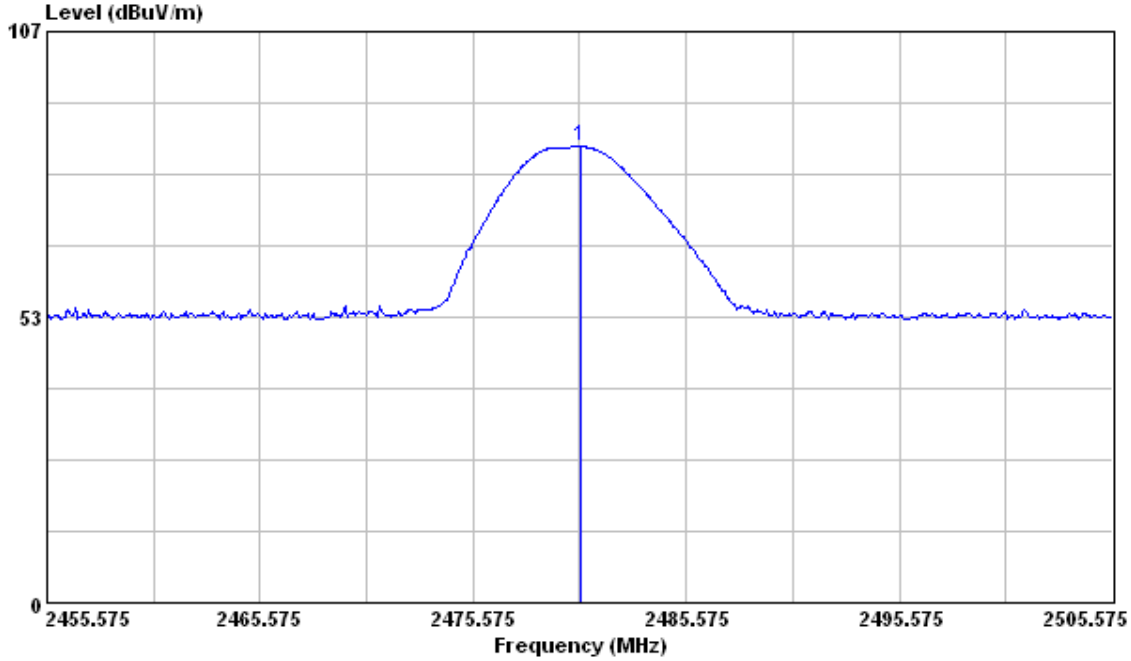
MiddleChannel (2440MHz)- Horizontal



High Channel (2480MHz)- Vertical



High Channel (2480MHz)- Horizontal



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

As section 2.2

Instrument Setting

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

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

As section 2.4

3.5 Test Data

100KHz Bandedge Measurement

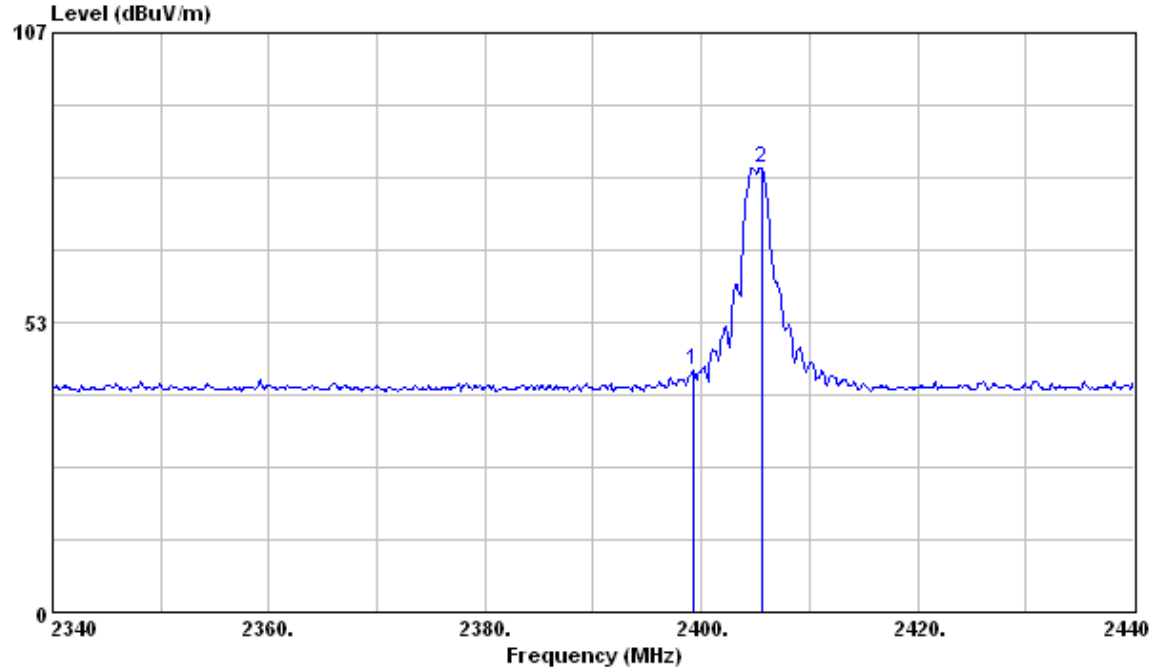
Test Mode : Continuous Transmitting **Tester : Liu**

Operating Frequency (MHz)	Frequency (MHz)	Main Frequency Emission Data (dBuV/m)	Bandedge Emission Data (dBuV/m)	Atenuation (dB)	Limit (dB)	Margin (dB)	Polarization
2405	2399.3	82.09	44.56	37.53	20	17.53	Vertical
2405	2400.0	80.87	43.77	37.10	20	17.10	Horizontal
2480	2483.9	83.64	48.09	35.55	20	15.55	Vertical
2480	2483.9	81.68	47.80	33.88	20	13.88	Horizontal

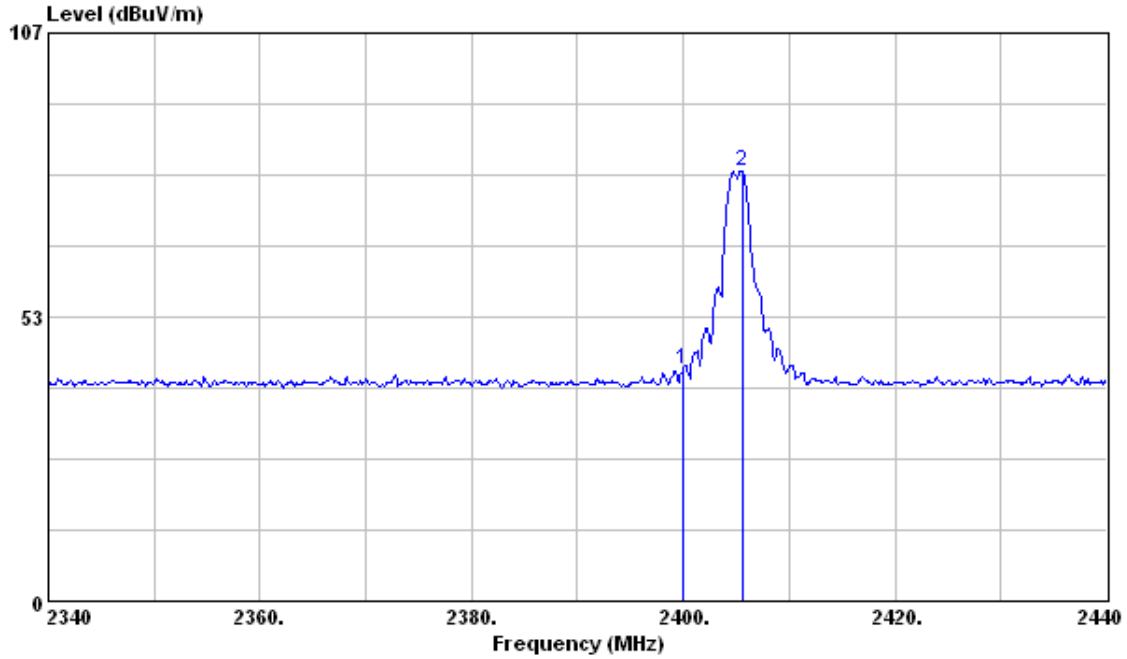
Note:

1. Attenuation (dB) = Main Frequency Emission Data –Bandedge Emission Data
2. Margin(dB) = Atenuation – Limit

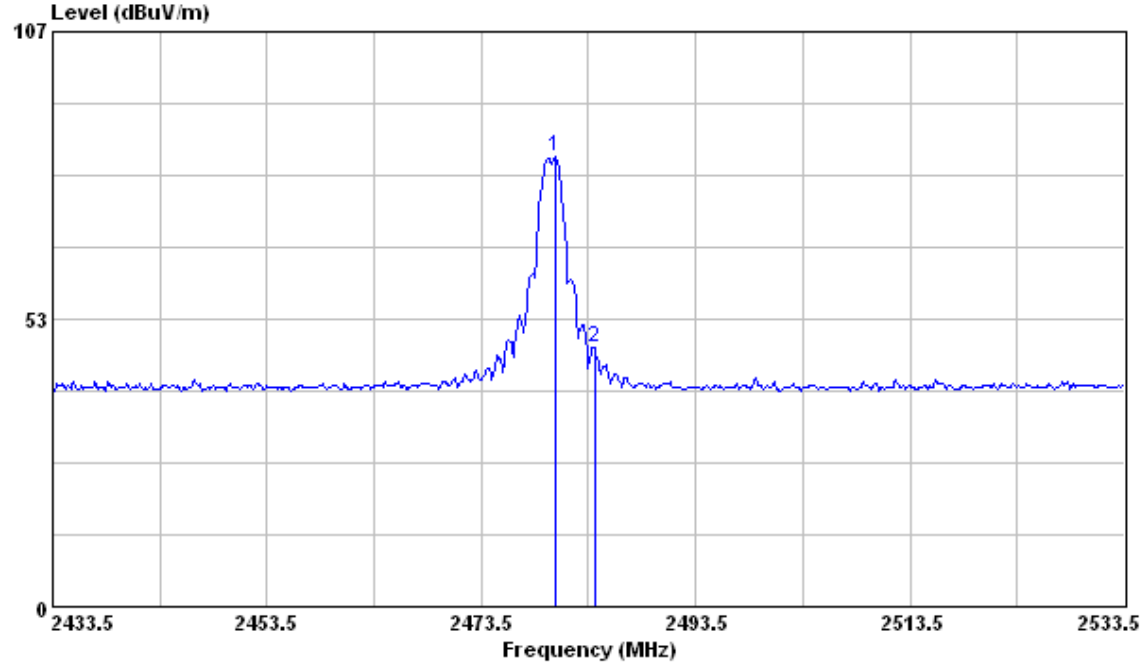
Low Channel (2405MHz) Vertical Horizontal



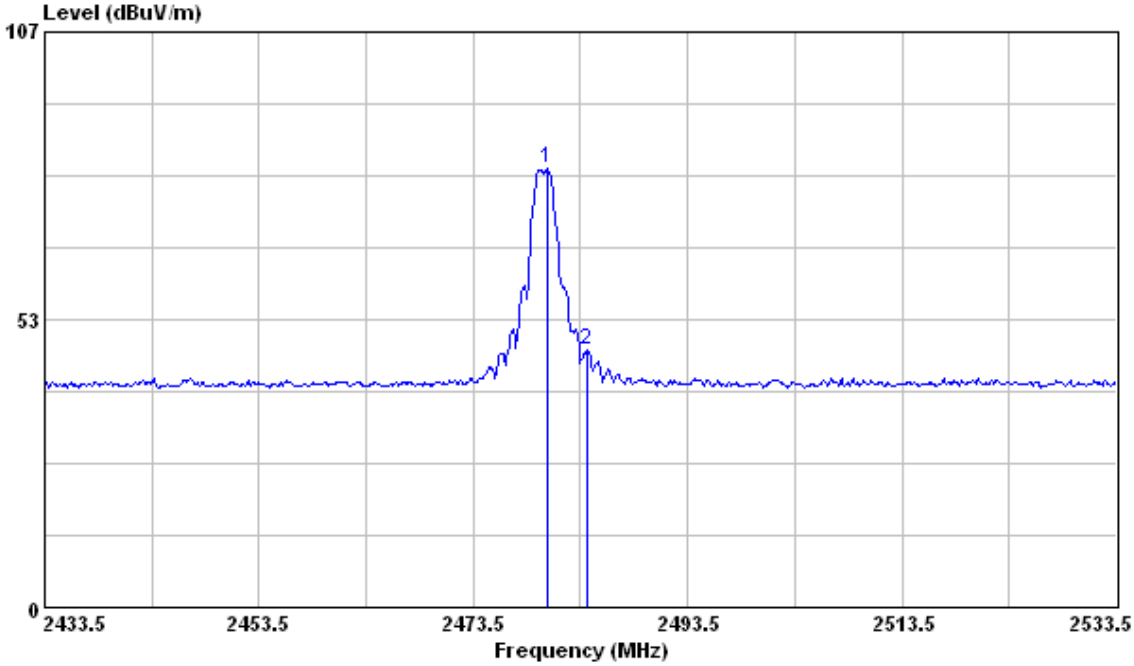
Low Channel (2405MHz) Horizontal



High Channel (2480MHz) Vertical



High Channel (2480MHz) Horizontal



Restricted Bandedge Measurement

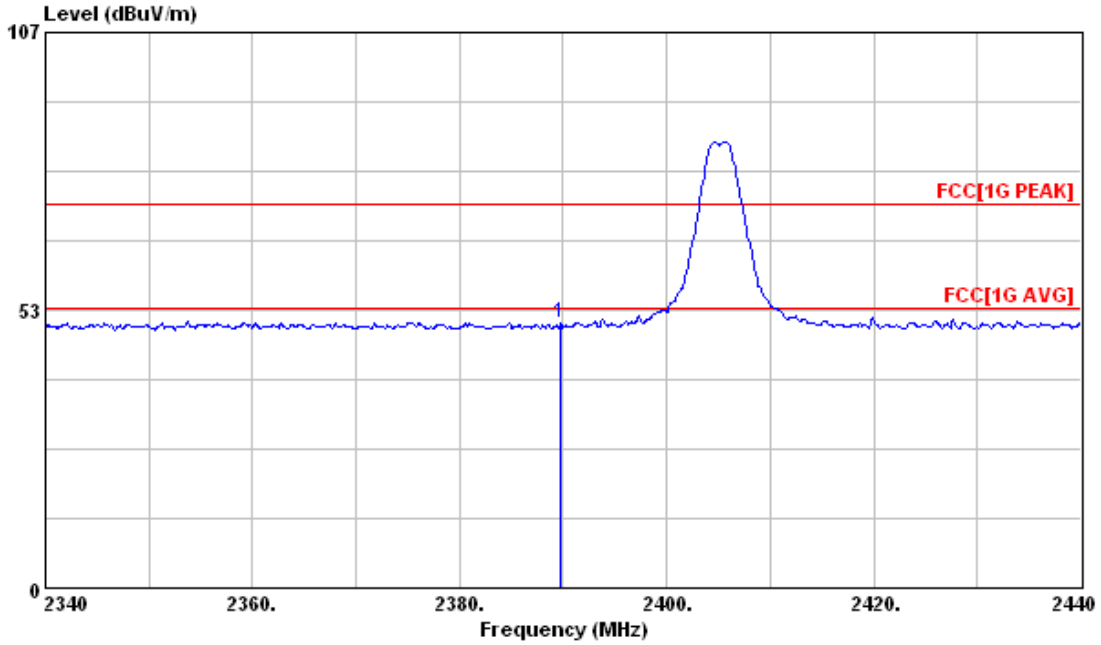
Test Mode : Continuous Transmitting **Tester : Liu**

Operating Frequency (MHz)	Antenna Polarization	Frequency (MHz)	Reading Data (dBuV)		Correction Factor (dB/m)	Emission (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
			PK.	AV.		PK.	AV.	PK.	AV.	PK.	AV.
2405	V	2389.80	49.87	38.95	1.26	51.13	40.21	74.00	54.00	22.87	13.79
2405	H	2366.50	50.29	40.23	1.17	51.46	41.4	74.00	54.00	22.54	12.6
2480	V	2483.5	57.99	51.88	1.47	59.46	53.35	74.00	54.00	14.54	0.65
2480	H	2483.5	57.53	51.10	1.47	59.00	52.57	74.00	54.00	15.00	1.43

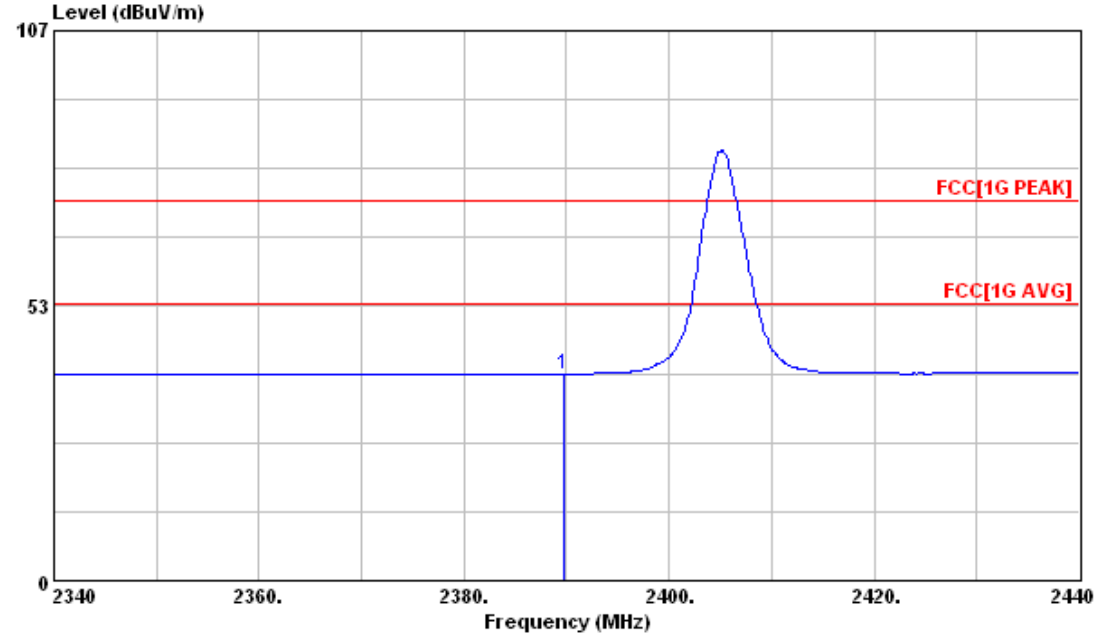
Note:

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
4. “*” : The emission is too low to be measured.

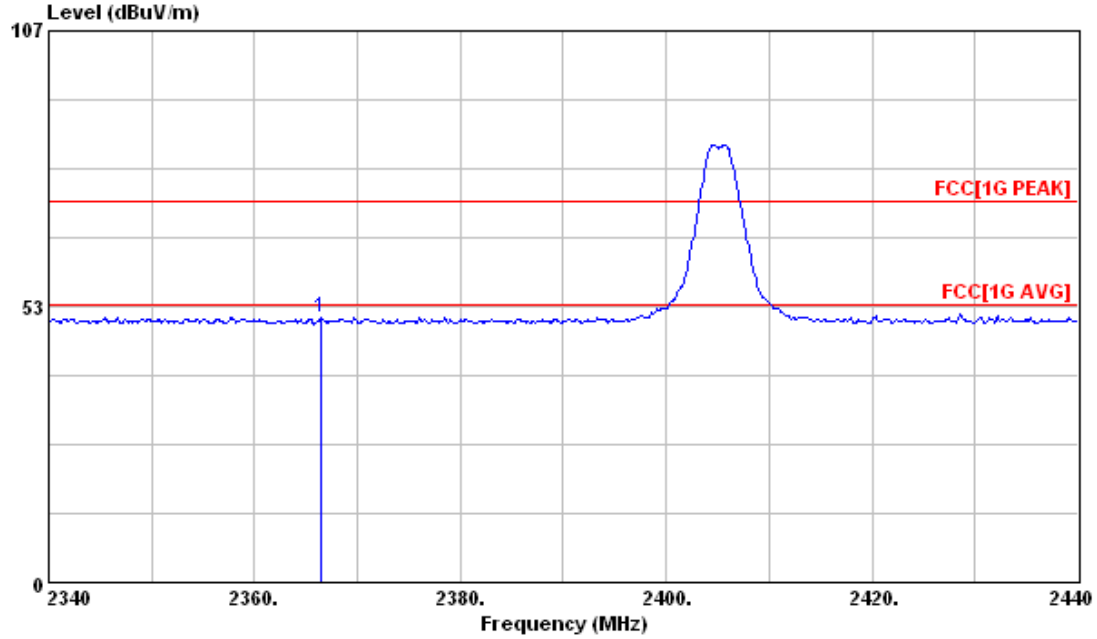
Low Channel (2405MHz), V Polarization – PK.



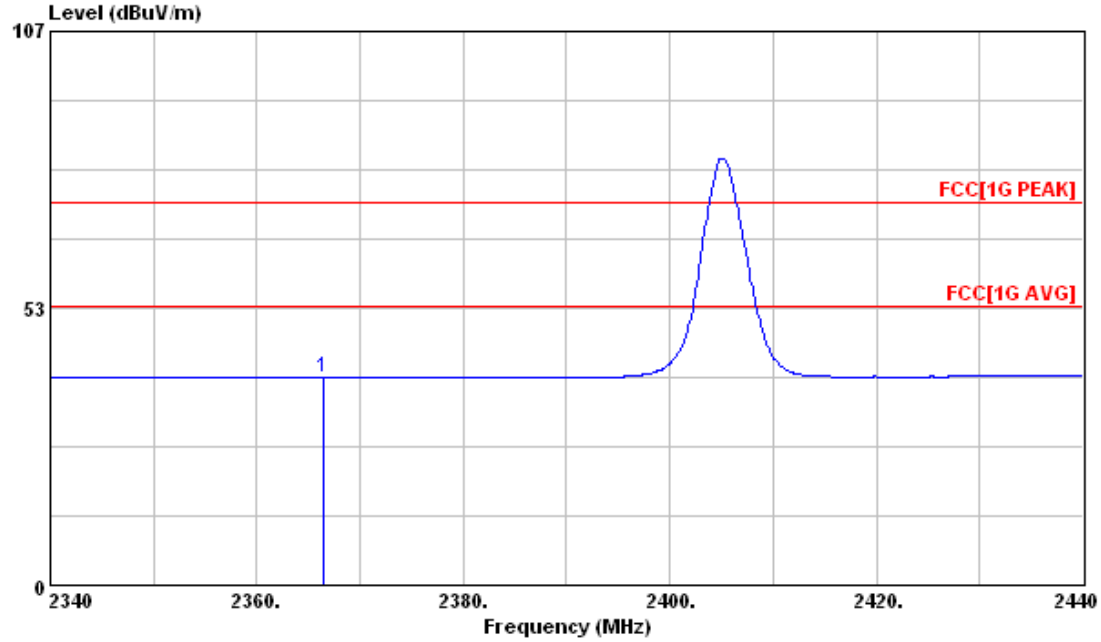
Low Channel (2405MHz), V Polarization – AV.



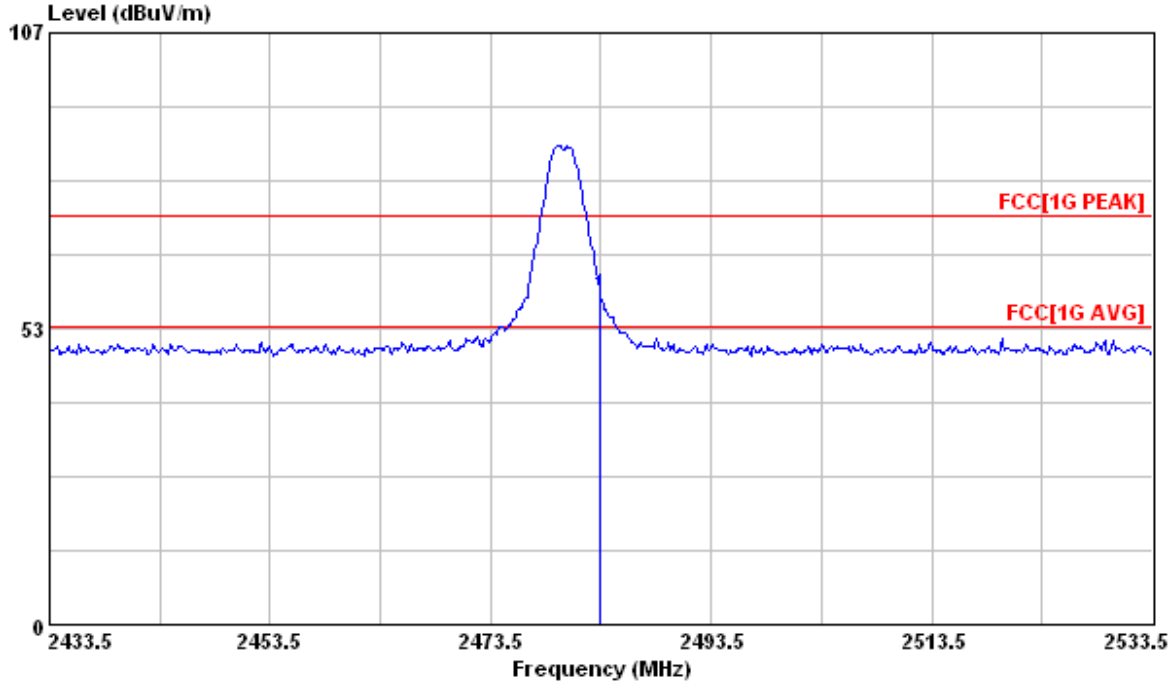
Low Channel (2405MHz), H Polarization – PK.



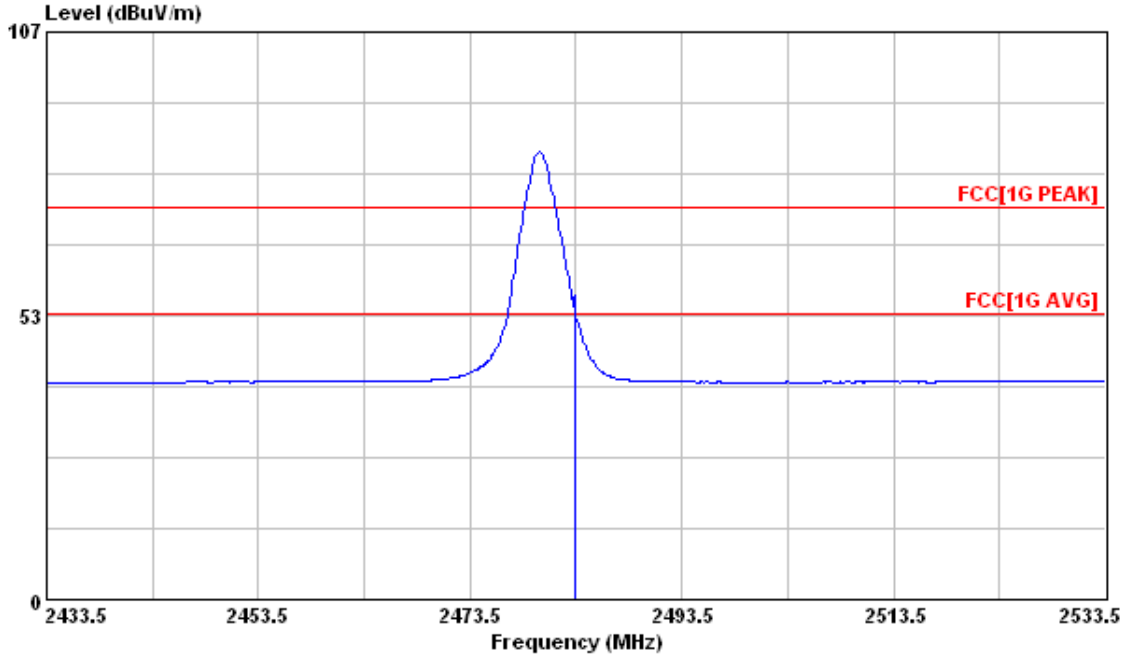
Low Channel (2405MHz), H Polarization – AV.



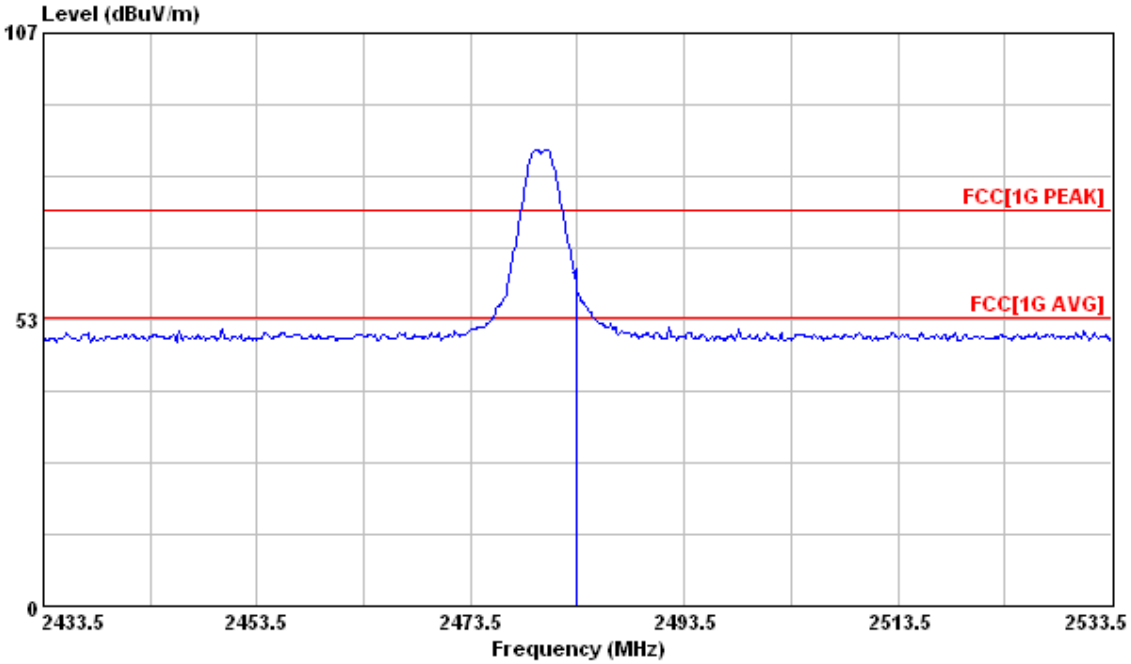
High Channel (2480MHz), V Polarization – PK.



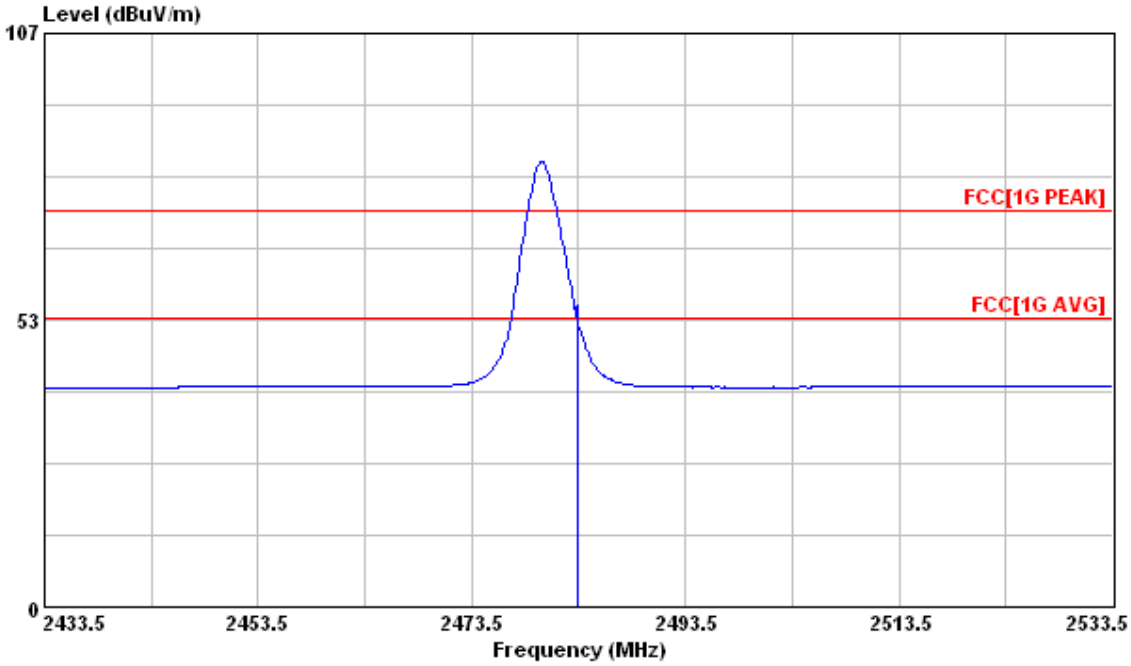
High Channel (2480MHz), V Polarization – AV.



High Channel (2480MHz), H Polarization – PK.



High Channel (2480MHz), H Polarization – AV.



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	2010/3/25	2011/3/25
Chamber	NA	TR13	NCR	NCR

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	

Climatic Condition

Ambient Temperature：22℃ Relative Humidity :60%

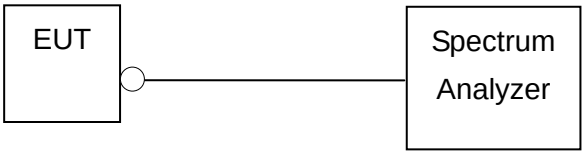
4.3 Measurement Procedure

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

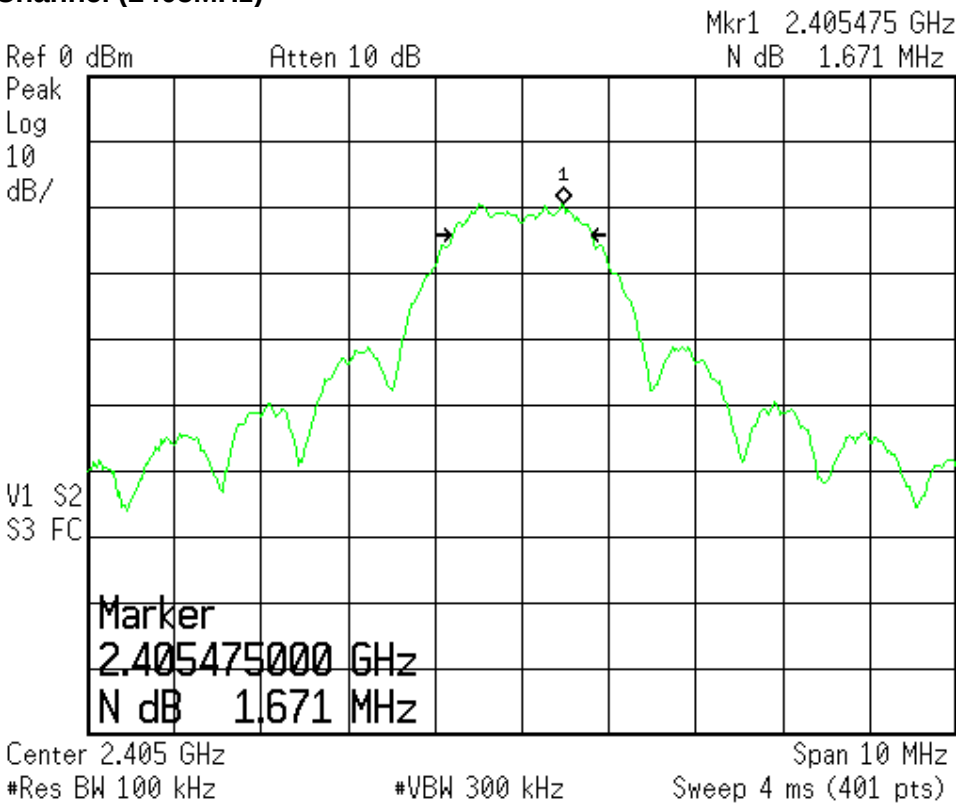


4.5 Test Data

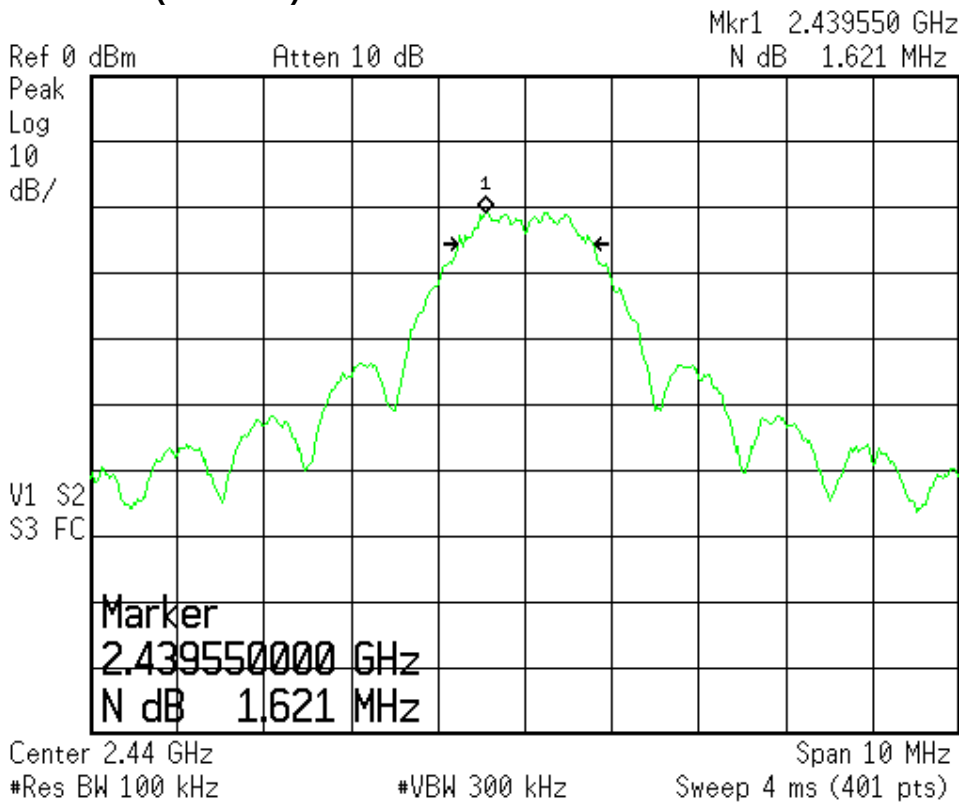
Test Mode : Continuous Transmitting **Tester** **:** Jun Kong

Operating Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (kHz)
2405	1.671	500
2440	1.621	500
2480	1.646	500

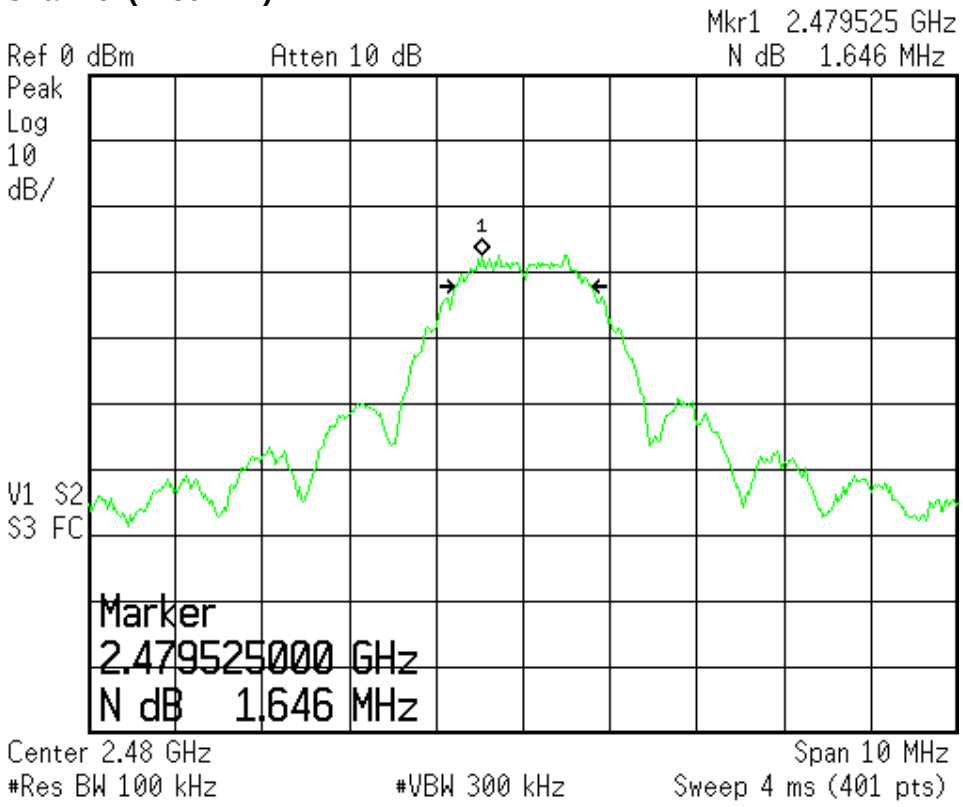
Low Channel (2405MHz)



Middle Channel (2440MHz)



High Channel (2480MHz)



5 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

See section 2.2

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. According KDB 558074 - PDS Option1, measure the peak power spectrum density and compare with the required limit.

5.4 Test configuration

See section 2.4.

5.5 Test Data

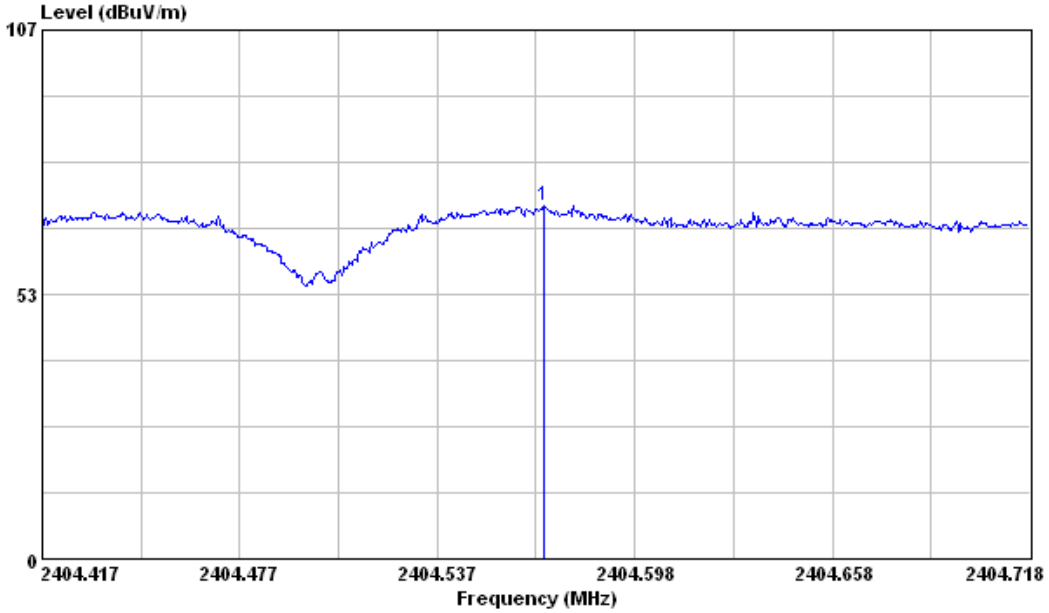
Test Mode : Continuous Transmitting **Tester : Liu**

Operating Frequency (MHz)	Polarization	Reading Data (dBuV)	Correction Factor (dB/m)	Emission (dBuV/m)	Peak output power (dBm)	Limit (dBm)	Margin (dB)
2404.57	Vertical	70.14	1.31	71.45	-25.73	8	33.73
2404.43	Horizontal	71.45	1.31	72.76	-24.42	8	32.42
2440.44	Vertical	72.76	1.38	74.14	-23.04	8	31.04
2440.44	Horizontal	74.14	1.38	75.52	-21.66	8	29.66
2480.44	Vertical	75.52	1.46	76.98	-20.20	8	28.20
2479.57	Horizontal	76.98	1.46	78.44	-18.74	8	26.74

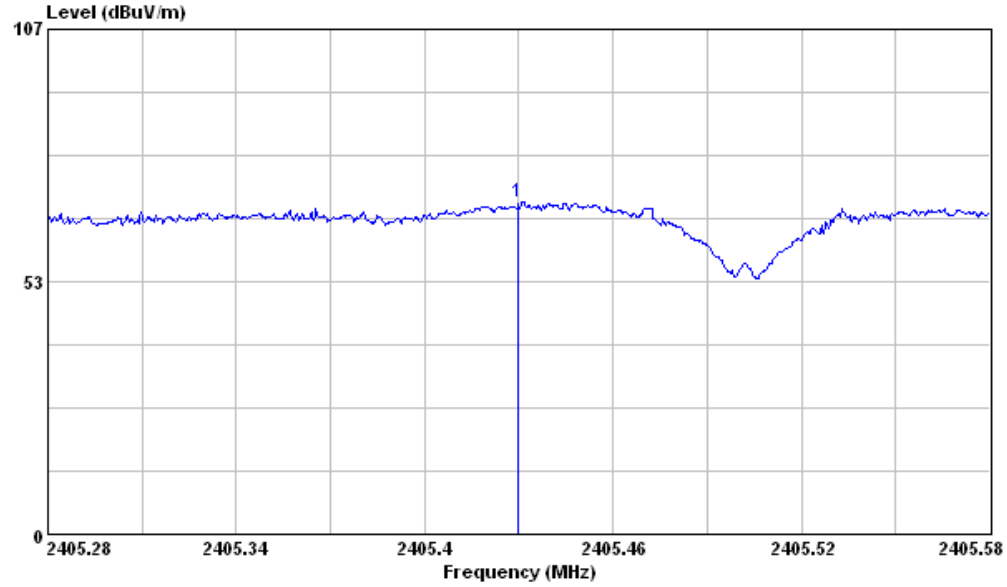
Note:

1. Correction Factor (dB) = Antenna factor + Cable Loss - pre-amplifier
2. Emission (dBuV/m) = Reading Data + Correction Factor
3. Peak output power (dBm) = Emission – 97.18(see section 2.1)
4. Margin (dB) = Limit – Peak output power

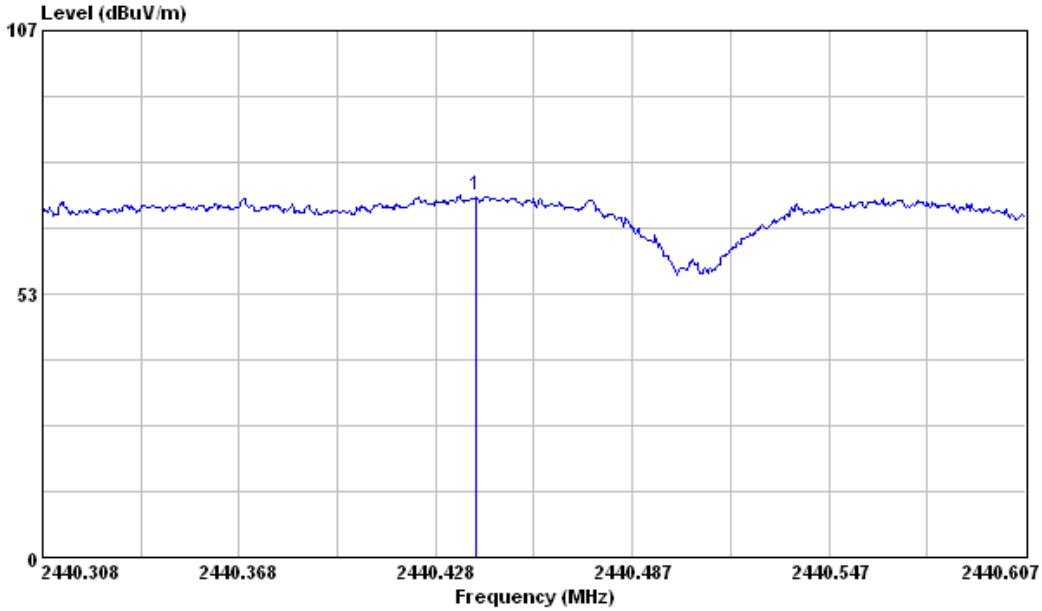
Low Channel (2405MHz) Vertical



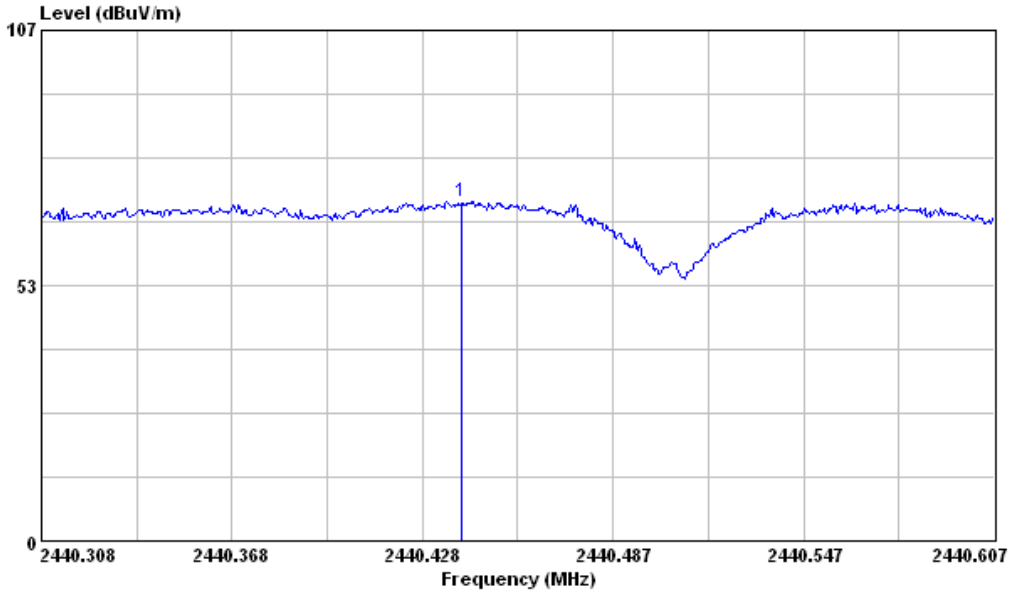
Low Channel (2405MHz) Horizontal



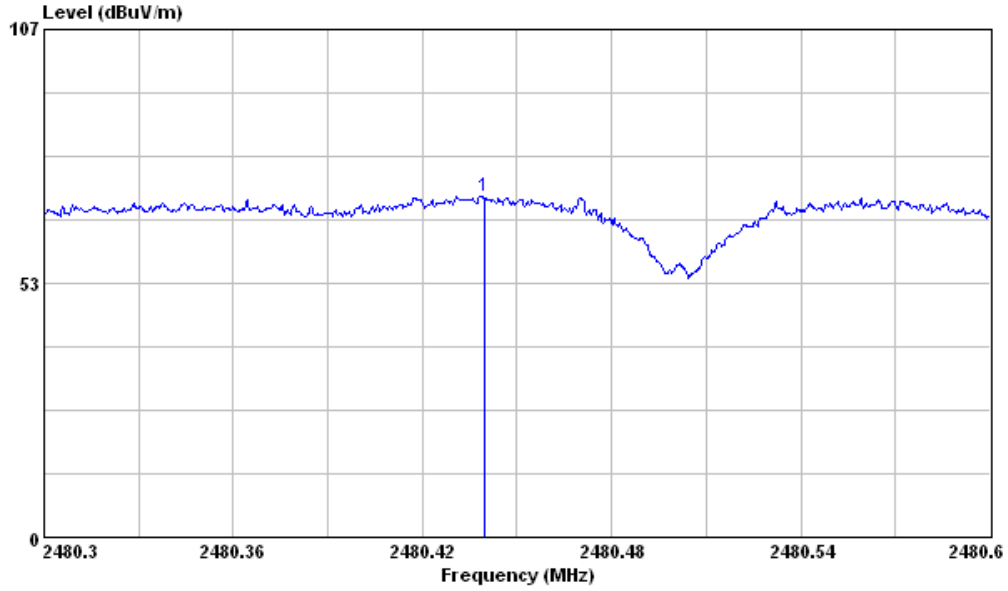
Middle Channel (2440MHz) Vertical



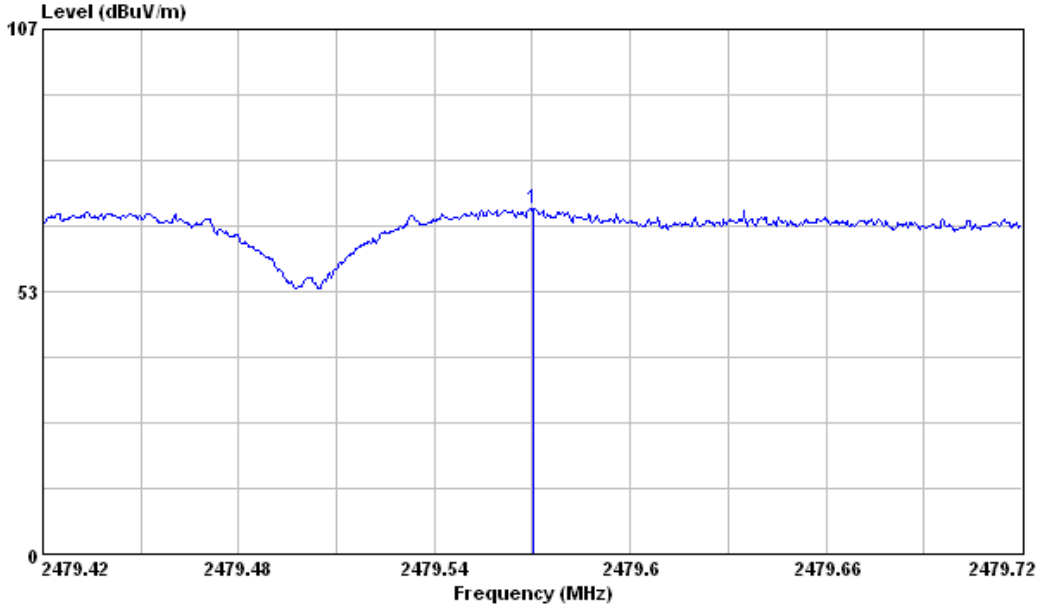
Middle Channel (2440MHz) Horizontal



High Channel (2480MHz) Vertical



High Channel (2480MHz) Horizontal



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
Test Receiver	R&S	ESCI/100019	2010/5/18	2011/5/18
Spectrum Analyzer	Agilent	E4407B/ MY45106795	2010/5/3	2011/5/3
Broadband Antenna	EMCO	3142C/52088	2010/5/17	2011/5/17
Antenna	EMCO	3117/57416	2011/3/4	2012/3/4
Antenna	EMCO	3116/20533	2011/2/11	2012/2/11
Pre-amplifier	MITEQ	JS4-00101800-28-10P/74229	2010/12/15	2011/12/15
Pre-amplifier	Mini Circuit	ZKL-2/004	2010/8/7	2011/8/7
RF Cable	N/A	N/A/C0080	2010/2/7	2011/8/7
RF Cable	N/A	N/A/C0081	2010/10/20	2011/4/20
Semi - anechoic Chamber	ETS. LINDGREN	TR11/ 906-A	2010/4/19	2011/4/19

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 lowest, middle and highest channel frequencies individually.

c. If the EUT is tabletop equipment, it was placed on a non-conducted 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 was 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 was 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. For measurement of frequency above 1000MHz, the beamwidth of receiving horn antenna should keep covering EUT when the receiving horn antenna height varied.

h. 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.

i. Finely tune the antenna and turntable around the recorded position of each frequency found from step g.

j. 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.

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

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

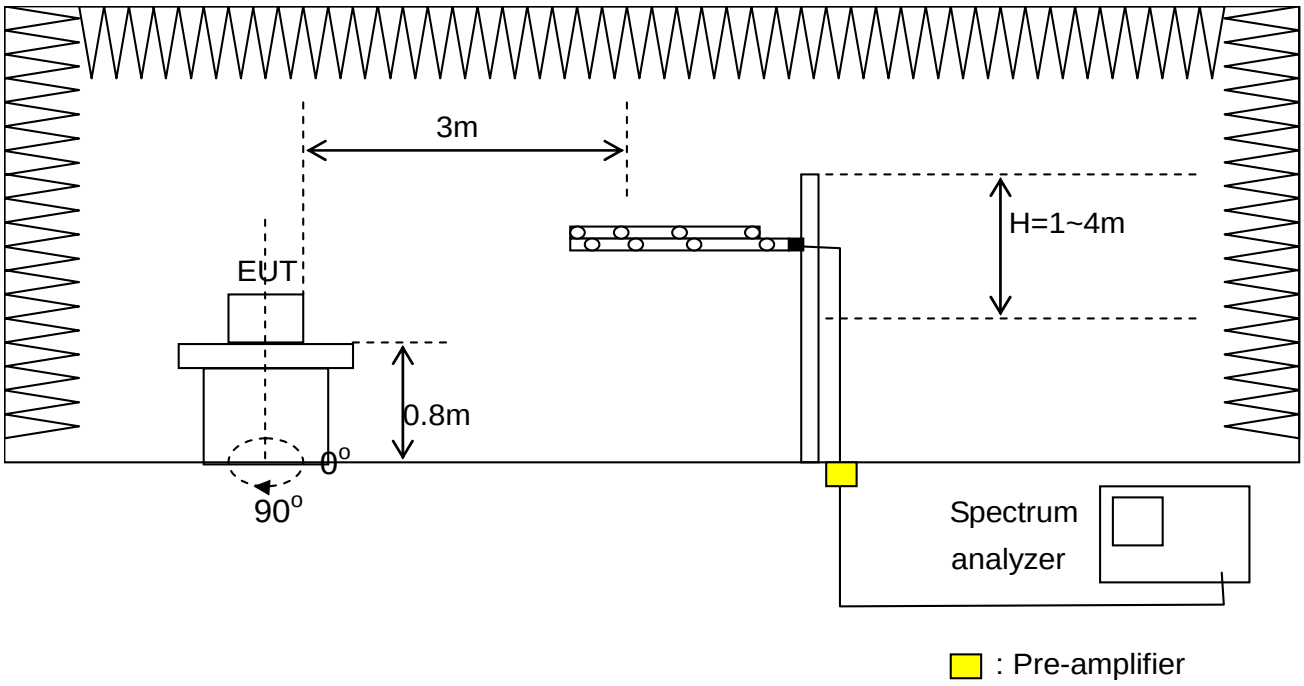
m. Change the receiving antenna to another polarization to measure radiated emission by following step e. to l. again.

n. 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.

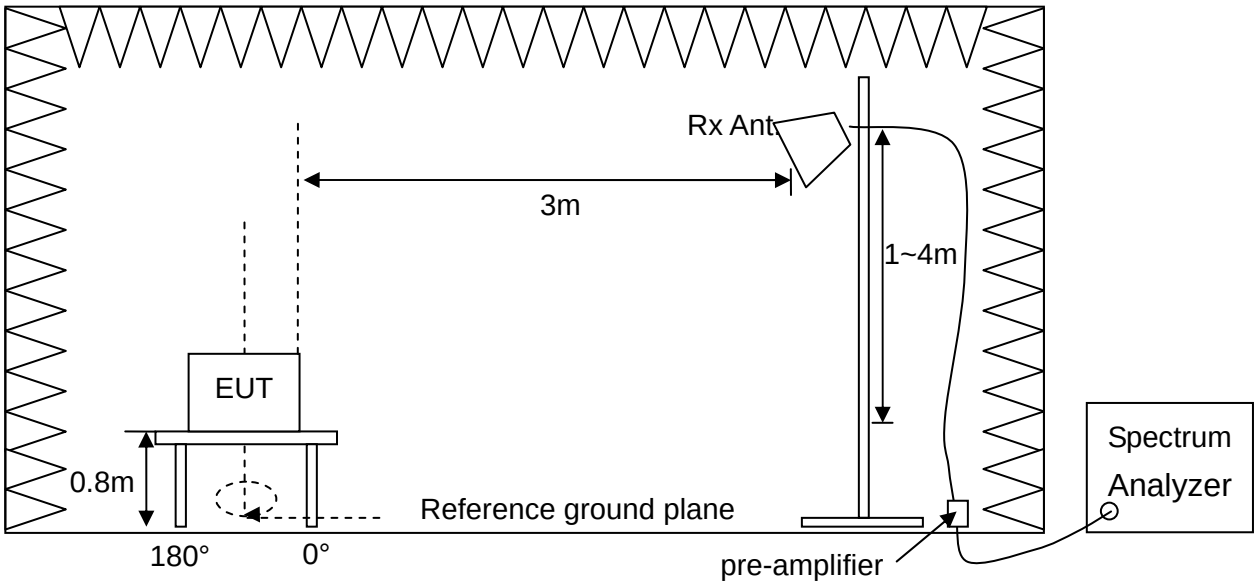
o.If the peak emission level above 1000MHz measured from step f. is 20dB lower than the limit specified, then the emission values presented will be the peak value only. Otherwise, accurate A.V. value will be measured and presented.

6.4 Test configuration

Below 1GHz



Above 1GHz



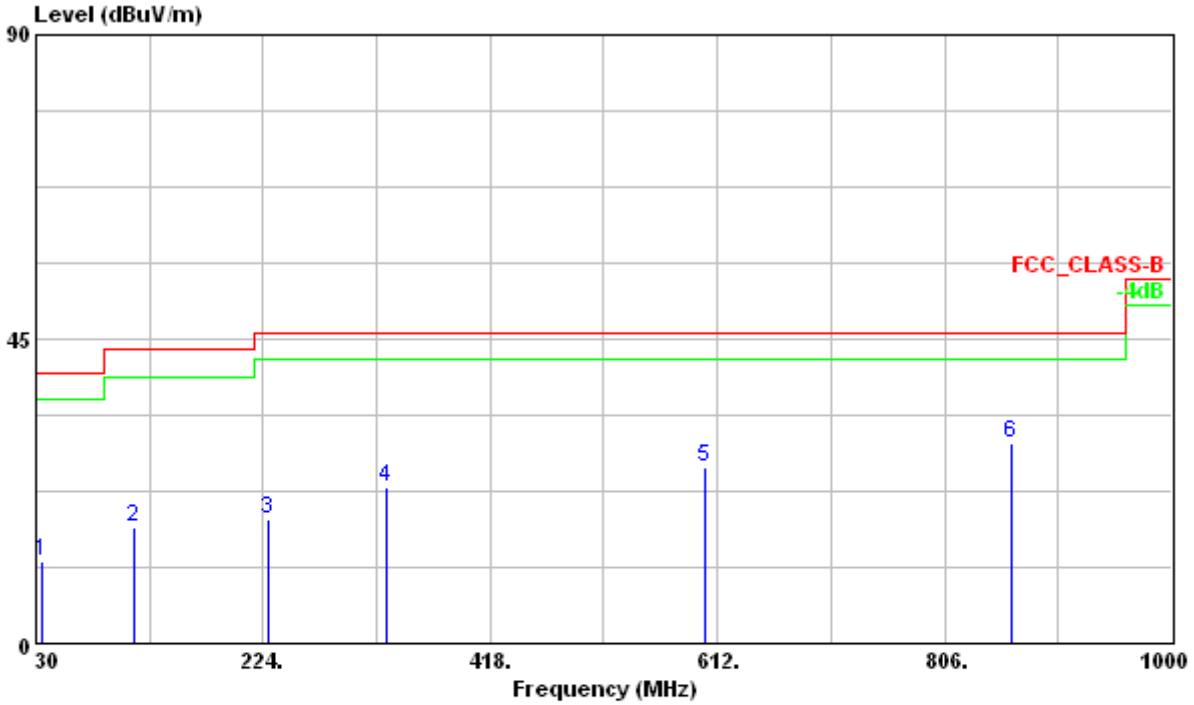
6.5 Test Data

Radiated Emission Measurement below 1000MHz

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

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

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



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	35.672	12.14	-12.23	24.37	40.00	-27.86	100	32	VERTICAL	QP
2	114.510	17.23	-19.67	36.90	43.50	-26.27	---	---	VERTICAL	Peak
3	228.720	18.36	-15.03	33.39	46.00	-27.64	---	---	VERTICAL	Peak
4	329.400	22.98	-11.52	34.50	46.00	-23.02	---	---	VERTICAL	Peak
5	601.000	25.98	-4.93	30.91	46.00	-20.02	---	---	VERTICAL	Peak
6	862.800	29.58	-1.39	30.97	46.00	-16.42	---	---	VERTICAL	Peak

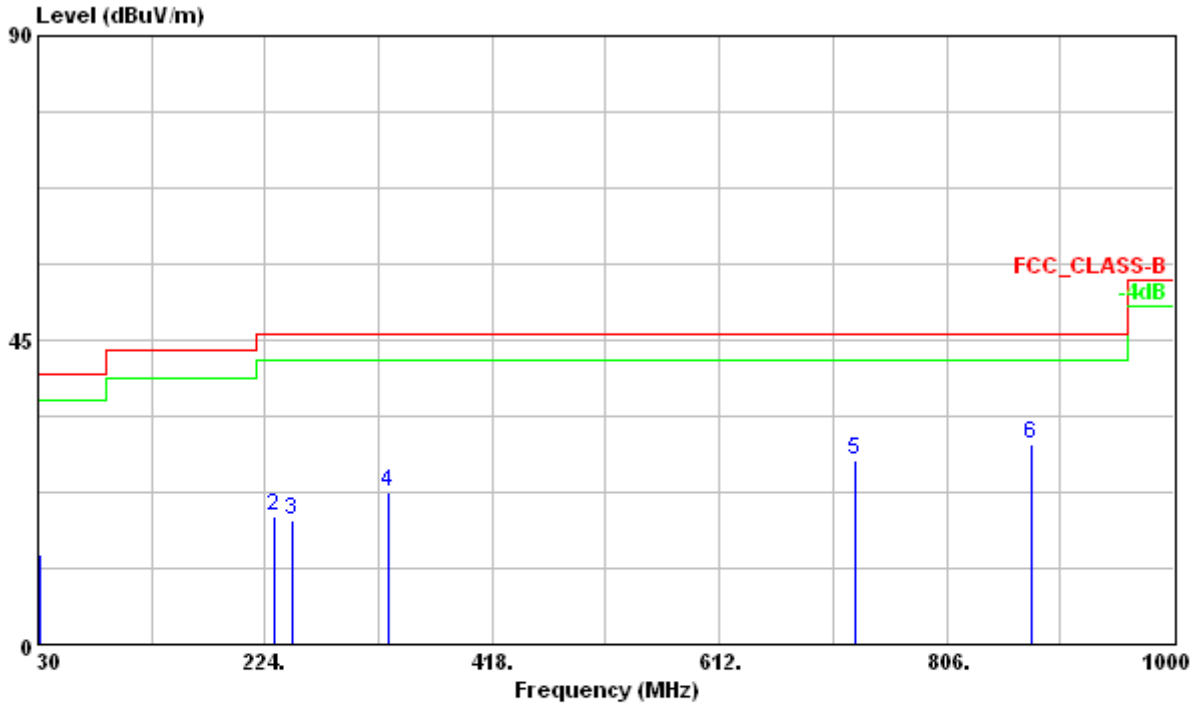
Note：

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

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

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

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

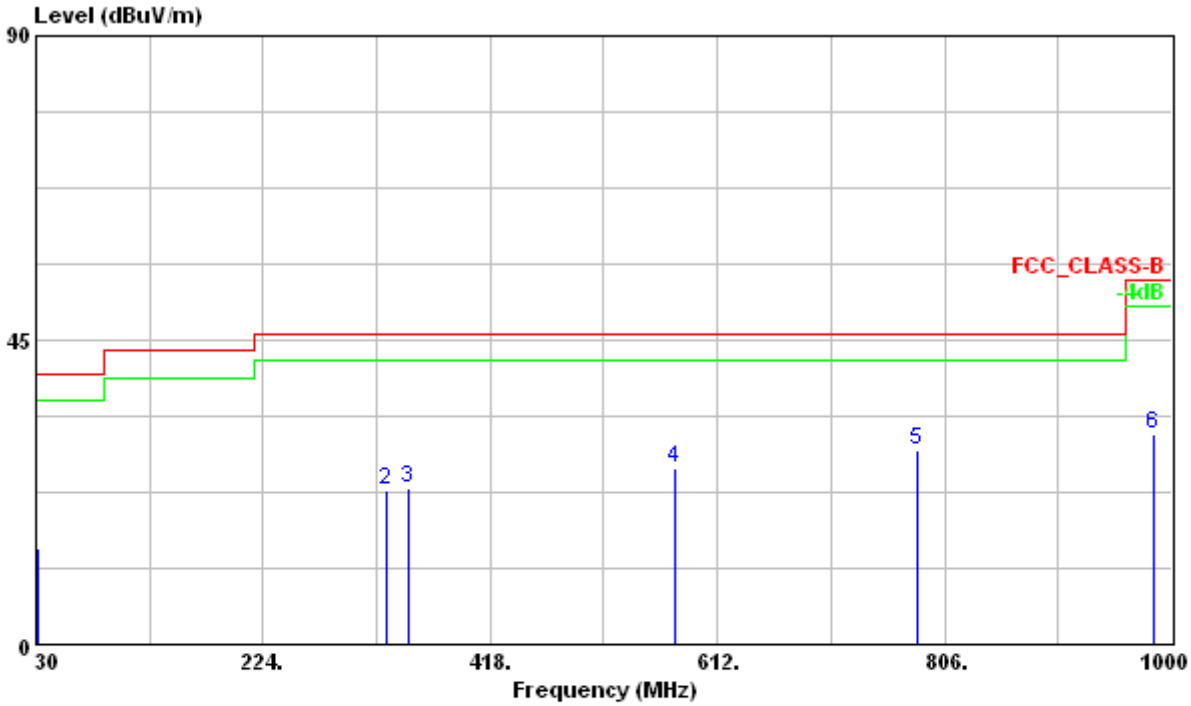


	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	31.080	13.25	-9.65	22.90	40.00	-26.75	100	352	HORIZONTAL	QP
2	232.230	18.80	-14.86	33.66	46.00	-27.20	---	---	HORIZONTAL	Peak
3	247.080	18.35	-14.36	32.71	46.00	-27.65	---	---	HORIZONTAL	Peak
4	329.400	22.51	-11.52	34.03	46.00	-23.49	---	---	HORIZONTAL	Peak
5	727.700	27.38	-3.17	30.55	46.00	-18.62	---	---	HORIZONTAL	Peak
6 @	878.200	29.67	-1.14	30.81	46.00	-16.33	---	---	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	**: 2440MHz, Continuous Transmitting**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Vertical	**Frequency Range**	**:** 30MHz~1000MHz

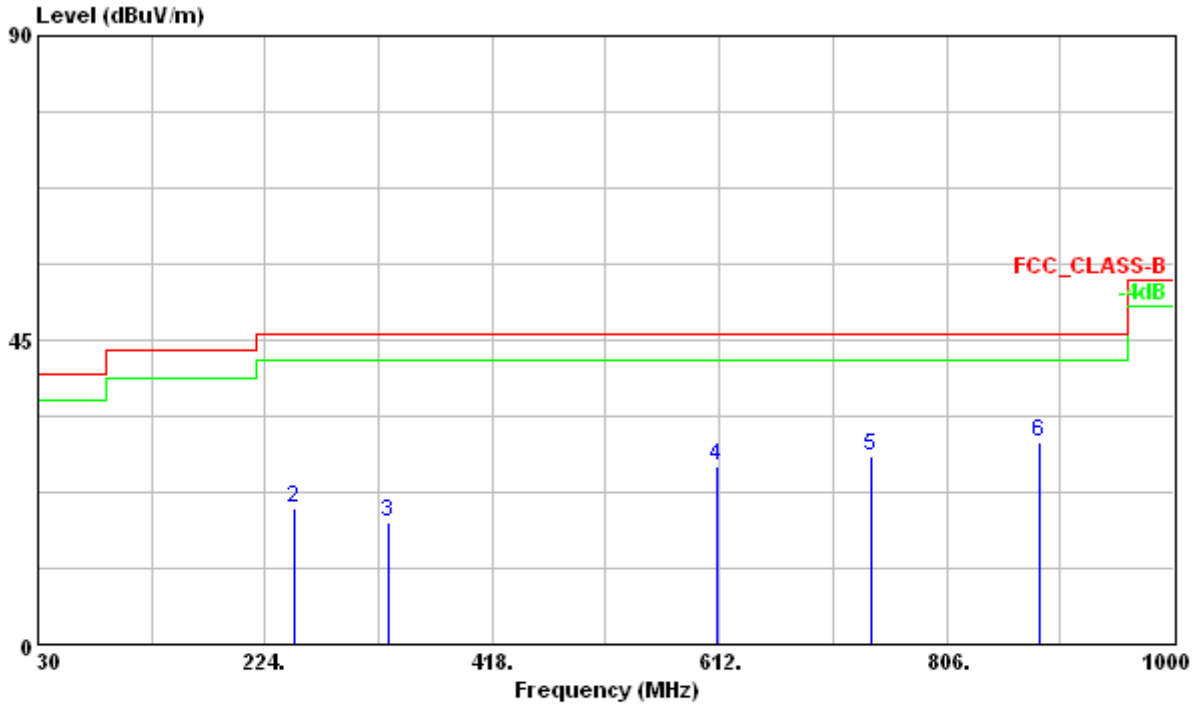


	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	31.940	14.09	-10.14	24.23	40.00	-25.91	100	28	VERTICAL	QP
2	328.760	22.75	-11.54	34.29	46.00	-23.25	---	---	VERTICAL	Peak
3	348.160	23.01	-10.85	33.86	46.00	-22.99	---	---	VERTICAL	Peak
4	576.110	26.07	-5.44	31.51	46.00	-19.93	---	---	VERTICAL	Peak
5	782.720	28.62	-2.79	31.41	46.00	-17.38	---	---	VERTICAL	Peak
6	984.480	30.95	-0.34	31.29	54.00	-23.05	---	---	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	**: 2440MHz, Continuous Transmitting**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Horizontal	**Frequency Range**	**:** 30MHz~1000MHz

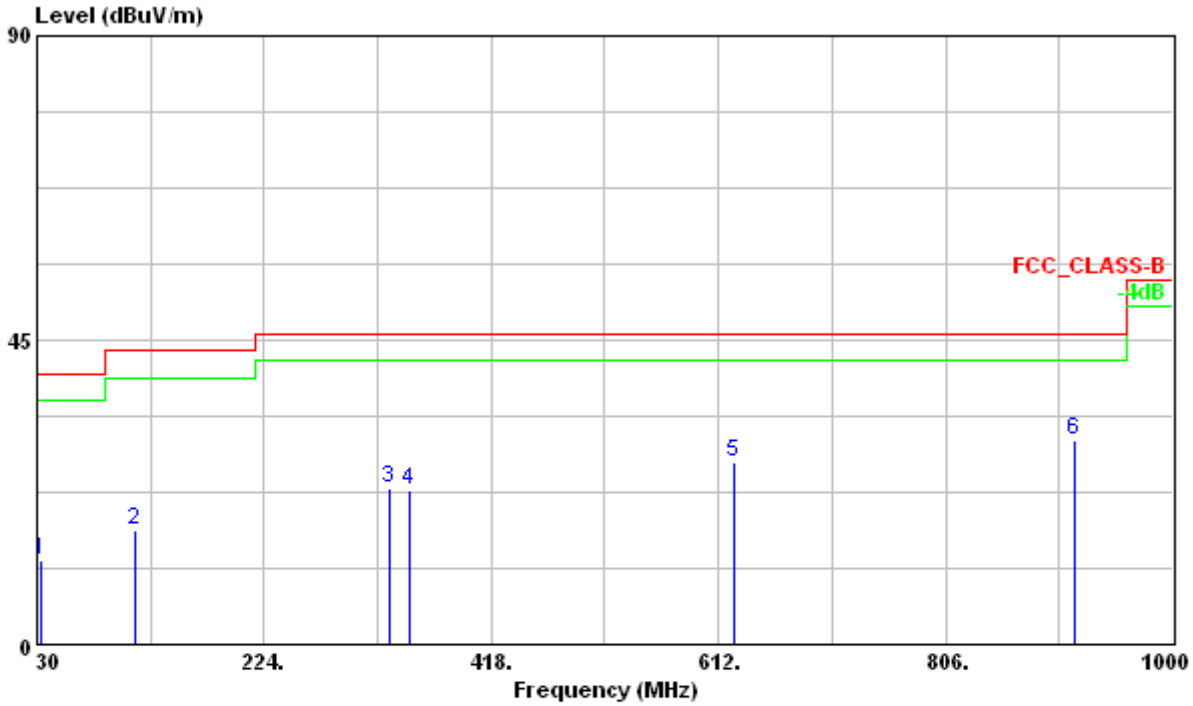


	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	30.000	21.01	-9.03	30.04	40.00	-18.99	---	---	HORIZONTAL	Peak
2	248.250	20.03	-14.32	34.35	46.00	-25.97	---	---	HORIZONTAL	Peak
3	329.005	18.18	-11.53	29.71	46.00	-27.82	100	162	HORIZONTAL	QP
4	610.060	26.47	-4.88	31.35	46.00	-19.53	---	---	HORIZONTAL	Peak
5	741.980	27.73	-3.10	30.83	46.00	-18.27	---	---	HORIZONTAL	Peak
6 @	884.570	30.00	-1.02	31.02	46.00	-16.00	---	---	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	**: 2480MHz, Continuous Transmitting**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Vertical	**Frequency Range**	**:** 30MHz~1000MHz



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	33.880	12.30	-11.23	23.53	40.00	-27.70	100	62	VERTICAL	QP
2	114.390	17.02	-19.66	36.68	43.50	-26.48	---	---	VERTICAL	Peak
3	330.700	23.14	-11.48	34.62	46.00	-22.86	---	---	VERTICAL	Peak
4	348.160	22.75	-10.85	33.60	46.00	-23.25	---	---	VERTICAL	Peak
5	624.610	27.07	-4.82	31.89	46.00	-18.93	---	---	VERTICAL	Peak
6 @	916.580	30.10	-0.77	30.87	46.00	-15.90	---	---	VERTICAL	Peak

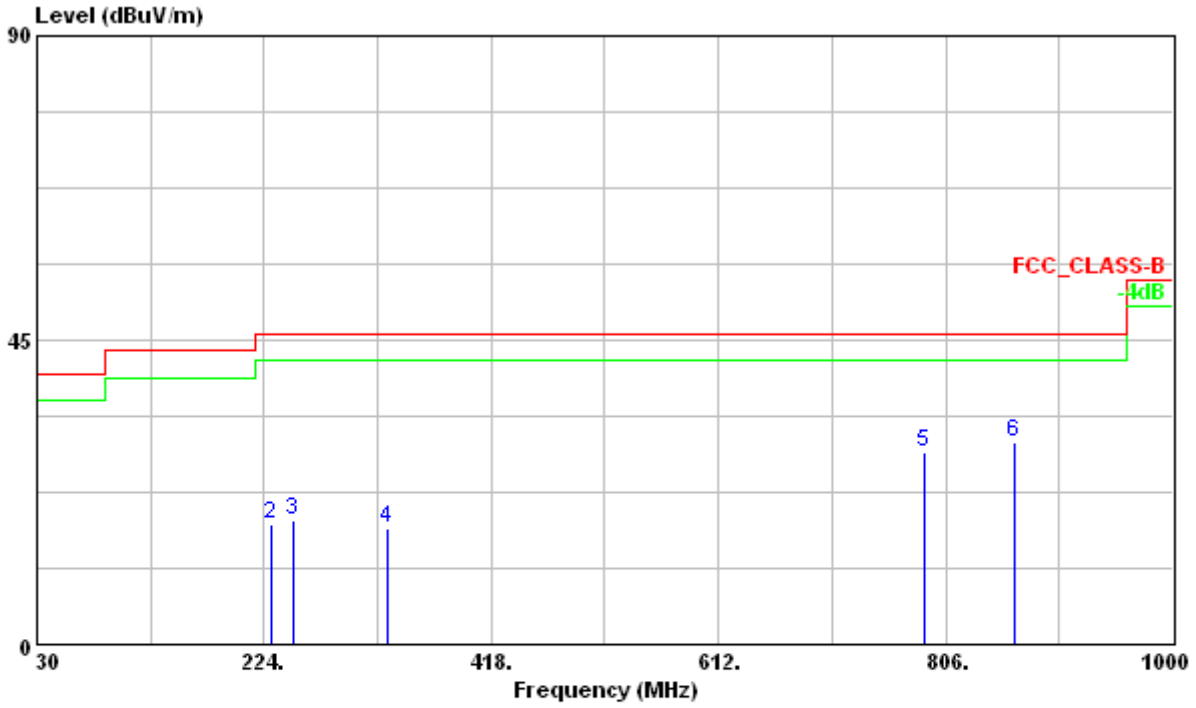
Note：

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

Test Model **: 2480MHz, Continuous Transmitting**

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

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

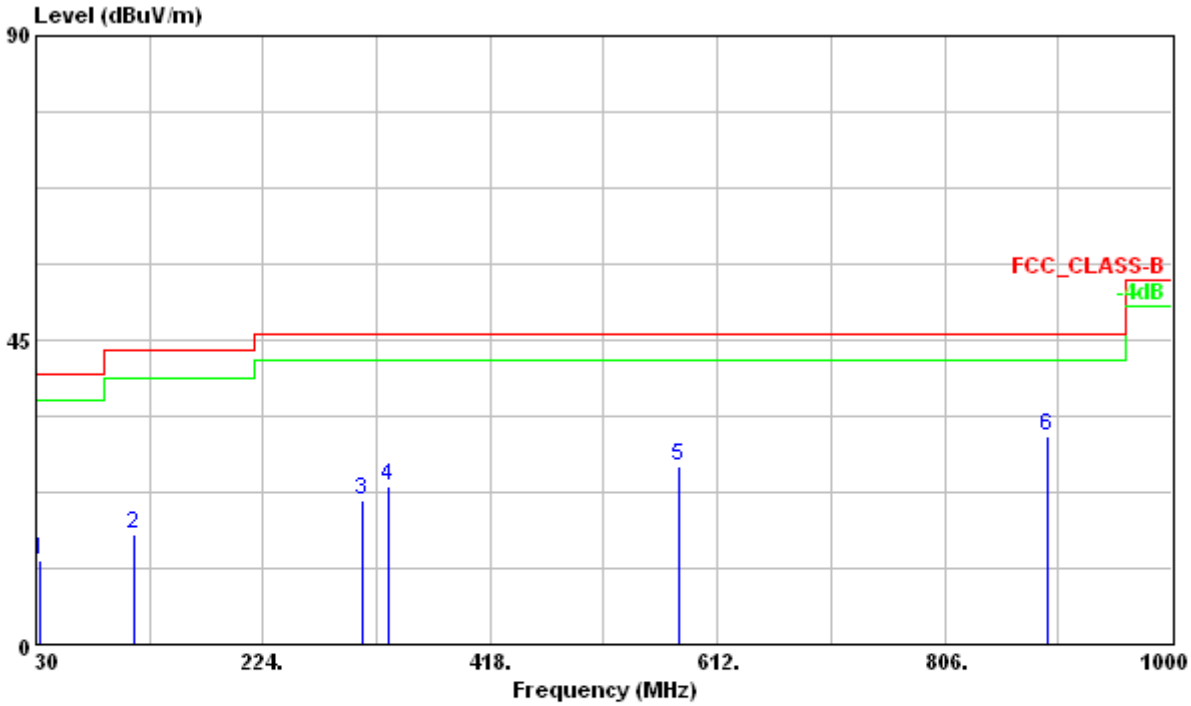


	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	30.000	21.64	-9.03	30.67	40.00	-18.36	---	---	HORIZONTAL	Peak
2	230.790	17.80	-14.92	32.72	46.00	-28.20	---	---	HORIZONTAL	Peak
3	248.250	18.38	-14.32	32.70	46.00	-27.62	---	---	HORIZONTAL	Peak
4	328.680	17.14	-11.54	28.68	46.00	-28.86	101	213	HORIZONTAL	QP
5	787.570	28.53	-2.74	31.27	46.00	-17.47	---	---	HORIZONTAL	Peak
6 @	865.170	29.84	-1.36	31.20	46.00	-16.16	---	---	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	**: 2405MHz, Continuous Receiving**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Vertical	**Frequency Range**	**:** 30MHz~1000MHz



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	33.880	12.43	-11.23	23.66	40.00	-27.57	100	0	VERTICAL	QP
2	114.390	16.35	-19.66	36.01	43.50	-27.15	---	---	VERTICAL	Peak
3	308.390	21.31	-12.26	33.57	46.00	-24.69	---	---	VERTICAL	Peak
4	330.700	23.28	-11.48	34.76	46.00	-22.72	---	---	VERTICAL	Peak
5	579.020	26.23	-5.39	31.62	46.00	-19.77	---	---	VERTICAL	Peak
6 @	894.270	30.84	-0.85	31.69	46.00	-15.16	---	---	VERTICAL	Peak

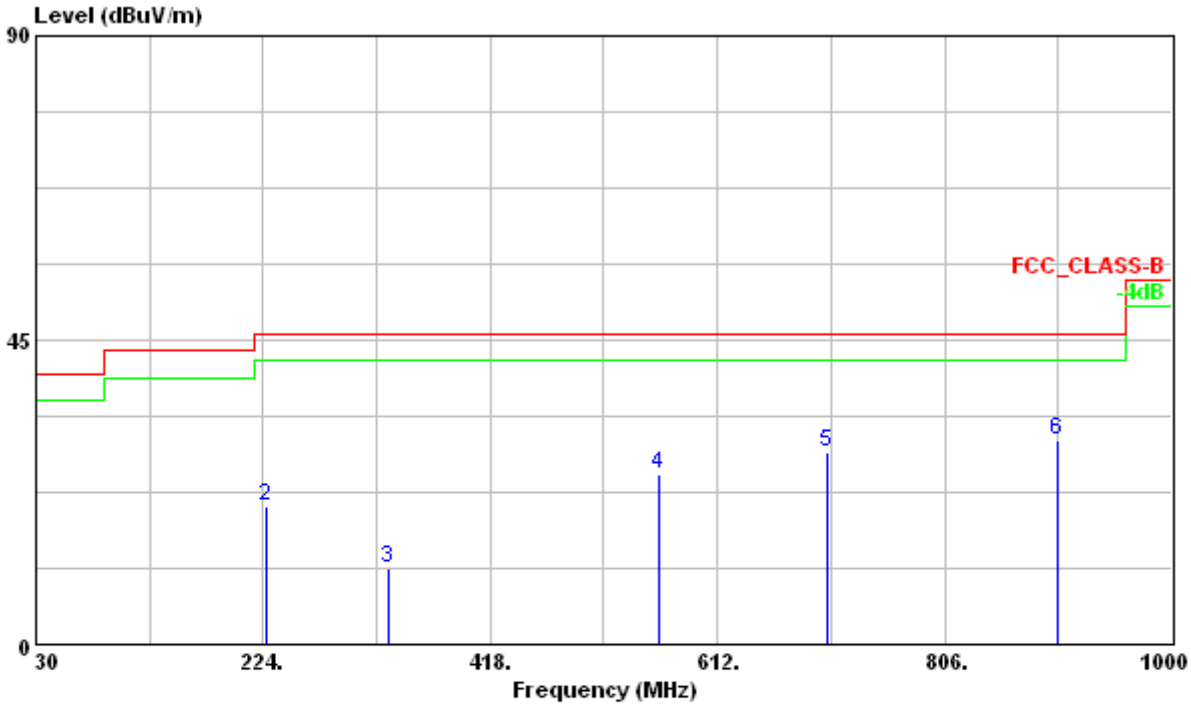
Note：

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

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

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

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

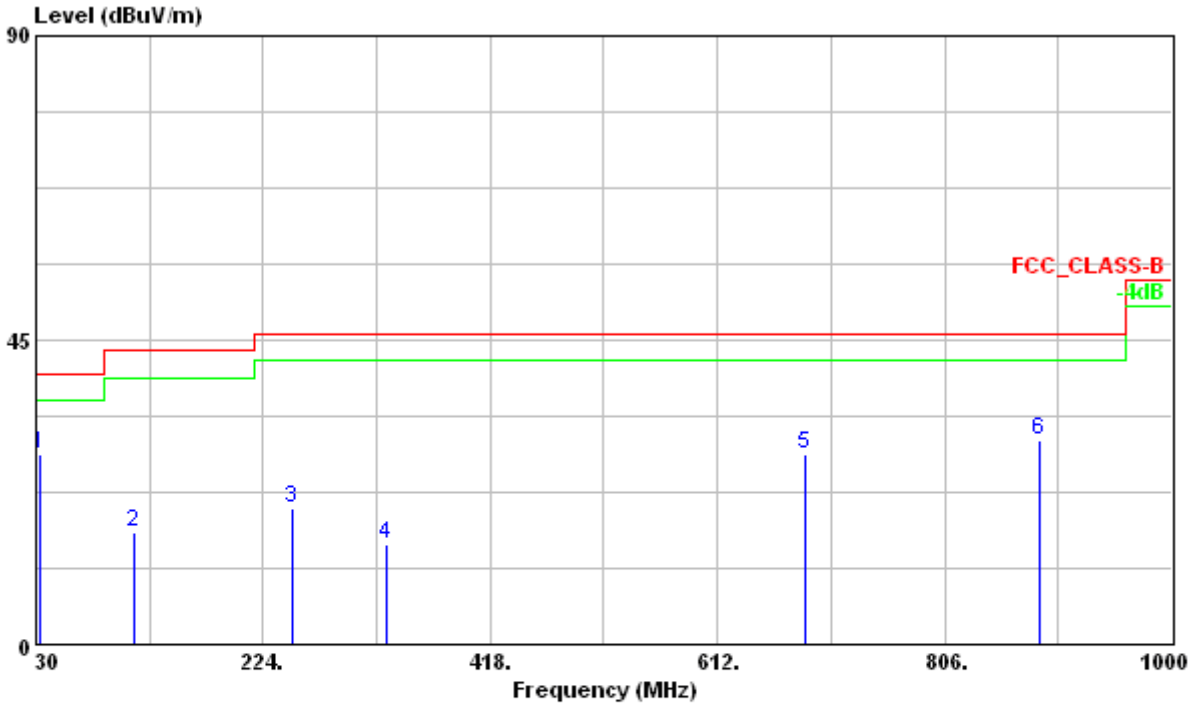


	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	30.000	21.19	-9.03	30.22	40.00	-18.81	---	---	HORIZONTAL	Peak
2	225.940	20.35	-15.20	35.55	46.00	-25.65	---	---	HORIZONTAL	Peak
3	330.700	11.14	-11.48	22.62	46.00	-34.86	100	30	HORIZONTAL	QP
4	561.560	25.29	-5.75	31.04	46.00	-20.71	---	---	HORIZONTAL	Peak
5	705.120	28.33	-3.27	31.60	46.00	-17.67	---	---	HORIZONTAL	Peak
6	902.030	30.18	-0.76	30.94	46.00	-15.82	---	---	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	**: 2440MHz, Continuous Receiving**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Vertical	**Frequency Range**	**:** 30MHz~1000MHz

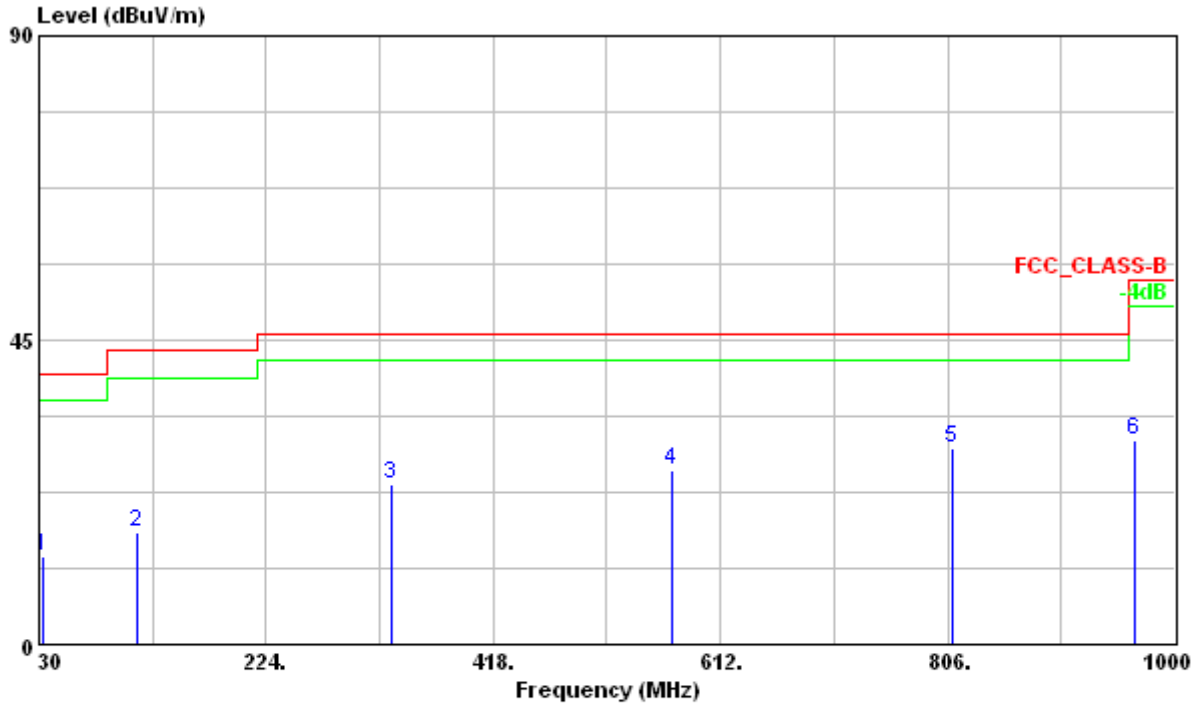


	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1 @	33.880	28.18	-11.23	39.41	40.00	-11.82	---	---	VERTICAL	Peak
2	114.390	16.60	-19.66	36.26	43.50	-26.90	---	---	VERTICAL	Peak
3	248.250	19.99	-14.32	34.31	46.00	-26.01	---	---	VERTICAL	Peak
4	328.800	14.66	-11.54	26.20	46.00	-31.34	101	360	VERTICAL	QP
5	687.660	28.00	-3.63	31.63	46.00	-18.00	---	---	VERTICAL	Peak
6 @	887.480	30.07	-0.98	31.05	46.00	-15.93	---	---	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	**: 2440MHz, Continuous Receiving**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Horizontal	**Frequency Range**	**:** 30MHz~1000MHz

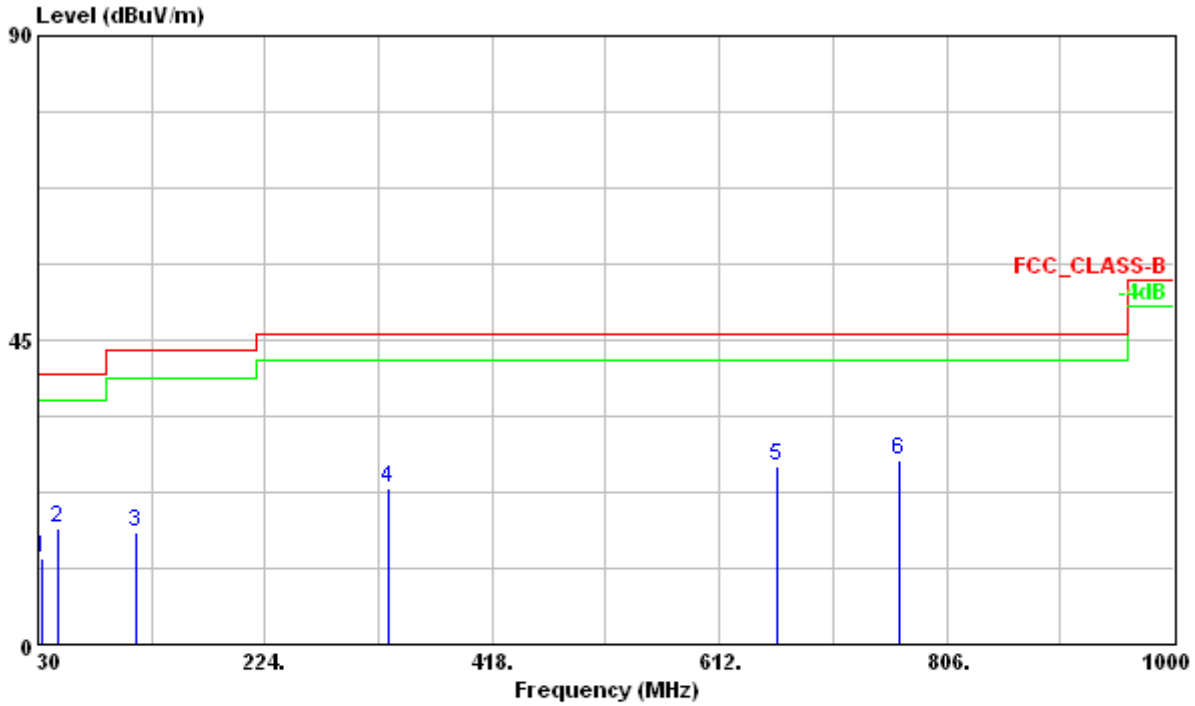


	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	33.880	13.10	-11.23	24.33	40.00	-26.90	100	30	HORIZONTAL	QP
2	114.390	16.67	-19.66	36.33	43.50	-26.83	---	---	HORIZONTAL	Peak
3	330.700	23.78	-11.48	35.26	46.00	-22.22	---	---	HORIZONTAL	Peak
4	571.260	25.72	-5.54	31.26	46.00	-20.28	---	---	HORIZONTAL	Peak
5 @	809.880	29.04	-2.44	31.48	46.00	-16.96	---	---	HORIZONTAL	Peak
6	965.080	30.24	-0.60	30.84	54.00	-23.76	---	---	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	**: 2480MHz, Continuous Receiving**		
Test Distance	**:** 3m	**Tester**	**:** Liu
Polarization	**:** Vertical	**Frequency Range**	**:** 30MHz~1000MHz



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	33.240	12.61	-10.87	23.48	40.00	-27.39	100	10	VERTICAL	QP
2	46.740	17.07	-17.11	34.18	40.00	-22.93	---	---	VERTICAL	Peak
3	114.510	16.70	-19.67	36.37	43.50	-26.80	---	---	VERTICAL	Peak
4	329.400	23.23	-11.52	34.75	46.00	-22.77	---	---	VERTICAL	Peak
5	661.200	26.47	-4.39	30.86	46.00	-19.53	---	---	VERTICAL	Peak
6	766.200	27.09	-2.92	30.01	46.00	-18.91	---	---	VERTICAL	Peak

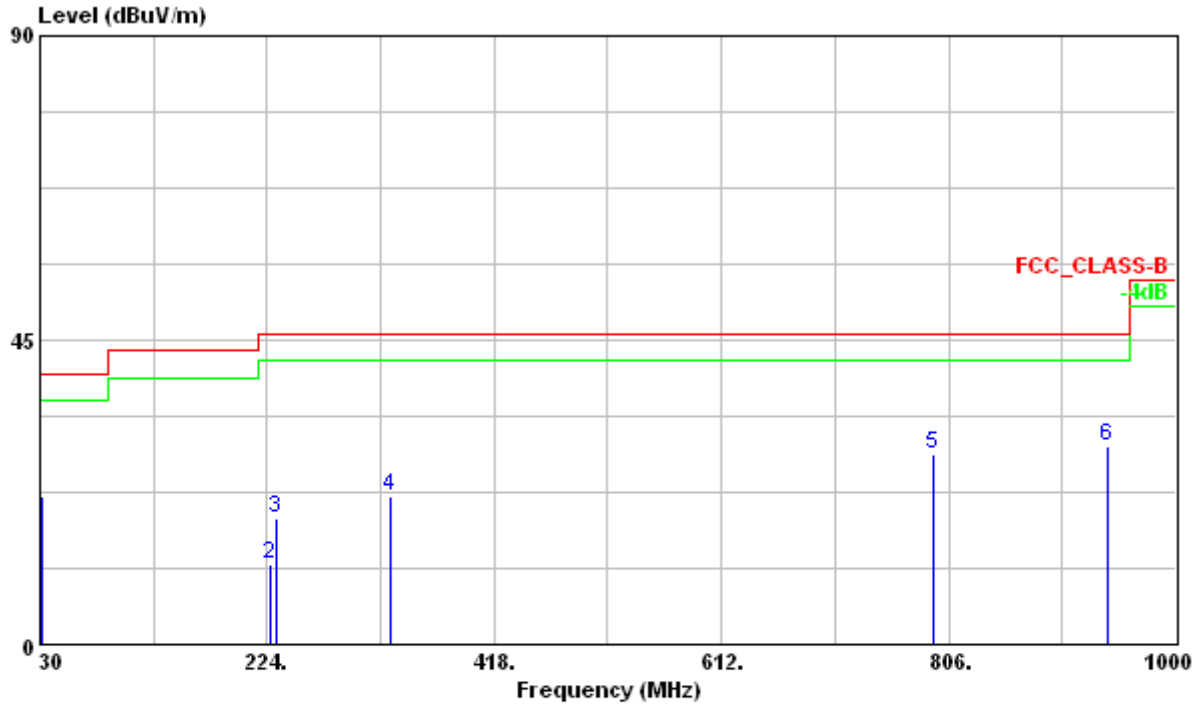
Note：

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

Test Model **: 2480MHz, Continuous Receiving**

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

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



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	31.890	21.86	-10.11	31.97	40.00	-18.14	---	---	HORIZONTAL	Peak
2	226.830	11.99	-15.14	27.13	46.00	-34.01	100	360	HORIZONTAL	QP
3	231.420	18.74	-14.89	33.63	46.00	-27.26	---	---	HORIZONTAL	Peak
4	329.400	21.81	-11.52	33.33	46.00	-24.19	---	---	HORIZONTAL	Peak
5	792.800	28.12	-2.70	30.82	46.00	-17.88	---	---	HORIZONTAL	Peak
6 @	941.900	29.22	-0.80	30.02	46.00	-16.78	---	---	HORIZONTAL	Peak

Note：

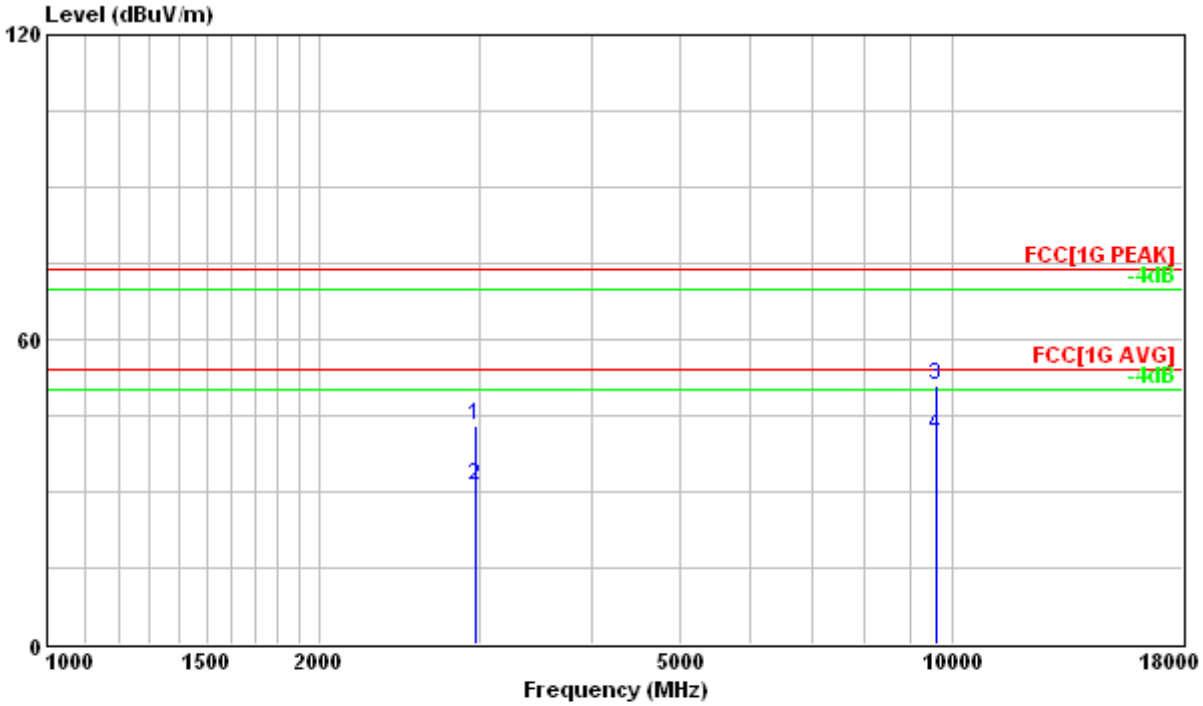
1. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier
2. Emission Level (dBuV/m) = Reading Data + Correction Factor

Radiated Emission Measurement above 1000MHz

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

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

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



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	2983.000	42.86	-35.13	77.99	74.00	-31.14	103	5	VERTICAL	Peak
2	2983.000	31.18	-35.13	66.31	54.00	-22.82	103	5	VERTICAL	Average
3	9622.288	51.02	-23.66	74.68	74.00	-22.98	175	360	VERTICAL	Peak
4	9622.288	41.36	-23.66	65.02	54.00	-12.64	175	360	VERTICAL	Average

Note:

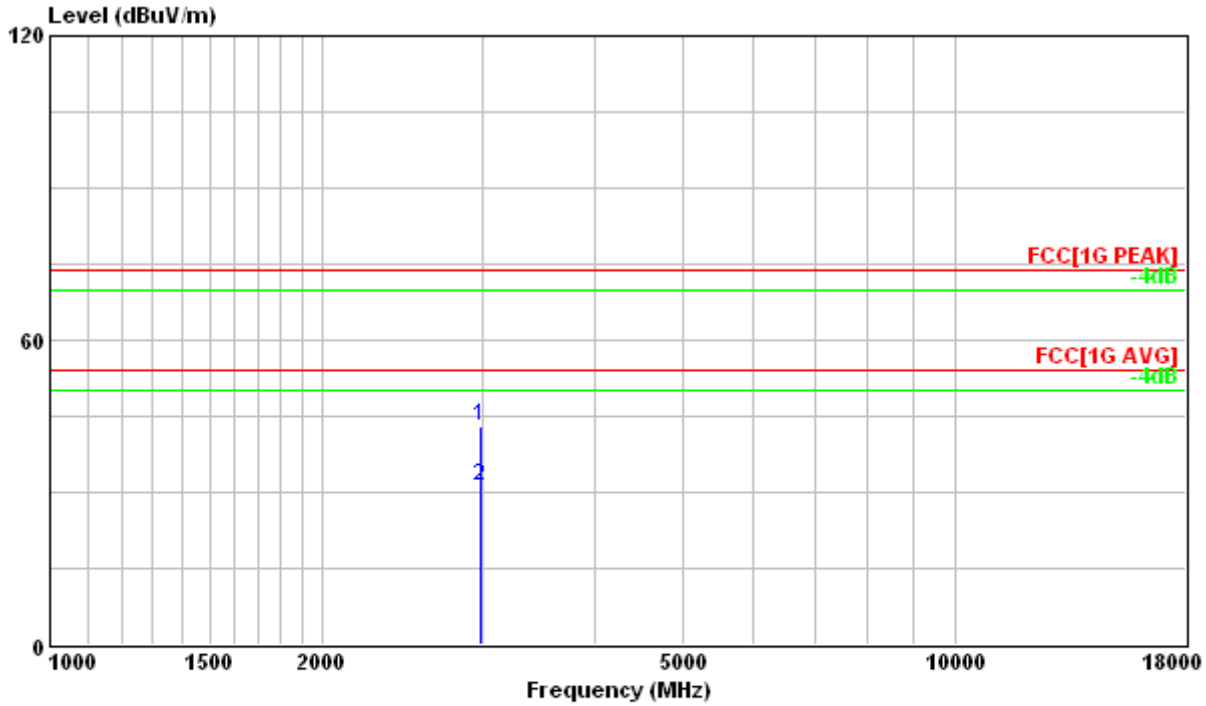
1. Emission Level (dBuV/m) = Reading Value + Correction Factor.
2. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. PK. and AV. are abbreviation of peak and average respectively.

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

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

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

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



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	2998.000	43.20	-35.13	78.33	74.00	-30.80	100	355	HORIZONTAL	Peak
2	2998.000	31.08	-35.13	66.21	54.00	-22.92	100	355	HORIZONTAL	Average

Note:

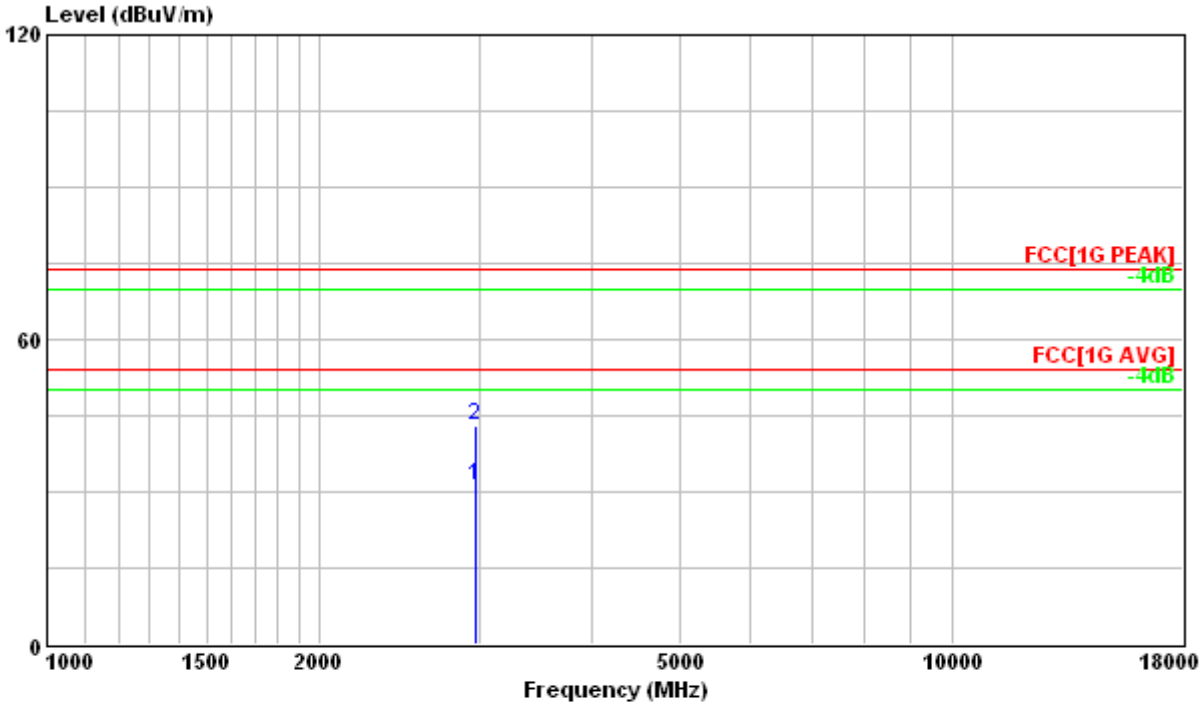
1. Emission Level (dBuV/m) = Reading Value + Correction Factor.
2. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. PK. and AV. are abbreviation of peak and average respectively.

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

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

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

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



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	2972.896	31.09	-35.14	66.23	54.00	-22.91	186	350	VERTICAL	Average
2	2972.896	42.84	-35.14	77.98	74.00	-31.16	186	350	VERTICAL	Peak

Note:

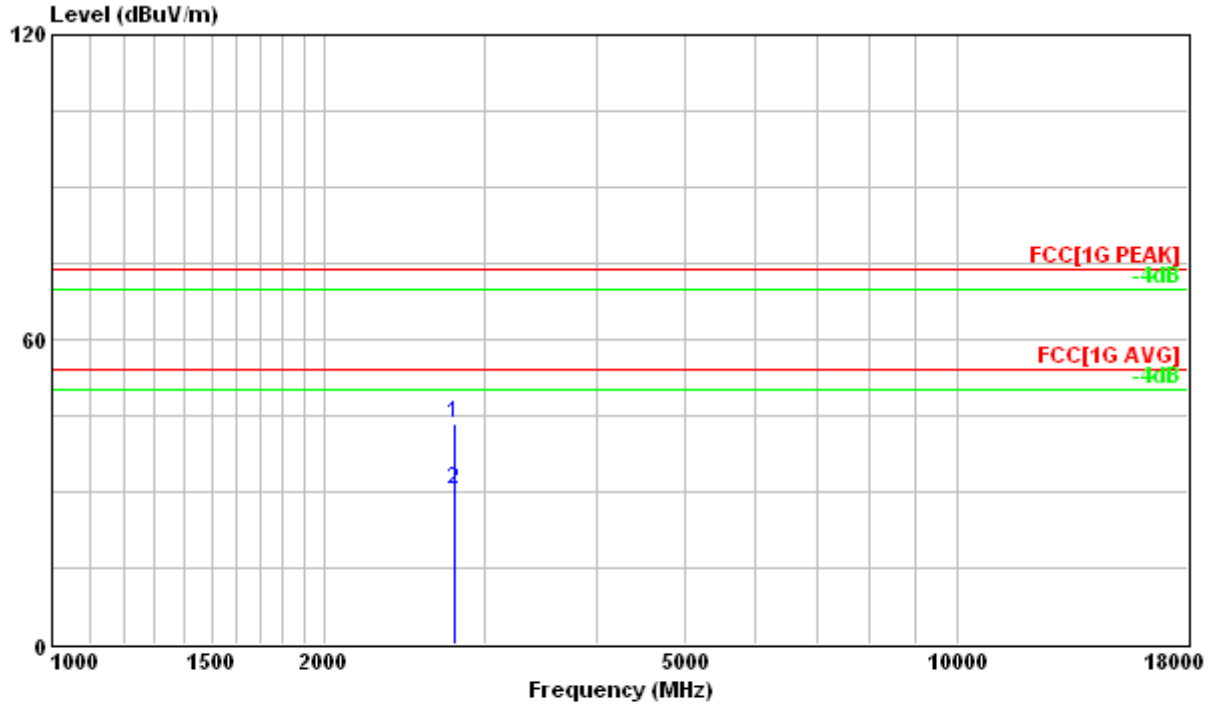
1. Emission Level (dBuV/m) = Reading Value + Correction Factor.
2. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. PK. and AV. are abbreviation of peak and average respectively.

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

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

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

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



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	2779.000	43.26	-35.36	78.62	74.00	-30.74	105	0	HORIZONTAL	Peak
2	2779.000	30.37	-35.36	65.73	54.00	-23.63	105	0	HORIZONTAL	Average

Note:

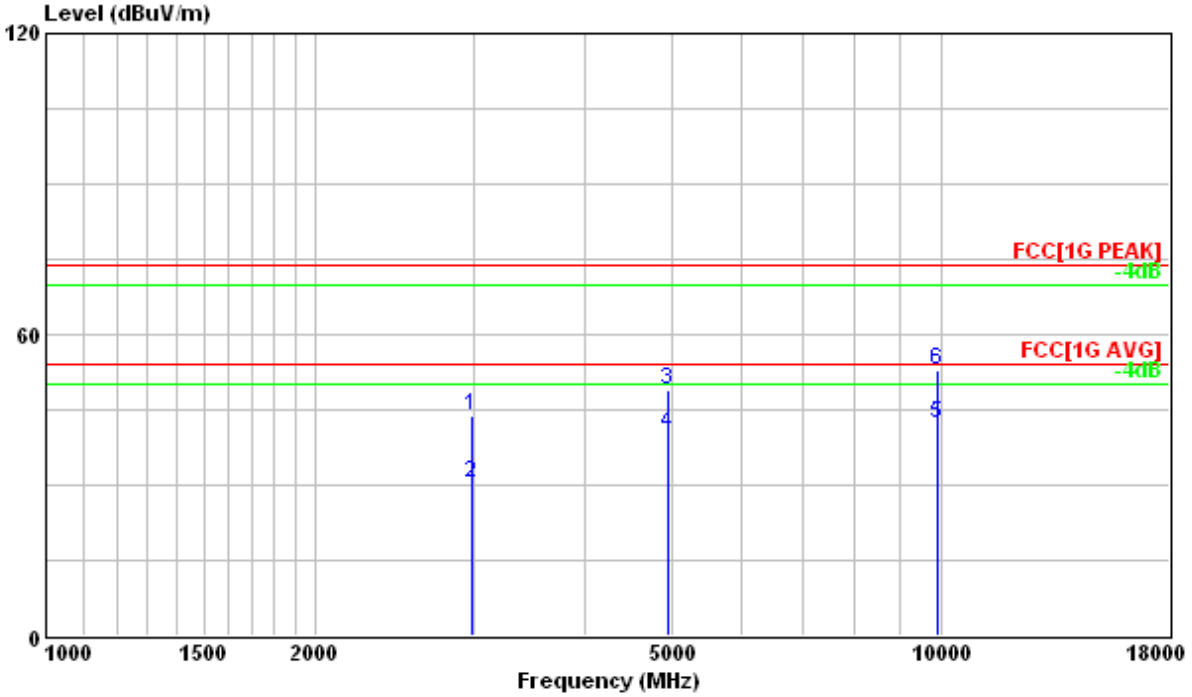
1. Emission Level (dBuV/m) = Reading Value + Correction Factor.
2. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. PK. and AV. are abbreviation of peak and average respectively.

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

Test Model **: 2480MHz, Continuous Transmitting**

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

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



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	2998.000	43.79	-35.13	78.92	74.00	-30.21	267	360	VERTICAL	Peak
2	2998.000	30.27	-35.13	65.40	54.00	-23.73	267	360	VERTICAL	Average
3	4961.010	49.13	-32.79	81.92	74.00	-24.87	100	251	VERTICAL	Peak
4	4961.010	40.07	-32.79	72.86	54.00	-13.93	100	251	VERTICAL	Average
5	9922.000	42.12	-22.90	65.02	54.00	-11.88	156	12	VERTICAL	Average
6	9922.000	52.80	-22.90	75.70	74.00	-21.20	156	12	VERTICAL	Peak

Note:

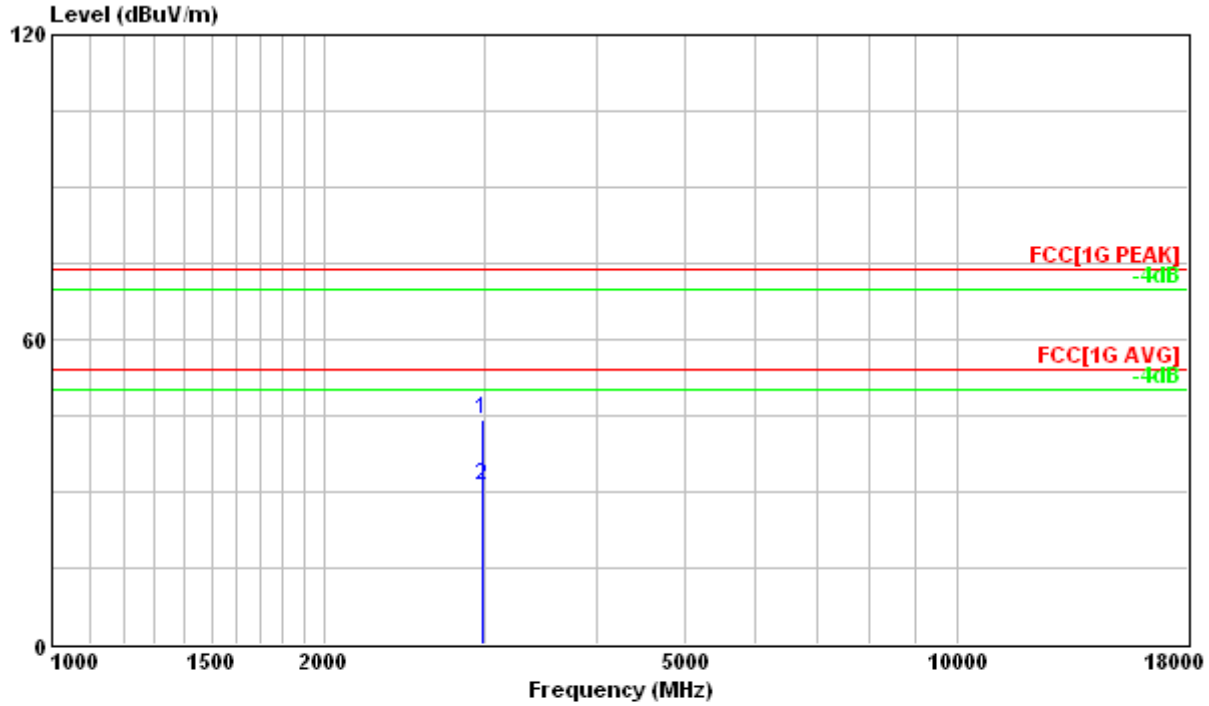
1. Emission Level (dBuV/m) = Reading Value + Correction Factor.
2. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. PK. and AV. are abbreviation of peak and average respectively.

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

Test Model **: 2480MHz, Continuous Transmitting**

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

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



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	2998.000	44.32	-35.13	79.45	74.00	-29.68	100	0	HORIZONTAL	Peak
2	2998.000	31.15	-35.13	66.28	54.00	-22.85	100	0	HORIZONTAL	Average

Note:

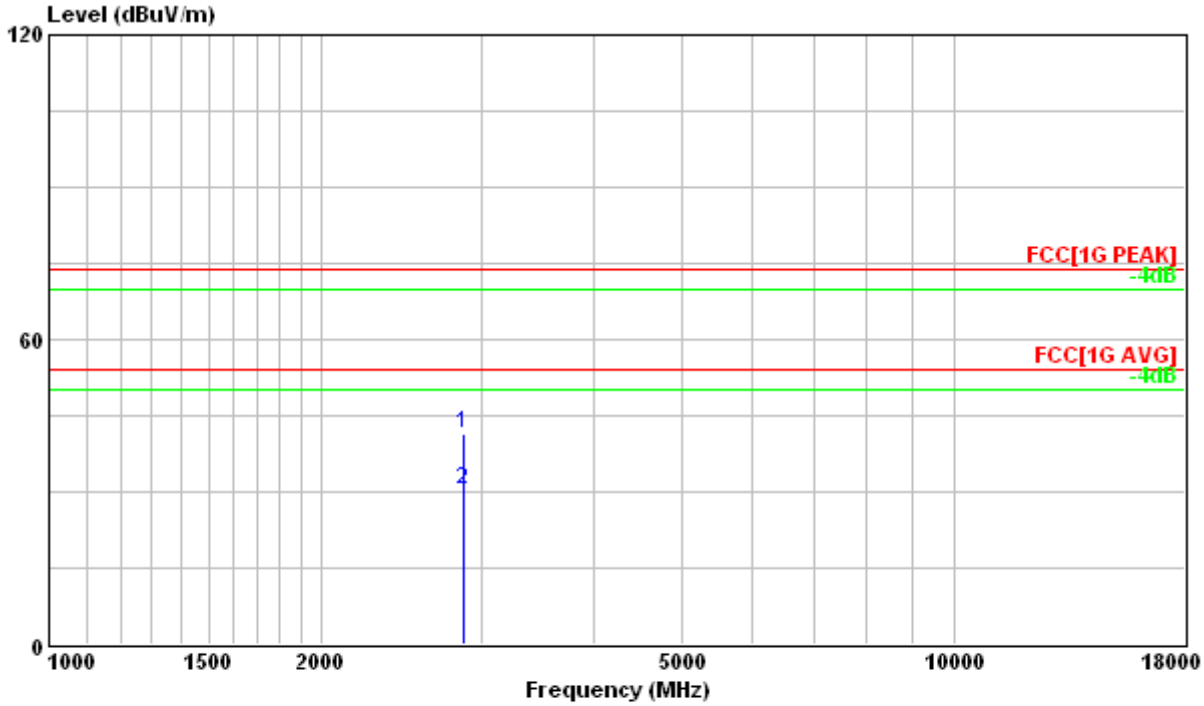
1. Emission Level (dBuV/m) = Reading Value + Correction Factor.
2. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. PK. and AV. are abbreviation of peak and average respectively.

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

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

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

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



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	2878.000	41.35	-35.21	76.56	74.00	-32.65	100	2	VERTICAL	Peak
2 @	2878.000	30.23	-35.21	65.44	54.00	-23.77	100	2	VERTICAL	Average

Note:

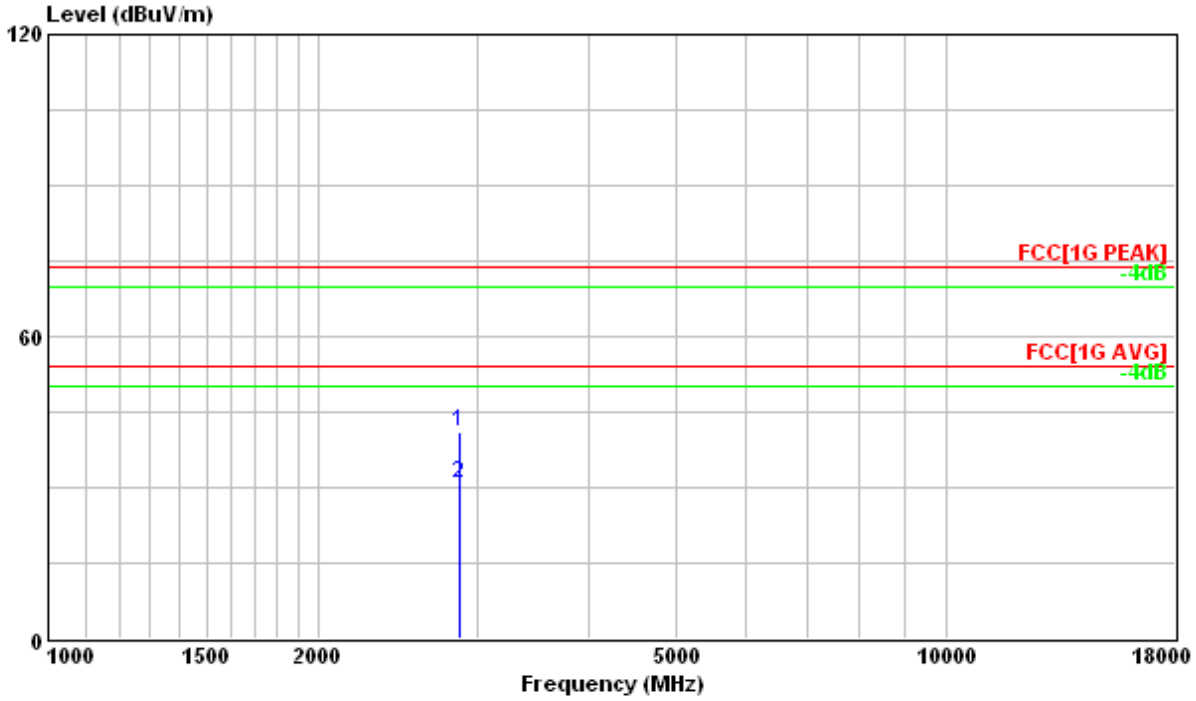
1. Emission Level (dBuV/m) = Reading Value + Correction Factor.
2. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. PK. and AV. are abbreviation of peak and average respectively.

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

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

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

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



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	2869.000	40.88	-35.22	76.10	74.00	-33.12	100	360	HORIZONTAL	Peak
2 @	2869.000	30.91	-35.22	66.13	54.00	-23.09	100	360	HORIZONTAL	Average

Note:

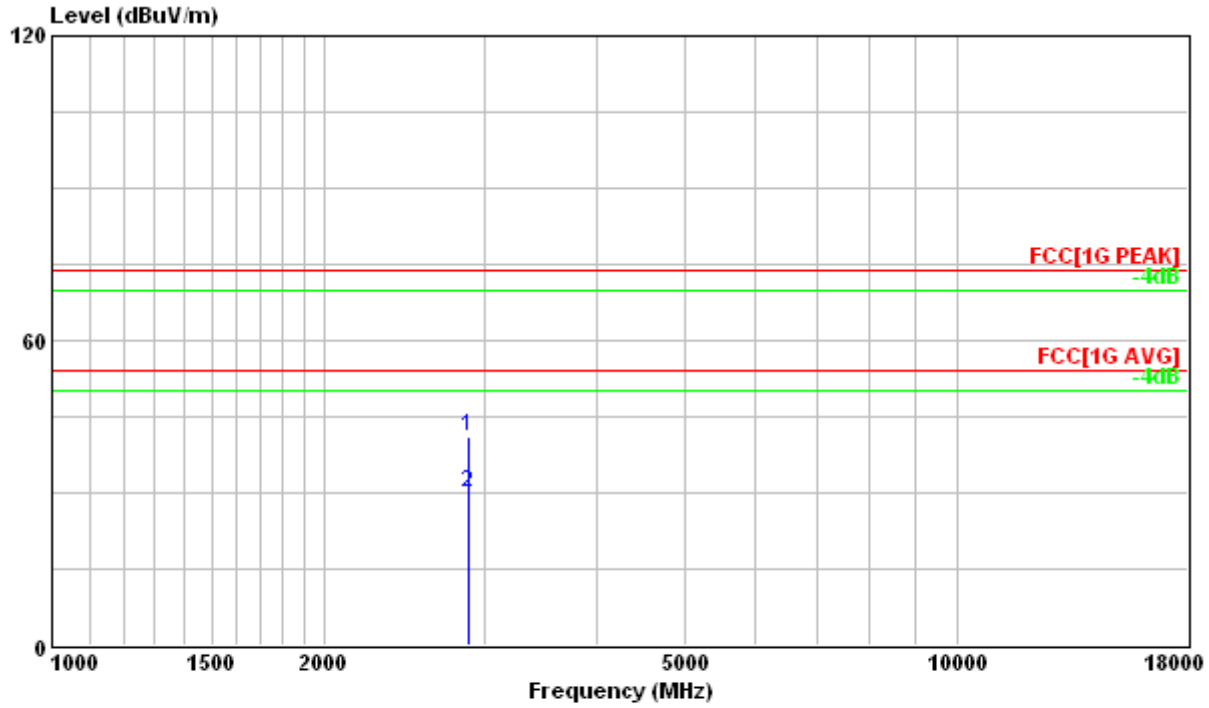
1. Emission Level (dBuV/m) = Reading Value + Correction Factor.
2. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. PK. and AV. are abbreviation of peak and average respectively.

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

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

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

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



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	2884.000	41.13	-35.19	76.32	74.00	-32.87	103	0	VERTICAL	Peak
2 @	2884.000	29.94	-35.19	65.13	54.00	-24.06	103	0	VERTICAL	Average

Note:

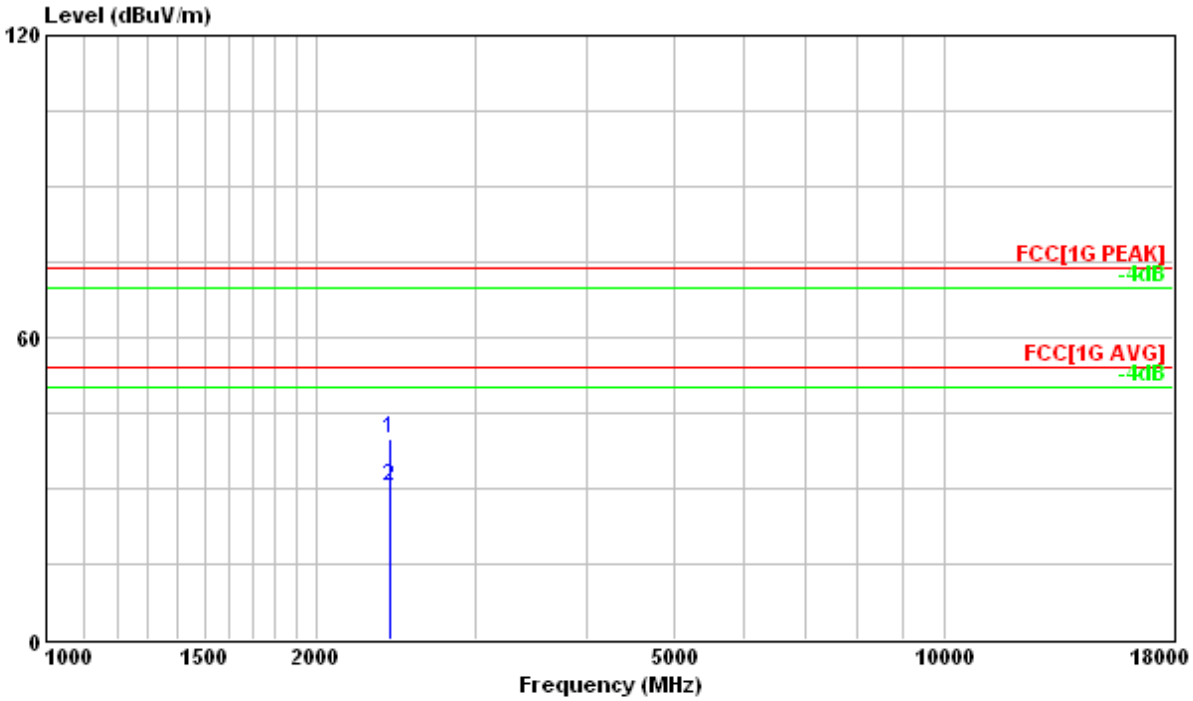
1. Emission Level (dBuV/m) = Reading Value + Correction Factor.
2. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. PK. and AV. are abbreviation of peak and average respectively.

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

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

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

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



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	2419.000	40.05	-35.76	75.81	74.00	-33.95	100	360	HORIZONTAL	Peak
2 @	2419.000	30.57	-35.76	66.33	54.00	-23.43	100	360	HORIZONTAL	Average

Note:

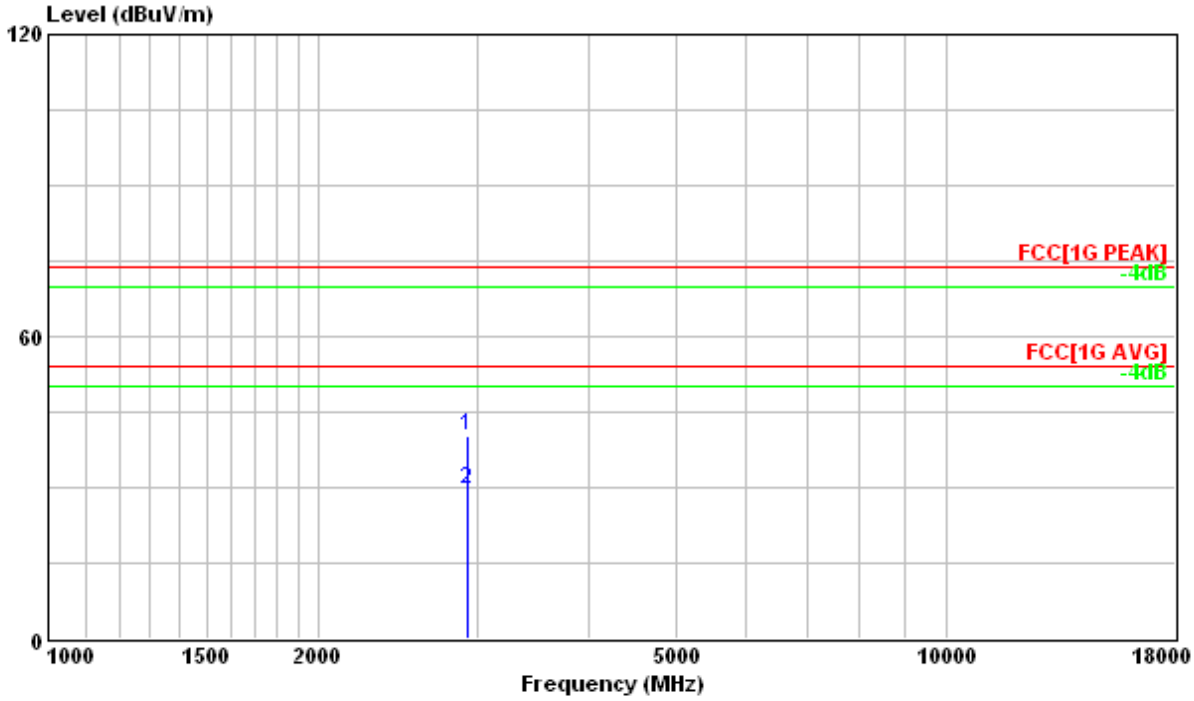
1. Emission Level (dBuV/m) = Reading Value + Correction Factor.
2. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. PK. and AV. are abbreviation of peak and average respectively.

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

Test Model **: 2480MHz, Continuous Receiving**

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

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



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	2929.000	40.30	-35.16	75.46	74.00	-33.70	100	15	VERTICAL	Peak
2	2929.000	29.43	-35.16	64.59	54.00	-24.57	100	15	VERTICAL	Average

Note:

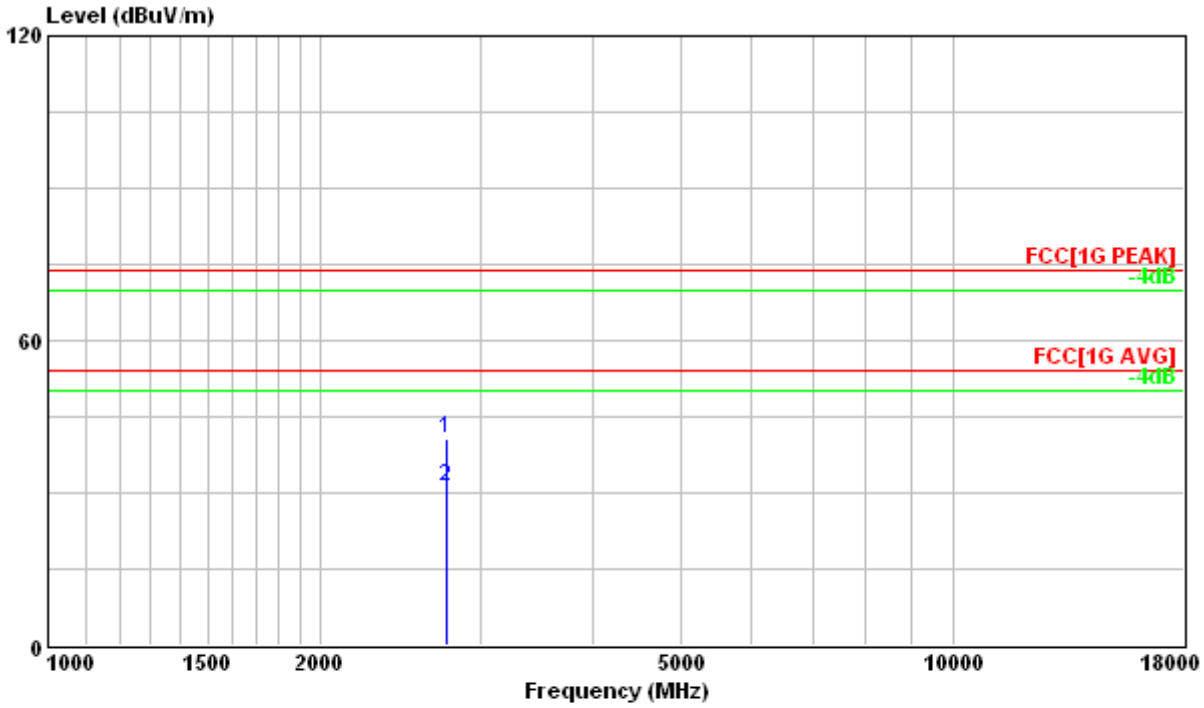
1. Emission Level (dBuV/m) = Reading Value + Correction Factor.
2. Correction Factor (dB/m) = Cable Loss + Antenna Factor – Gain of Preamplifier.
3. PK. and AV. are abbreviation of peak and average respectively.

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

Test Model **: 2480MHz, Continuous Receiving**

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

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



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	2764.000	40.52	-35.39	75.91	74.00	-33.48	101	15	HORIZONTAL	Peak
2 @	2764.000	31.00	-35.39	66.39	54.00	-23.00	101	15	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.

7 Antenna Requirement

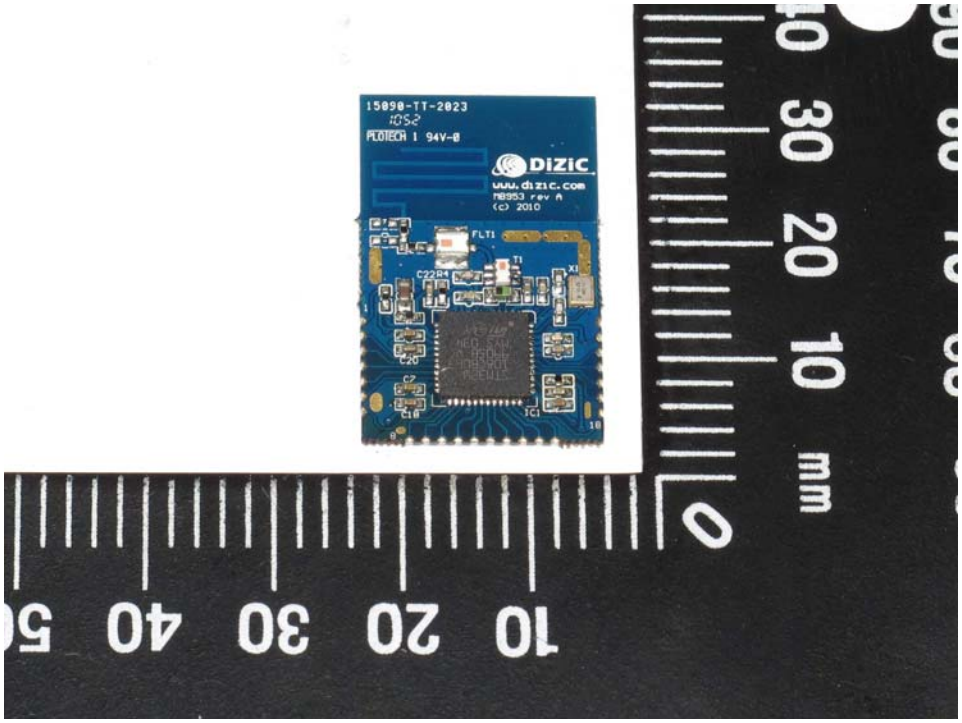
7.1 Applied standard

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	N/A	2400 ~ 2480	1.95	



7.3 Result

Gain of the antenn is less than 6dBi.