SGS-CSTC Standards Technical Services Ltd.

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Email: ee.shenzhen@sgs.com

FCC REPORT

Application No:	SZEM1205002714RF
Applicant:	Liquid Image Co, LLC
Manufacturer:	Foxda Technology Industrial (Shenzhen) co., Ltd.
Factory:	Foxda Technology Industrial (Shenzhen) co., Ltd.
Product Name:	Ego
Model No.(EUT):	#727
FCC ID:	WGI-XSC-727
Standards:	FCC CFR Title 47 Part 15C (2010)
Date of Receipt:	2012-05-22
Date of Test:	2012-05-25 to 2012-06-08
Date of Issue:	2012-06-20
Test Result:	**PASS ***

. * In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Jack Zhang
EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.
The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

2 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	FCC CFR Title 47 Part 15C Section 15.203/15.247 (c)	ANSI C63.10 (2009)	PASS
Conducted Peak Output Power	FCC CFR Title 47 Part 15C Section 15.247 (b)(3)	ANSI C63.10(2009)	PASS
6dB Occupied Bandwidth	FCC CFR Title 47 Part 15C Section 15.247 (a)(2)	ANSI C63.10(2009)	PASS
Power Spectral Density	FCC CFR Title 47 Part 15C Section 15.247 (e)	ANSI C63.10(2009), KDB558074	PASS
Band-edge for RF Conducted Emissions	FCC CFR Title 47 Part 15C Section 15.247(d)	ANSI C63.10(2009)	PASS
RF Conducted Spurious Emissions	FCC CFR Title 47 Part 15C Section 15.247(d)	ANSI C63.10(2009)	PASS
Radiated Spurious Emissions	FCC CFR Title 47 Part 15C Section 15.205/15.209	ANSI C63.10(2009)	PASS
Band Edge (Radiated Emission)	FCC CFR Title 47 Part 15C Section 15.205/15.209	ANSI C63.10（2009）	PASS

3 Contents

4 General Information

4.1 Client Information

Applicant:	Liquid Image Co, LLC
Address of Applicant:	7909 walerga Road,Suite112-206 Antelope California 95843 United States
Manufacturer:	Foxda Technology Industrial (Shenzhen) co., Ltd.
Address of Manufacturer:	1F of 1st Building &1F-3F of 2nd Building, Foxda Industrial Zone, North of Lanzhu Road, Pingshan New District, Shenzhen City, Guangdong Province, P.R. China.
Factory:	Foxda Technology Industrial (Shenzhen) co., Ltd.
Address of Factory:	1F of 1st Building &1F-3F of 2nd Building, Foxda Industrial Zone, North of Lanzhu Road, Pingshan New District, Shenzhen City, Guangdong Province, P.R. China.

4.2 General Description of EUT

Product Name:	Ego
Model No.:	#727
Trade Mark:	Xtreme Sport Cams
Operation Frequency:	IEEE 802.11b/g: 2412MHz to 2462MHz
Channel Numbers:	IEEE 802.11b/g: 11 Channels
Channel Separation:	5MHz
Type of Modulation:	IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g : OFDM(64QAM, 16QAM, QPSK, BPSK)
Sample Type:	Protable production
Antenna Type and Gain:	Type: Integral Gain: 1.72dBi
EUT Power Supply:	PC USB supply AC 120V 60Hz for PC
Battery:	3.7V 1030mAh
Test Voltage:	3.7V

Operation Frequency each of channel(802.11b/g)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

For 802.11b/g:

Channel	Frequency
The Lowest channel	2412MHz
The Middle channel	2437MHz
The Highest channel	2462MHz

4.3 Test Environment and Mode

Operating Environment:	
Temperature:	24.0 °C
Humidity:	52 % RH
Atmospheric Pressure:	1006 mbar
Test mode:	
Transmitting mode:	Keep the EUT in transmitting mode with all kind of modulation and all kind of data rate.

4.4 Description of Support Units

The EUT has been tested independent unit.

4.5 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch E&E Lab,

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS (No. CNAS L2929)**
  CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.
- **VCCI**
  The 3m Semi-anechoic chamber, Full-anechoic Chamber and Shielded Room (7.5m x 4.0m x 3.0m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2197, G-416, T-1153 and C-2383 respectively.
- **FCC – Registration No.: 556682**
  SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 556682.
- **Industry Canada (IC)**
  The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1.

4.7 Deviation from Standards

None.

4.8 Abnormalities from Standard Conditions

None.

4.9 Other Information Requested by the Customer

None.

4.10 Test Instruments List

RE in Chamber					
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Due date (yyyy-mm-dd)**
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	2013-06-10
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEL0023	2013-05-17
3	EMI Test software	AUDIX	E3	SEL0050	N/A
4	Coaxial cable	SGS	N/A	SEL0028	2013-05-29
5	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0015	2012-10-29
6	Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEL0006	2012-10-29
7	Horn Antenna (18-26GHz)	ETS-LINDGREN	3160	SEL0076	2012-10-29
8	Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEL0053	2013-05-17
9	Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	SEL0168	2012-10-26
11	Band filter	Amindeon	82346	SEL0094	2013-05-17
12	Active Loop Antenna	Beijing Daze	ZN30900A	SEL0097	2012-10-28

RF conducted					
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Due date (yyyy-mm-dd)**
1	Spectrum Analyzer	Rohde & Schwarz	FSP 30	SEL0154	2012-10-23
2	Coaxial cable	SGS	N/A	SEL0028	2013-05-29

General used equipment					
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Due date (yyyy-mm-dd)**
1	Humidity/ Temperature Indicator	Shanghai	ZJ1-2B	SEL0102 to SEL0103	2012-10-27
2	Humidity/ Temperature Indicator	Shanghai	ZJ1-2B	SEL0101	2012-10-27
3	Barometer	ChangChun	DYM3	SEL0088	2013-05-17

5 Test results and Measurement Data

5.1 Antenna Requirement

Standard requirement:	FCC Part15 C Section 15.203 /247(c)

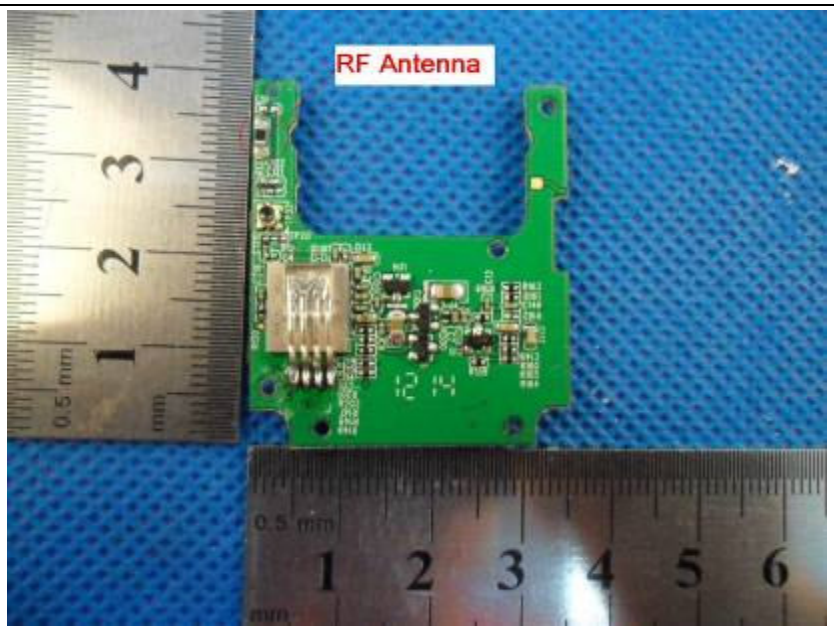
15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement:

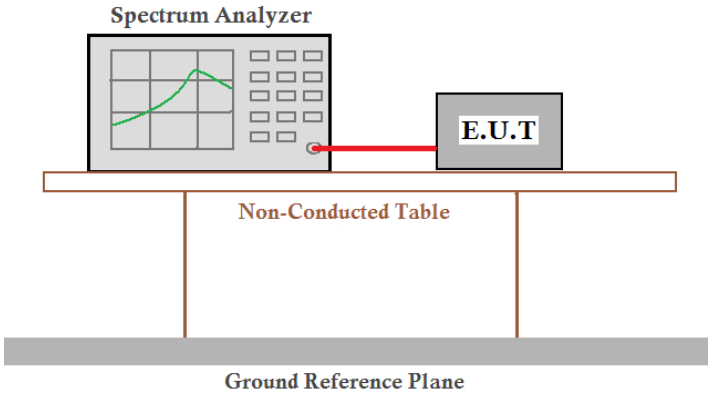
The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output 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.

EUT Antenna:



The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 1.72dBi.

5.2 Conducted Peak Output Power

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Test Method:	ANSI C63.10:2009
Test Setup:	 *Remark:* *Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.*
Test Instruments:	Refer to section 4.10 for details
Exploratory Test Mode:	Transmitting mode
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g.
Limit:	30dBm
Test Results:	Pass

Pre-scan under all rate at lowest channel 1

Mode	802.11b							
Data Rate	1Mbps	2Mbps	5.5Mbps	11Mbps				
Power (dBm)	18.90	18.52	18.11	17.83				
Mode	802.11g							
Data Rate	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
Power (dBm)	21.10	20.91	20.76	20.58	20.35	20.19	20.02	19.84

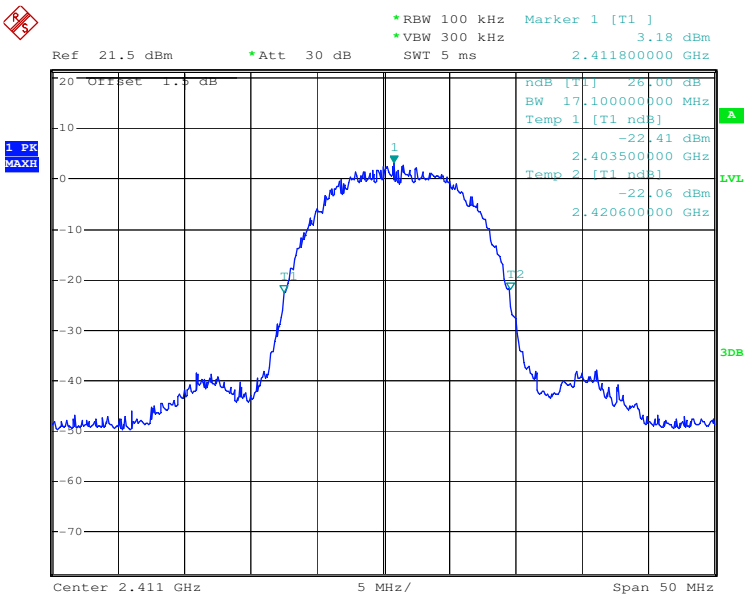
Through Pre-scan, 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g.

Measurement Data

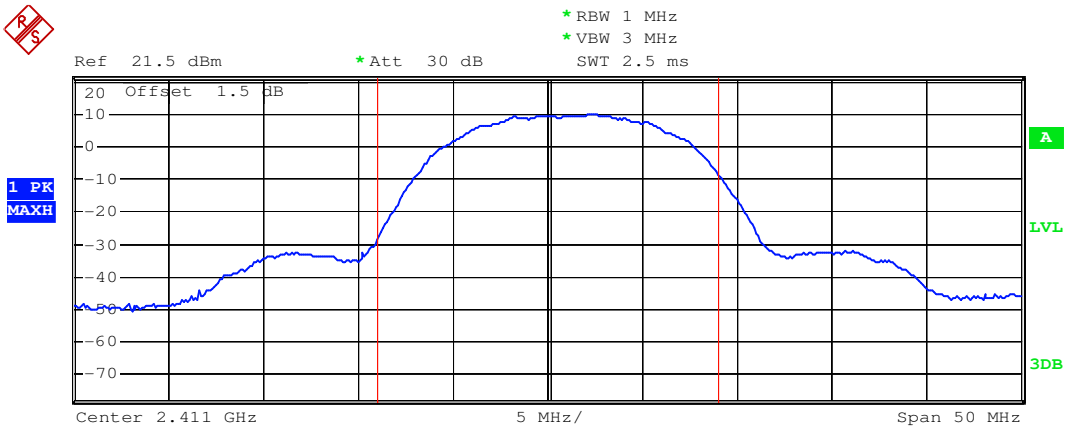
802.11b mode			
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result
Lowest	18.35	30.00	Pass
Middle	18.90	30.00	Pass
Highest	18.85	30.00	Pass
802.11g mode			
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result
Lowest	20.37	30.00	Pass
Middle	21.10	30.00	Pass
Highest	21.10	30.00	Pass

Test plot as follows:

Test mode:	802.11b	Test channel:	Lowest	-26 bandwidth



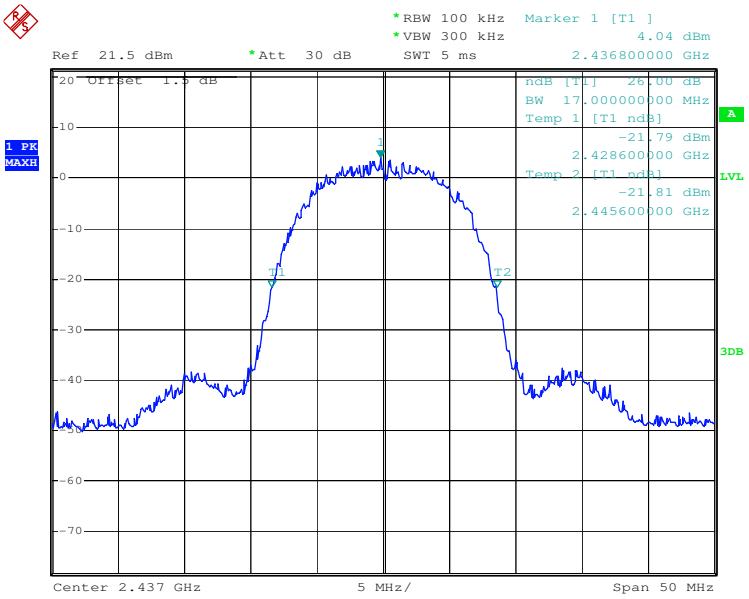
Test mode:	802.11b	Test channel:	Lowest



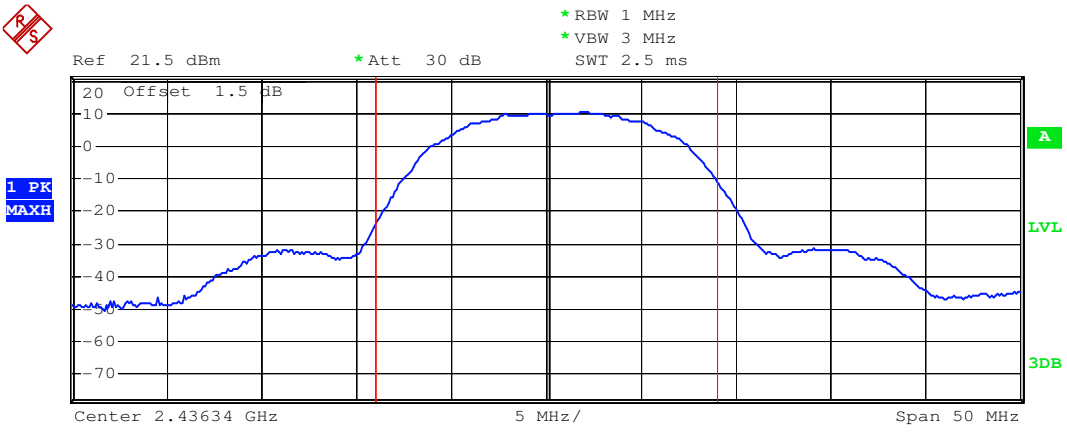
Tx Channel

Bandwidth 18 MHz Power 18.35 dBm

Test mode:	802.11b	Test channel:	Middle	-26 bandwidth



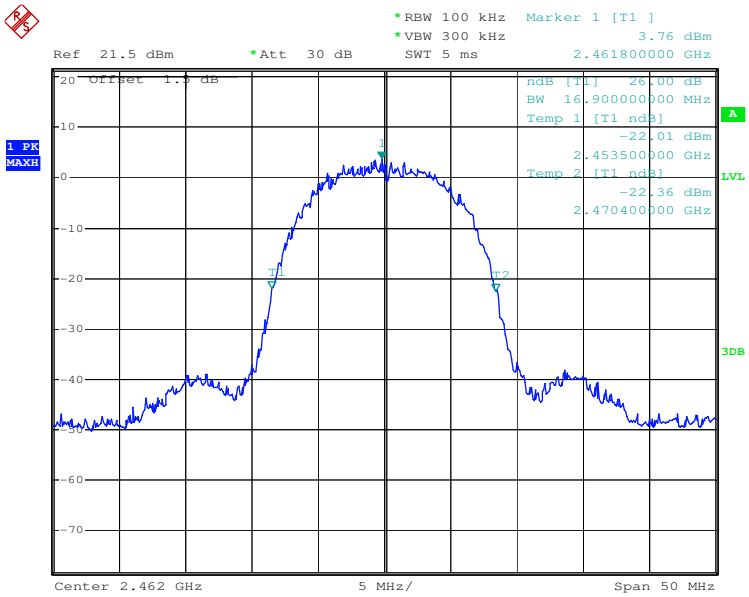
Test mode:	802.11b	Test channel:	Middle



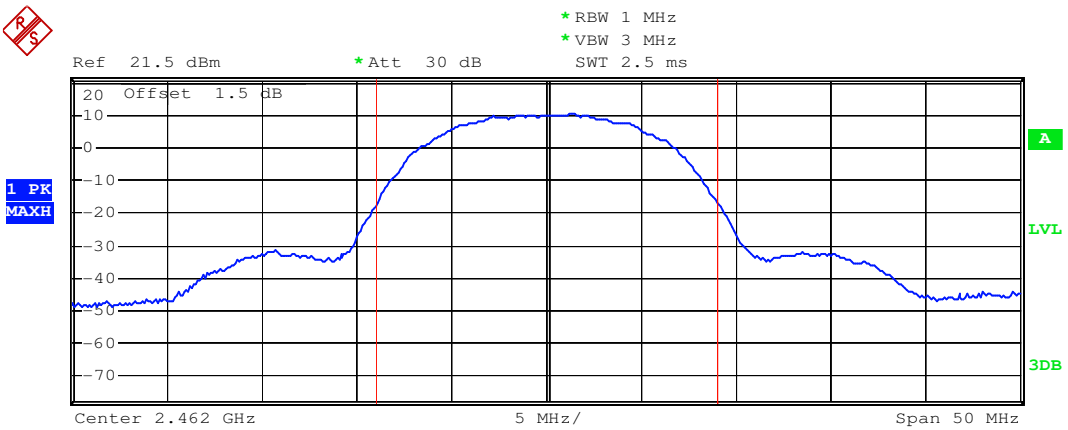
Tx Channel

Bandwidth 18 MHz Power 18.90 dBm

Test mode:	802.11b	Test channel:	Highest	-26 bandwidth



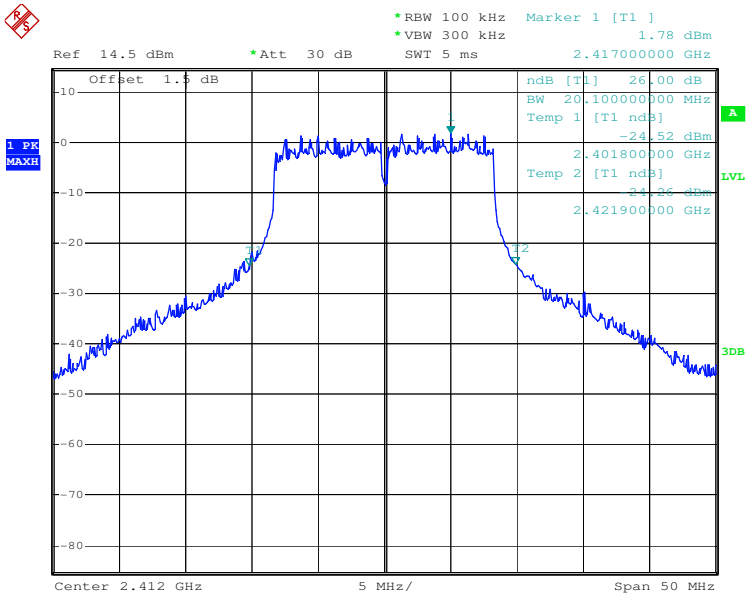
Test mode:	802.11b	Test channel:	Highest



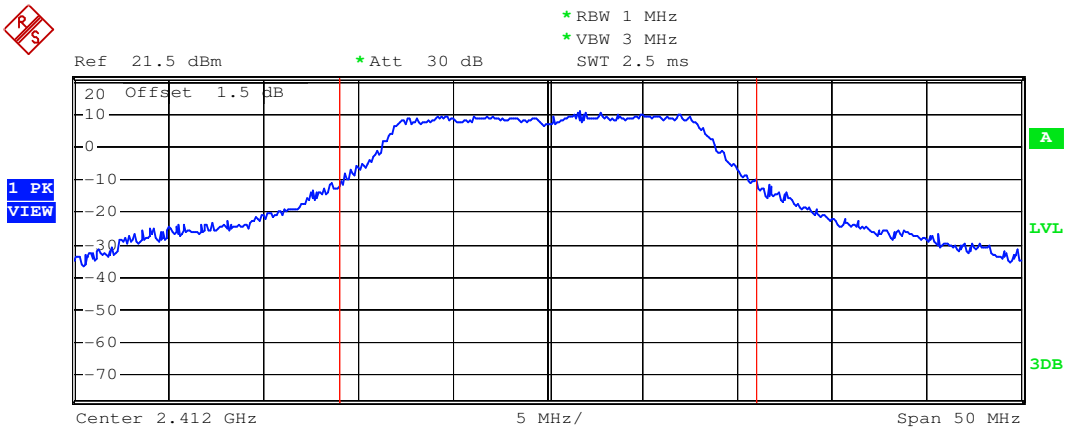
Tx Channel

Bandwidth 18 MHz Power 18.85 dBm

Test mode:	802.11g	Test channel:	Lowest	-26 bandwidth



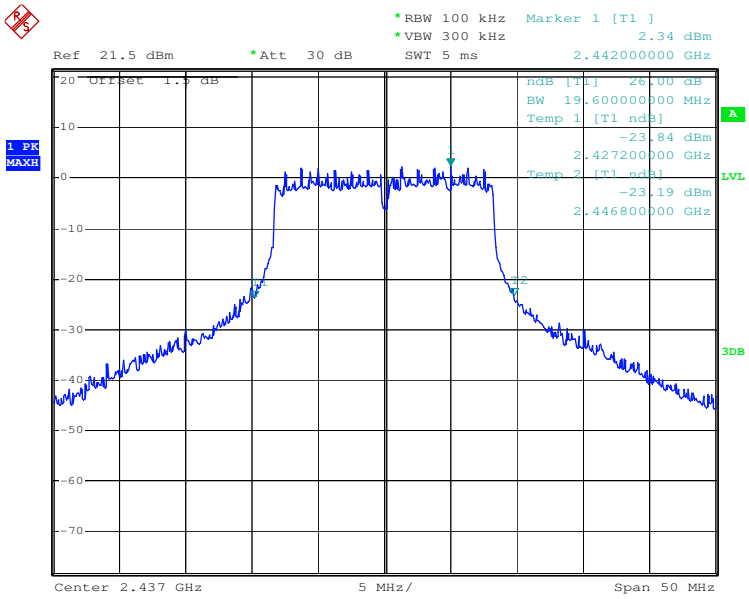
Test mode:	802.11g	Test channel:	Lowest



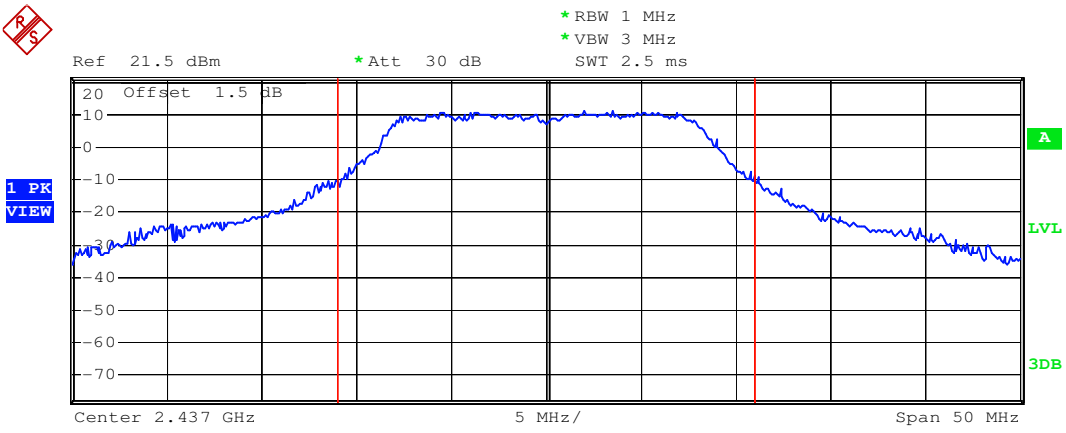
Tx Channel

Bandwidth 22 MHz Power 20.37 dBm

Test mode:	802.11g	Test channel:	Middle	-26 bandwidth



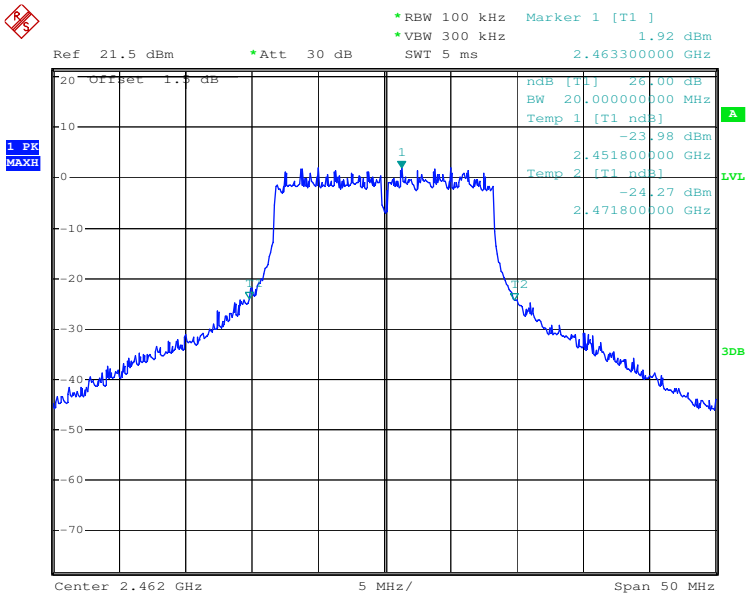
Test mode:	802.11g	Test channel:	Middle



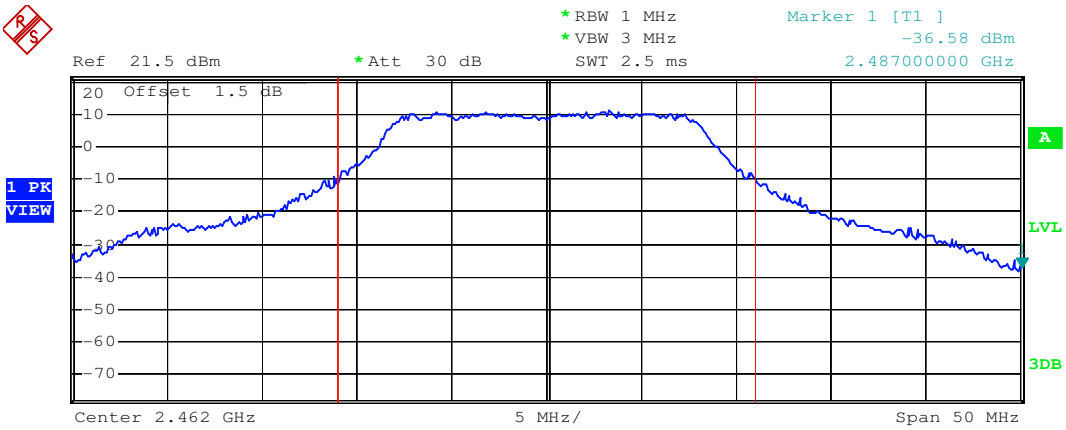
Tx Channel

Bandwidth 22 MHz Power 21.10 dBm

Test mode:	802.11g	Test channel:	Highest	-26 bandwidth



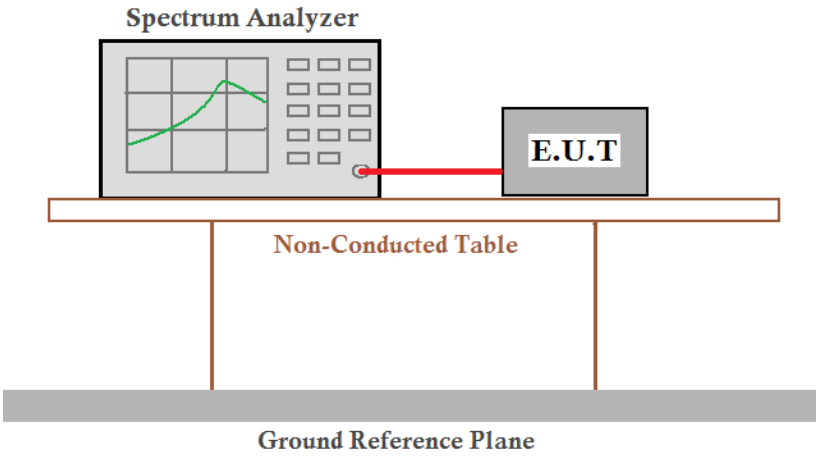
Test mode:	802.11g	Test channel:	Highest



Tx Channel

Bandwidth 22 MHz Power 21.10 dBm

5.3 6dB Occupy Bandwidth

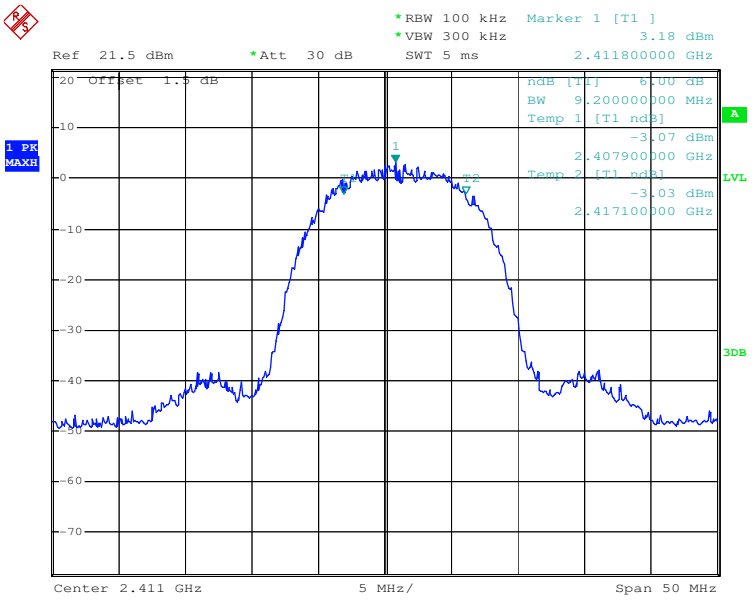
Test Requirement:	FCC Part15 C Section 15.247 (a)(2)
Test Method:	ANSI C63.10:2009
Test Setup:	
Instruments Used:	Refer to section 4.10 for details
Exploratory Test Mode:	Transmitting mode
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g.
Limit:	≥500 kHz
Test Results:	Pass

Measurement Data

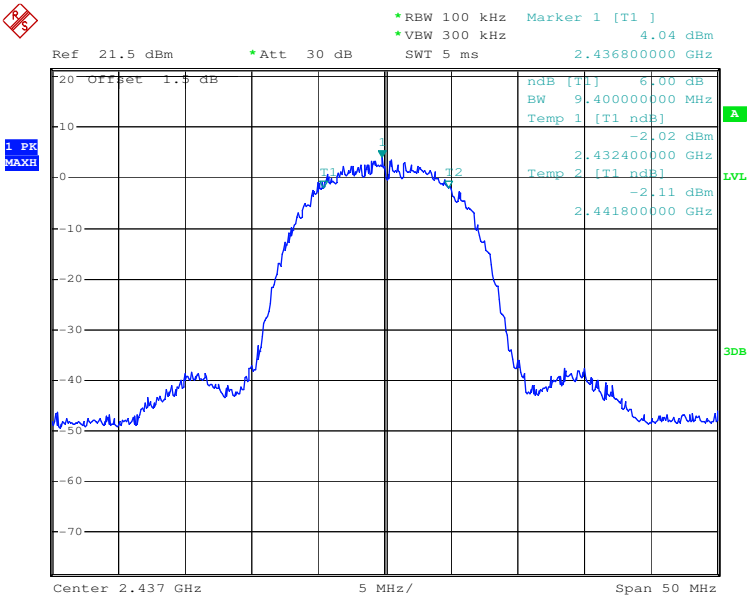
802.11b mode			
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
Lowest	9.20	≥500	Pass
Middle	9.40	≥500	Pass
Highest	8.80	≥500	Pass
802.11g mode			
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
Lowest	16.70	≥500	Pass
Middle	16.70	≥500	Pass
Highest	16.70	≥500	Pass

Test plot as follows:

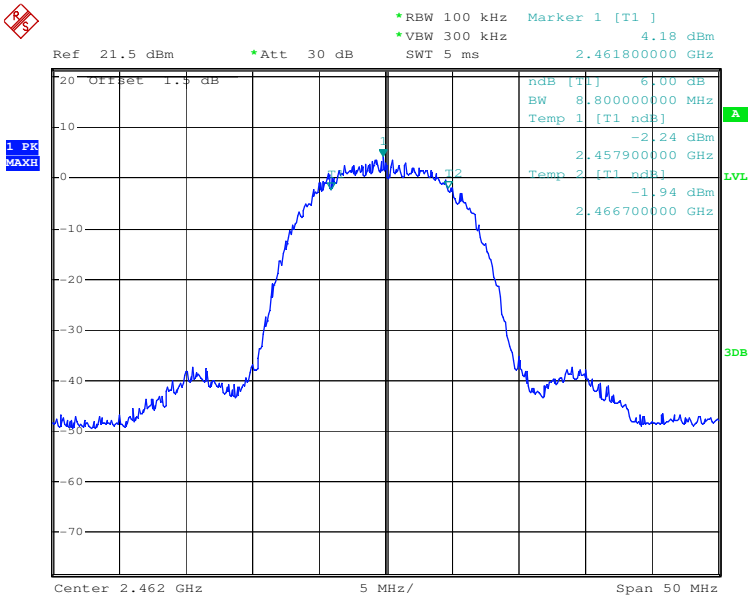
Test mode:	802.11b	Test channel:	Lowest



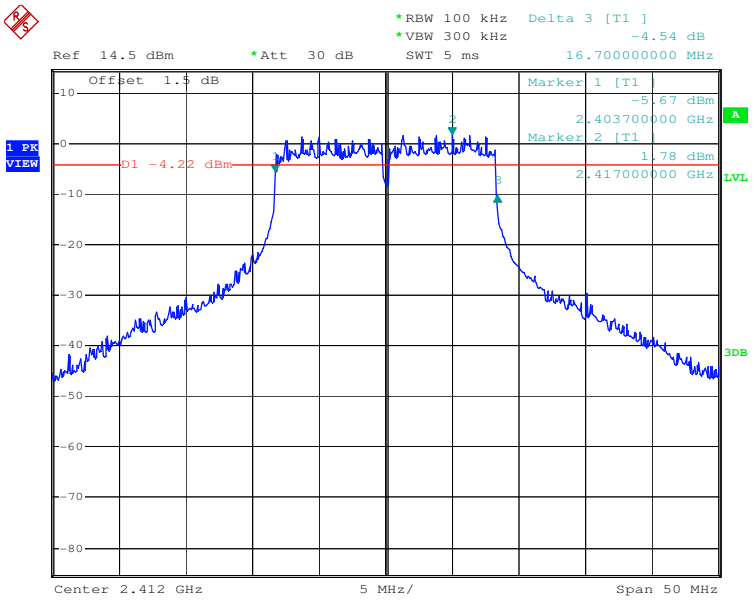
Test mode:	802.11b	Test channel:	Middle



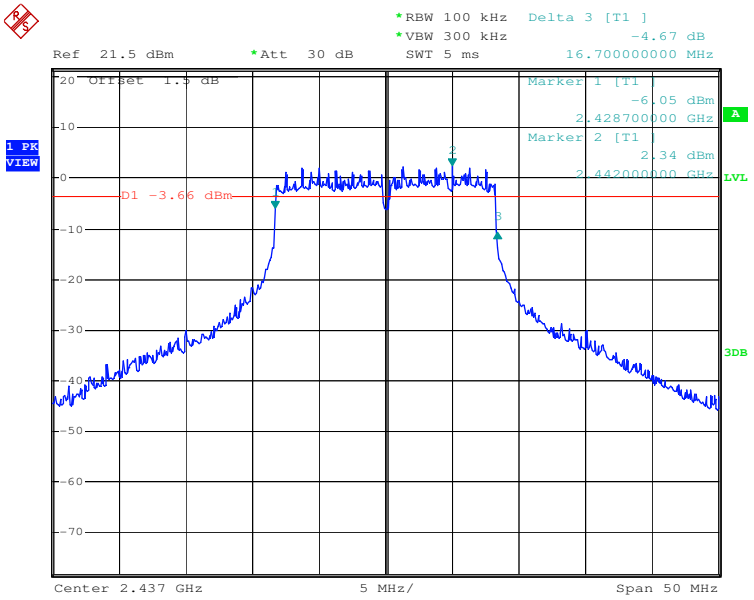
Test mode:	802.11b	Test channel:	Highest



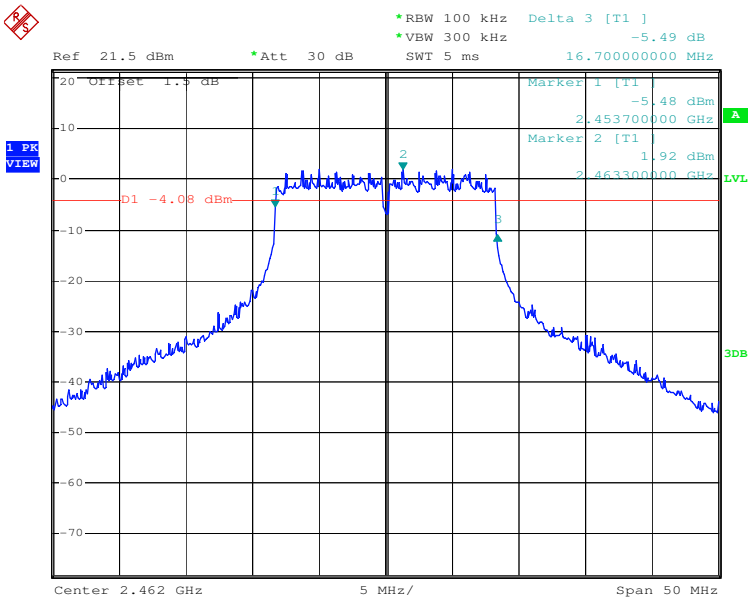
Test mode:	802.11g	Test channel:	Lowest



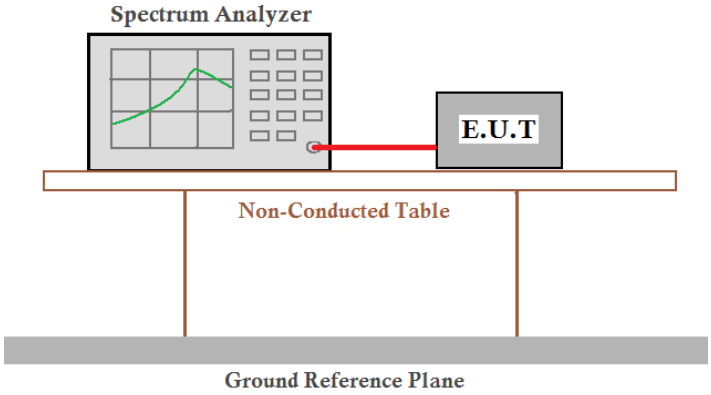
Test mode:	802.11g	Test channel:	Middle



Test mode:	802.11g	Test channel:	Highest



5.4 Power Spectral Density

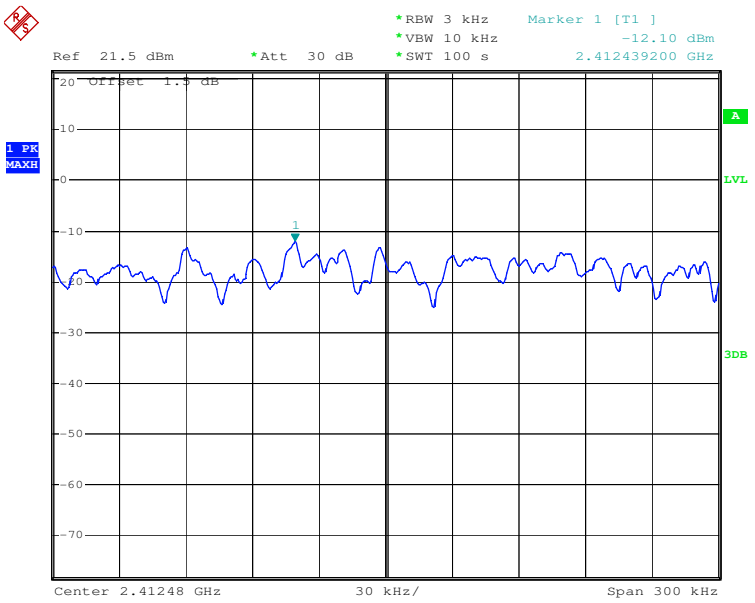
Test Requirement:	FCC Part15 C Section 15.247 (e)
Test Method:	ANSI C63.10:2009 and KDB558074
Test Setup:	 *Remark:* *Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.*
Test Instruments:	Refer to section 4.10 for details
Exploratory Test Mode:	Transmitting mode
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g.
Limit:	≤8.00dBm
Test Results:	Pass

Measurement Data

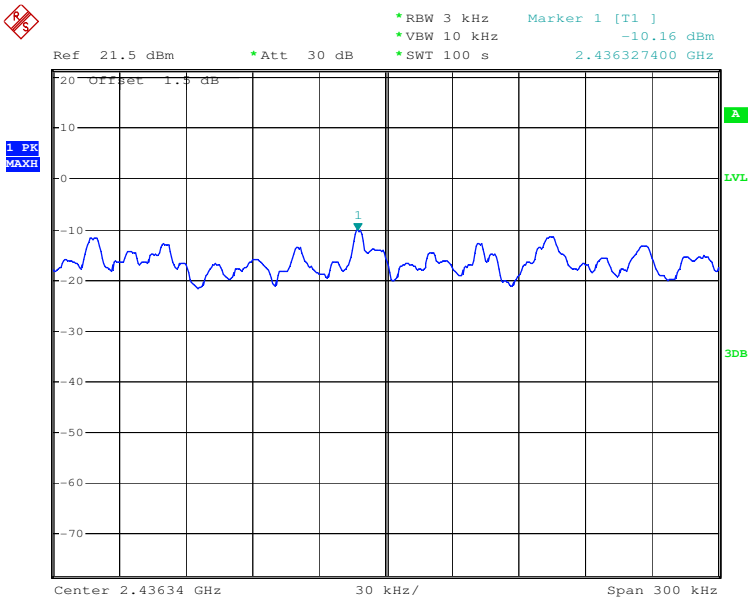
802.11b mode			
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result
Lowest	-12.10	≤8.00	Pass
Middle	-10.16	≤8.00	Pass
Highest	-10.20	≤8.00	Pass
802.11g mode			
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result
Lowest	-9.70	≤8.00	Pass
Middle	-10.25	≤8.00	Pass
Highest	-10.92	≤8.00	Pass

Test plot as follows:

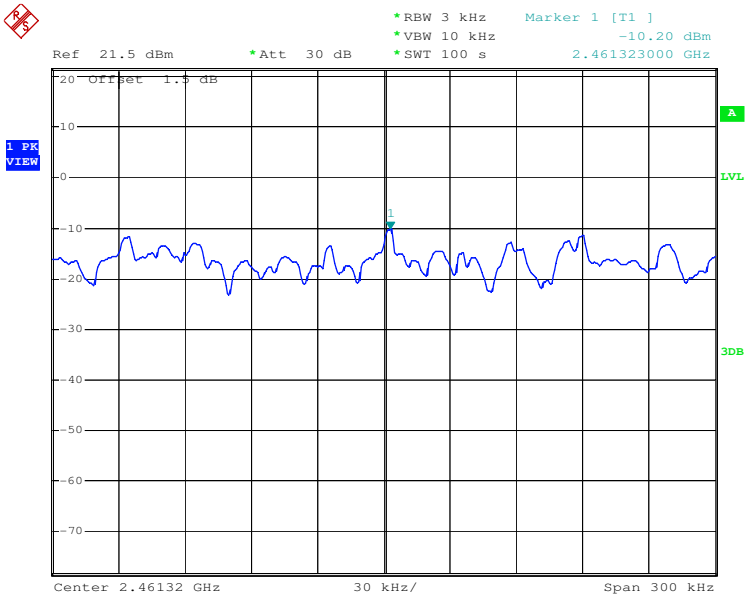
Test mode:	802.11b	Test channel:	Lowest



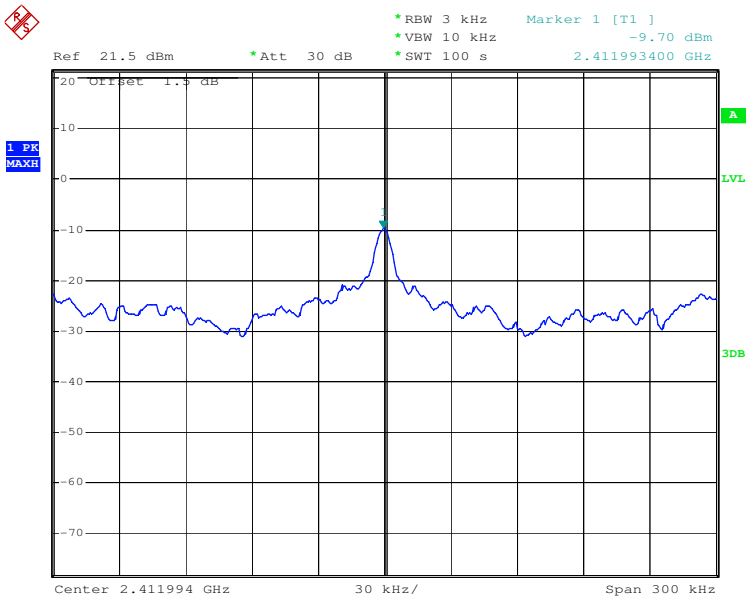
Test mode:	802.11b	Test channel:	Middle



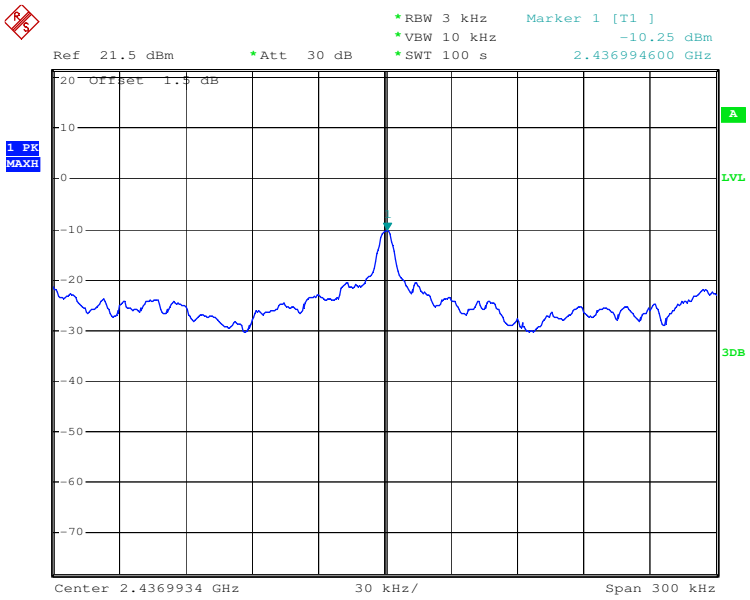
Test mode:	802.11b	Test channel:	Highest



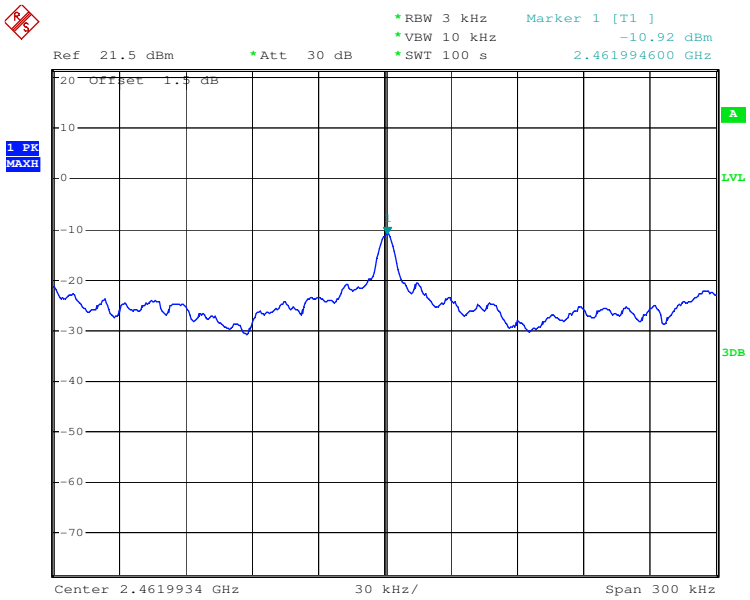
Test mode:	802.11g	Test channel:	Lowest



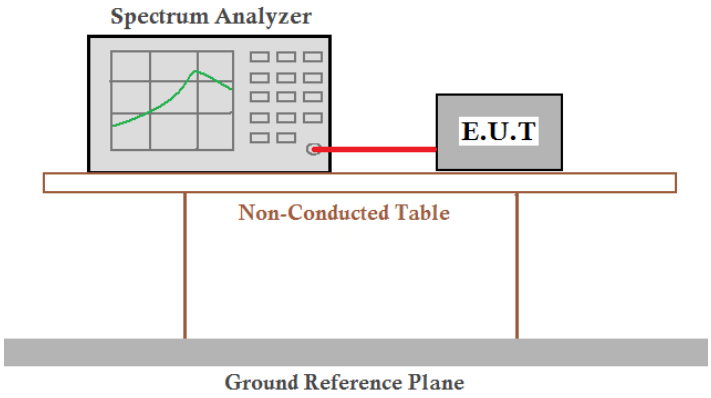
Test mode:	802.11g	Test channel:	Middle



Test mode:	802.11g	Test channel:	Highest

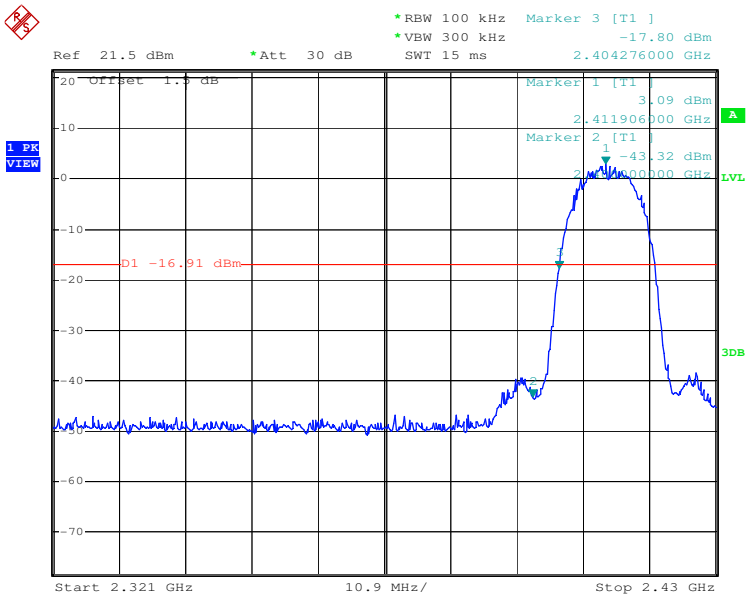


5.5 Band-edge for RF Conducted Emissions

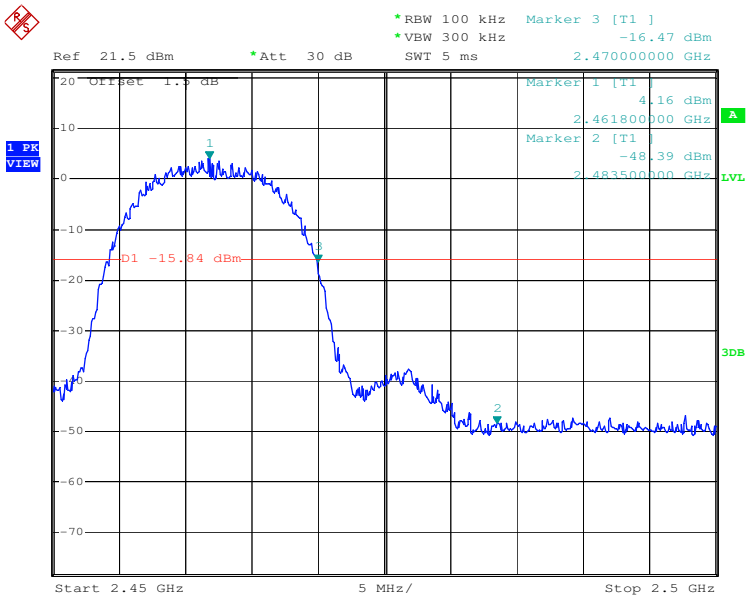
Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.10:2009
Test Setup:	 *Remark:* *Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.*
Exploratory Test Mode:	Transmitting mode
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g.
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 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.
Instruments Used:	Refer to section 4.10 for details
Test Results:	Pass

Test plot as follows:

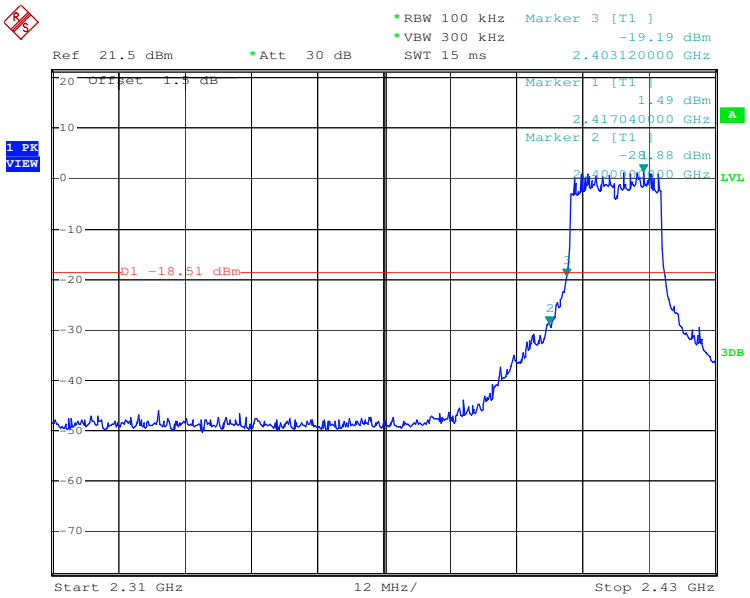
Test mode:	802.11b	Test channel:	Lowest



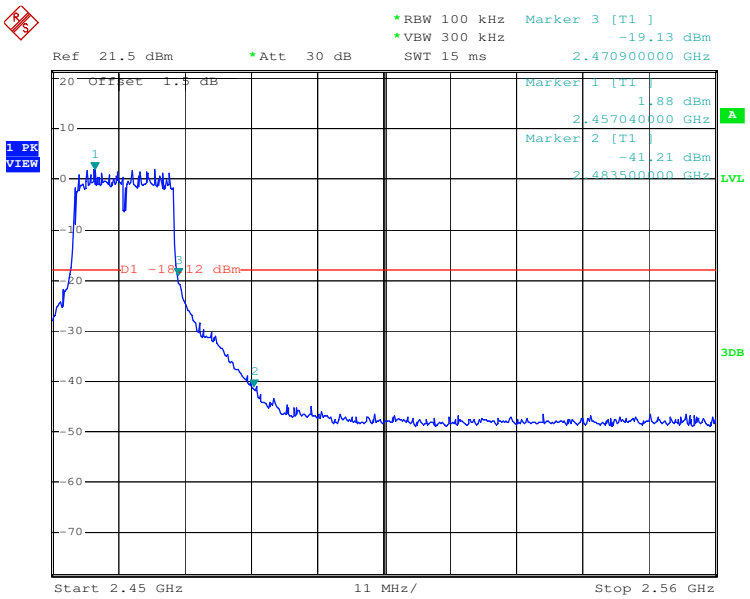
Test mode:	802.11b	Test channel:	Highest



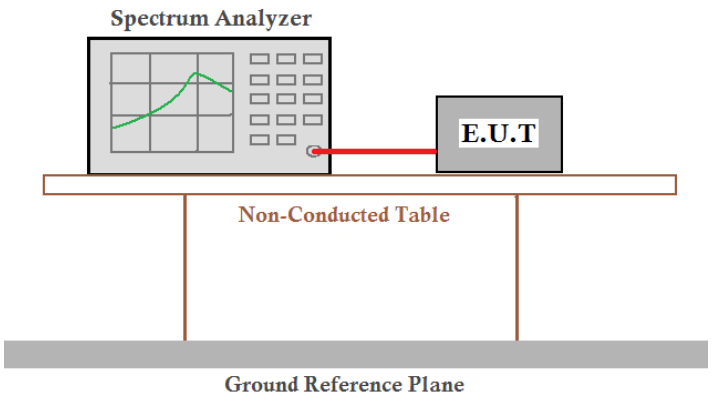
Test mode:	802.11g	Test channel:	Lowest



Test mode:	802.11g	Test channel:	Highest

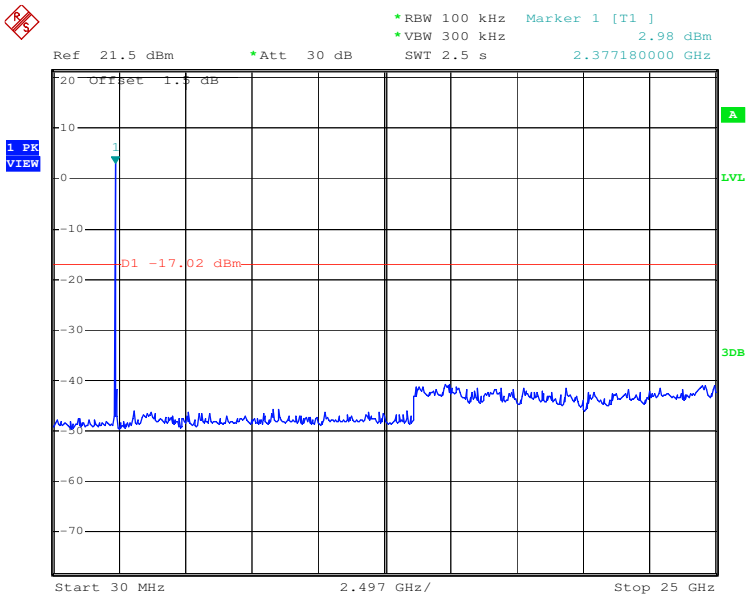


5.6 RF Conducted Spurious Emissions

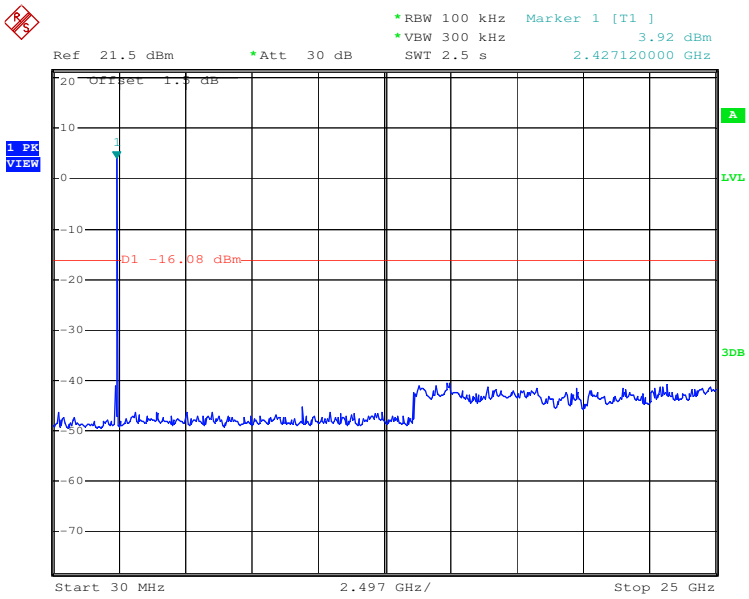
Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.10:2009
Test Setup:	 *Remark:* *Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.*
Exploratory Test Mode:	Transmitting mode
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g.
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 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.
Instruments Used:	Refer to section 4.10 for details
Test Results:	Pass

Test plot as follows:

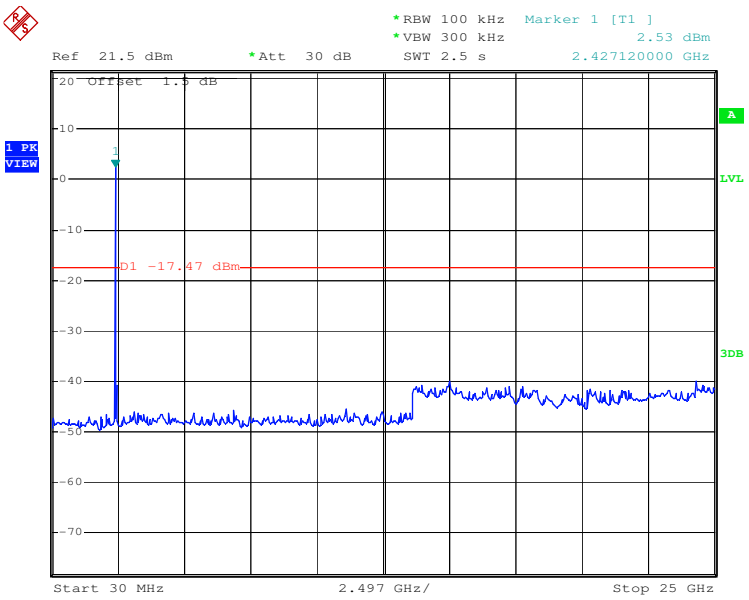
Test mode:	802.11b	Test channel:	Lowest



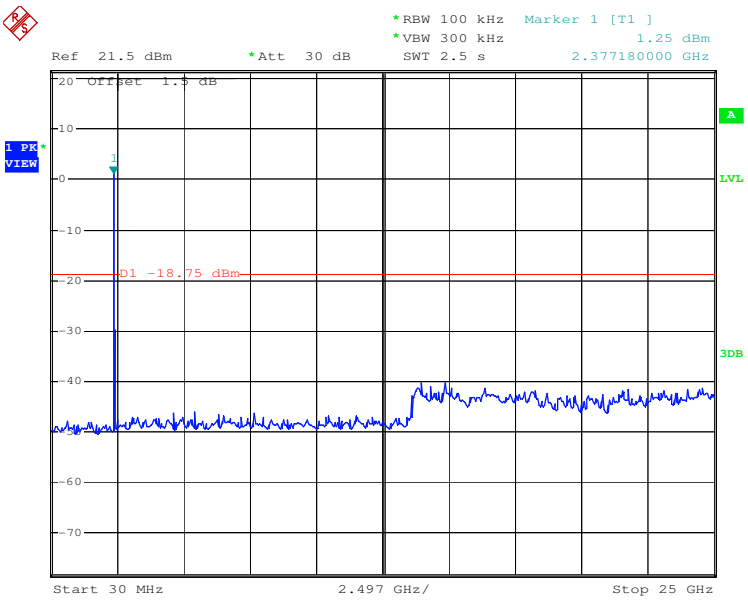
Test mode:	802.11b	Test channel:	Middle



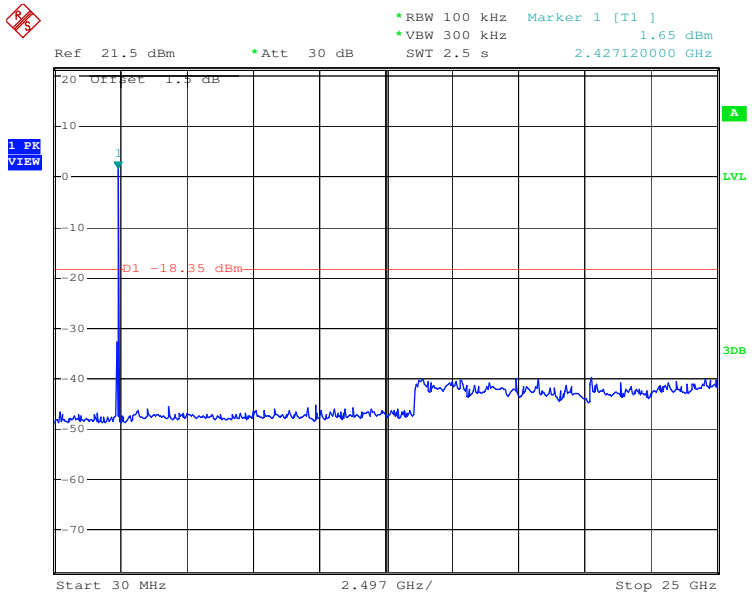
Test mode:	802.11b	Test channel:	Highest



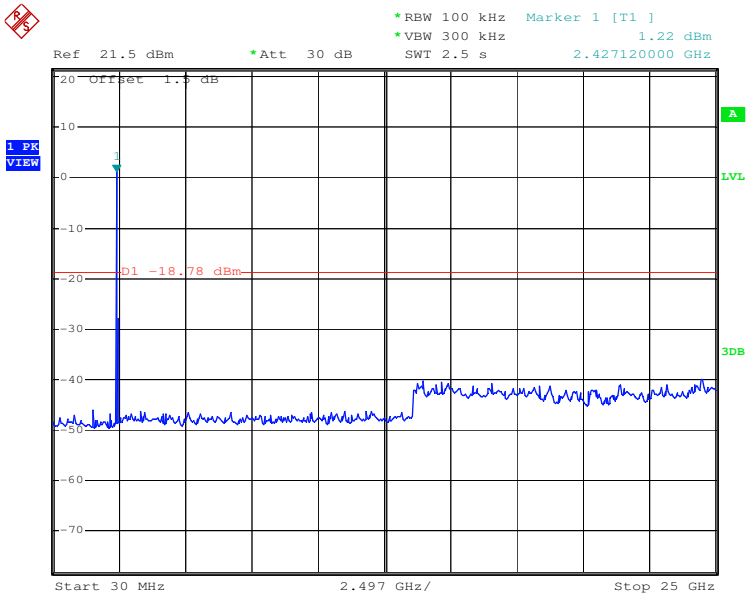
Test mode:	802.11g	Test channel:	Lowest



Test mode:	802.11g	Test channel:	Middle



Test mode:	802.11g	Test channel:	Highest



5.7 Radiated Spurious Emissions

Test Requirement:	FCC Part15 C Section 15.209 and 15.205
Test Method:	ANSI C63.10: 2009
Test Site:	Measurement Distance: 3m (Semi-Anechoic Chamber)
Receiver Setup:	

Frequency	Detector	RBW	VBW	Remark
0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak
0.009MHz-0.090MHz	Average	10kHz	30kHz	Average
0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak
0.110MHz-0.490MHz	Average	10kHz	30kHz	Average
0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
30MHz-1GHz	Quasi-peak	100 kHz	300kHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

Limit:

Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
1.705MHz-30MHz	30	-	-	30
30MHz-88MHz	100	40.0	Quasi-peak	3
88MHz-216MHz	150	43.5	Quasi-peak	3
216MHz-960MHz	200	46.0	Quasi-peak	3
960MHz-1GHz	500	54.0	Quasi-peak	3
Above 1GHz	500	54.0	Average	3

Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.

Test Setup:	

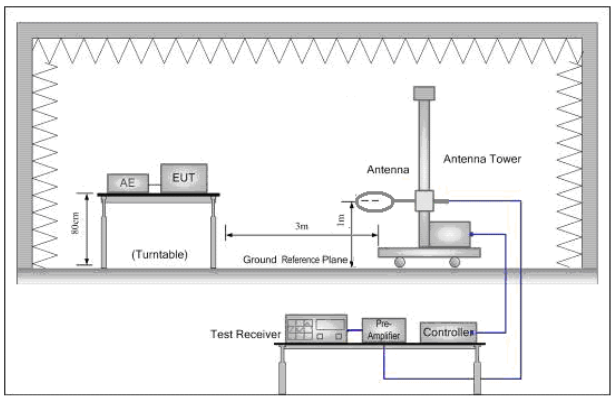


Figure 1. Below 30MHz

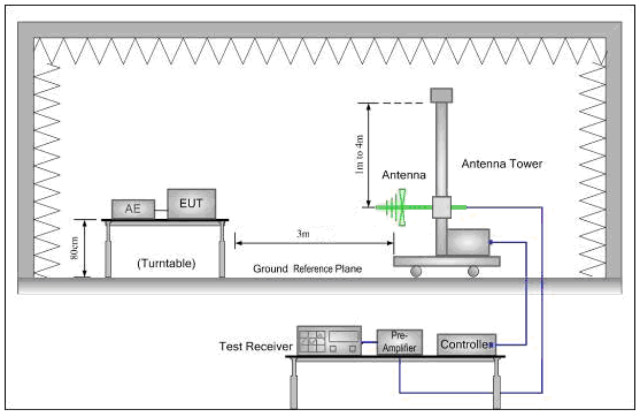


Figure 2. 30MHz to 1GHz

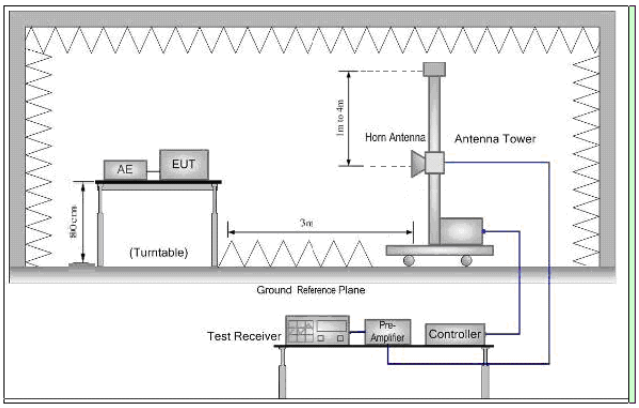


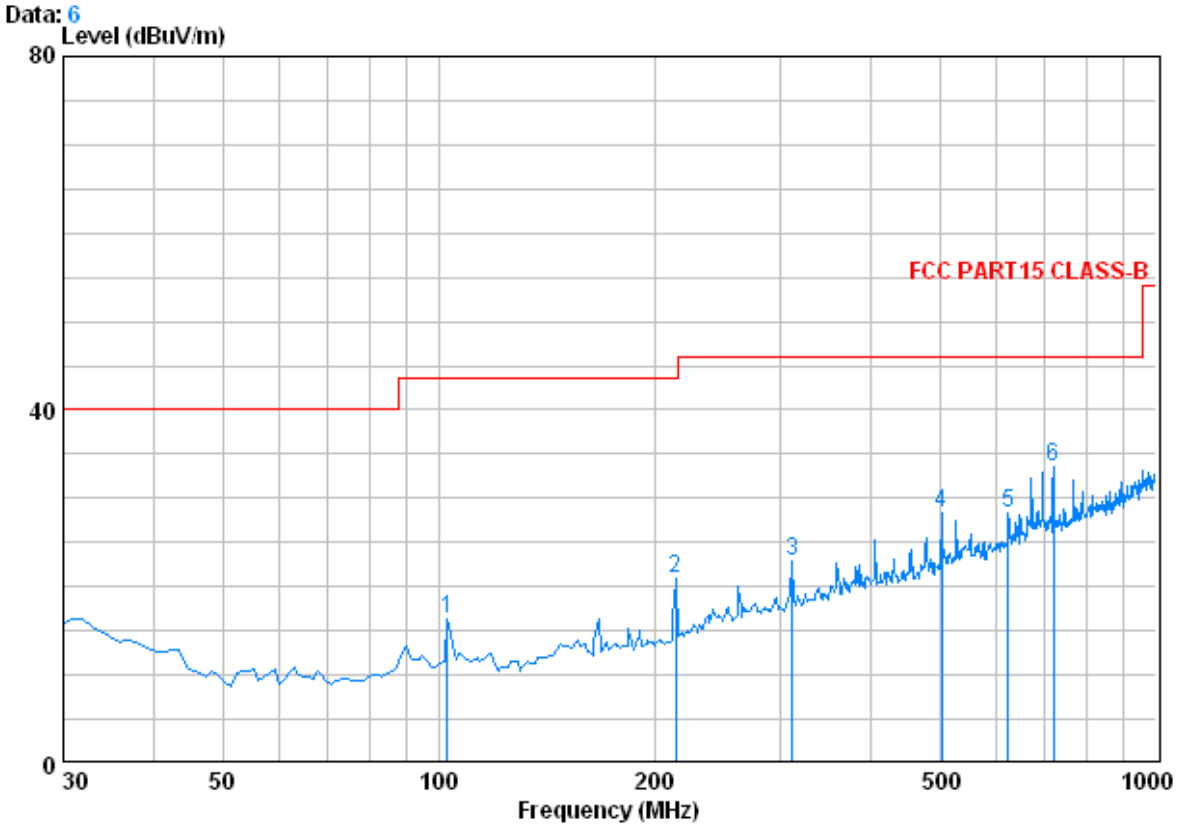
Figure 3. Above 1 GHz

Test Procedure:	a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB

	margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. g. Test the EUT in the lowest channel ,the middle channel ,the Highest channel h. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report. i. Repeat above procedures until all frequencies measured was complete.
Exploratory Test Mode:	Transmitting mode
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g.
Instruments Used:	Refer to section 4.10 for details
Test Results:	Pass

5.7.1 Radiated emission below 1GHz

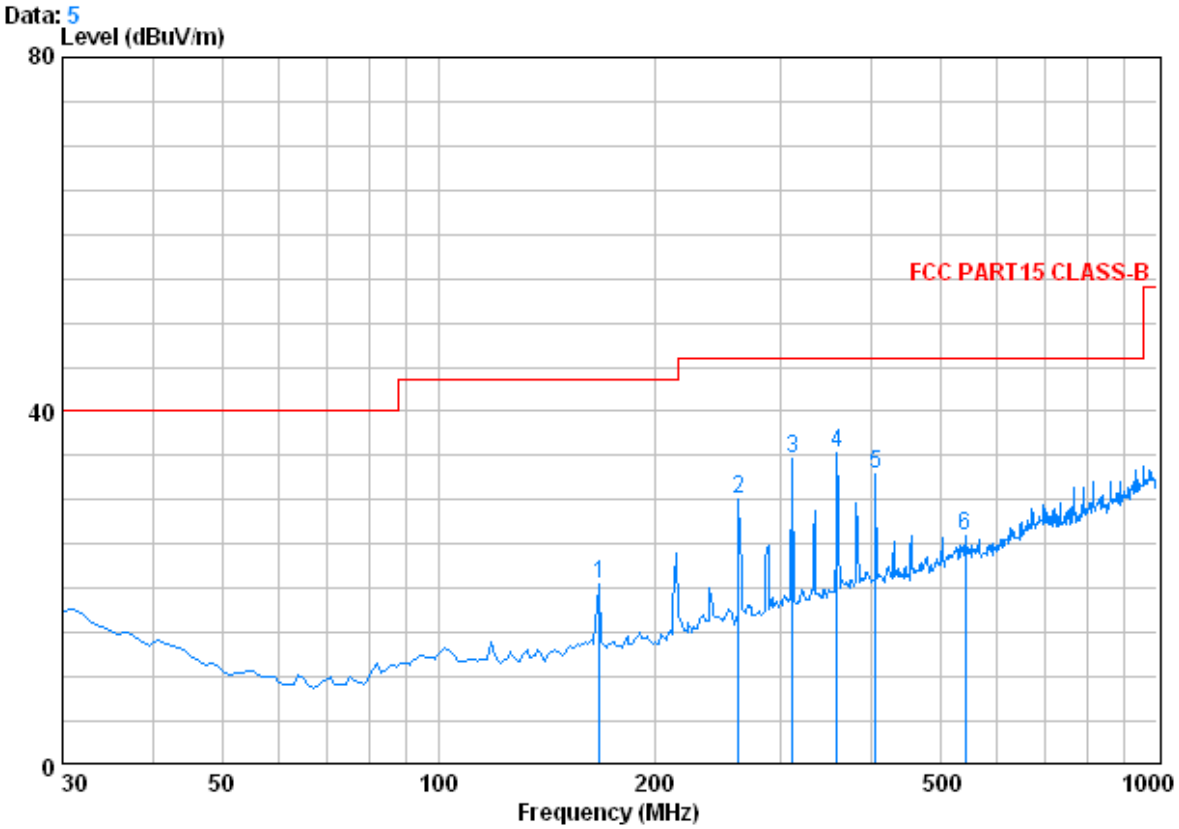
30MHz~1GHz (QP)		
Test mode:	Transmitting	Vertical



Condition : FCC PART15 CLASS-B 3m 0042673 VERTICAL
JOB NO. : 2714RF
MODEL : Transmitting

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	102.750	1.21	8.97	27.18	33.43	16.42	43.50	-27.08
2	214.300	1.49	10.93	26.65	35.15	20.92	43.50	-22.58
3	311.300	1.94	14.33	26.48	33.00	22.78	46.00	-23.22
4	502.390	2.60	17.85	27.69	35.64	28.41	46.00	-17.59
5	622.670	2.75	20.44	27.51	32.77	28.44	46.00	-17.56
6	718.700	2.96	21.60	27.39	36.42	33.59	46.00	-12.41

Test mode:	Transmitting	Horizontal



Condition : FCC PART15 CLASS-B 3m 0042673 HORIZONTAL
JOB NO. : 2714RF
MODEL : Transmitting

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	167.740	1.35	9.52	26.82	36.35	20.40	43.50	-23.10
2	261.830	1.73	12.55	26.50	42.30	30.08	46.00	-15.92
3	311.300	1.94	14.33	26.48	44.77	34.55	46.00	-11.45
4	358.830	2.09	15.62	26.85	44.48	35.34	46.00	-10.66
5	405.390	2.22	16.32	27.17	41.63	33.00	46.00	-13.00
6	541.190	2.64	18.78	27.63	32.15	25.94	46.00	-20.06

5.7.2 Transmitter emission above 1GHz

Test mode:	802.11b	Test channel:	Lowest	Remark:	Peak

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
3210.000	5.35	33.32	40.45	50.28	48.50	74	-25.50	Vertical
4383.000	6.92	34.87	41.32	50.30	50.77	74	-23.23	Vertical
5454.000	7.74	34.85	41.40	50.06	51.25	74	-22.75	Vertical
6406.000	8.11	36.18	40.56	50.18	53.91	74	-20.09	Vertical
7715.000	9.25	36.00	39.44	50.64	56.45	74	-17.55	Vertical
10758.000	10.39	38.40	37.76	45.86	56.89	74	-17.11	Vertical
4179.000	6.68	34.31	41.16	50.48	50.31	74	-23.69	Horizontal
5403.000	7.72	34.80	41.43	49.69	50.78	74	-23.22	Horizontal
6083.000	8.00	35.80	40.84	50.23	53.19	74	-20.81	Horizontal
7647.000	9.23	36.00	39.49	50.58	56.32	74	-17.68	Horizontal
9602.000	9.67	37.30	37.80	46.40	55.57	74	-18.43	Horizontal
11863.000	11.19	38.76	38.22	46.88	58.61	74	-15.39	Horizontal

Test mode:	802.11b	Test channel:	Lowest	Remark:	Average

Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
3210.000	5.35	33.32	40.45	33.85	32.07	54	-21.93	Vertical
4383.000	6.92	34.87	41.32	34.51	34.98	54	-19.02	Vertical
5454.000	7.74	34.85	41.40	35.18	36.37	54	-17.63	Vertical
6406.000	8.11	36.18	40.56	35.19	38.92	54	-15.08	Vertical
7715.000	9.25	36.00	39.44	34.59	40.40	54	-13.60	Vertical
10758.000	10.39	38.40	37.76	30.84	41.87	54	-12.13	Vertical
4179.000	6.68	34.31	41.16	34.32	34.15	54	-19.85	Horizontal
5403.000	7.72	34.80	41.43	35.13	36.22	54	-17.78	Horizontal
6083.000	8.00	35.80	40.84	35.23	38.19	54	-15.81	Horizontal
7647.000	9.23	36.00	39.49	34.67	40.41	54	-13.59	Horizontal
9602.000	9.67	37.30	37.80	31.56	40.73	54	-13.27	Horizontal
11863.000	11.19	38.76	38.22	31.33	43.06	54	-10.94	Horizontal

Test mode:	802.11b	Test channel:	Middle	Remark:	Peak

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4162.000	6.66	34.27	41.15	48.93	48.71	74	-25.29	Vertical
5658.000	7.82	35.15	41.22	50.38	52.13	74	-21.87	Vertical
6559.000	8.16	36.25	40.43	50.83	54.81	74	-19.19	Vertical
7970.000	9.32	36.00	39.21	49.16	55.27	74	-18.73	Vertical
10639.000	10.30	38.36	37.71	45.74	56.69	74	-17.31	Vertical
11999.000	11.29	38.90	38.28	47.00	58.91	74	-15.09	Vertical
4519.000	7.09	35.17	41.42	50.03	50.87	74	-23.13	Horizontal
5522.000	7.77	34.93	41.34	51.73	53.09	74	-20.91	Horizontal
7307.000	8.85	35.92	39.79	49.95	54.93	74	-19.07	Horizontal
8310.000	9.42	36.12	38.92	48.99	55.61	74	-18.39	Horizontal
10078.000	9.90	37.80	37.48	45.92	56.14	74	-17.86	Horizontal
11319.000	10.80	38.44	37.99	46.60	57.85	74	-16.15	Horizontal

Test mode:	802.11b	Test channel:	Middle	Remark:	Average

Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
4162.000	6.66	34.27	41.15	34.22	34.00	54	-20.00	Vertical
5658.000	7.82	35.15	41.22	35.20	36.95	54	-17.05	Vertical
6559.000	8.16	36.25	40.43	35.08	39.06	54	-14.94	Vertical
7970.000	9.32	36.00	39.21	34.34	40.45	54	-13.55	Vertical
10639.000	10.30	38.36	37.71	30.82	41.77	54	-12.23	Vertical
11999.000	11.29	38.90	38.28	31.69	43.60	54	-10.40	Vertical
4519.000	7.09	35.17	41.42	34.56	35.40	54	-18.60	Horizontal
5522.000	7.77	34.93	41.34	35.20	36.56	54	-17.44	Horizontal
7307.000	8.85	35.92	39.79	34.70	39.68	54	-14.32	Horizontal
8310.000	9.42	36.12	38.92	33.89	40.51	54	-13.49	Horizontal
10078.000	9.90	37.80	37.48	30.74	40.96	54	-13.04	Horizontal
11319.000	10.80	38.44	37.99	30.80	42.05	54	-11.95	Horizontal

Test mode:	802.11b	Test channel:	Highest	Remark:	Peak

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4162.000	6.66	34.27	41.15	49.97	49.75	74	-24.25	Vertical
5471.000	7.75	34.87	41.38	50.91	52.15	74	-21.85	Vertical
6423.000	8.12	36.20	40.56	50.55	54.31	74	-19.69	Vertical
7290.000	8.83	35.92	39.80	49.97	54.92	74	-19.08	Vertical
8242.000	9.40	36.10	38.98	49.23	55.75	74	-18.25	Vertical
10214.000	9.99	37.96	37.54	46.06	56.47	74	-17.53	Vertical
4434.000	6.98	35.01	41.36	49.73	50.36	74	-23.64	Horizontal
5199.000	7.63	34.60	41.62	50.43	51.04	74	-22.96	Horizontal
6270.000	8.07	36.02	40.69	50.26	53.66	74	-20.34	Horizontal
7307.000	8.85	35.92	39.79	49.91	54.89	74	-19.11	Horizontal
8259.000	9.41	36.10	38.96	49.21	55.76	74	-18.24	Horizontal
10350.000	10.10	38.12	37.59	46.22	56.85	74	-17.15	Horizontal

Test mode:	802.11b	Test channel:	Highest	Remark:	Average

Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization
4162.000	6.66	34.27	41.15	34.26	34.04	54	-19.96	Vertical
5471.000	7.75	34.87	41.38	35.23	36.47	54	-17.53	Vertical
6423.000	8.12	36.20	40.56	35.23	38.99	54	-15.01	Vertical
7290.000	8.83	35.92	39.80	34.75	39.70	54	-14.30	Vertical
8242.000	9.40	36.10	38.98	34.02	40.54	54	-13.46	Vertical
10214.000	9.99	37.96	37.54	30.90	41.31	54	-12.69	Vertical
4434.000	6.98	35.01	41.36	34.54	35.17	54	-18.83	Horizontal
5199.000	7.63	34.60	41.62	35.01	35.62	54	-18.38	Horizontal
6270.000	8.07	36.02	40.69	35.27	38.67	54	-15.33	Horizontal
7307.000	8.85	35.92	39.79	34.74	39.72	54	-14.28	Horizontal
8259.000	9.41	36.10	38.96	33.94	40.49	54	-13.51	Horizontal
10350.000	10.10	38.12	37.59	30.85	41.48	54	-12.52	Horizontal

Test mode:	802.11g	Test channel:	Lowest	Remark:	Peak

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
3210.000	5.35	33.32	40.45	50.56	48.78	74	-25.22	Vertical
3975.000	6.43	33.78	41.02	49.29	48.48	74	-25.52	Vertical
4842.000	7.46	34.65	41.65	50.23	50.69	74	-23.31	Vertical
6491.000	8.15	36.28	40.50	50.05	53.98	74	-20.02	Vertical
8106.000	9.36	36.04	39.10	48.83	55.13	74	-18.87	Vertical
10690.000	10.34	38.38	37.73	46.09	57.08	74	-16.92	Vertical
4587.000	7.18	35.06	41.47	49.59	50.36	74	-23.64	Horizontal
6287.000	8.07	36.04	40.68	50.57	54.00	74	-20.00	Horizontal
7307.000	8.85	35.92	39.79	49.68	54.66	74	-19.34	Horizontal
8514.000	9.48	36.21	38.75	48.30	55.24	74	-18.76	Horizontal
10418.000	10.15	38.20	37.62	45.65	56.38	74	-17.62	Horizontal
11914.000	11.23	38.81	38.24	46.75	58.55	74	-15.45	Horizontal

Test mode:	802.11g	Test channel:	Lowest	Remark:	Average

Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
3210.000	5.35	33.32	40.45	33.82	32.04	54	-21.96	Vertical
3975.000	6.43	33.78	41.02	34.22	33.41	54	-20.59	Vertical
4842.000	7.46	34.65	41.65	34.86	35.32	54	-18.68	Vertical
6491.000	8.15	36.28	40.50	35.21	39.14	54	-14.86	Vertical
8106.000	9.36	36.04	39.10	34.29	40.59	54	-13.41	Vertical
10690.000	10.34	38.38	37.73	30.86	41.85	54	-12.15	Vertical
4587.000	7.18	35.06	41.47	34.73	35.50	54	-18.50	Horizontal
6287.000	8.07	36.04	40.68	35.34	38.77	54	-15.23	Horizontal
7307.000	8.85	35.92	39.79	34.81	39.79	54	-14.21	Horizontal
8514.000	9.48	36.21	38.75	33.67	40.61	54	-13.39	Horizontal
10418.000	10.15	38.20	37.62	30.86	41.59	54	-12.41	Horizontal
11914.000	11.23	38.81	38.24	31.44	43.24	54	-10.76	Horizontal

Test mode:	802.11g	Test channel:	Middle	Remark:	Peak

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4383.000	6.92	34.87	41.32	48.80	49.27	74	-24.73	Vertical
5403.000	7.72	34.80	41.43	50.24	51.33	74	-22.67	Vertical
6559.000	8.16	36.25	40.43	49.55	53.53	74	-20.47	Vertical
8123.000	9.36	36.05	39.08	49.23	55.56	74	-18.44	Vertical
10163.000	9.97	37.90	37.51	46.48	56.84	74	-17.16	Vertical
11914.000	11.23	38.81	38.24	46.44	58.24	74	-15.76	Vertical
4247.000	6.77	34.50	41.22	50.05	50.10	74	-23.90	Horizontal
5182.000	7.62	34.58	41.63	50.44	51.01	74	-22.99	Horizontal
6474.000	8.14	36.26	40.51	50.32	54.21	74	-19.79	Horizontal
8055.000	9.34	36.02	39.15	49.30	55.51	74	-18.49	Horizontal
9126.000	9.64	36.74	38.21	46.99	55.16	74	-18.84	Horizontal
11931.000	11.24	38.83	38.24	47.44	59.27	74	-14.73	Horizontal

Test mode:	802.11g	Test channel:	Middle	Remark:	Average

Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
4383.000	6.92	34.87	41.32	34.63	35.10	54	-18.90	Vertical
5403.000	7.72	34.80	41.43	35.25	36.34	54	-17.66	Vertical
6559.000	8.16	36.25	40.43	35.21	39.19	54	-14.81	Vertical
8123.000	9.36	36.05	39.08	34.26	40.59	54	-13.41	Vertical
10163.000	9.97	37.90	37.51	30.87	41.23	54	-12.77	Vertical
11914.000	11.23	38.81	38.24	31.51	43.31	54	-10.69	Vertical
4247.000	6.77	34.50	41.22	34.48	34.53	54	-19.47	Horizontal
5182.000	7.62	34.58	41.63	35.04	35.61	54	-18.39	Horizontal
6474.000	8.14	36.26	40.51	35.27	39.16	54	-14.84	Horizontal
8055.000	9.34	36.02	39.15	34.32	40.53	54	-13.47	Horizontal
9126.000	9.64	36.74	38.21	32.39	40.56	54	-13.44	Horizontal
11931.000	11.24	38.83	38.24	31.66	43.49	54	-10.51	Horizontal

Test mode:	802.11g	Test channel:	Highest	Remark:	Peak

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4434.000	6.98	35.01	41.36	49.59	50.22	74	-23.78	Vertical
6474.000	8.14	36.26	40.51	50.17	54.06	74	-19.94	Vertical
8191.000	9.38	36.08	39.03	49.65	56.08	74	-17.92	Vertical
9279.000	9.65	36.93	38.08	47.11	55.61	74	-18.39	Vertical
10707.000	10.36	38.38	37.74	45.88	56.88	74	-17.12	Vertical
12186.000	11.36	39.09	38.36	48.74	60.83	74	-13.17	Vertical
3703.000	6.05	33.45	40.81	49.67	48.36	74	-25.64	Horizontal
4315.000	6.85	34.69	41.26	50.14	50.42	74	-23.58	Horizontal
5471.000	7.75	34.87	41.38	50.66	51.90	74	-22.10	Horizontal
6270.000	8.07	36.02	40.69	50.90	54.30	74	-19.70	Horizontal
7494.000	9.08	36.00	39.62	50.76	56.22	74	-17.78	Horizontal
9551.000	9.67	37.25	37.85	48.04	57.11	74	-16.89	Horizontal

Test mode:	802.11g	Test channel:	Highest	Remark:	Average

Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization
4434.000	6.98	35.01	41.36	34.54	35.17	54	-18.83	Vertical
6474.000	8.14	36.26	40.51	35.14	39.03	54	-14.97	Vertical
8191.000	9.38	36.08	39.03	34.04	40.47	54	-13.53	Vertical
9279.000	9.65	36.93	38.08	31.95	40.45	54	-13.55	Vertical
10707.000	10.36	38.38	37.74	30.81	41.81	54	-12.19	Vertical
12186.000	11.36	39.09	38.36	31.99	44.08	54	-9.92	Vertical
3703.000	6.05	33.45	40.81	34.01	32.70	54	-21.30	Horizontal
4315.000	6.85	34.69	41.26	34.44	34.72	54	-19.28	Horizontal
5471.000	7.75	34.87	41.38	35.15	36.39	54	-17.61	Horizontal
6270.000	8.07	36.02	40.69	35.25	38.65	54	-15.35	Horizontal
7494.000	9.08	36.00	39.62	34.66	40.12	54	-13.88	Horizontal
9551.000	9.67	37.25	37.85	31.57	40.64	54	-13.36	Horizontal

Remark:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

   Final Test Level =Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor

2) The disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

5.8 Band Edge (Radiated Emission)

Test Requirement:	FCC Part15 C Section 15.209 and 15.205
Test Method:	ANSI C63.10: 2009
Test Site:	Measurement Distance: 3m (Semi-Anechoic Chamber)

Limit:

Frequency	Limit (dBuV/m @3m)	Remark
30MHz-88MHz	40.0	Quasi-peak Value
88MHz-216MHz	43.5	Quasi-peak Value
216MHz-960MHz	46.0	Quasi-peak Value
960MHz-1GHz	54.0	Quasi-peak Value
Above 1GHz	54.0	Average Value
	74.0	Peak Value

Test Setup:

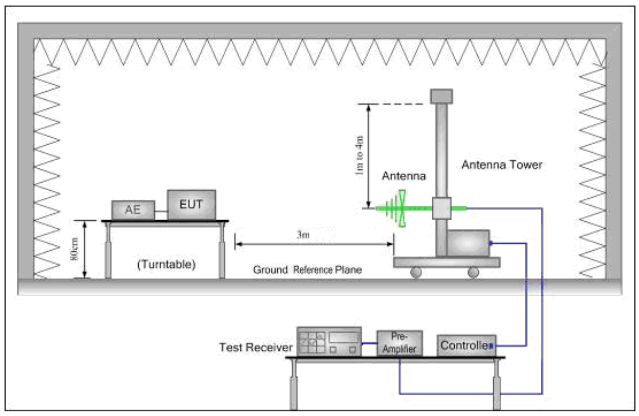


Figure 1. 30MHz to 1GHz

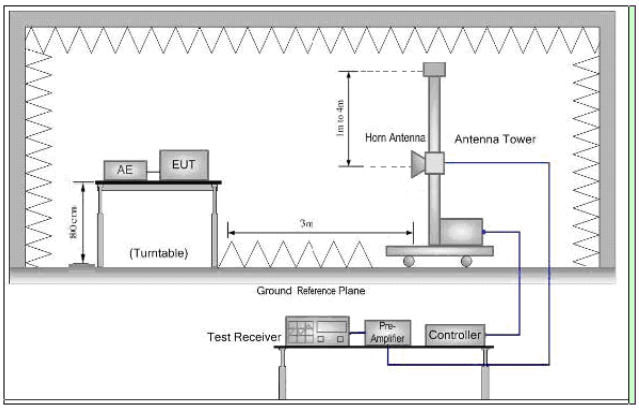
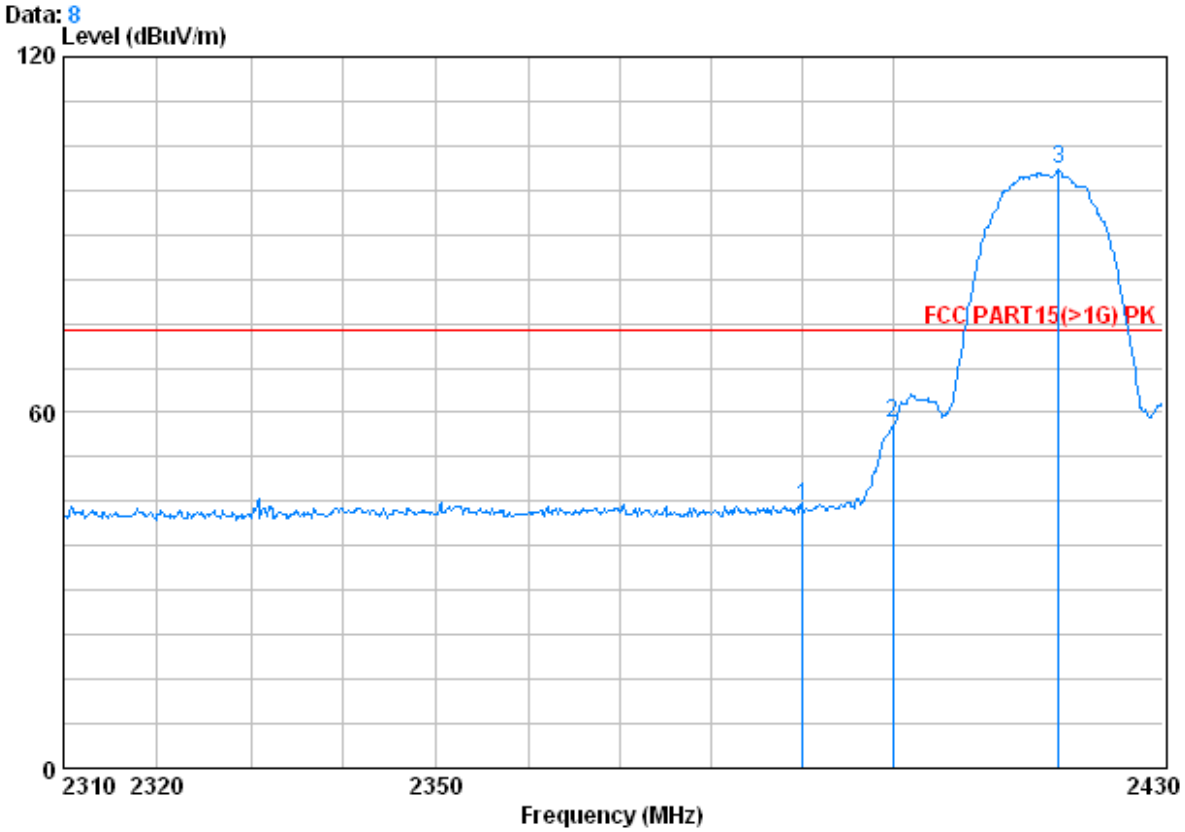


Figure 2. Above 1 GHz

Test Procedure:	a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel g. Test the EUT in the lowest channel , the Highest channel h. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report. i. Repeat above procedures until all frequencies measured was complete.
Exploratory Test Mode:	Transmitting mode
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g.
Instruments Used:	Refer to section 4.10 for details
Test Results:	Pass

Test plot as follows:

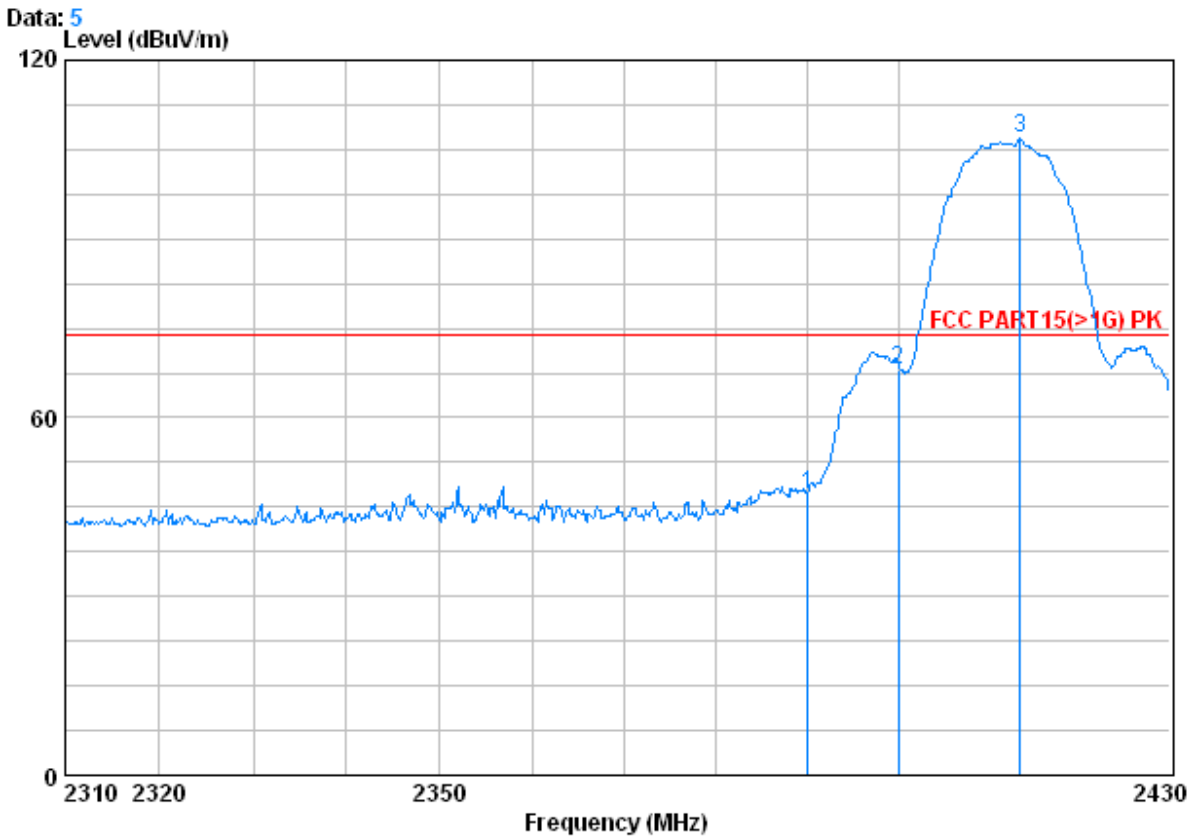
Test mode:	802.11b	Test channel:	Lowest	Remark:	Peak	Vertical



Condition : FCC PART15(>1G) PK 3m VERTICAL
Job No. : 2714RF
Mode : 802.11b 2412MHz

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	2390.000	2.98	32.51	39.85	48.57	44.21	74.00	-29.79
2	2400.000	2.98	32.51	39.86	62.71	58.34	74.00	-15.66
3 X	2418.360	2.99	32.54	39.88	105.24	100.90	74.00	26.90

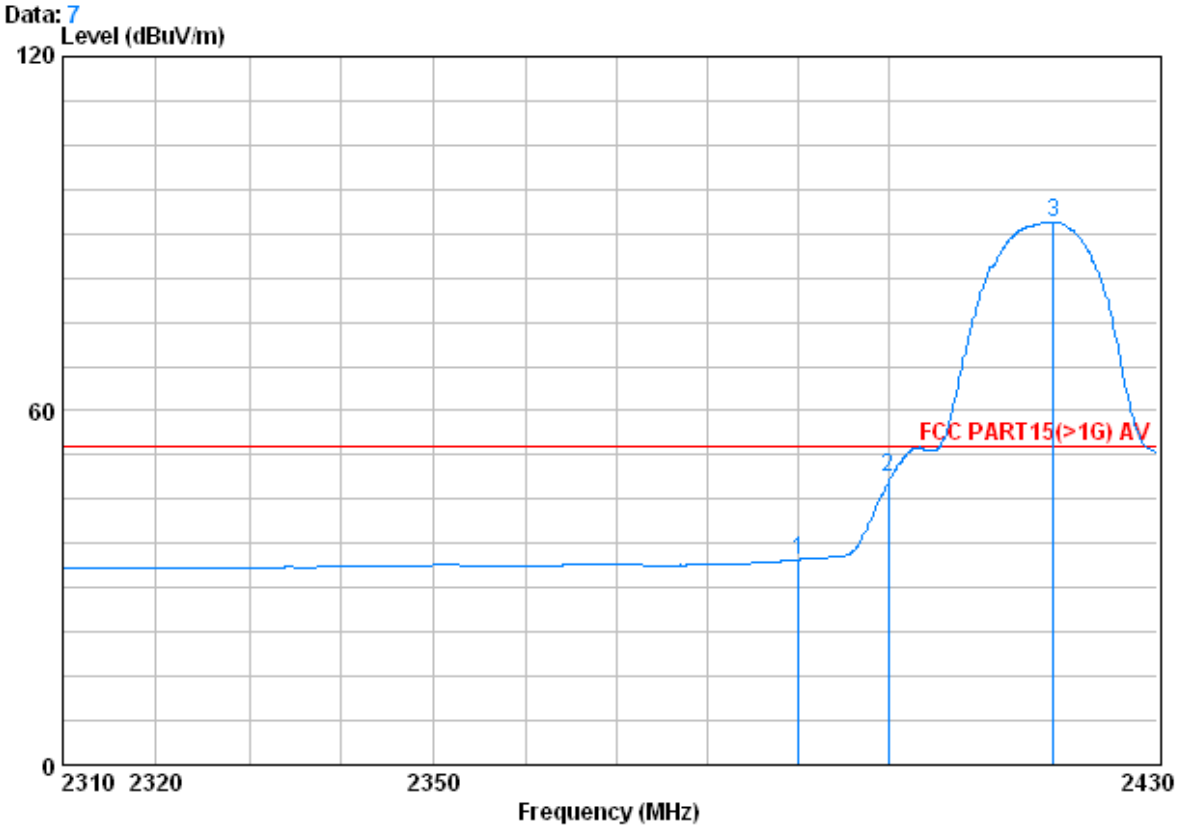
Test mode:	802.11b	Test channel:	Lowest	Remark:	Peak	Horizontal



Condition : FCC PART15(>1G) PK 3m HORIZONTAL
Job No. : 2714RF
Mode : 802.11b 2412MHz

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	2390.000	2.98	32.51	39.85	51.57	47.22	74.00	-26.78
2	2400.000	2.98	32.51	39.86	72.49	68.12	74.00	-5.88
3 @	2413.440	2.99	32.54	39.86	111.12	106.79	74.00	32.79

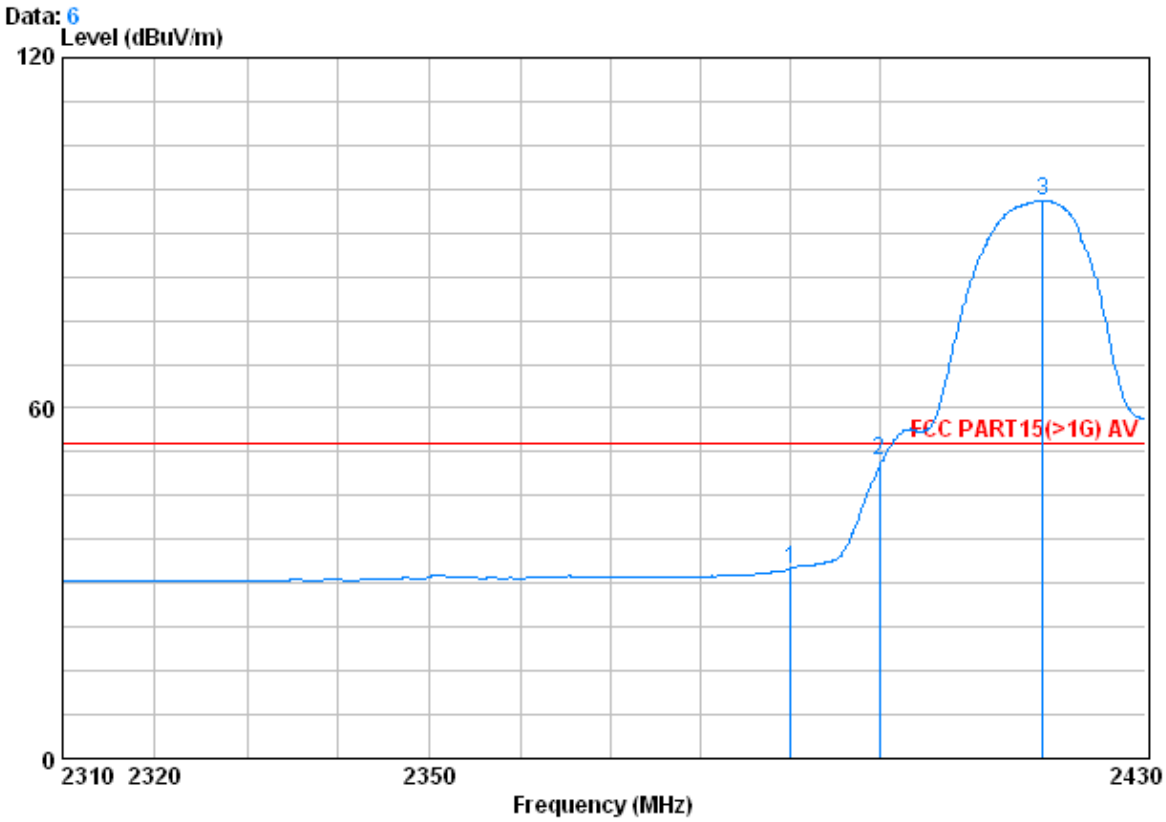
Test mode:	802.11b	Test channel:	Lowest	Remark:	Average	Vertical



Condition : FCC PART15(>1G) AV 3m VERTICAL
Job No. : 2714RF
Mode : 802.11b 2412MHz

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	2390.000	2.98	32.51	39.85	39.08	34.72	54.00	-19.28
2	2400.000	2.98	32.51	39.86	53.03	48.66	54.00	-5.34
3 @	2418.360	2.99	32.54	39.88	96.26	91.92	54.00	37.92

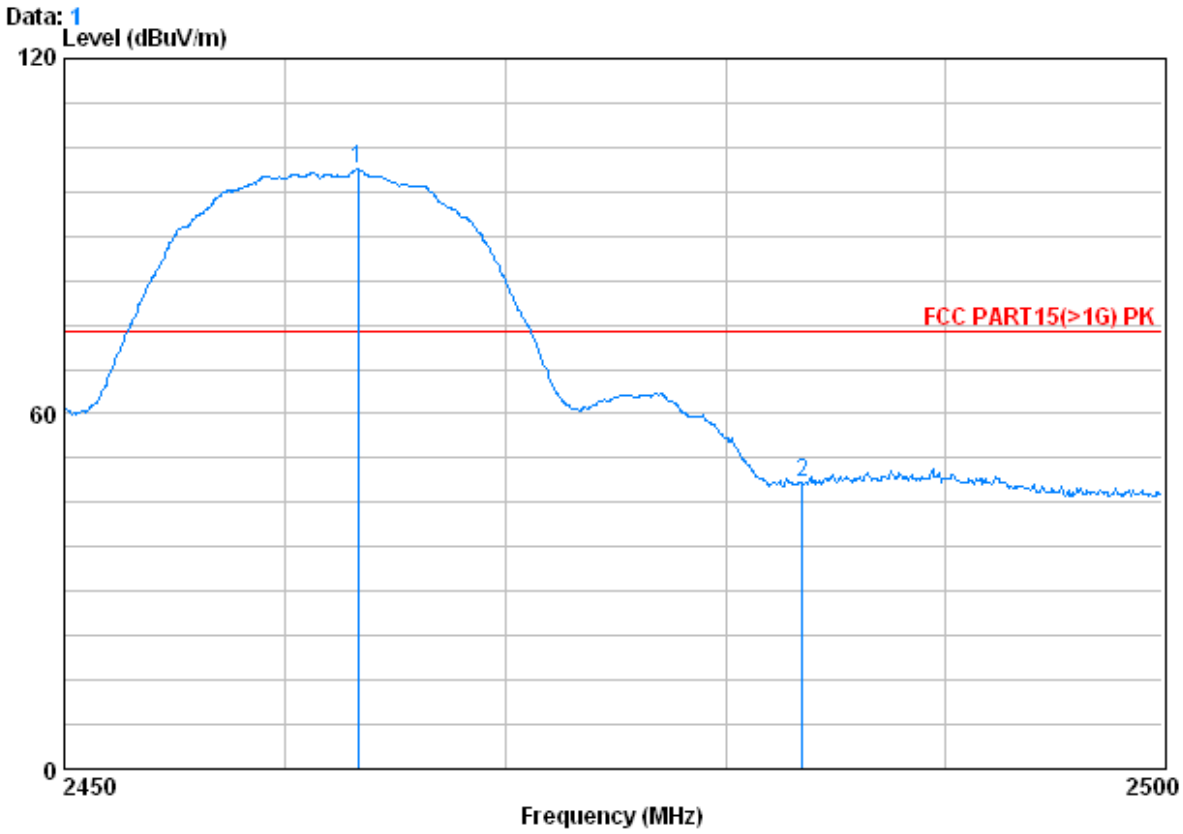
Test mode:	802.11b	Test channel:	Lowest	Remark:	Average	Horizontal



Condition : FCC PART15(>1G) AV 3m HORIZONTAL
Job No. : 2714RF
Mode : 802.11b 2412MHz

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	2390.000	2.98	32.51	39.85	36.79	32.43	54.00	-21.57
2	2400.000	2.98	32.51	39.86	55.27	50.90	54.00	-3.10
3 @	2418.360	2.99	32.54	39.88	99.83	95.48	54.00	41.48

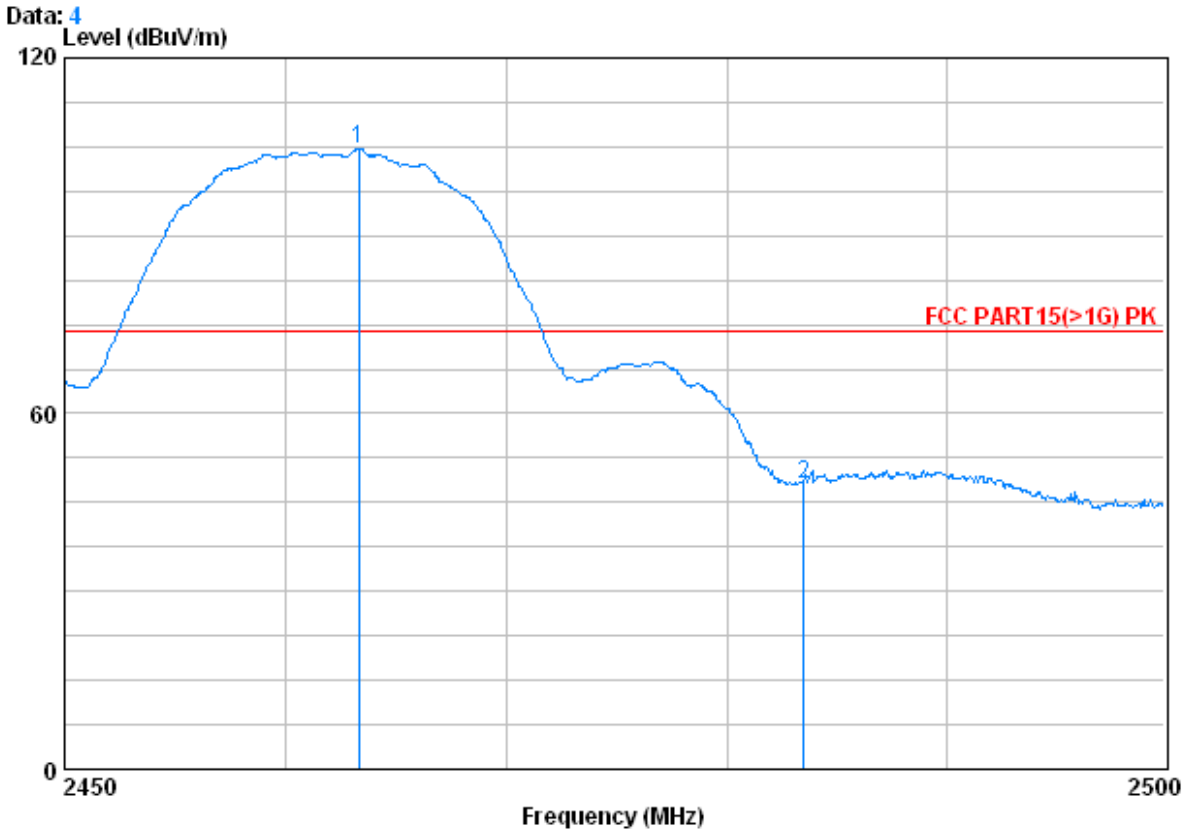
Test mode:	802.11b	Test channel:	Highest	Remark:	Peak	Vertical



Condition : FCC PART15(>1G) PK 3m VERTICAL
Job No. : 2714RF
Mode : 802.11b 2462MHz

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 @	2463.300	3.02	32.64	39.91	105.50	101.25	74.00	27.25
2	2483.500	3.03	32.67	39.92	52.52	48.30	74.00	-25.70

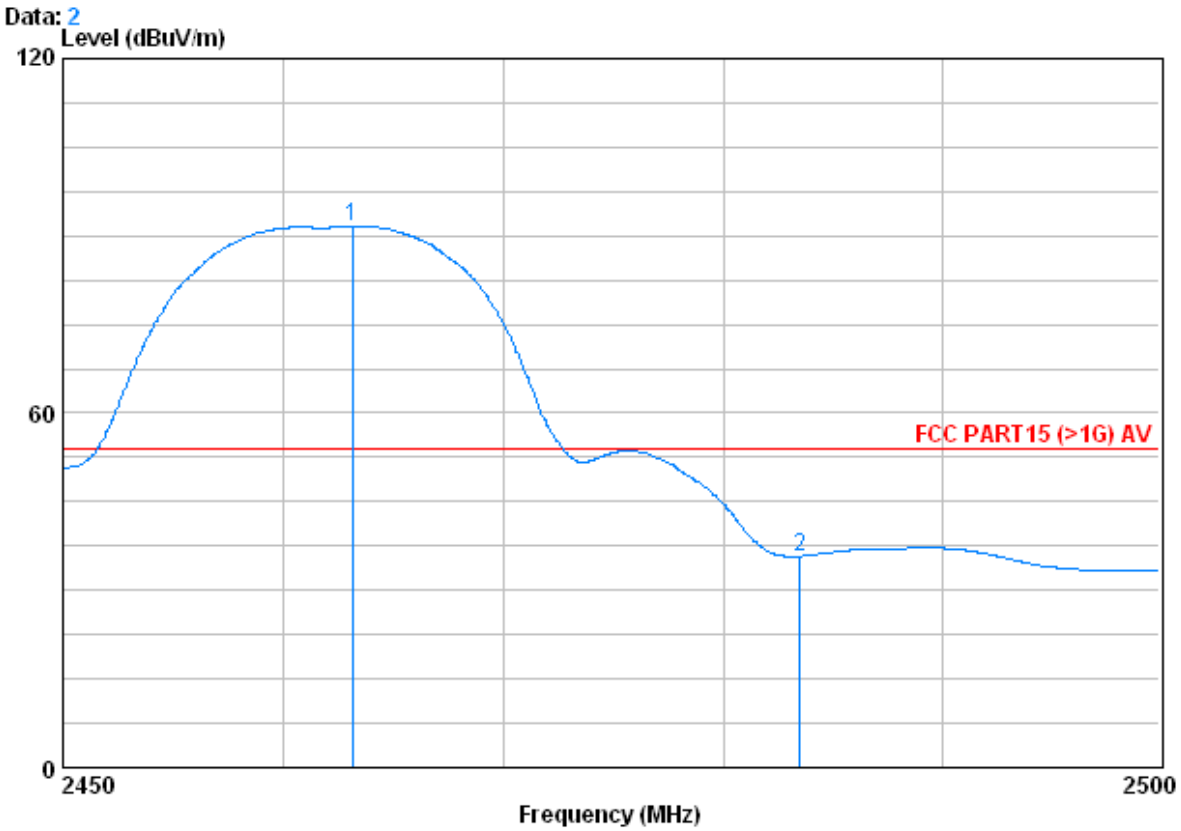
Test mode:	802.11b	Test channel:	Highest	Remark:	Peak	Horizontal



Condition : FCC PART15(>1G) PK 3m HORIZONTAL
Job No. : 2714RF
Mode : 802.11b 2462MHz

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 @	2463.300	3.02	32.64	39.91	108.90	104.65	74.00	30.65
2	2483.500	3.03	32.67	39.92	52.35	48.14	74.00	-25.86

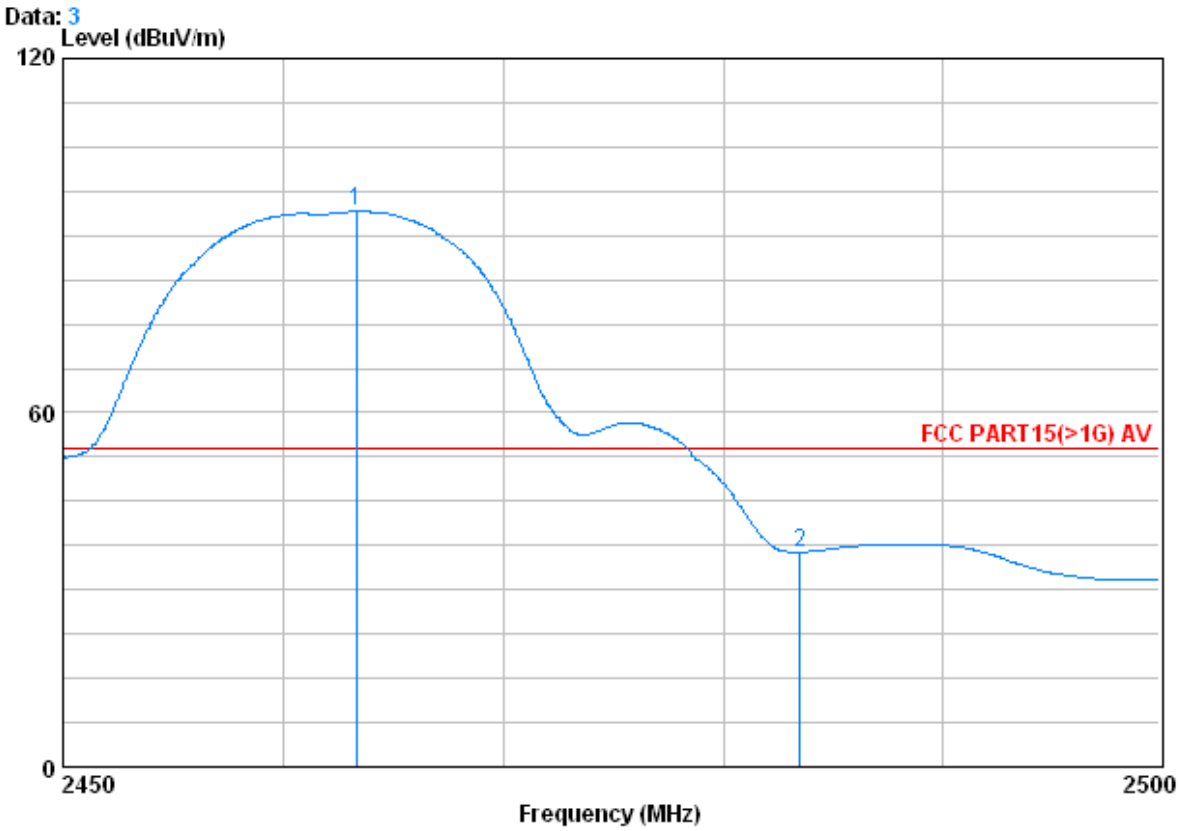
Test mode:	802.11b	Test channel:	Highest	Remark:	Average	Vertical



Condition : FCC PART15 (>1G) AV 3m VERTICAL
Job No. : 2714RF
Mode : 802.11b 2462MHz

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 X	2463.100	3.02	32.64	39.91	95.85	91.61	74.00	17.61
2	2483.500	3.03	32.67	39.92	39.98	35.76	54.00	-18.24

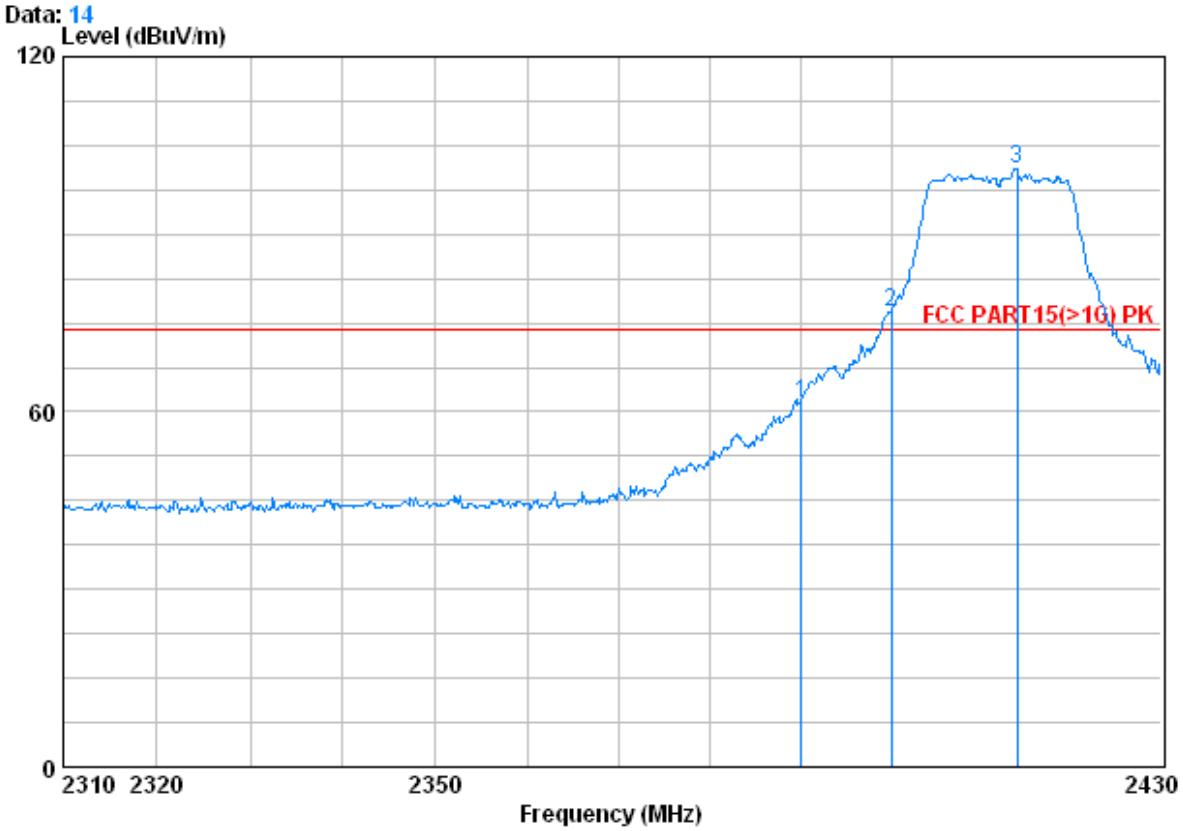
Test mode:	802.11b	Test channel:	Highest	Remark:	Average	Horizontal



Condition : FCC PART15(>1G) AV 3m HORIZONTAL
Job No. : 2714RF
Mode : 802.11b 2462MHz

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 @	2463.300	3.02	32.64	39.91	98.30	94.06	54.00	40.06
2	2483.500	3.03	32.67	39.92	40.55	36.33	54.00	-17.67

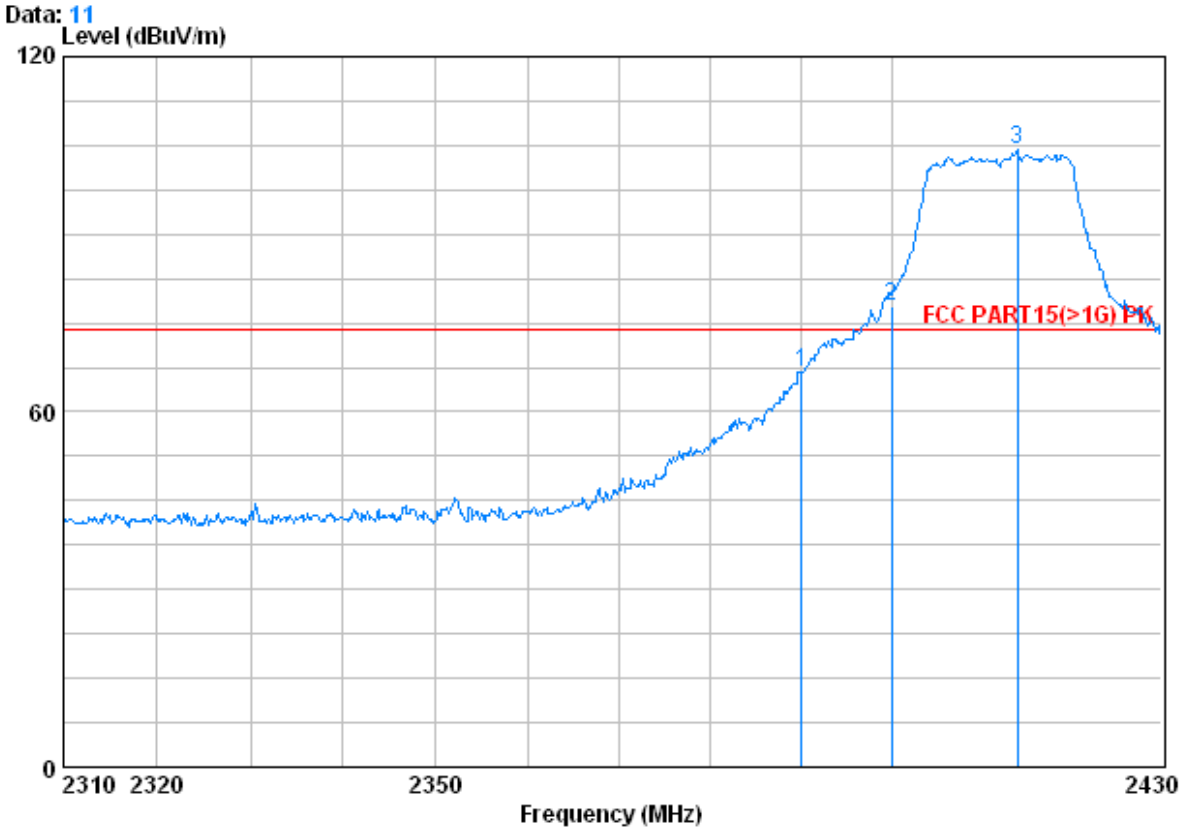
Test mode:	802.11g	Test channel:	Lowest	Remark:	Peak	Vertical



Condition : FCC PART15(>1G) PK 3m VERTICAL
Job No. : 2714RF
Mode : 802.11g 2412MHz

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	2390.000	2.98	32.51	39.85	65.82	61.47	74.00	-12.53
2 X	2400.000	2.98	32.51	39.86	81.08	76.71	74.00	2.71
3 @	2413.920	2.99	32.54	39.86	105.48	101.15	74.00	27.15

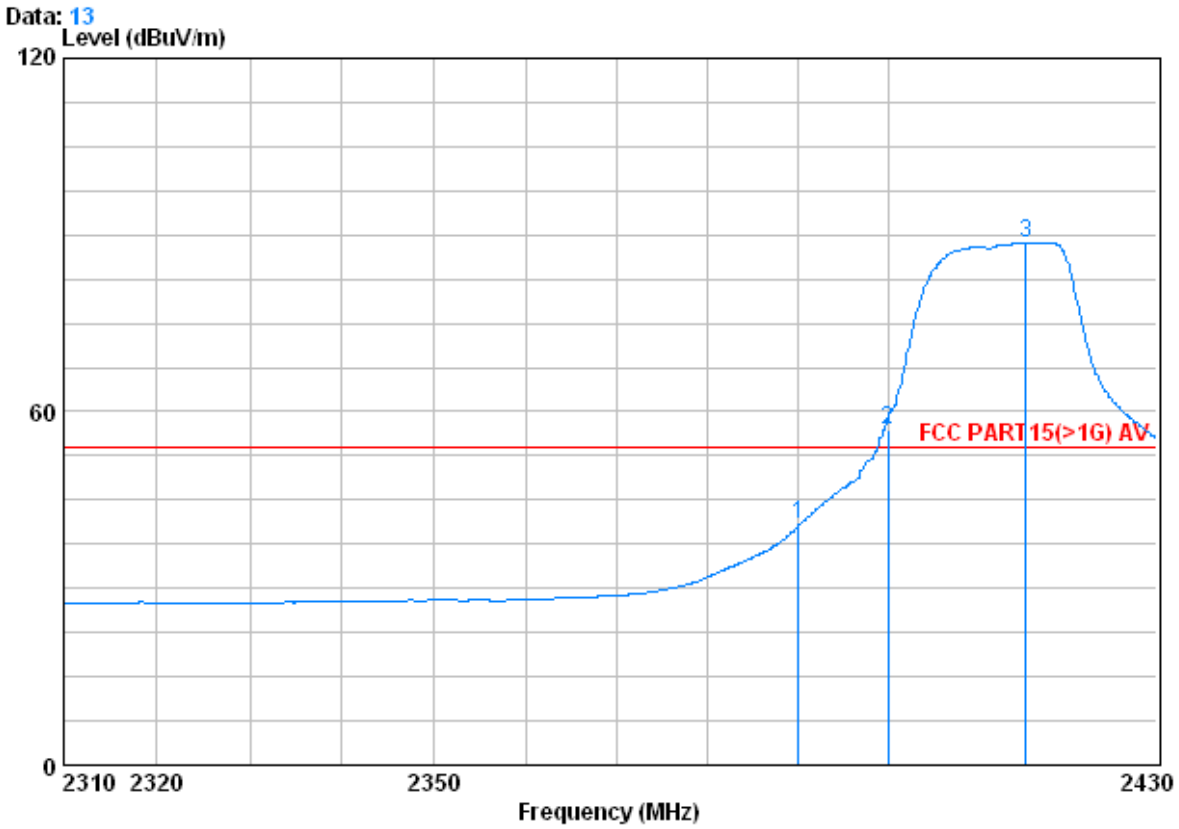
Test mode:	802.11g	Test channel:	Lowest	Remark:	Peak	Horizontal



Condition : FCC PART15(>1G) PK 3m HORIZONTAL
Job No. : 2714RF
Mode : 802.11g 2412MHz

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	2390.000	2.98	32.51	39.85	70.93	66.57	74.00	-7.43
2 X	2400.000	2.98	32.51	39.86	82.19	77.82	74.00	3.82
3 @	2413.920	2.99	32.54	39.86	108.78	104.45	74.00	30.45

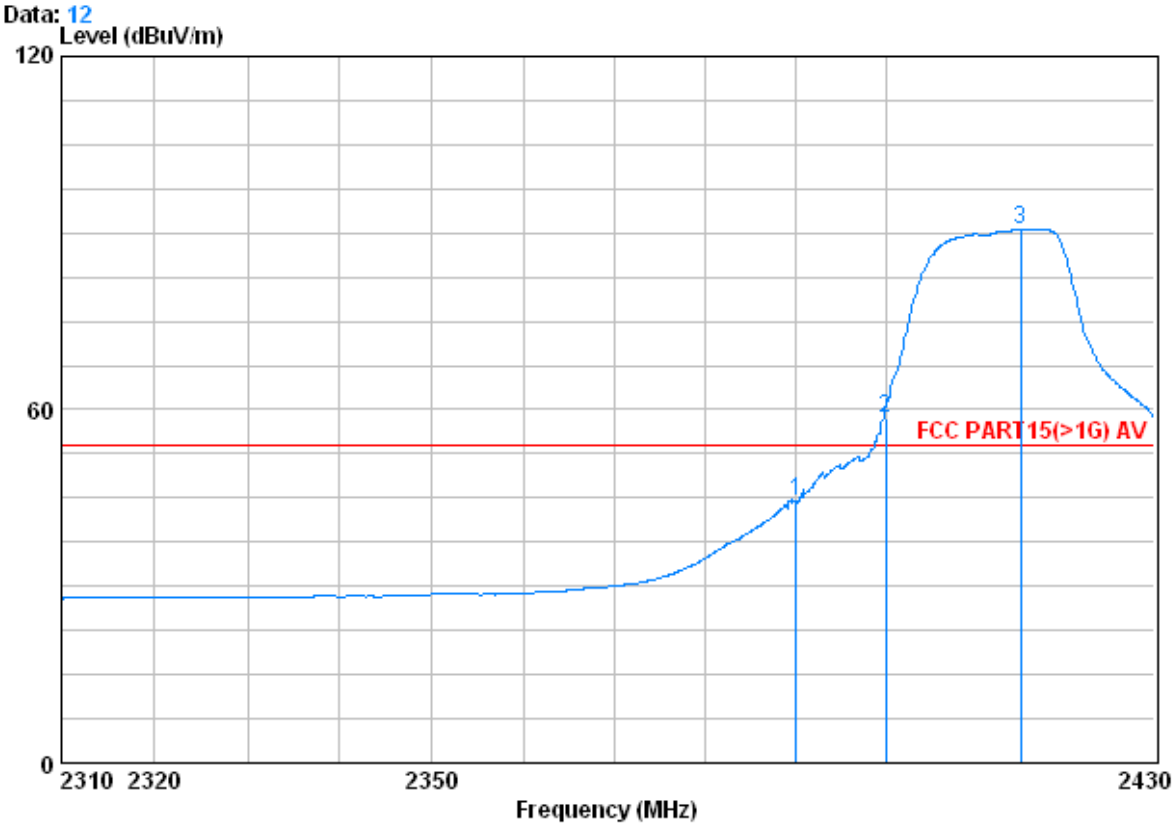
Test mode:	802.11g	Test channel:	Lowest	Remark:	Average	Vertical



Condition : FCC PART15(>1G) AV 3m VERTICAL
Job No. : 2714RF
Mode : 802.11g 2412MHz

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	2390.000	2.98	32.51	39.85	45.11	40.76	54.00	-13.24
2 X	2400.000	2.98	32.51	39.86	61.28	56.91	54.00	2.91
3 @	2415.360	2.99	32.54	39.86	93.02	88.69	54.00	34.69

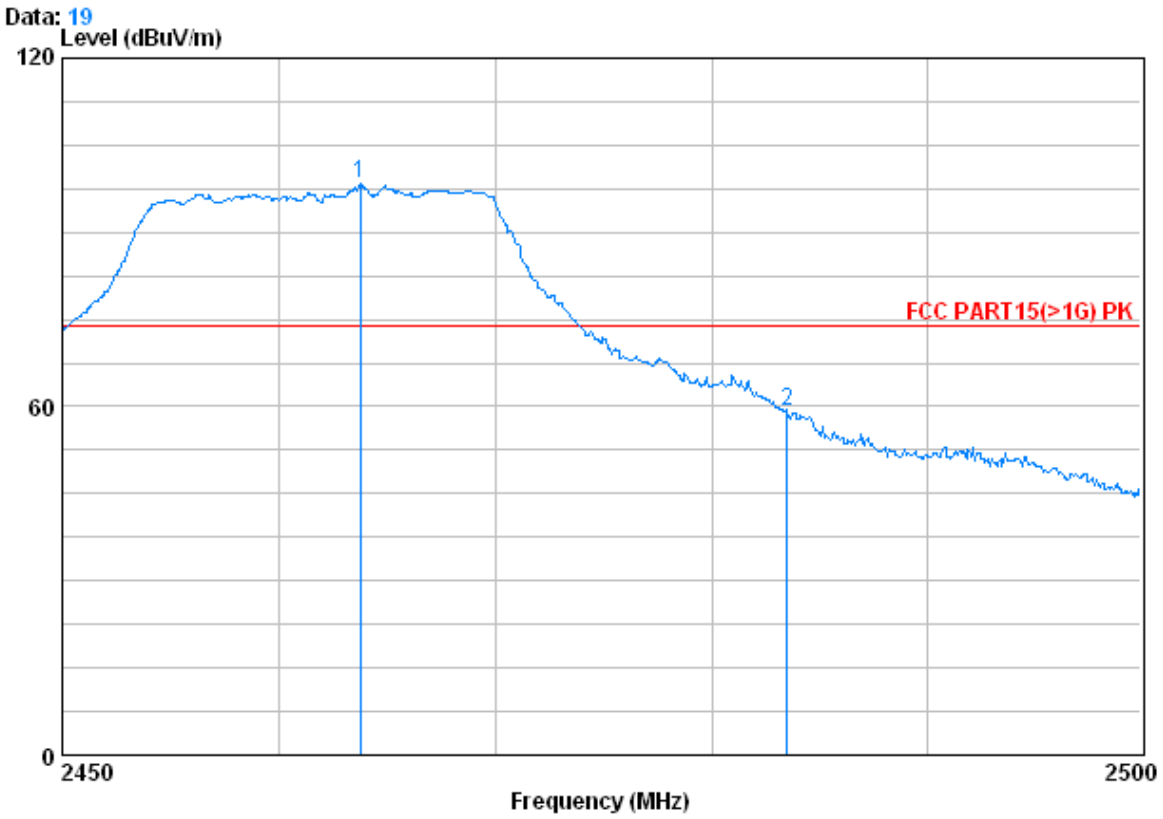
Test mode:	802.11g	Test channel:	Lowest	Remark:	Average	Horizontal



Condition : FCC PART15(>1G) AV 3m HORIZONTAL
Job No. : 2714RF
Mode : 802.11g 2412MHz

		Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
		MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1		2390.000	2.98	32.51	39.85	48.70	44.35	54.00	-9.65
2	X	2400.000	2.98	32.51	39.86	62.88	58.51	54.00	4.51
3	@	2415.000	2.99	32.54	39.86	94.93	90.61	54.00	36.61

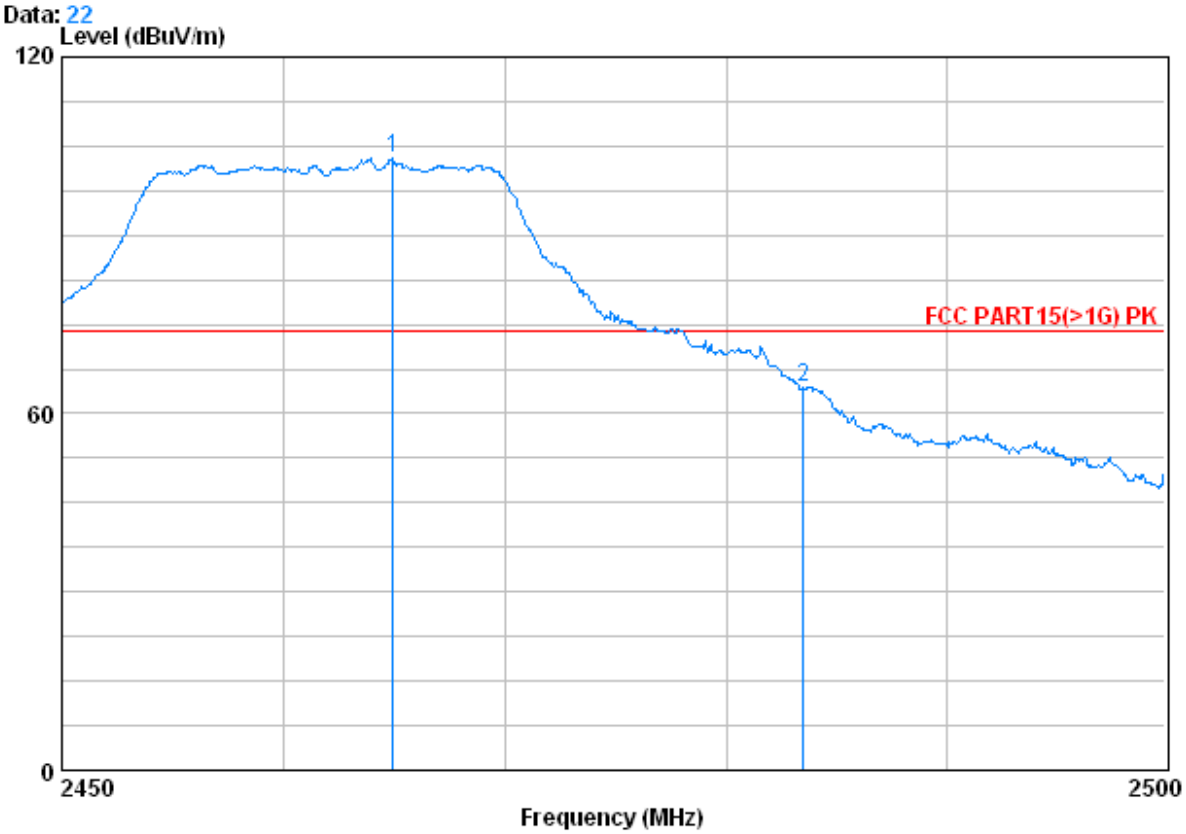
Test mode:	802.11g	Test channel:	Highest	Remark:	Peak	Vertical



Condition : FCC PART15(>1G) PK 3m VERTICAL
Job No. : 2714RF
Mode : 802.11g 2462MHz

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 @	2463.700	3.02	32.64	39.91	102.51	98.27	74.00	24.27
2	2483.500	3.03	32.67	39.92	63.53	59.31	74.00	-14.69

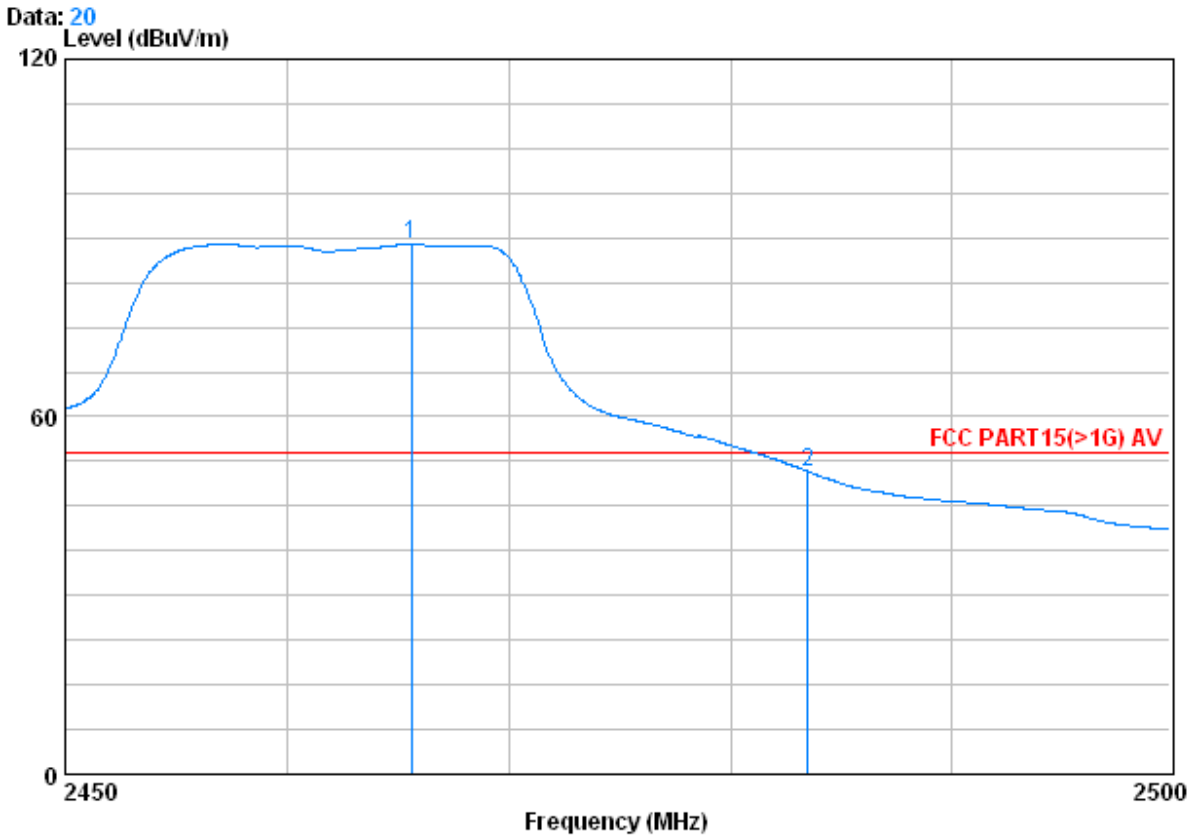
Test mode:	802.11g	Test channel:	Highest	Remark:	Peak	Horizontal



Condition : FCC PART15(>1G) PK 3m HORIZONTAL
Job No. : 2714RF
Mode : 802.11g 2462MHz

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 @	2464.900	3.02	32.64	39.91	107.21	102.96	74.00	28.96
2	2483.500	3.03	32.67	39.92	68.47	64.25	74.00	-9.75

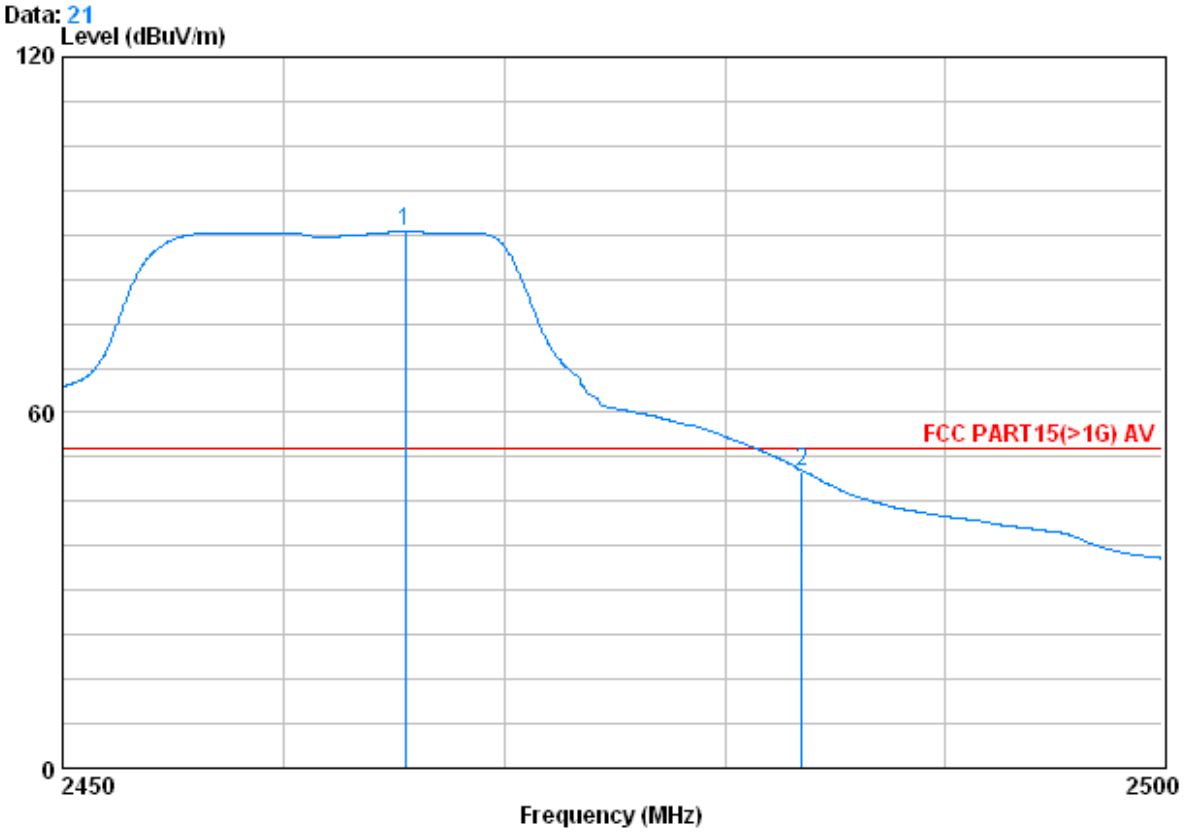
Test mode:	802.11g	Test channel:	Highest	Remark:	Average	Vertical



Condition : FCC PART15(>1G) AV 3m VERTICAL
Job No. : 2714RF
Mode : 802.11g 2462MHz

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 @	2465.550	3.02	32.64	39.91	93.14	88.90	54.00	34.90
2	2483.500	3.03	32.67	39.92	55.05	50.83	54.00	-3.17

Test mode:	802.11g	Test channel:	Highest	Remark:	Average	Horizontal



Condition : FCC PART15(>1G) AV 3m HORIZONTAL
Job No. : 2714RF
Mode : 802.11g 2462MHz

	Freq	Cable Loss	Antenna Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 @	2465.500	3.02	32.64	39.91	94.83	90.58	54.00	36.58
2	2483.500	3.03	32.67	39.92	54.31	50.09	54.00	-3.91

Note:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor