CONFORMANCE TEST REPORT
FOR
FCC 47 CFR, Part 15 Subpart C
and
Canada RSS-210

Report No.: 11-02-MAS-043-02

Client:	OpenPeak Inc.
Product:	Cisco Cius
Model:	CIUS-7-K9
FCC ID:	VGBCSCOT0710
IC ID:	2461B-CSCOT0710
Manufacturer:	Celestica Thailand Ltd.
Date test item received:	2010/12/23
Date test campaign completed:	2011/03/28
Date of issue:	2011/03/28

Total number of pages of this test report: 181 pages
Total number of pages of photos: External photos 5 pages
Internal photos 8 pages
Setup photos 4 pages

Test Engineer	Checked By	Approved By
Ivan Tsai	James Cheng	Joe Hsieh

ELECTRONICS TESTING CENTER, TAIWAN
NO.8, LANE 29, WENMING RD.,
LESHAN TSUEN, GUISHAN SHIANG,
TAOYUAN COUNTY, TAIWAN 33383,
R.O.C.TAIWAN, R.O.C.

TEL: (03) 3276170~4
INT: +886-3-3276170~4
FAX: (03) 3276188
INT: +886-3-3276188

Client	: OpenPeak Inc.
Address	: 1750 Clint Moore Rd. Boca Raton, FL, USA 33487
Manufacturer	: Celestica Thailand Ltd.
Address	: 49/18 laem Chabang Industrial Estate Moo 5, Tungsukhla Sriracha, Chanburi, Thailand 20230
EUT	: Cisco Cius
Brand/Trade name	: Cisco Systems, Inc.
Model No.	: CIUS-7-K9
Power Source	: Adapter 1: (APD / DA-20A05) Input: 100-240Vac, 50-60Hz, 1.0A Max Output: 5V, 4A Max Adapter 2: (ENG / 3A-204DB05) Input: 100-240Vac, 50-60Hz, 0.5A Output: 5V, 4.0A
Regulations applied	: FCC 47 CFR, Part 15 Subpart C Canada RSS-210 Issue 8 / RSS-Gen Issue 3

The testing described in this report has been carried out to the best of our knowledge and ability, and our responsibility is limited to the exercise of reasonable care. This certification is not intended to believe the sellers from their legal and/or contractual obligations.

The compliance test is only certified for the test equipment and the results of the testing report relate only to the item tested. The compliance test of this report was conducted in accordance with the appropriate standards. It's not intention to assure the quality and performance of the product. This report shall not be reproduced except in full, without the approval of ETC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

Laboratory Introduction: Electronics Testing Center, Taiwan is recognized, filed and mutual recognition arrangement as following:

① ISO9001: TüV Product Service

② ISO/IEC 17025: BSMI, CNLA, DGT, NVLAP, CCIBLAC, UL, Compliance

③ Filing: FCC, Industry Canada, VCCI

④ MRA: Australia, Hong Kong, New Zealand, Singapore, USA, Japan, Korea, China, APLAC through CNLA

⑤ FCC Registration Number: 90588, 91094, 91095

⑥ Industry Canada Site Regisitation number: IC 2949A-1

NVLAP Lab Code 200133-0

Table of Contents Page

1 GENERAL INFORMATION

1.1 Product Description

a) Type of EUT : Cisco Cius
b) Trade Name : Cisco Systems, Inc.
c) Model No. : CIUS-7-K9
d) FCC ID : VGBCSCOT0710
e) IC ID : 2461B-CSCOT0710

1.2 Characteristics of Device

The EUT is a Mobile Collaboration Tablet. It conforms to the IEEE 802.11a/b/g/n protocal and operates in the unlicensed ISM Band at 2.4 GHz and 5.8GHz, and in the unlicensed U-NII Band at 5.2GHz, 5.3GHz and 5.6GHz.

RF chain	1T1R
Frequency Range	IEEE 802.11b/g, 802.11gn HT20: 2412MHz~2462MHz IEEE 802.11gn HT40: 2422MHz~2462MHz IEEE 802.11a, 802.11an HT20: 5.2GHz: 5180MHz ~5240MHz, 5.3G: 5260MHz ~5320MHz, 5.6GHz: 5500MHz~5700 MHz, 5.8G: 5745MHz ~5825MHz IEEE 802.11an HT40: 5.2GHz: 5190MHz ~5230MHz, 5.3G: 5270MHz ~5310MHz, 5.6GHz: 5510MHz~5670 MHz, 5.8G: 5745MHz ~5825MHz
Channel Spacing	IEEE 802.11b/g, 802.11gn HT20/HT40: 5MHz IEEE 802.11a, 802.11an HT20/ 40: 5MHz
Channel Number	IEEE 802.11b/g, 802.11gn HT20:13 Channels IEEE 802.11gn HT40: 9 Channels IEEE 802.11a, 802.11an HT20: 5.2GHz:13 Channels, 5.3GHz:13 Channels, 5.6GHz: 41Channels, 5.8G: 16Channels IEEE 802.11an HT40: 5.2GHz:9 Channels, 5.3GHz:9 Channels, 5.6GHz: 33 Channels,5.8G: 16Channels
Transmit Data Rate	IEEE 802.11b: 11, 5.5, 2, 1 Mbps IEEE 802.11g: 54, 48, 36, 24, 18, 12, 11, 9, 6 Mbps IEEE 802.11gn HT20: 65, 58.5, 52, 39, 26, 19.5, 13, 6.5Mbps IEEE 802.11gn HT40: 135, 121.5, 108, 81, 54, 40.5, 27, 13.5 Mbps IEEE 802.11a: 54, 48, 36, 24, 18, 12, 11, 9, 6 Mbps IEEE 802.11an HT20: 65, 58.5, 52, 39, 26, 19.5, 13, 6.5Mbps IEEE 802.11an HT40: 135, 121.5, 108, 81, 54, 40.5, 27, 13.5 Mbps
Type of Modulation	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11gn HT20/40: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11an HT20/40: OFDM (64QAM, 16QAM, QPSK, BPSK)

One antenna is used for this device:

	Antenna Type
Ant	802.11abgn WLAN Antenna

1.3 Test Methodology

All testing were performed according to the procedures in ANSI C63.4 (2003) and FCC CFR 47 Part 2 and Part 15.

1.4 Test Facility

The semi-anechoic chamber and conducted measurement facility used to collect the radiated and conducted data are located inside the Building at No.8, Lane 29, Wen-ming Road, Lo-shan Tsun, Kweishan Hsiang, Taoyuan, Taiwan, R.O.C.

This site has been accreditation as a FCC filing site.

1.5 Test Summary

Requirement	IC Paragraph #	FCC Paragraph #	Test Pass
Antenna Requirement	RSS-Gen_7.1.2	15.203	☒
Conducted Emission	RSS-Gen_7.2.4	15.207	☒
Emission Bandwidth	RSS-210_A8.2 (a)	15.247 (a)(2)	☒
Output Power Requirement	RSS-210_A8.4 (4)	15.247 (b)	☒
Power Density Requirement	RSS-210_A8.2 (b)	15.247 (e)	☒
Spurious Emissions	RSS-210_A8.5	15.247 (d)	☒
Radiated Emission	RSS-210_2.2	15.247 (d)	☒

2 PROVISIONS APPLICABLE

2.1 Definition

Unintentional radiator:

A device that intentionally generates and radio frequency energy for use within the device, or that sends radio frequency signals by conduction to associated equipment via connecting wiring, but which is not intended to emit RF energy by radiation or induction.

Class A Digital Device:

A digital device which is marketed for use in commercial or business environment; exclusive of a device which is market for use by the general public, or which is intended to be used in the home.

Class B Digital Device :

A digital device which is marketed for use in a residential environment notwithstanding use in a commercial, business of industrial environment. Example of such devices that are marketed for the general public.

Note : A manufacturer may also qualify a device intended to be marketed in a commercial, business, or industrial environment as a Class B digital device, and in fact is encouraged to do so, provided the device complies with the technical specifications for a Class B Digital Device. In the event that a particular type of device has been found to repeatedly cause harmful interference to radio communications, the Commission may classify such a digital device as a Class B Digital Device, Regardless of its intended use.

Intentional radiator:

A device that intentionally generates and emits radio frequency energy by radiation or induction.

2.2 Requirement for Compliance

(1) Conducted Emission Requirement

For unintentional device, according to §15.107(a) Line Conducted Emission Limits is as following:

Frequency MHz	Quasi Peak dBμV	Average dBμV
0.15 - 0.5	66-56*	56-46*
0.5 - 5.0	56	46
5.0 - 30.0	60	50

*Decreases with the logarithm of the frequency.

For intentional device, according to §15.207(a) Line Conducted Emission Limits is same as above table.

(2) Radiated Emission Requirement

For unintentional device, according to §15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency MHz	Distance Meters	Radiated dBμV/m	Radiated μV/m
30 - 88	3	40.0	100
88 - 216	3	43.5	150
216 - 960	3	46.0	200
above 960	3	54.0	500

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

(3) Antenna Requirement

For intentional device, according to §15.203, 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.

(4) Bandwidth Requirement

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.

(5) Output Power Requirement

For systems using digital modulation , according to 15.247(b), the maximum peak output power of the intentional radiator shall not exceed 1 Watt. If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(6) Spurious Emissions Measurement

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) (see Section 15.205(c)).

(7) Power Density Requirement

According to 15.247 (e) , for digitally modulated systems, the peak 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..

2.3 Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below :

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42-16.423	399.9-410	4.5-5.25
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	2655-2900	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	Above 38.6
13.36-13.41			

** : Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

2.4 Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device :

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

2.5 User Information

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual.

The Federal Communications Commission Radio Frequency Interference Statement includes the following paragraph.

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio / TV technician for help.

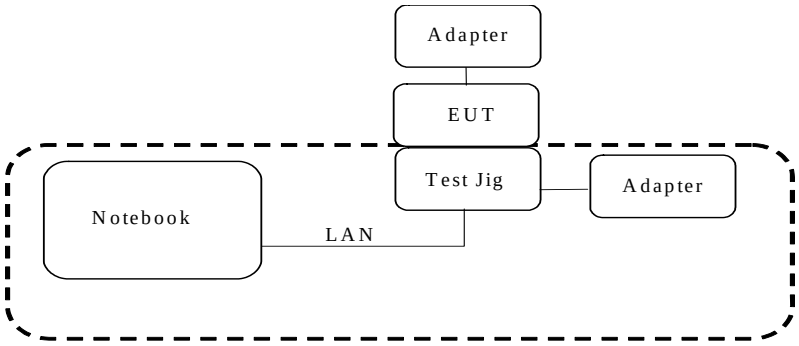
3. SYSTEM TEST CONFIGURATION

3.1 Devices for Tested System

Device	Manufacture	Model No.	Cable Description
* Cisco Cius	Celestica Thailand Ltd.	CIUS-7-K9	1.8m*1, Unshielded Power Line / Adapter
Test Jig	N/A	N/A	1.8m*1, Unshielded Power Line 1.8m*1 Unshielded Signal Line
Notebook	HP	nx6320	3.1m*1, Unshielded Power Line

Remark

1. "*" means equipment under test.



Note: A HP notebook performs the control test mode. The notebook removes away after the control command is ready.

2.

Test Software:	Tx Batch File		
Power setting:	Mode	Channel	Setting
	b	Low	15
		Mid	15
		High	15
	g	Low	15
		Mid	15
		High	15
	gn HT20	Low	15
		Mid	15
		High	15
	gn HT40	Low	15
		Mid	15
		High	15
	a	Low	15
		Mid	15
		High	15
	an HT20	Low	15
		Mid	15
		High	15
	an HT40	Low	15
		High	15

3.2 Dscription of Test modes

3.2.1 IEEE 802.11b, 802.11g, 802.11gn HT20 mode:

There are three channels have been tested as following:

Channel	Frequency (MHz)
Low = 1	2412
Middle = 6	2437
High = 11	2462

IEEE 802.11b mode: 1 Mbps data rate is the worse case for full testing.

IEEE 802.11g mode: 6 Mbps data rate is the worse case for full testing.

IEEE 802.11gn HT20 mode: MCS0 6.5 Mbps data rateis the worse case for full testing.

3.2.2 IEEE 802.11gn HT40 mode:

There are three channels have been tested as following:

Channel	Frequency (MHz)
Low = 3	2422
Middle = 6	2437
High = 9	2452

IEEE 802.11gn HT40 mode: MCS0 13.5 Mbps data rate is the worse case for full testing.

3.2.3 IEEE 802.11a, 802.11an HT20 mode:

There are three channels have been tested as following:

Channel	Frequency (MHz)
Low = 149	5745
Middle = 157	5785
High = 165	5825

IEEE 802.11a mode: 6 Mbps data rate is the worse case for full testing.

IEEE 802.11an HT20 mode: MCS0 6.5 Mbps data rate is the worse case for full testing.

3.2.4 IEEE 802.11an HT40 mode:

There are three channels have been tested as following:

Channel	Frequency (MHz)
Low = 151	5755
High = 159	5795

IEEE 802.11an HT40 mode: MCS0 13.5 Mbps data rate is the worse case for full testing.

4 CONDUCTED EMISSION MEASUREMENT

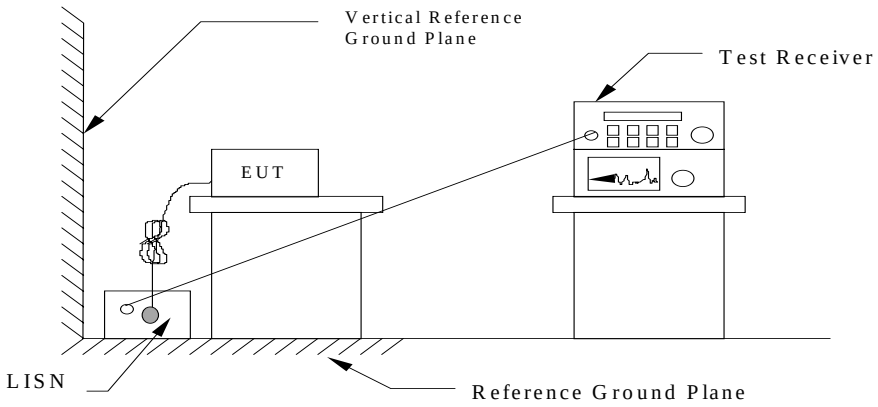
4.1 Standard Applicable

For unintentional and intentional device, Line Conducted Emission Limits are in accordance to § 15.107(a) and §15.207(a) respectively. Both Limits are identical specification.

4.2 Measurement Procedure

1. Setup the configuration per figure 1.
2. A preliminary scan with a spectrum monitor is performed to identify the frequency of emission that has the highest amplitude relative to the limit by operating the EUT in selected modes of operation, typical cable positions, and with a typical system configuration.
3. Record the 6 highest emissions relative to the limit.
4. Measure each frequency obtained from step 3 by a test receiver set on quasi peak detector function, and then record the accuracy frequency and emission level. If all emissions measured in the specified band are attenuated more than 20 dB from the limit, this step would be ignored, and the peak detector function would be used.
5. Confirm the highest three emissions with variation of the EUT cable configuration and record the final data.
6. Repeat all above procedures on measuring each operation mode of EUT.

Figure 1 : Conducted emissions measurement configuration



4.3 Conducted Emission Data

File: 1103 **Data:** #26 **Date:** 2011/1/20 **Temperature:** 20 ℃
Time: PM 12:49:07 **Humidity:** 69 %

Condition: **Phase:** L1
EUT: **Power:**

No.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected dB	Result (dBuV)	Limit (dBuV)	Margin (dB)
1	0.1719	37.08	AVG	0.12	37.20	54.87	-17.67
2	0.1734	60.92	peak	0.12	61.04	64.80	-3.76
3	0.2359	51.96	peak	0.10	52.06	62.24	-10.18
4	0.2362	33.28	AVG	0.10	33.38	52.23	-18.85
5	0.2906	46.73	peak	0.10	46.83	60.51	-13.68
6	4.5117	38.10	peak	0.18	38.28	56.00	-17.72
7	4.7656	37.91	peak	0.19	38.10	56.00	-17.90
8	20.2813	27.89	peak	0.75	28.64	60.00	-31.36

Note:

1. Place of measurement: EMC LAB. of the ETC.
2. “***” means the value was too low to be measured.
3. If the data table appeared symbol of "----" means the Q.P. value is under the limit of AVG. so, the AVG. value doesn't need to be measured.
4. “#” means the noise was too low, so record the peak value.
5. The estimated measurement uncertainty of the result measurement is ±2.5dB.

File: 1103 **Data:** #27 **Date:** 2011/1/20 **Temperature:** 20 ℃
Time: PM 12:53:04 **Humidity:** 69 %

Condition: **Phase:** L2
EUT: **Power:**

No.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected dB	Result (dBuV)	Limit (dBuV)	Margin (dB)
1	0.1734	59.72	peak	0.12	59.84	64.80	-4.96
2	0.1758	40.67	AVG	0.12	40.79	54.68	-13.89
3	0.2281	50.58	peak	0.11	50.69	62.52	-11.83
4	0.2984	45.66	peak	0.10	45.76	60.29	-14.53
5	3.6133	30.58	peak	0.16	30.74	56.00	-25.26
6	4.7773	38.07	peak	0.19	38.26	56.00	-17.74
7	5.0898	37.27	peak	0.20	37.47	60.00	-22.53

Note:

1. Place of measurement: EMC LAB. of the ETC.
2. “***” means the value was too low to be measured.
3. If the data table appeared symbol of "----" means the Q.P. value is under the limit of AVG. so, the AVG. value doesn't need to be measured.
4. “#” means the noise was too low, so record the peak value.
5. The estimated measurement uncertainty of the result measurement is ±2.5dB.

4.4 Result Data Calculation

The result data is calculated by adding the LISN Factor to the measured reading. The basic equation with a sample calculation is as follows:

RESULT = READING + LISN FACTOR (Included Cable Loss)

4.5 Conducted Measurement Equipment

The following test equipment are used during the conducted test.

Equipment	Manufacturer	Model No.	Next Cal. Due
RF Test Receiver	Rohde and Schwarz	ESCS30	09/06/2011
LISN	EMCO	37100/2M	03/04/2011

5 ANTENNA REQUIREMENT

5.1 Standard Applicable

For intentional device, according to §15.203, 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.
And according to §15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

5.2 Antenna Construction and Directional Gain

The radio utilizes with two different types of antenna, with the maximum gain as table below:

	Antenna Type	Peak gain (dBi)	
		2.4GHz Band	5.8GHz Band
Ant	Antenna	3.5	3.5

The highest gains of each type of antennas for all legacy / SISO modes test.

Band	Ant gain (dBi)
2.4 GHz	3.5
5.8 GHz	3.5

6 EMISSION BANDWIDTH MEASUREMENT

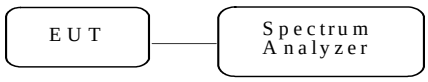
6.1 Standard Applicable

According to 15.247(a)(2), system using digital modulation techniques, the minimum 6dB bandwidth shall be at least 500 kHz.

6.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT as shown in figure 2. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 6 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

Figure 2: Emission bandwidth measurement configuration.



6.3 Measurement Equipment

Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Agilent	E4446A	09/26/2011

6.4 Measurement Data

6.4.1 IEEE 802.11b

Test Date: Dec. 24, 2010 Temperature: 20℃ Humidity: 56%

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	FCC Limit (kHz)	Chart
1	2412	10.167	500	Page 22
6	2437	10.167	500	Page 23
11	2462	10.250	500	Page 24

99% bandwidth

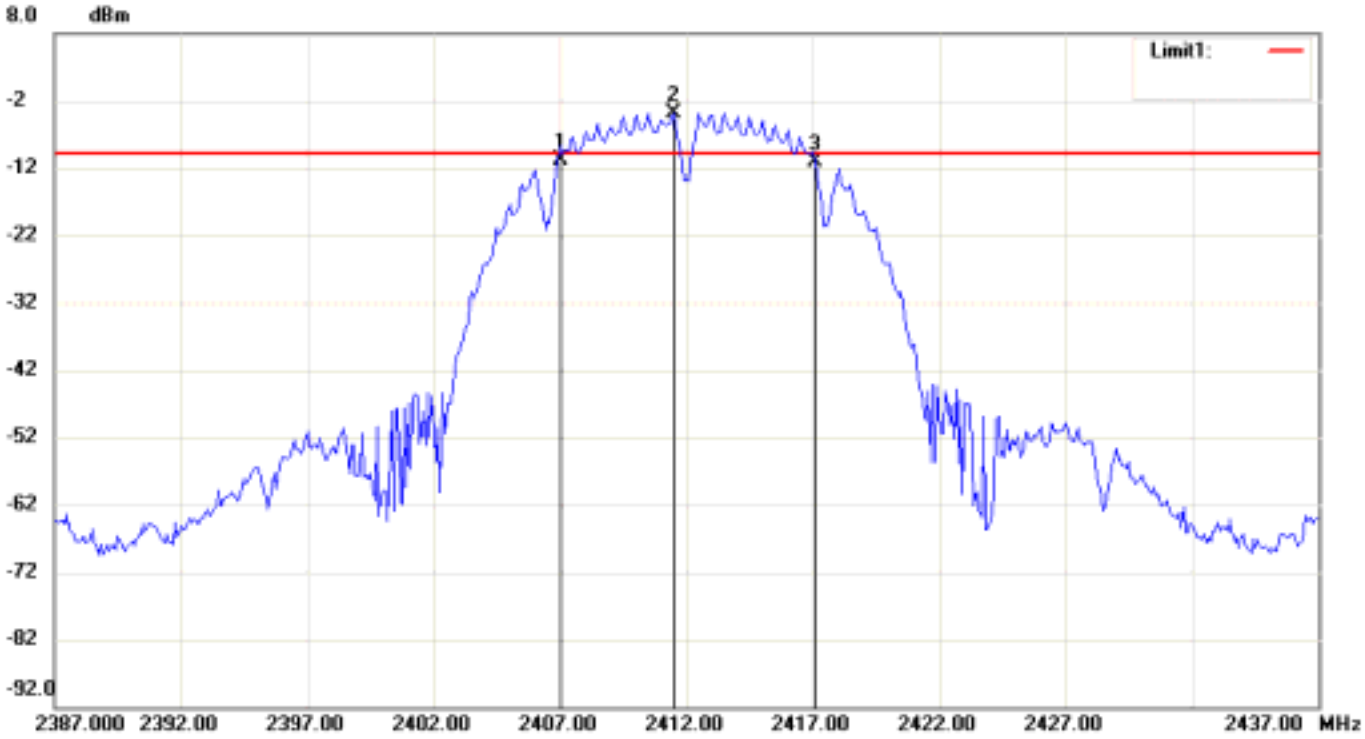
Channel	Frequency (MHz)	99% Bandwidth (MHz)	Chart
1	2412	13.3779	Page 25
6	2437	13.4621	Page 26
11	2462	13.4313	Page 27

Note:

1. Please refer to page 22 to page 27 for chart

2. The estimated measurement uncertainty of the result measurement is 8.25×10^{-7} *(1GHz≦f≦ 18GHz)*

File: openpeak abgn Data: #1 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:07:42 **Humidity: 56 %**

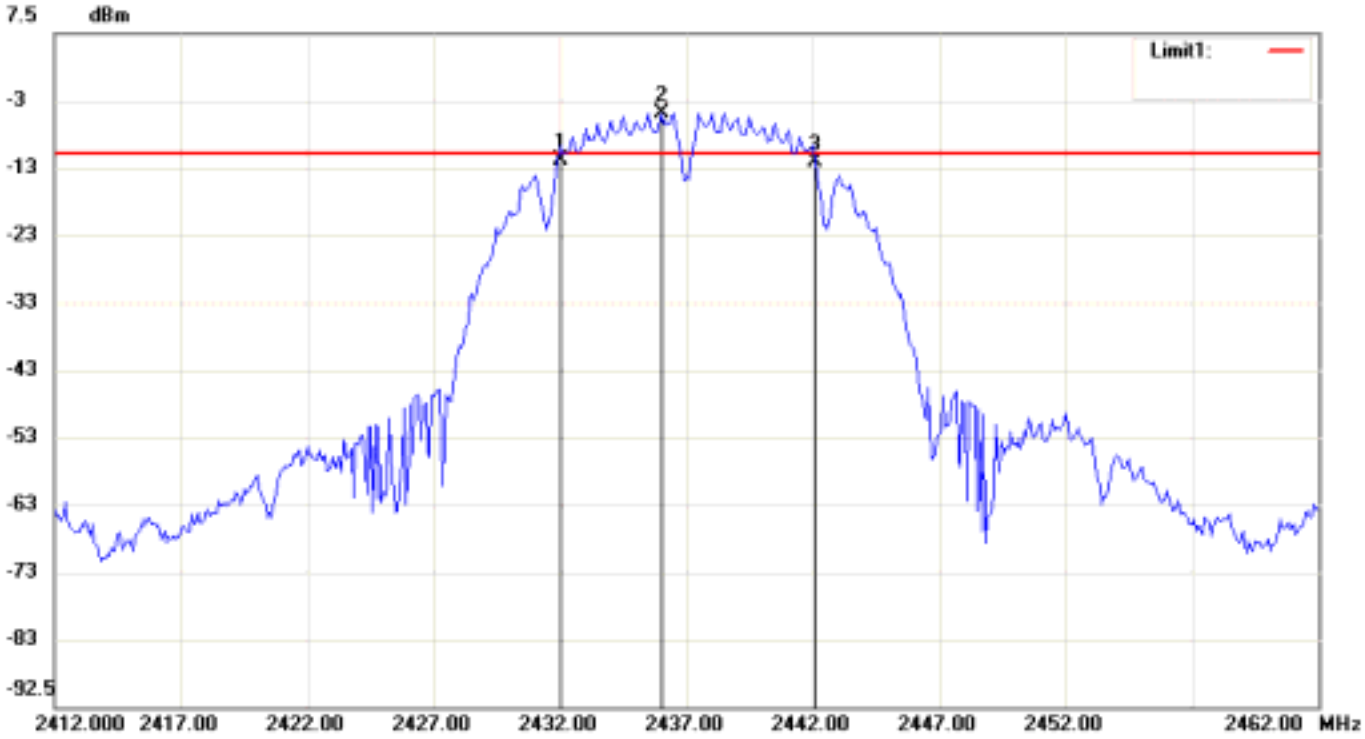


Condition: **-9.84dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11b Channel 01-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	2406.91670	-10.78
2	2411.50000	-3.84
3	2417.08330	-11.19

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	10.1666	-0.41

File: openpeak abgn Data: #6 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:15:20 **Humidity: 56 %**

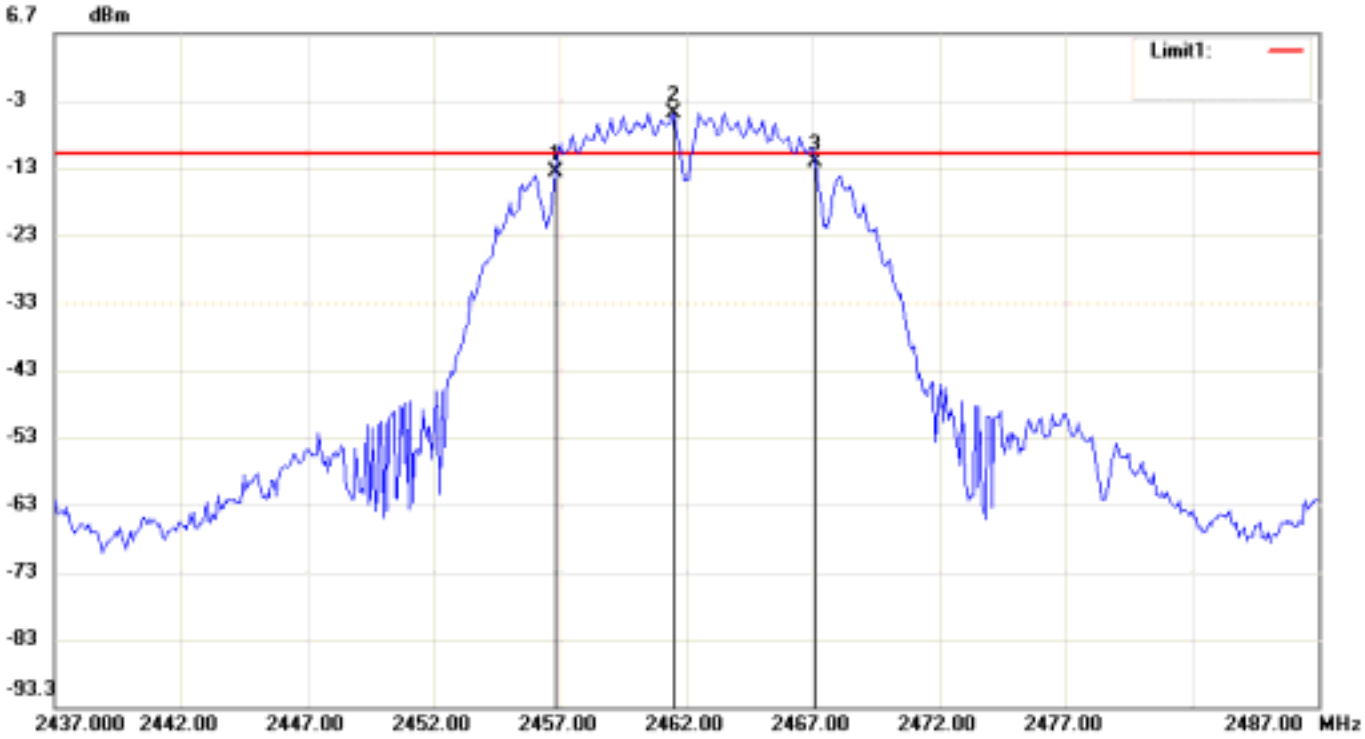


Condition: **-10.29dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11b Channel 06-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	2431.91670	-11.29
2	2436.00000	-4.29
3	2442.08330	-11.63

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	10.1666	-0.34

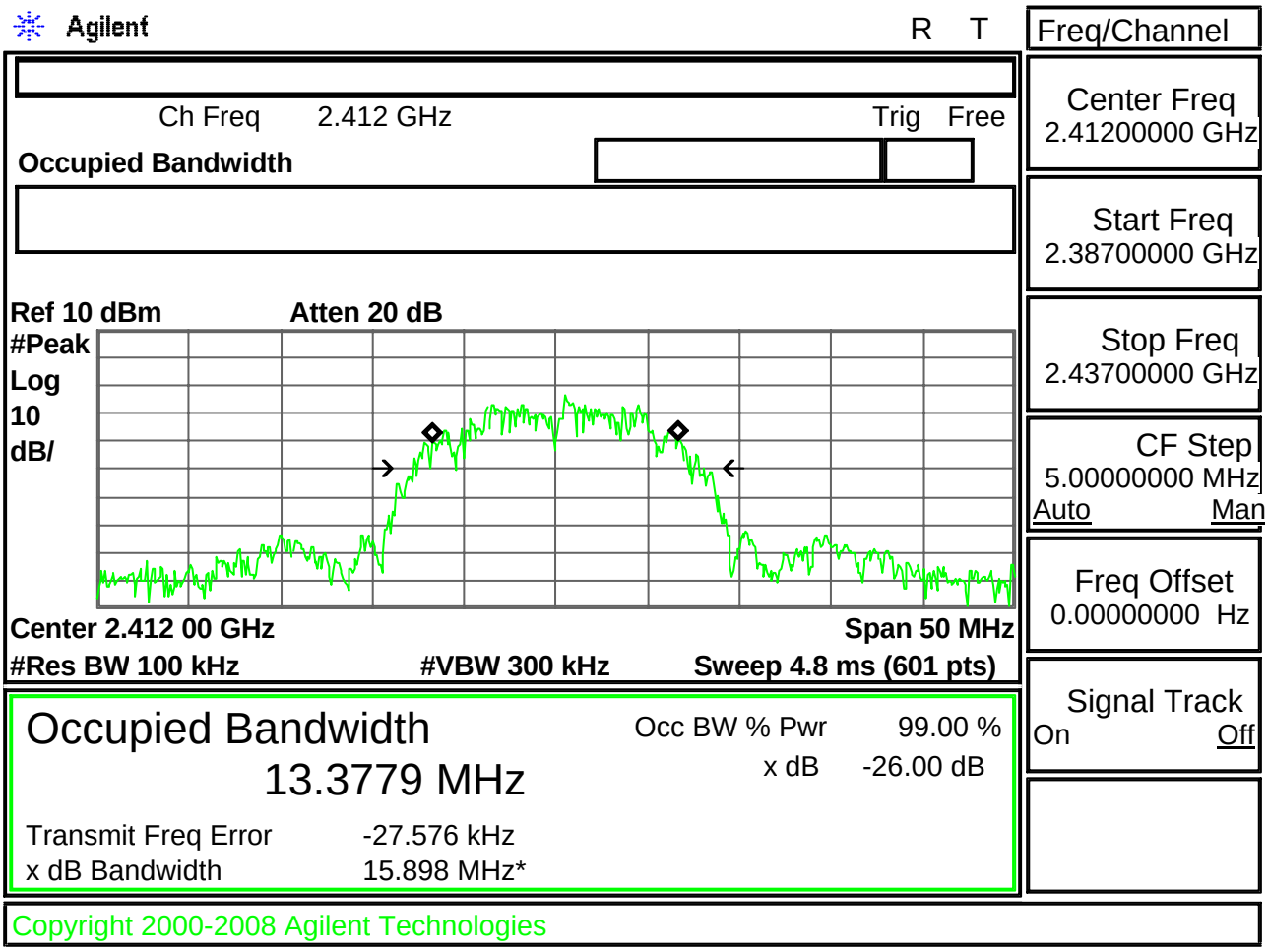
File: openpeak abgn Data: #10 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:22:44 **Humidity: 56 %**

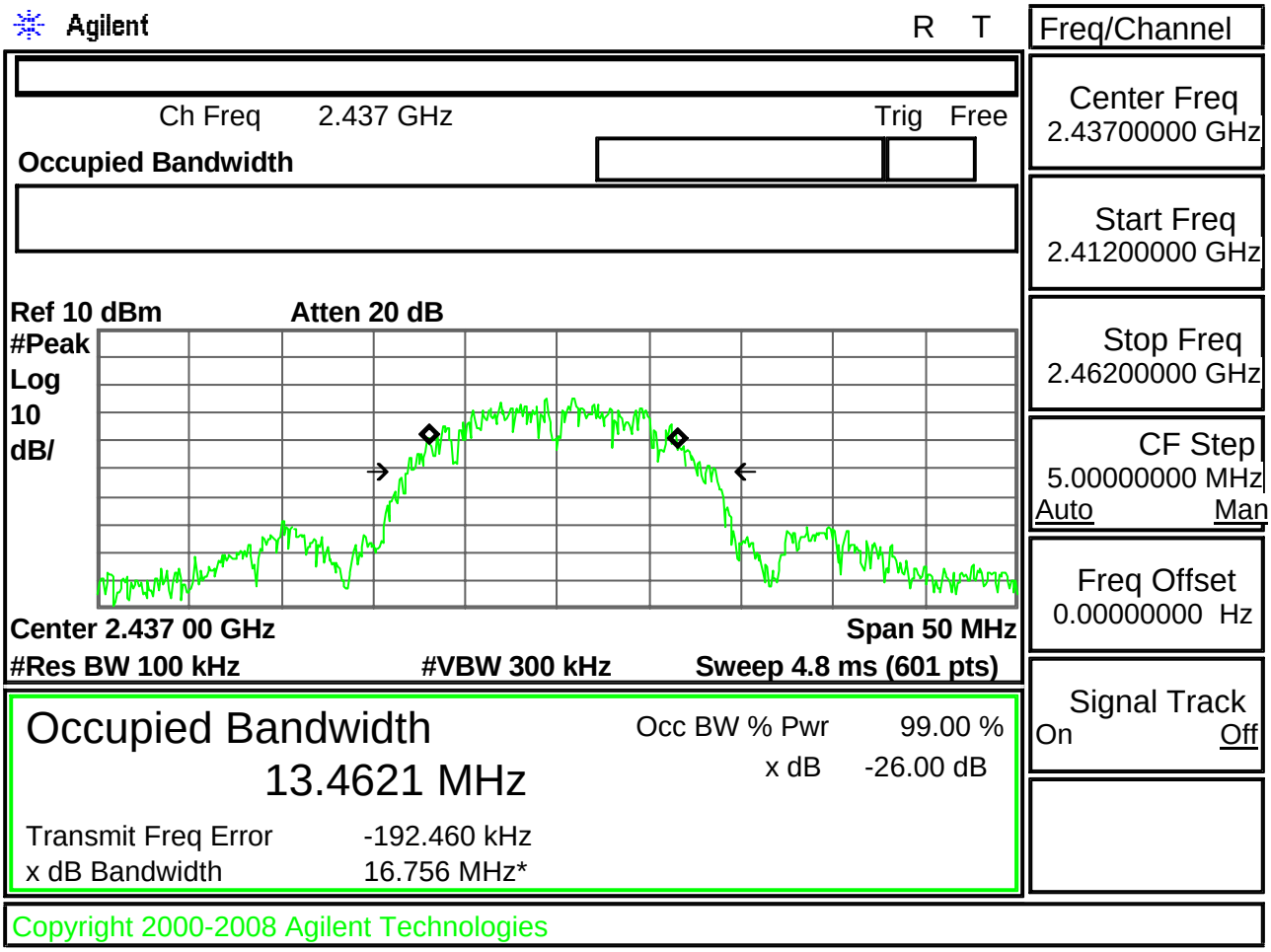


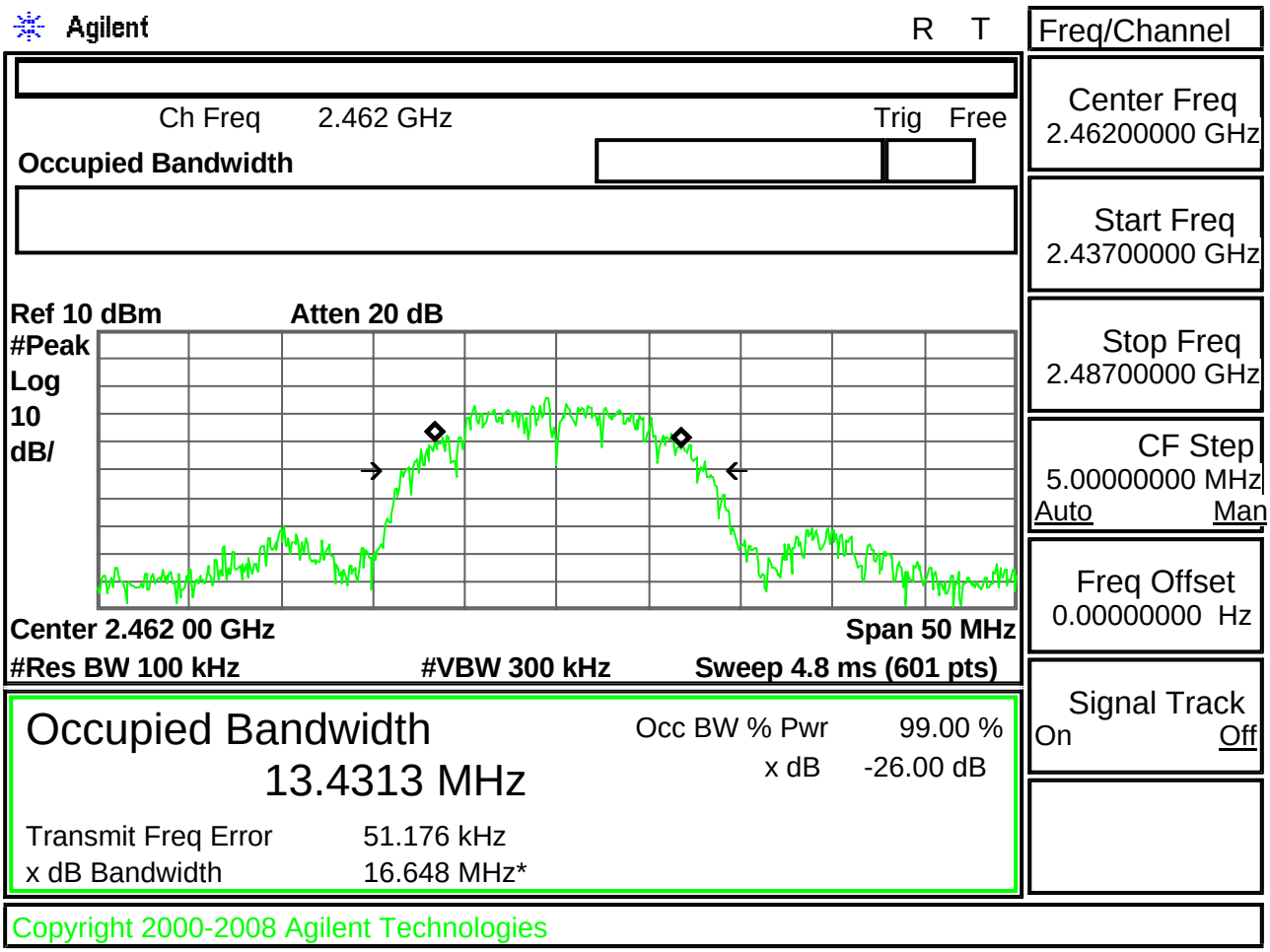
Condition: **-11.04dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11b Channel 11-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	2456.83330	-13.79
2	2461.50000	-5.04
3	2467.08330	-12.42

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	10.25	1.37


Agilent
R T
Freq/Channel
Ch Freq 2.412 GHz
Trig Free
Occupied Bandwidth
Center Freq
2.41200000 GHz
Start Freq
2.38700000 GHz
Stop Freq
2.43700000 GHz
CF Step
5.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Center 2.412 00 GHz
Span 50 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 4.8 ms (601 pts)
Occupied Bandwidth
13.3779 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error -27.576 kHz
x dB Bandwidth 15.898 MHz*
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 2.437 GHz
Trig Free
Occupied Bandwidth
Center Freq
2.43700000 GHz
Start Freq
2.41200000 GHz
Stop Freq
2.46200000 GHz
CF Step
5.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Center 2.437 00 GHz
Span 50 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 4.8 ms (601 pts)
Occupied Bandwidth
13.4621 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error -192.460 kHz
x dB Bandwidth 16.756 MHz*
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 2.462 GHz
Trig Free
Occupied Bandwidth
Center Freq
2.46200000 GHz
Start Freq
2.43700000 GHz
Stop Freq
2.48700000 GHz
CF Step
5.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Center 2.462 00 GHz
Span 50 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 4.8 ms (601 pts)
Occupied Bandwidth
13.4313 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 51.176 kHz
x dB Bandwidth 16.648 MHz*
Copyright 2000-2008 Agilent Technologies

6.4.2 IEEE 802.11g

Test Date: Dec. 24, 2010 Temperature: 20℃ Humidity: 56%

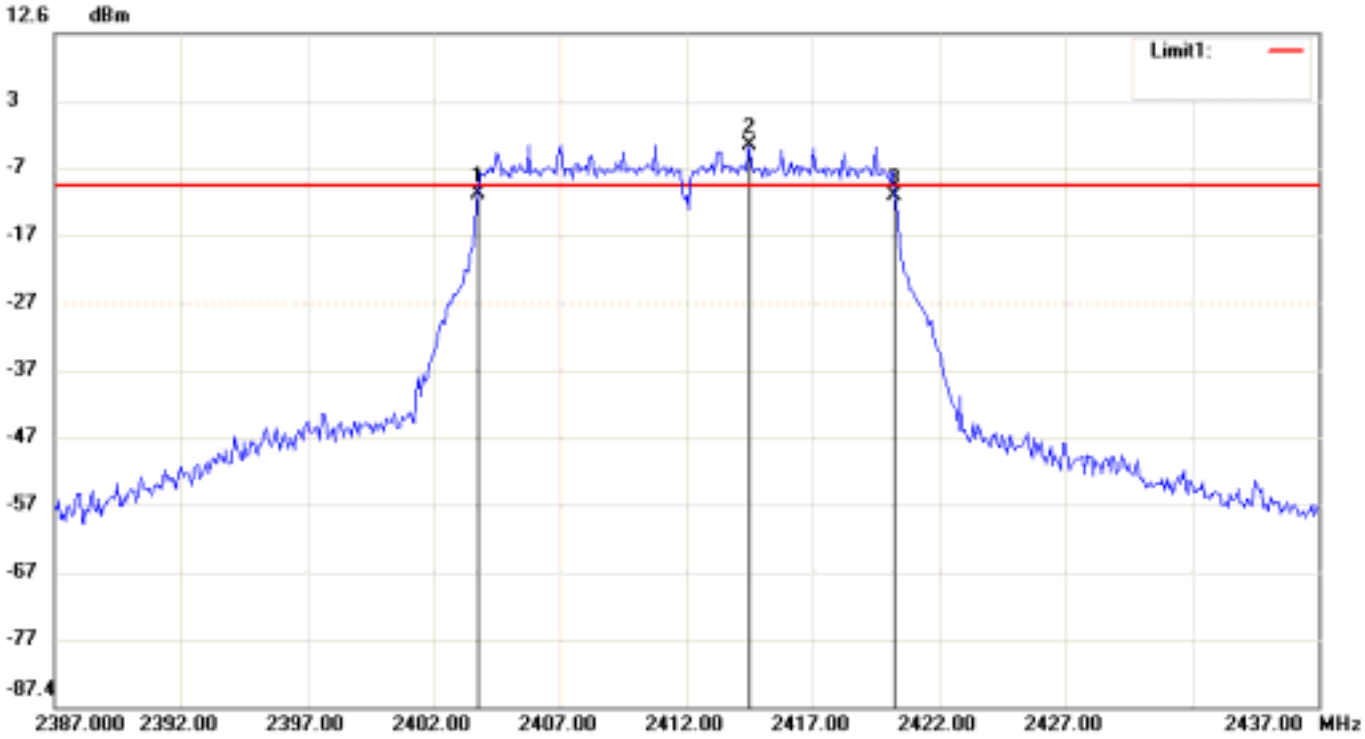
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	FCC Limit (kHz)	Chart
1	2412	16.500	500	Page 29
6	2437	16.500	500	Page 30
11	2462	16.500	500	Page 31

99% bandwidth

Channel	Frequency (MHz)	99% Bandwidth (MHz)	Chart
1	2412	16.0531	Page 32
6	2437	15.8828	Page 33
11	2462	17.7797	Page 34

Note:
1.Please refer to page 29 to page 34 for chart
2. The estimated measurement uncertainty of the result measurement is 8.25×10^{-7} *(1GHz≦f≦ 18GHz)*

File: openpeak abgn Data: #15 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:37:52 **Humidity: 56 %**

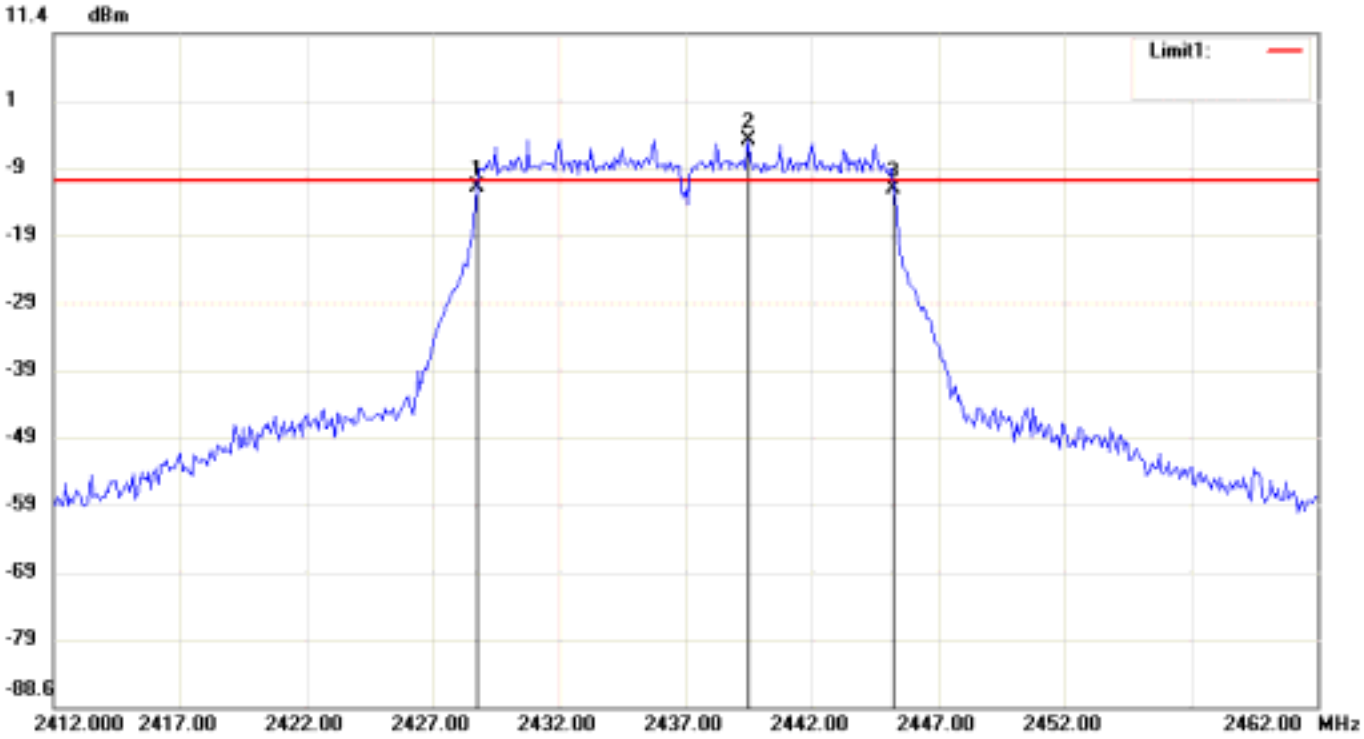


Condition: **-10dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11g Channel 01-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	2403.75000	-11.34
2	2414.50000	-4.00
3	2420.25000	-11.59

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	16.5	-0.25

File: openpeak abgn Data: #21 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:46:29 **Humidity: 56 %**

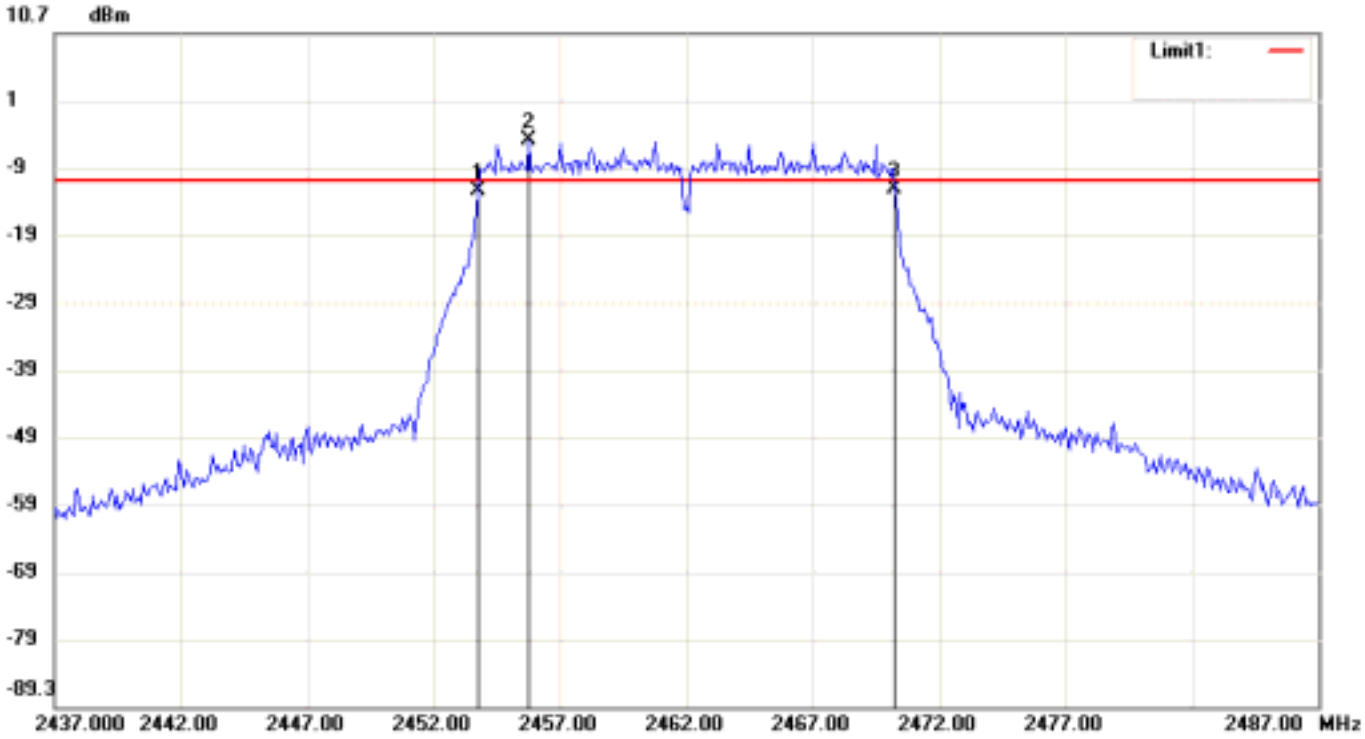


Condition: -10.38dBm **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: FCC-802.11g Channel 06-6dB EBW

No.	Frequency(MHz)	Level(dBm)
1	2428.75000	-11.53
2	2439.50000	-4.38
3	2445.25000	-11.68

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	16.5	-0.15

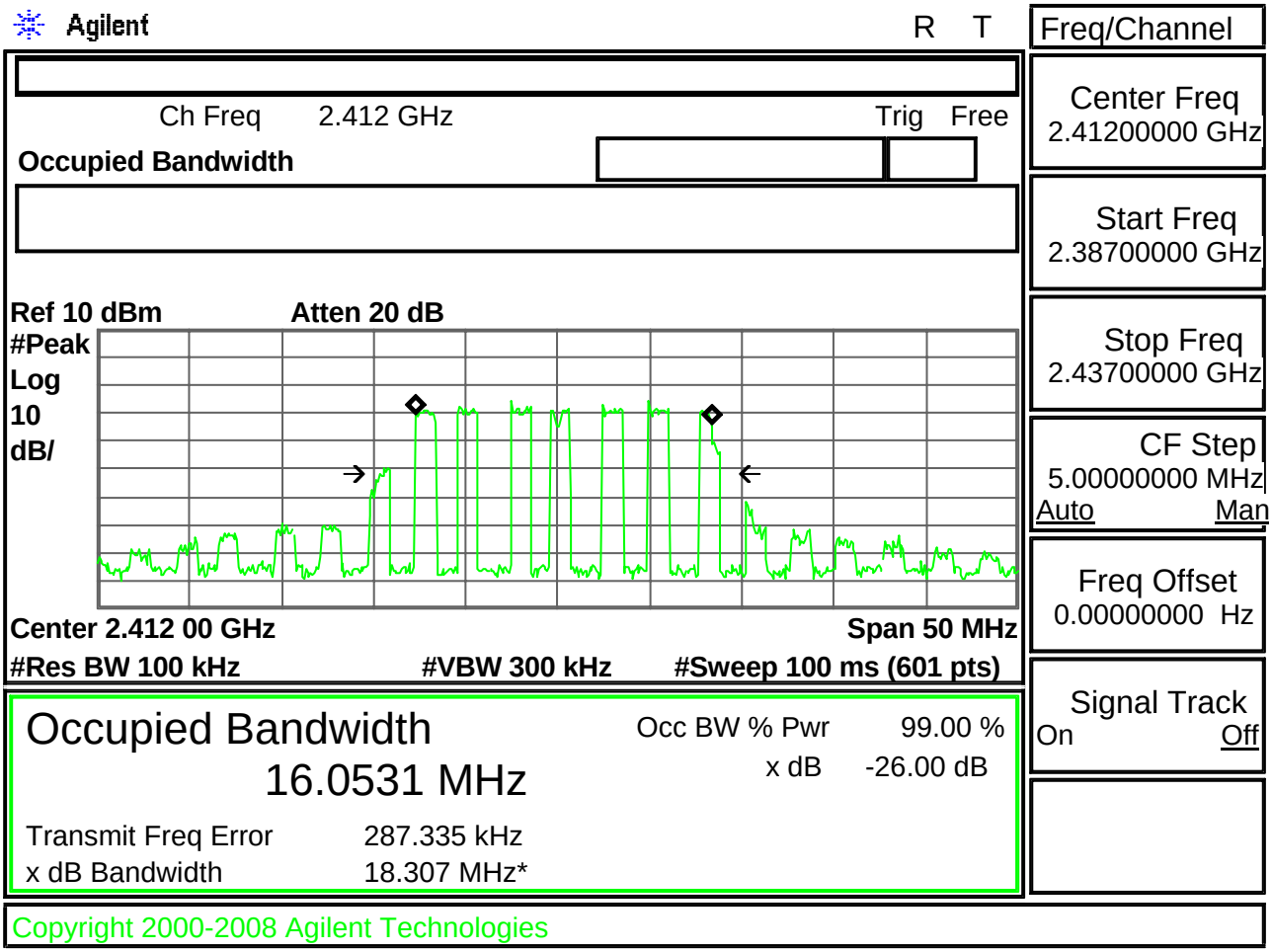
File: openpeak abgn Data: #25 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:53:36 **Humidity: 56 %**

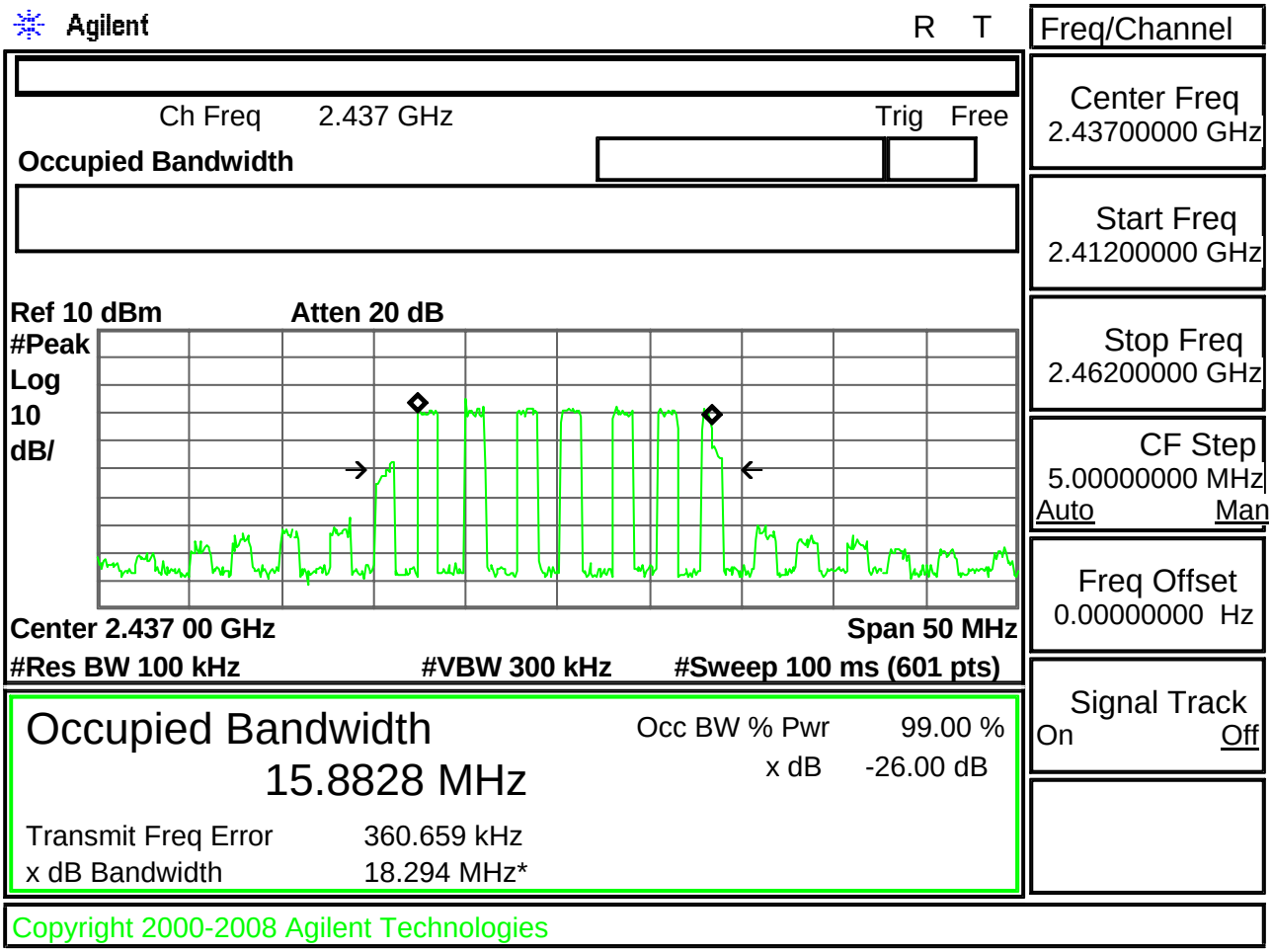


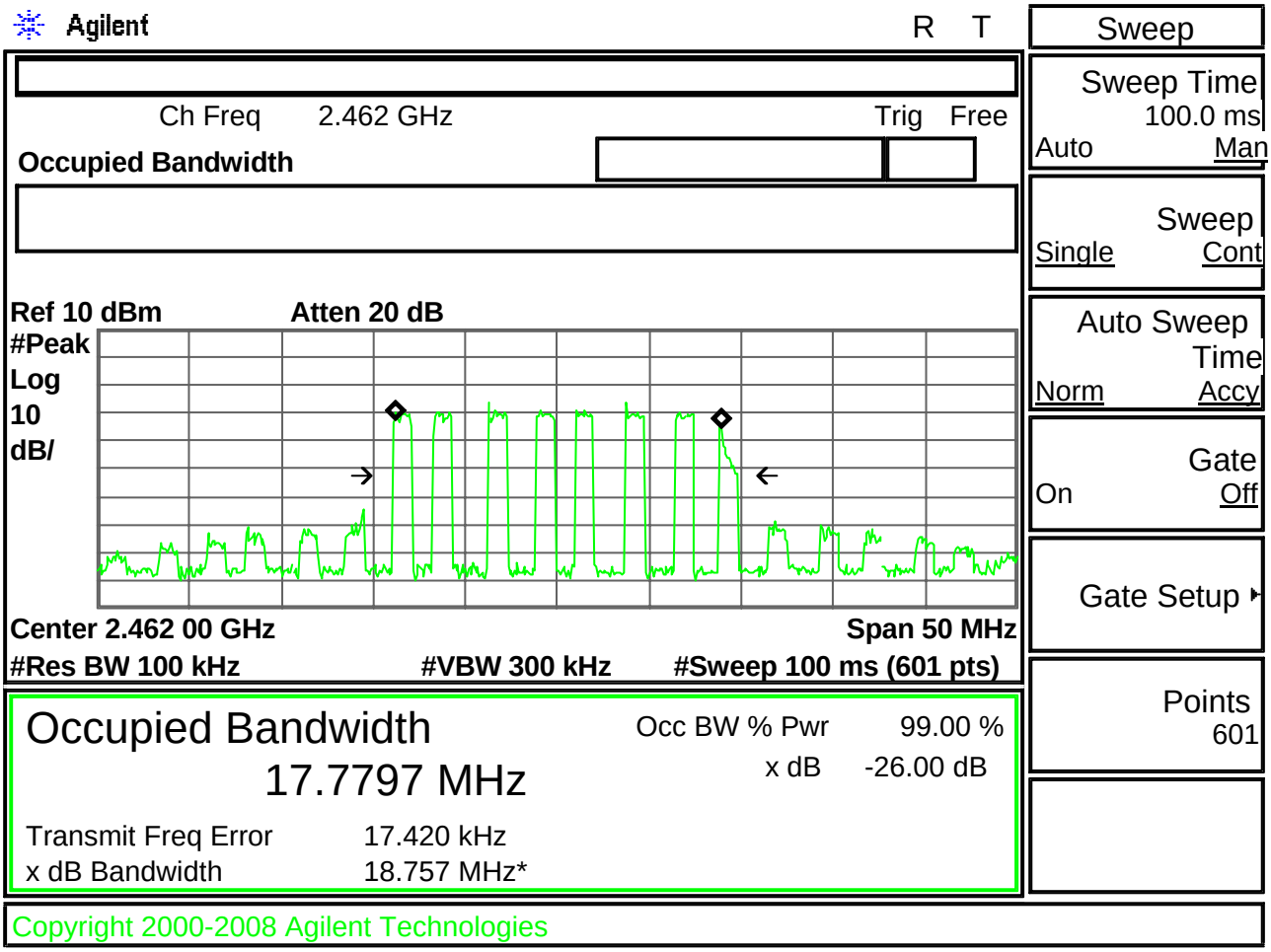
Condition: **-11.22dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11g Channel 11-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	2453.75000	-12.58
2	2455.75000	-5.22
3	2470.25000	-12.40

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	16.5	0.18


Agilent
R T
Freq/Channel
Ch Freq 2.412 GHz
Trig Free
Occupied Bandwidth
Center Freq
2.41200000 GHz
Start Freq
2.38700000 GHz
Stop Freq
2.43700000 GHz
CF Step
5.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Center 2.412 00 GHz
Span 50 MHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 100 ms (601 pts)
Occupied Bandwidth
16.0531 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 287.335 kHz
x dB Bandwidth 18.307 MHz*
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 2.437 GHz
Trig Free
Occupied Bandwidth
Center Freq
2.43700000 GHz
Start Freq
2.41200000 GHz
Stop Freq
2.46200000 GHz
CF Step
5.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Center 2.437 00 GHz
Span 50 MHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 100 ms (601 pts)
Occupied Bandwidth
15.8828 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 360.659 kHz
x dB Bandwidth 18.294 MHz*
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Ch Freq 2.462 GHz
Trig Free
Occupied Bandwidth
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Center 2.462 00 GHz
Span 50 MHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 100 ms (601 pts)
Occupied Bandwidth
17.7797 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 17.420 kHz
x dB Bandwidth 18.757 MHz*
Sweep
Sweep Time
100.0 ms
Auto Man
Sweep
Single Cont
Auto Sweep Time
Norm Accy
Gate
On Off
Gate Setup
Points
601
Copyright 2000-2008 Agilent Technologies

6.4.3 IEEE 802.11gn, HT20

Test Date: Mar. 21, 2011 Temperature: 17℃ Humidity: 54%

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	FCC Limit (kHz)	Chart
1	2412	17.750	500	Page 36
6	2437	17.750	500	Page 37
11	2462	17.750	500	Page 38

99% bandwidth

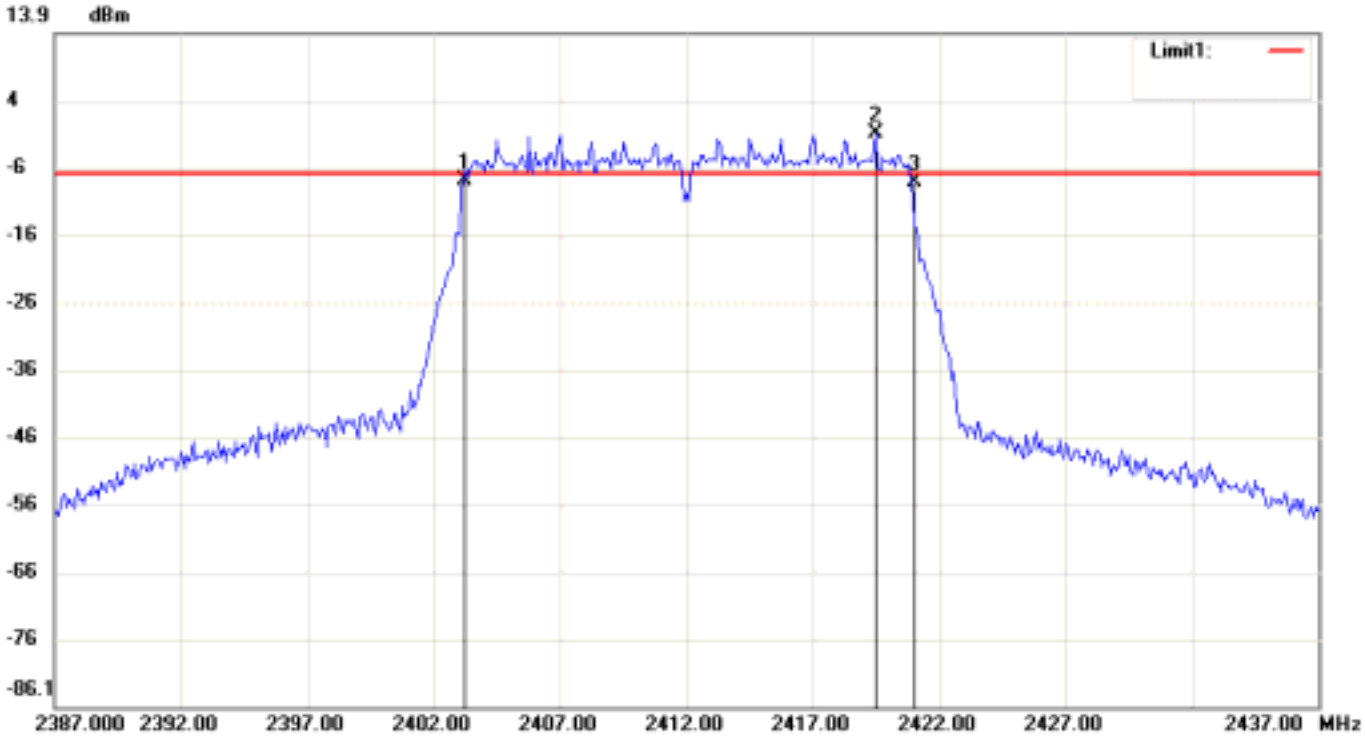
Channel	Frequency (MHz)	99% Bandwidth (MHz)	Chart
1	2412	16.8201	Page 39
6	2437	17.8616	Page 40
11	2462	16.5217	Page 41

Note:

1.Please refer to page 36 to page 41 for chart

2. The estimated measurement uncertainty of the result measurement is 8.25×10^{-7} *(1GHz≦f≦ 18GHz)*

File: cisco **Data: #1** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 09:19:20 **Humidity: 54 %**

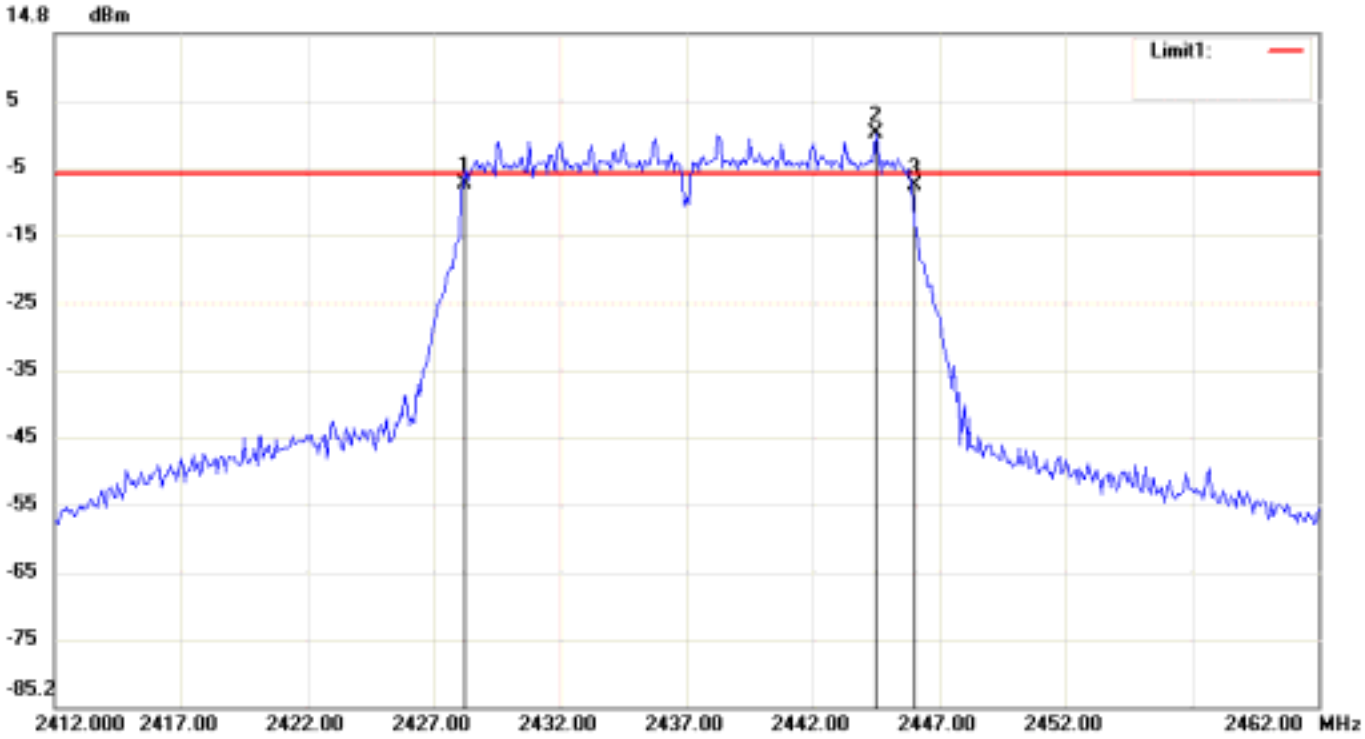


Condition: **-6.96dBm** **Horizontal**
EUT: **Sweep Time: 500ms** **Att.: 20dB**
Model: **RBW: 100 KHz** **VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT20 Channel 01-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	2403.16670	-7.96
2	2419.50000	-0.96
3	2420.91670	-8.19

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	17.75	-0.23

File: cisco **Data: #6** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 09:25:44 **Humidity: 54 %**

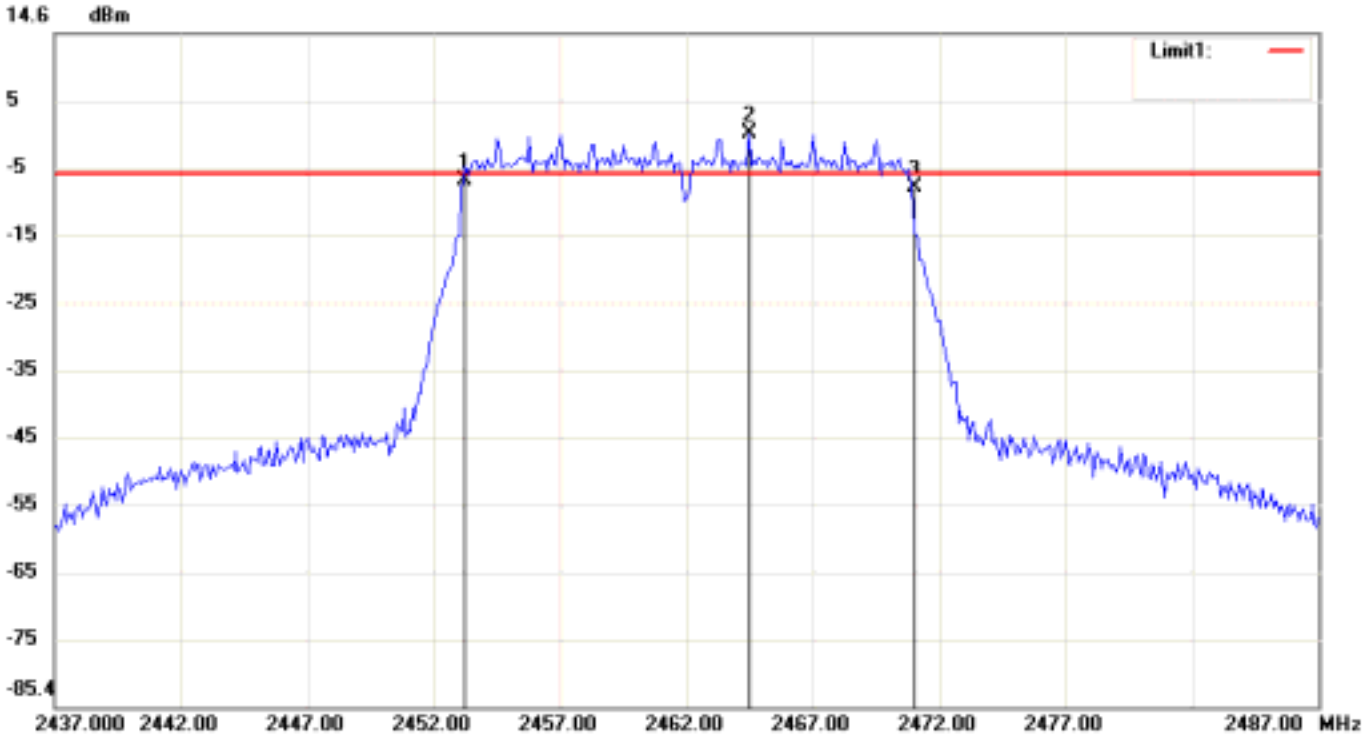


Condition: **-6.21dBm** **Horizontal**
EUT: **Sweep Time: 500ms** **Att.: 20dB**
Model: **RBW: 100 KHz** **VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT20 Channel 06-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	2428.16670	-7.54
2	2444.50000	-0.21
3	2445.91670	-7.81

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	17.75	-0.27

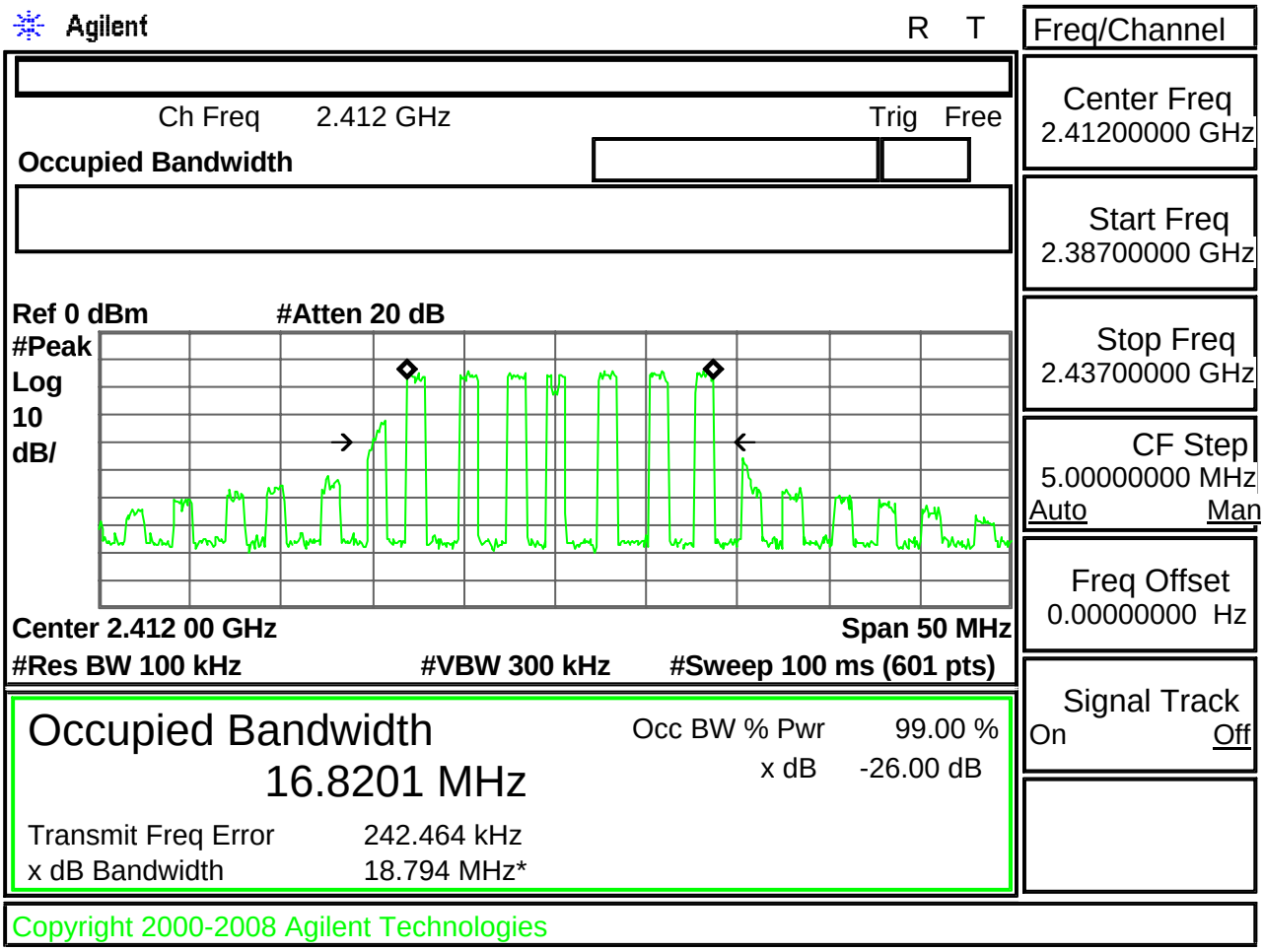
File: cisco **Data: #10** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 09:31:21 **Humidity: 54 %**

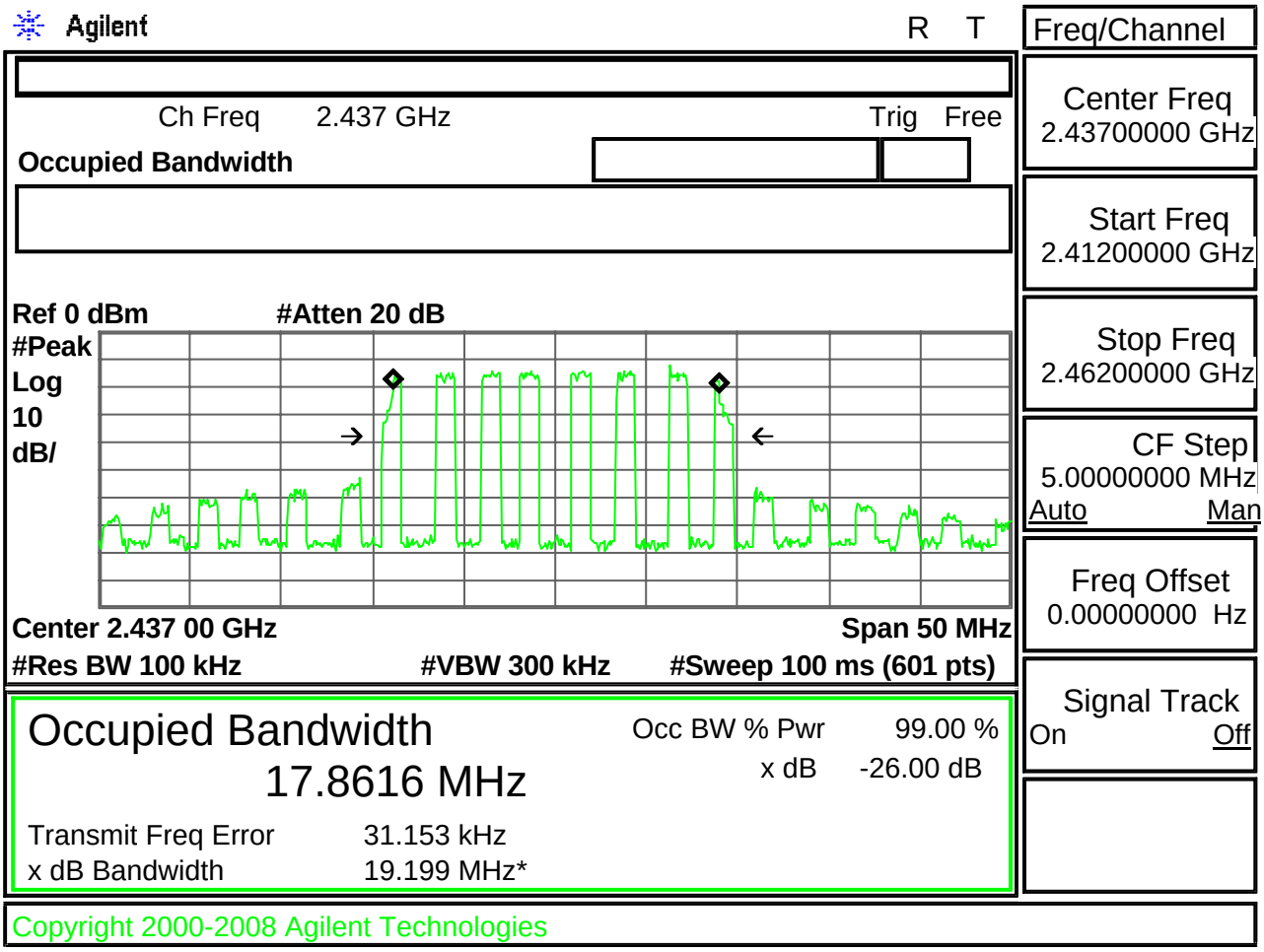


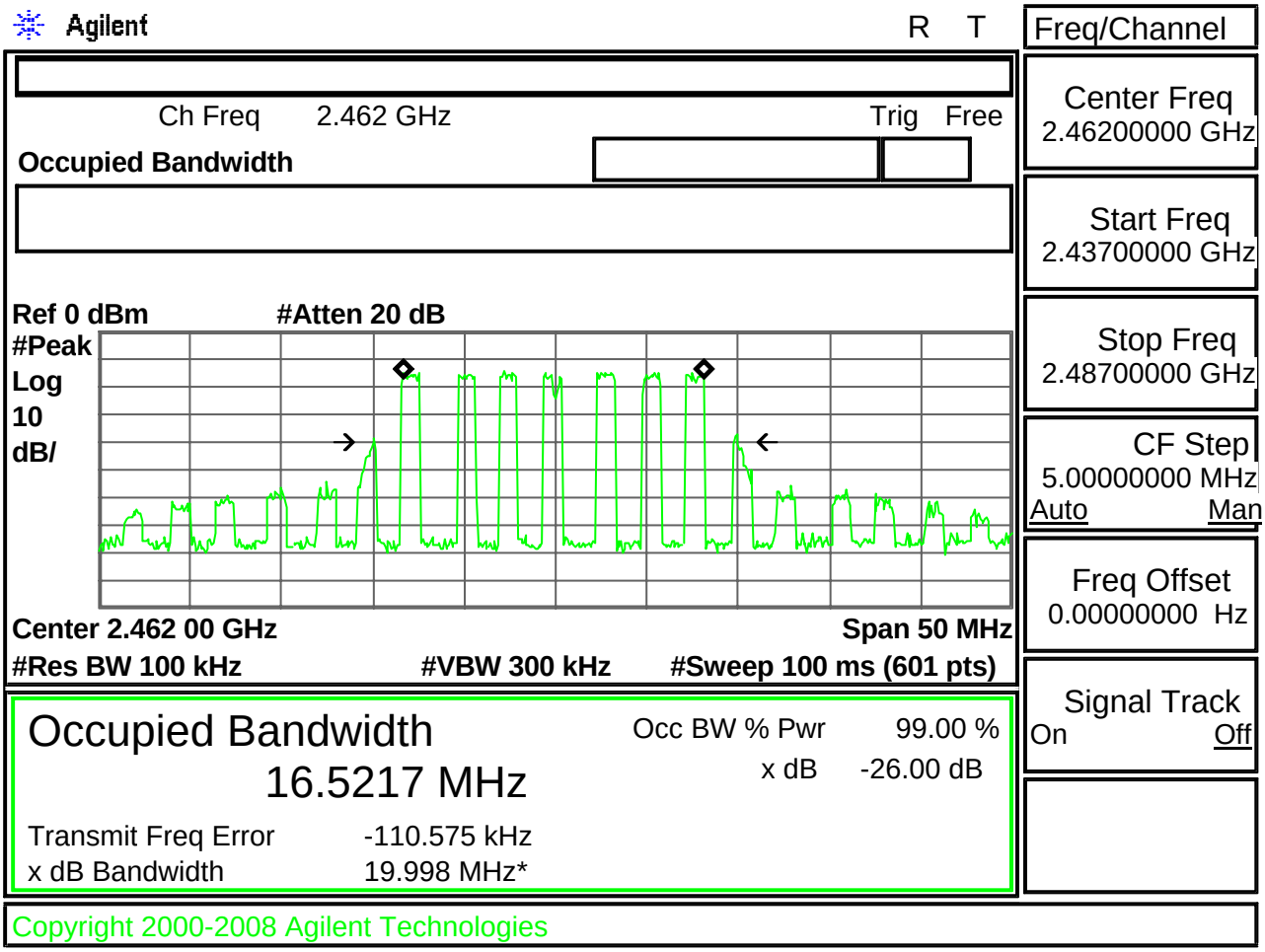
Condition: **-6.28dBm** **Horizontal**
EUT: **Sweep Time: 500ms** **Att.: 20dB**
Model: **RBW: 100 KHz** **VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT20 Channel 11-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	2453.16670	-7.36
2	2464.50000	-0.28
3	2470.91670	-8.16

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	17.75	-0.8


Agilent
R T
Freq/Channel
Ch Freq 2.412 GHz
Trig Free
Occupied Bandwidth
Ref 0 dBm
#Atten 20 dB
#Peak
Log
10
dB/
Center 2.412 00 GHz
Span 50 MHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 100 ms (601 pts)
Occupied Bandwidth
16.8201 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 242.464 kHz
x dB Bandwidth 18.794 MHz*
Center Freq
2.41200000 GHz
Start Freq
2.38700000 GHz
Stop Freq
2.43700000 GHz
CF Step
5.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 2.437 GHz
Trig Free
Occupied Bandwidth
Center Freq
2.43700000 GHz
Start Freq
2.41200000 GHz
Ref 0 dBm
#Atten 20 dB
#Peak
Log
10
dB/
Stop Freq
2.46200000 GHz
CF Step
5.00000000 MHz
Auto Man
Center 2.437 00 GHz
Span 50 MHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 100 ms (601 pts)
Freq Offset
0.00000000 Hz
Signal Track
On Off
Occupied Bandwidth
17.8616 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 31.153 kHz
x dB Bandwidth 19.199 MHz*
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 2.462 GHz
Trig Free
Occupied Bandwidth
Center Freq
2.46200000 GHz
Start Freq
2.43700000 GHz
Ref 0 dBm
#Atten 20 dB
#Peak
Log
10
dB/
Stop Freq
2.48700000 GHz
CF Step
5.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Center 2.462 00 GHz
Span 50 MHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 100 ms (601 pts)
Occupied Bandwidth
16.5217 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error -110.575 kHz
x dB Bandwidth 19.998 MHz*
Signal Track
On Off
Copyright 2000-2008 Agilent Technologies

6.4.4 IEEE 802.11gn, HT40

Test Date: Dec. 24, 2010 Temperature: 20℃ Humidity: 56%

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	FCC Limit (kHz)	Chart
3	2422	36.500	500	Page 43
6	2437	36.417	500	Page 44
9	2452	36.500	500	Page 45

99% bandwidth

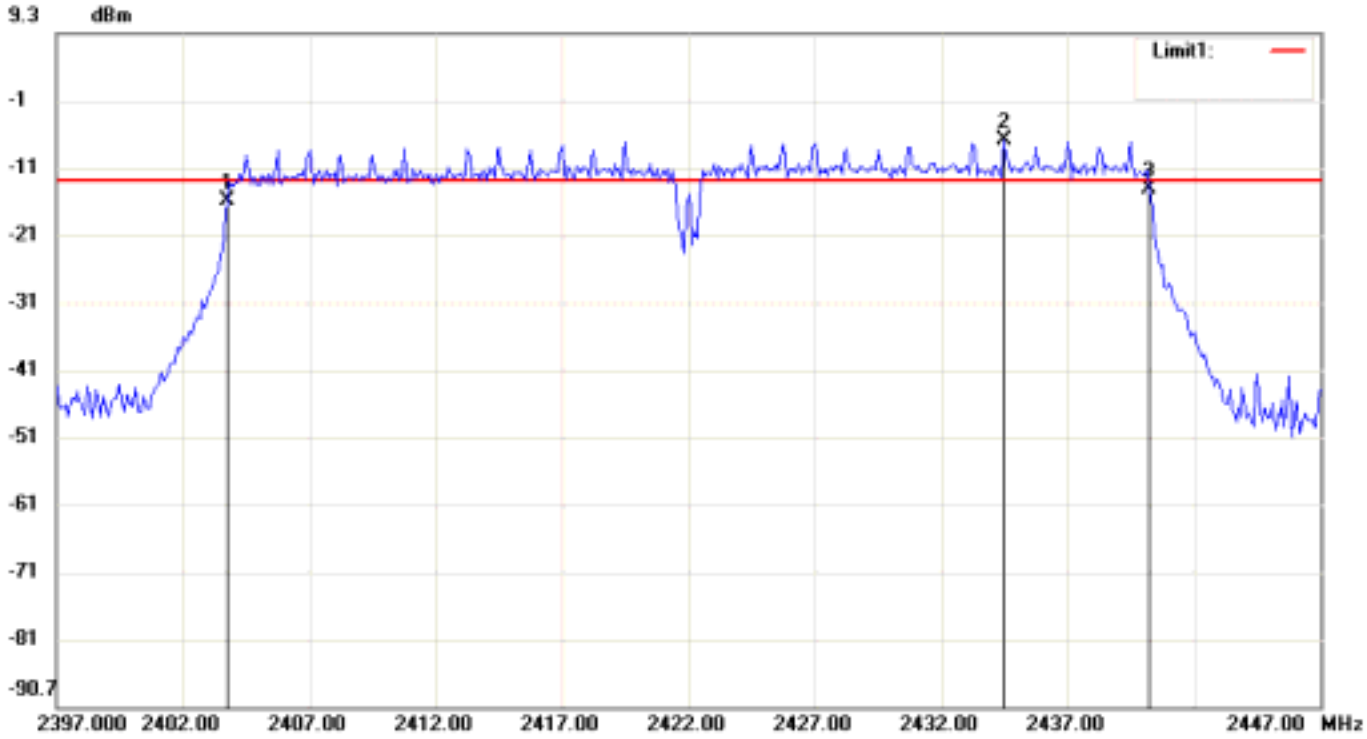
Channel	Frequency (MHz)	99% Bandwidth (MHz)	Chart
3	2422	36.6737	Page 46
6	2437	36.4740	Page 47
9	2452	36.5116	Page 48

Note:

1.Please refer to page 43 to page 48 for chart

2. The estimated measurement uncertainty of the result measurement is 8.25×10^{-7} *(1GHz≦f≦ 18GHz)*

File: openpeak abgn Data: #44 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: PM 01:07:09 **Humidity: 56 %**

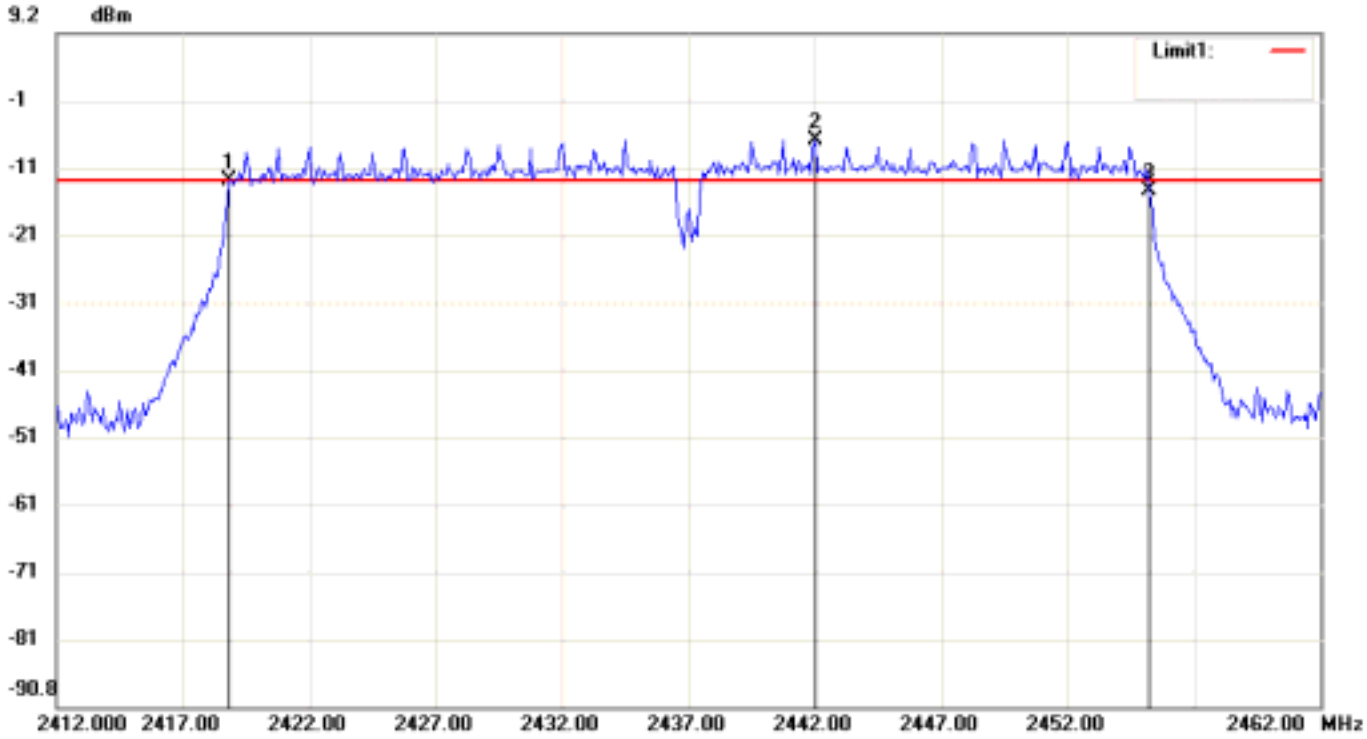


Condition: **-12.54dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT40 Channel 03-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	2403.75000	-15.64
2	2434.50000	-6.54
3	2440.25000	-13.71

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	36.5	1.93

File: openpeak abgn Data: #49 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: PM 01:16:30 **Humidity: 56 %**

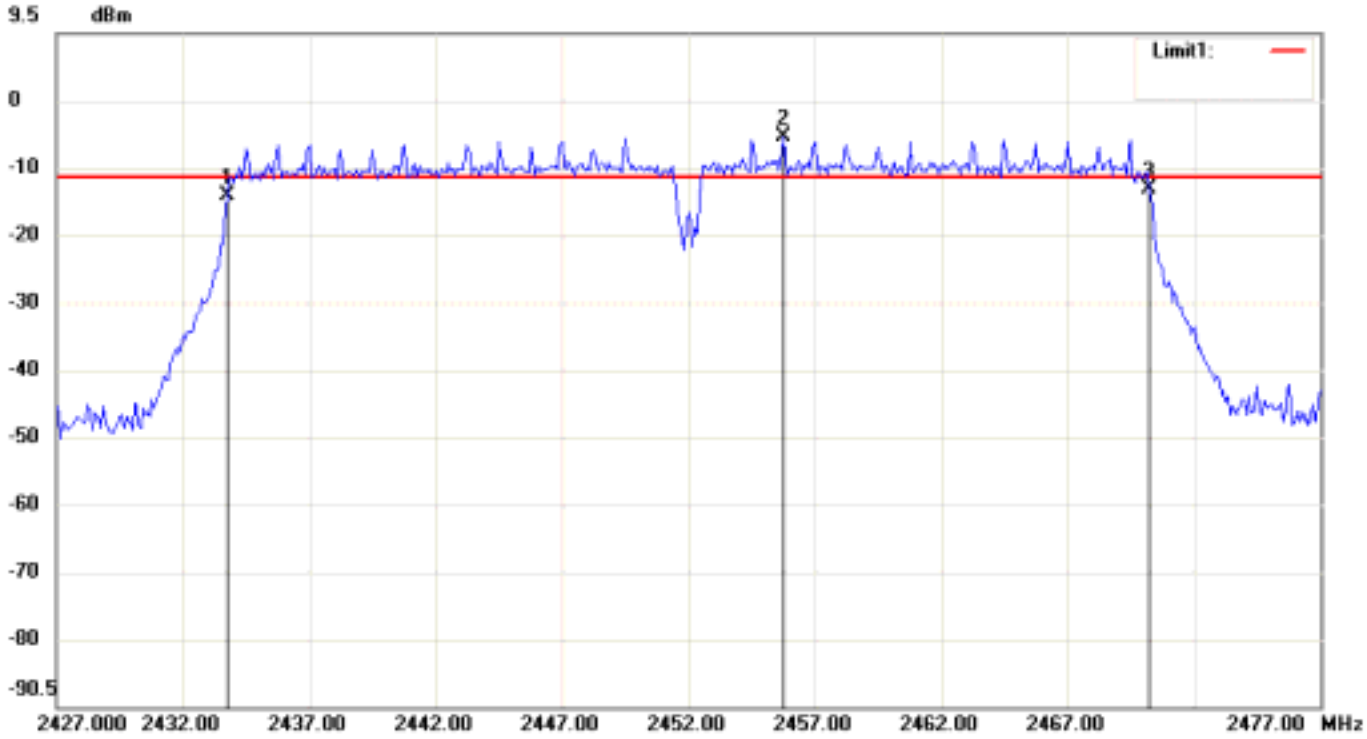


Condition: **-12.57dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT40 Channel 06-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	2418.83330	-12.57
2	2442.00000	-6.57
3	2455.25000	-14.07

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	36.4167	-1.5

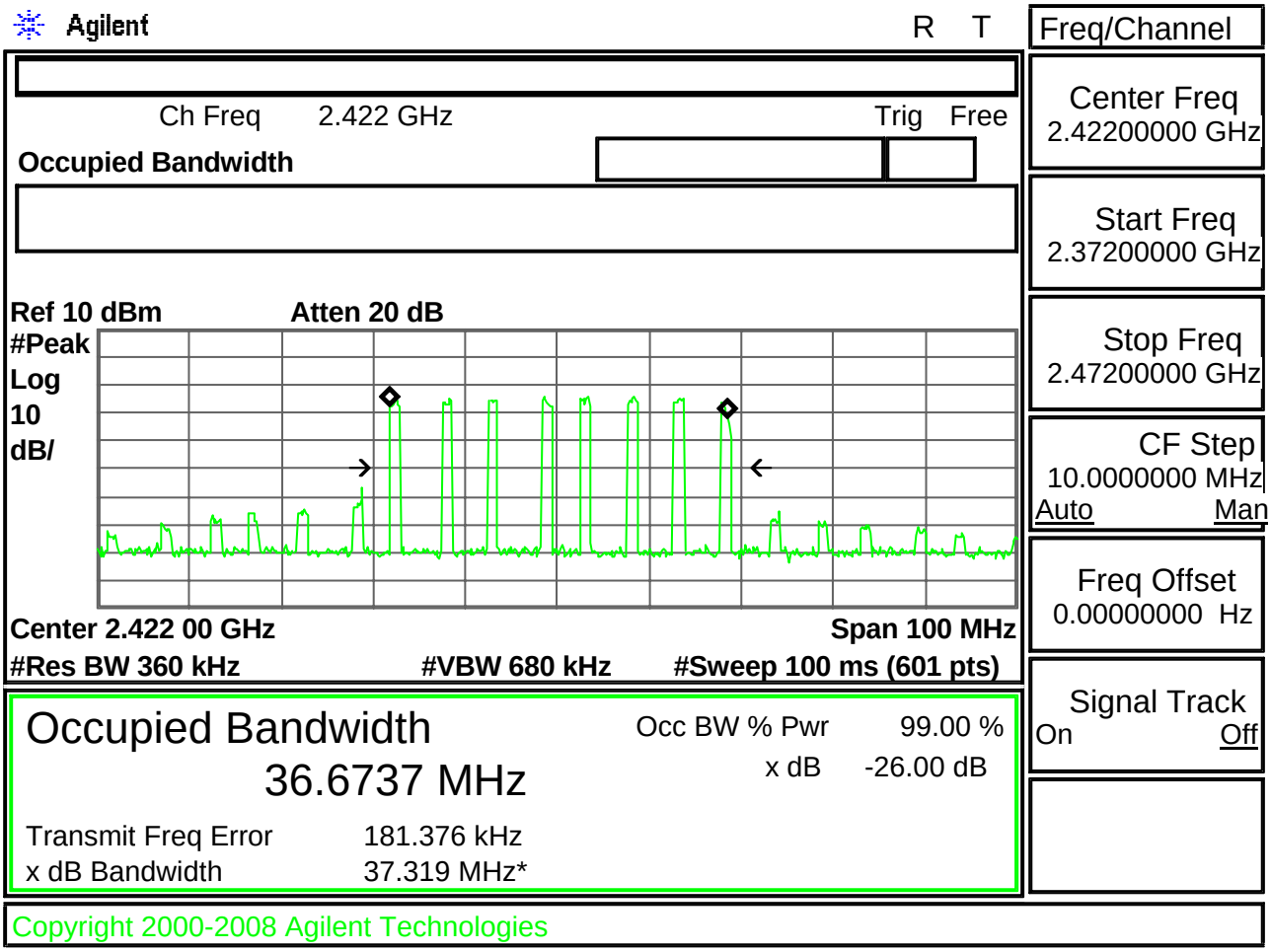
File: openpeak abgn Data: #53 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: PM 01:49:51 **Humidity: 56 %**

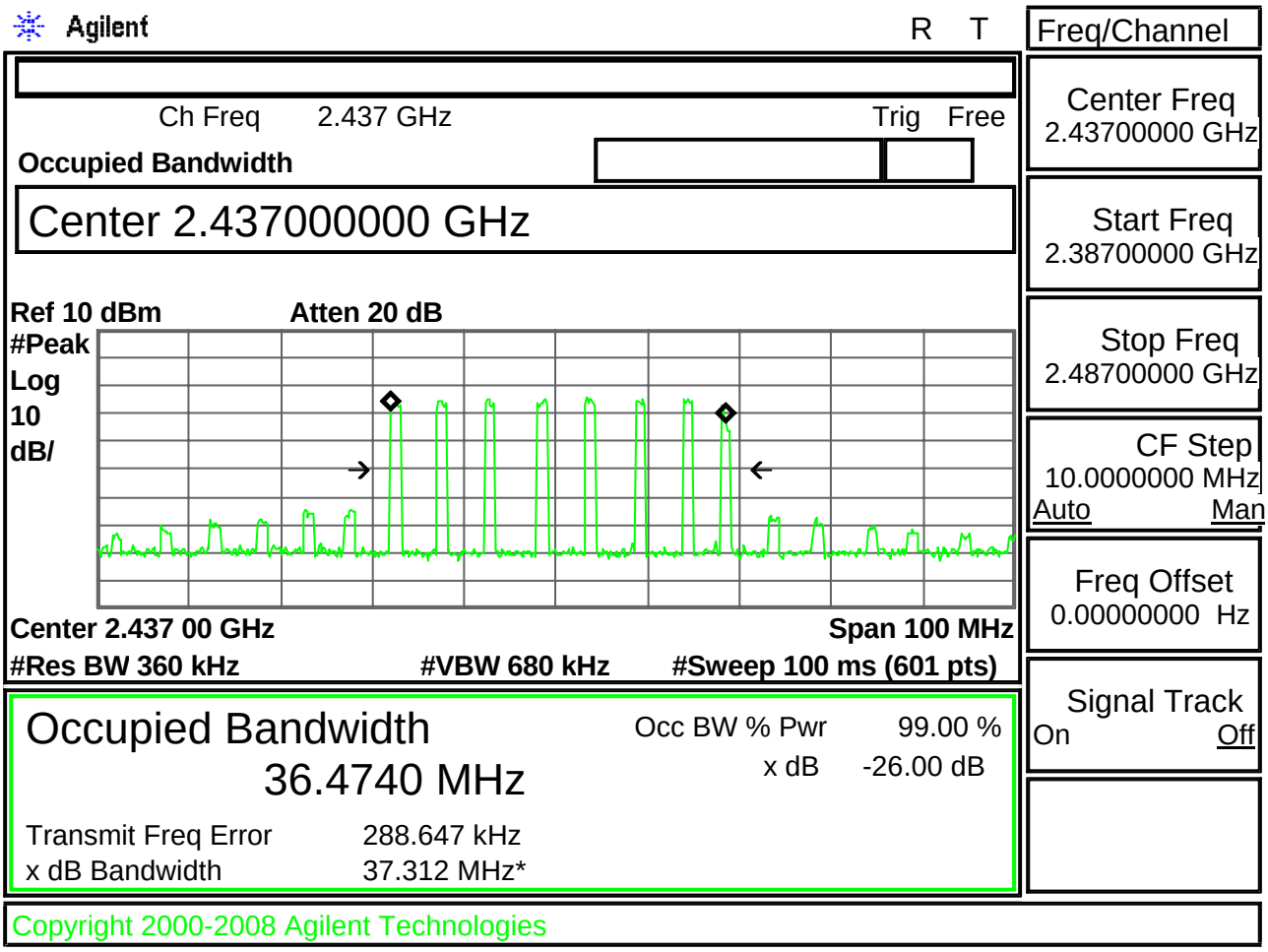


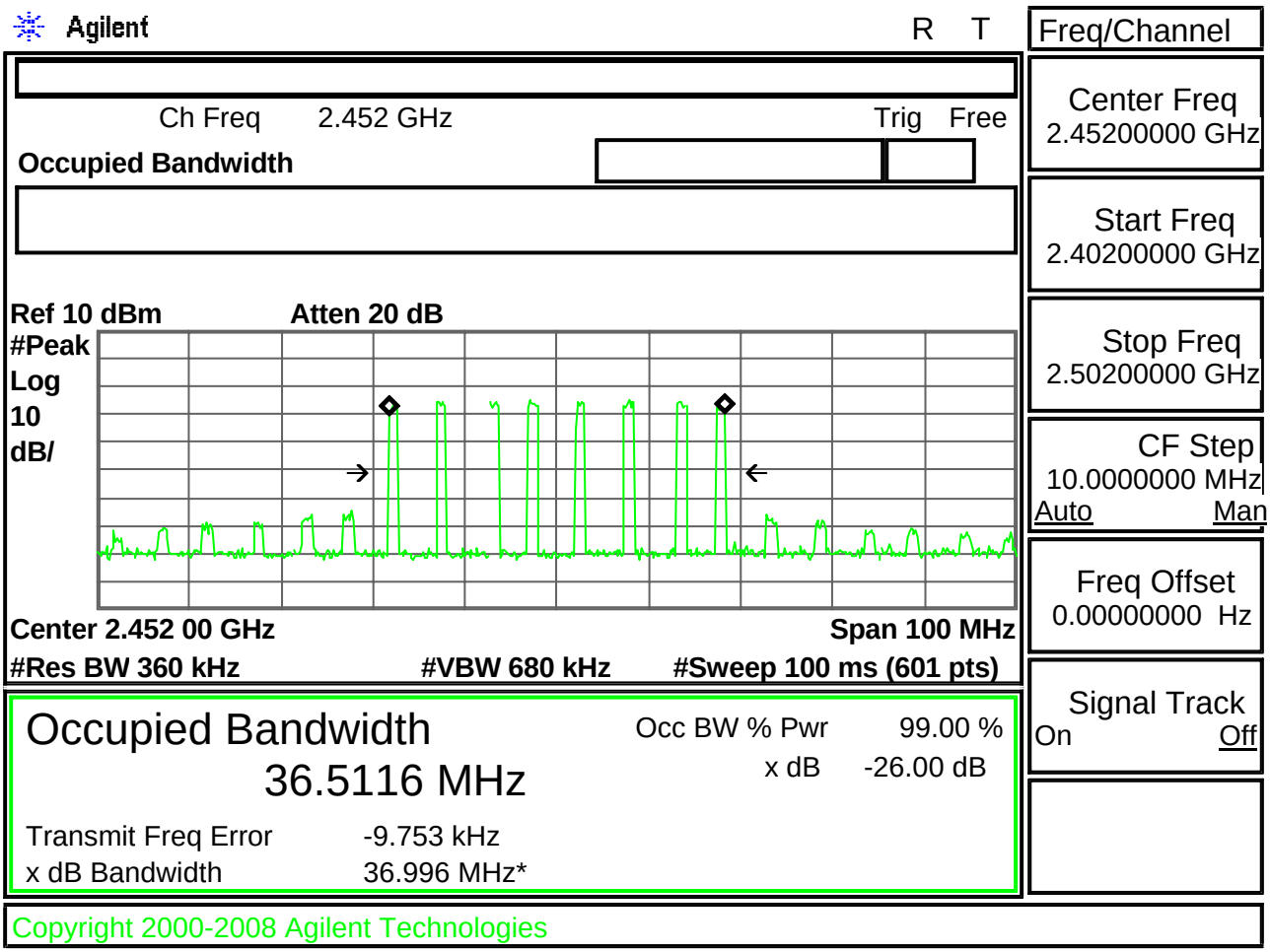
Condition: **-11.94dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT40 Channel 09-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	2433.75000	-14.50
2	2455.75000	-5.94
3	2470.25000	-13.57

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	36.5	0.93


Agilent
R T
Freq/Channel
Ch Freq 2.422 GHz
Trig Free
Occupied Bandwidth
Center Freq
2.42200000 GHz
Start Freq
2.37200000 GHz
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Stop Freq
2.47200000 GHz
CF Step
10.0000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Center 2.422 00 GHz
Span 100 MHz
#Res BW 360 kHz
#VBW 680 kHz
#Sweep 100 ms (601 pts)
Occupied Bandwidth
36.6737 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 181.376 kHz
x dB Bandwidth 37.319 MHz*
Signal Track
On Off
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 2.437 GHz
Trig Free
Occupied Bandwidth
Center 2.437000000 GHz
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Center 2.437 00 GHz
Span 100 MHz
#Res BW 360 kHz
#VBW 680 kHz
#Sweep 100 ms (601 pts)
Occupied Bandwidth
36.4740 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 288.647 kHz
x dB Bandwidth 37.312 MHz*
Center Freq
2.43700000 GHz
Start Freq
2.38700000 GHz
Stop Freq
2.48700000 GHz
CF Step
10.0000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 2.452 GHz
Trig Free
Occupied Bandwidth
Center Freq
2.45200000 GHz
Start Freq
2.40200000 GHz
Stop Freq
2.50200000 GHz
CF Step
10.0000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Center 2.452 00 GHz
Span 100 MHz
#Res BW 360 kHz
#VBW 680 kHz
#Sweep 100 ms (601 pts)
Occupied Bandwidth
36.5116 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error -9.753 kHz
x dB Bandwidth 36.996 MHz*
Copyright 2000-2008 Agilent Technologies

6.4.5 IEEE 802.11a

Test Date: Dec. 27, 2010 Temperature: 20℃ Humidity: 56%

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	FCC Limit (kHz)	Chart
149	5745	16.5	500	Page 50
157	5785	16.5	500	Page 51
165	5825	16.5	500	Page 52

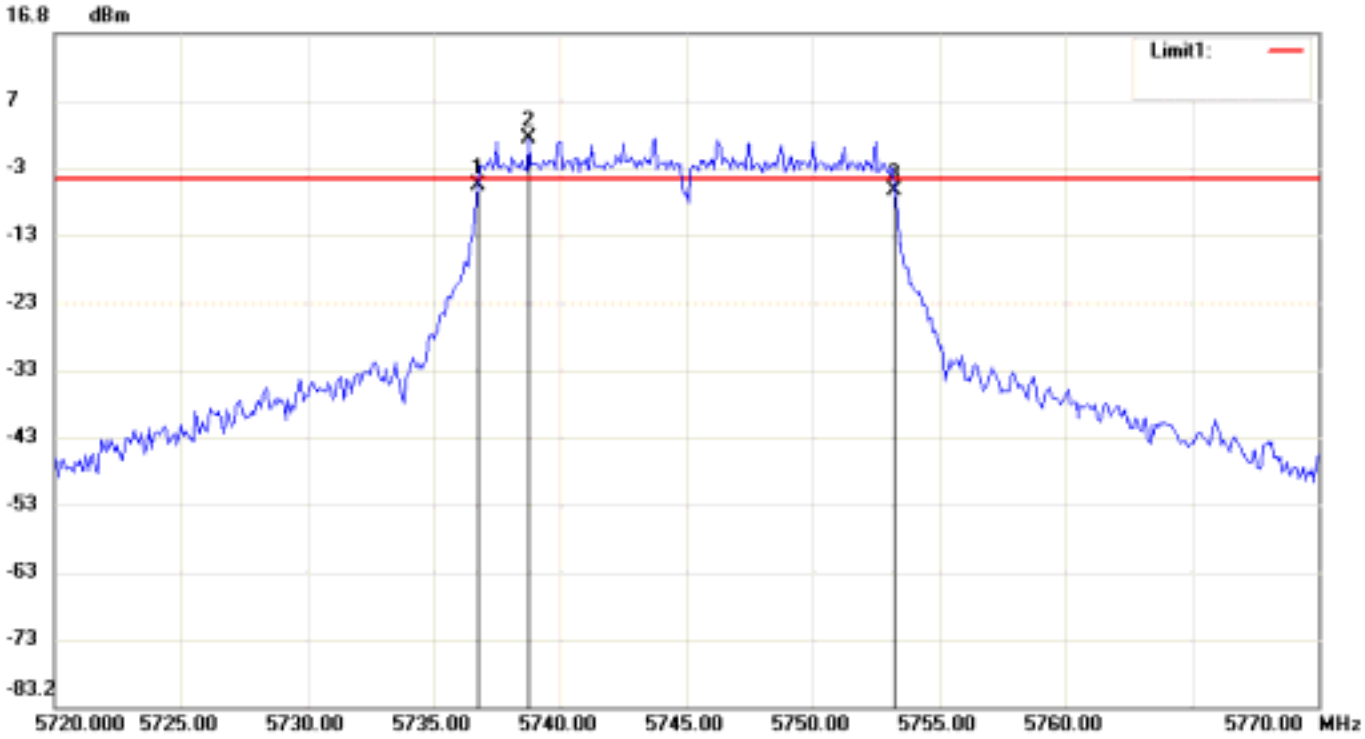
99% bandwidth

Channel	Frequency (MHz)	99% Bandwidth (MHz)	Chart
149	5745	16.1640	Page 53
157	5785	16.3586	Page 54
165	5825	16.0209	Page 55

Note:

1.Please refer to page 50 to page 55 for chart
2. The estimated measurement uncertainty of the result measurement is 8.25×10^{-7} *(1GHz≦f≦ 18GHz)*

File: openpeak abgn Data: #85 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 09:35:53 **Humidity: 56 %**

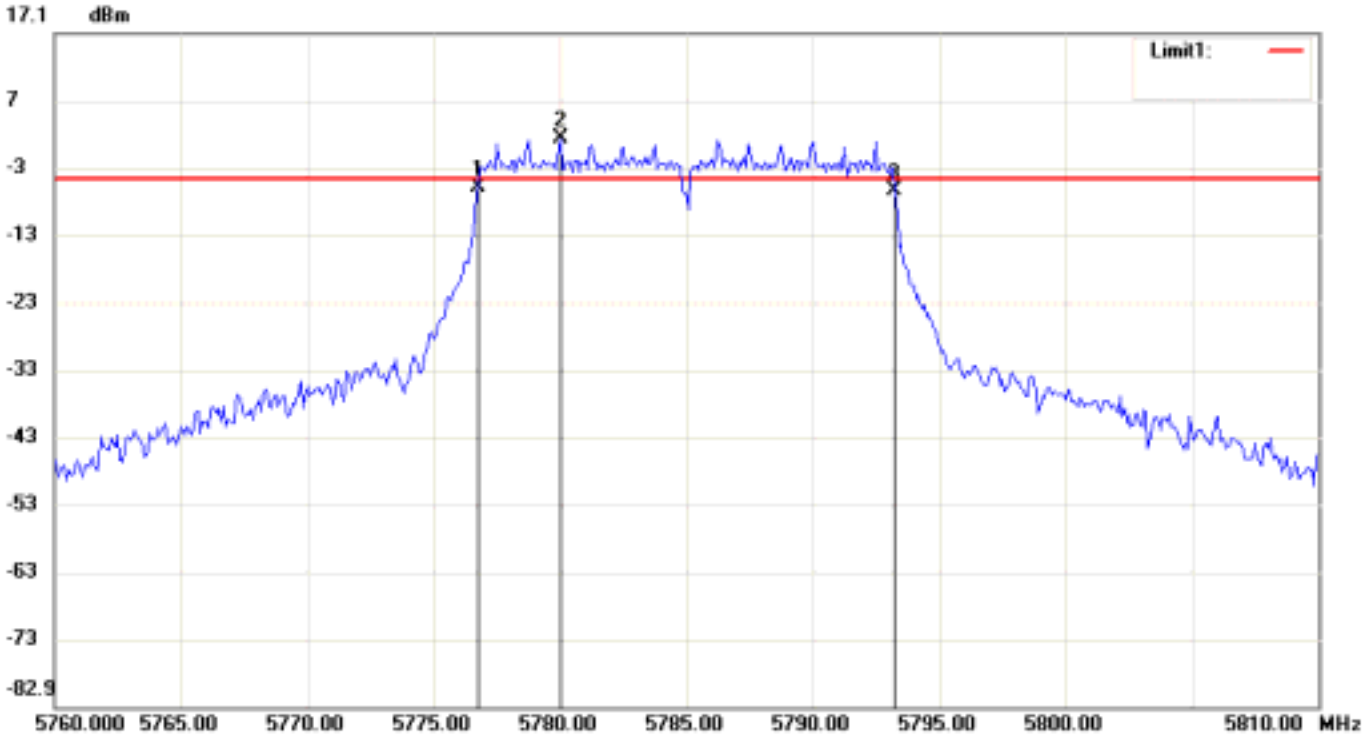


Condition: **-4.84dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11a Channel 149-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	5736.75000	-5.94
2	5738.75000	1.16
3	5753.25000	-6.60

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	16.5	-0.66

File: openpeak abgn Data: #90 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 09:43:28 **Humidity: 56 %**

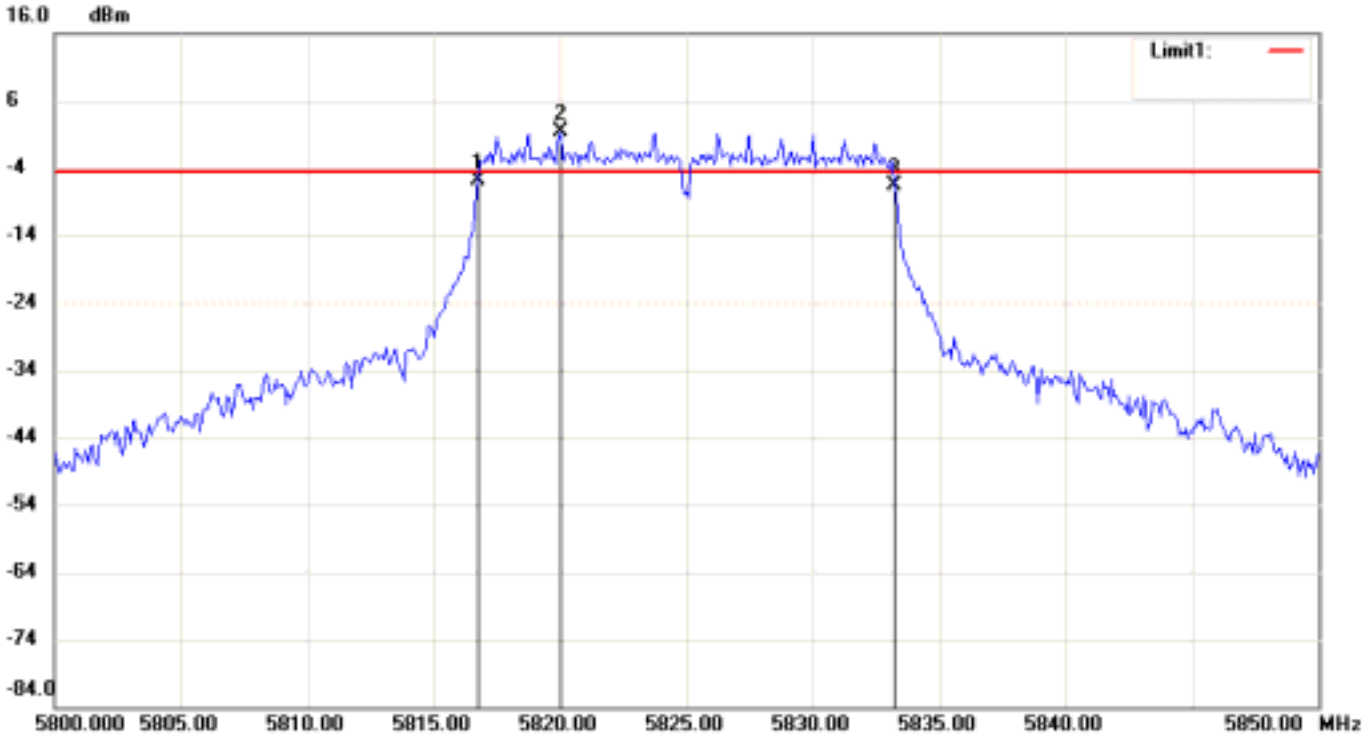


Condition: **-4.58dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11a Channel 157-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	5776.75000	-5.80
2	5780.00000	1.42
3	5793.25000	-6.32

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	16.5	-0.52

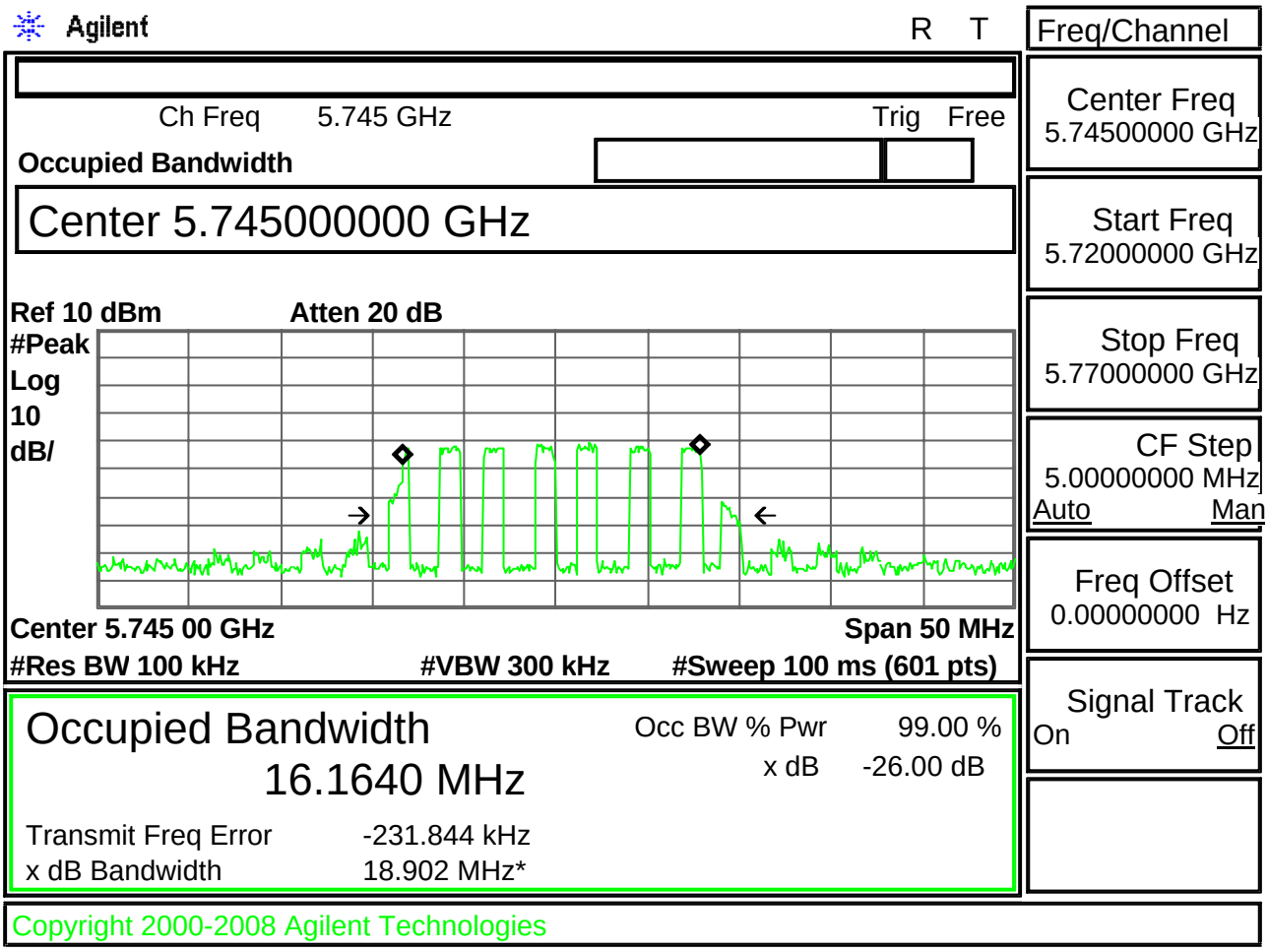
File: openpeak abgn Data: #94 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 09:52:12 **Humidity: 56 %**

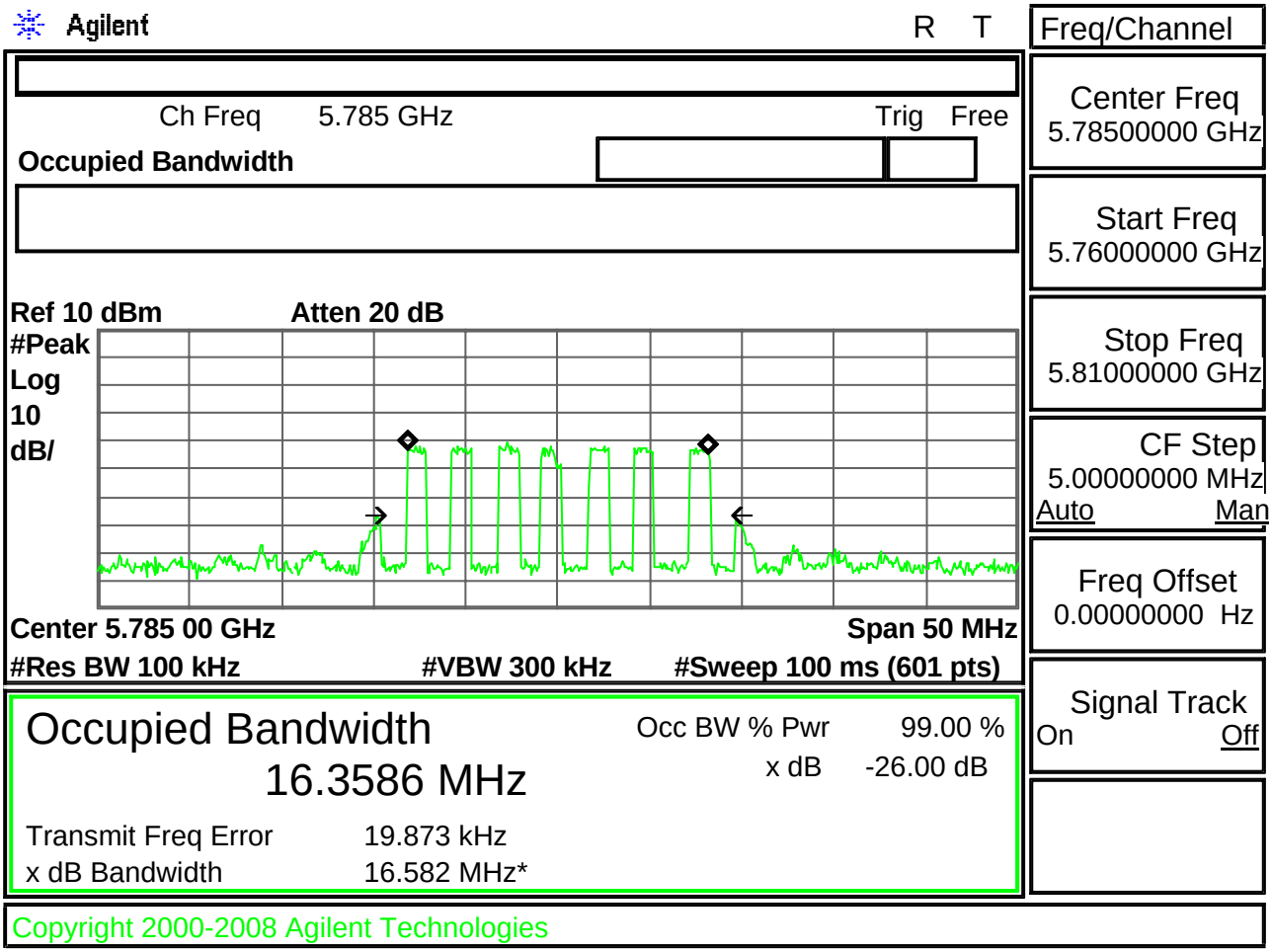


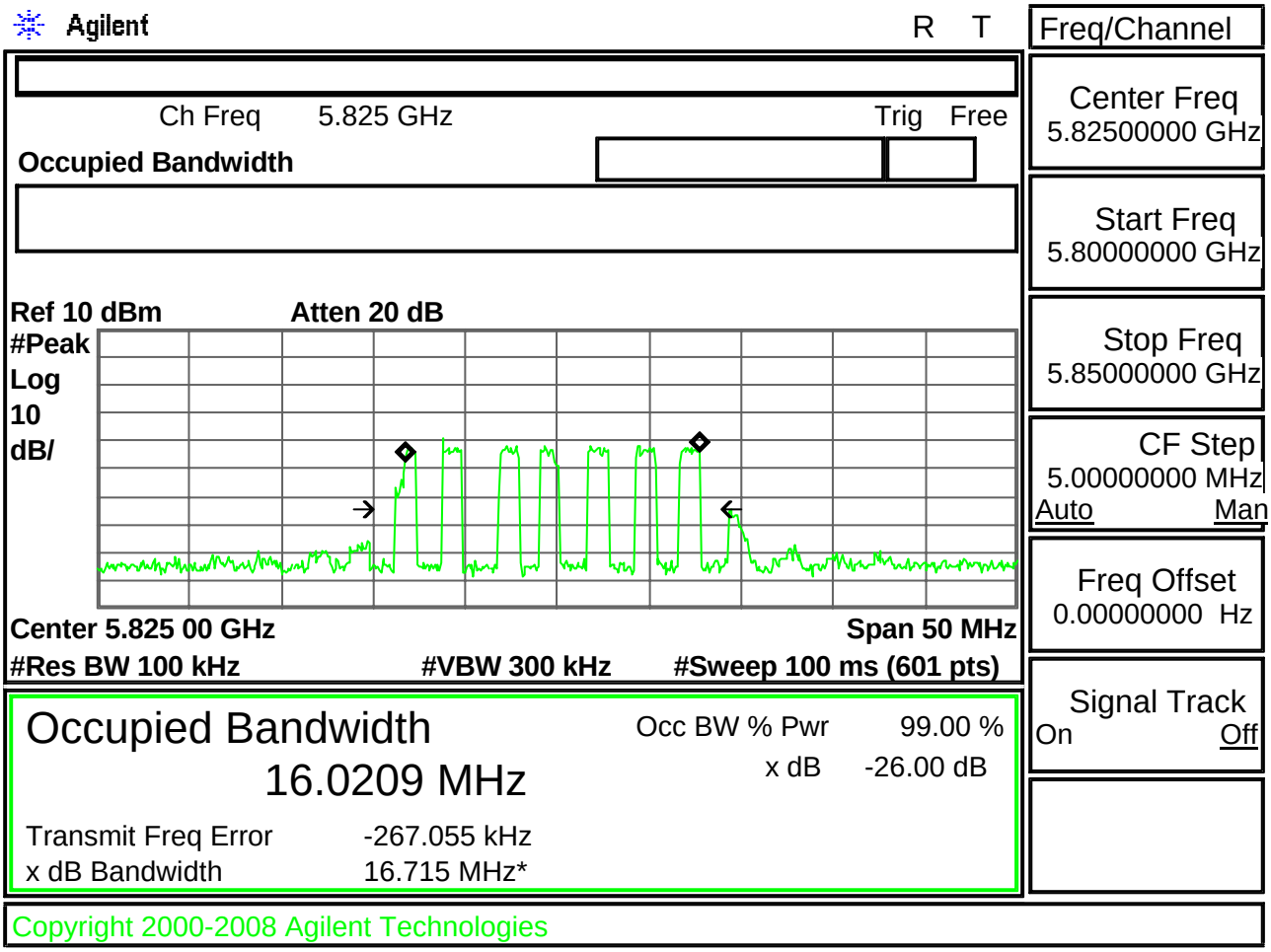
Condition: **-4.76dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11a Channel 1491-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	5816.75000	-5.95
2	5820.00000	1.24
3	5833.25000	-6.69

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	16.5	-0.74


Agilent
R T
Freq/Channel
Ch Freq 5.745 GHz
Trig Free
Occupied Bandwidth
Center 5.745000000 GHz
Center Freq
5.74500000 GHz
Start Freq
5.72000000 GHz
Stop Freq
5.77000000 GHz
CF Step
5.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Center 5.745 00 GHz
Span 50 MHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 100 ms (601 pts)
Occupied Bandwidth
16.1640 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error -231.844 kHz
x dB Bandwidth 18.902 MHz*
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 5.785 GHz
Trig Free
Occupied Bandwidth
Center Freq
5.78500000 GHz
Start Freq
5.76000000 GHz
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Stop Freq
5.81000000 GHz
CF Step
5.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Center 5.785 00 GHz
Span 50 MHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 100 ms (601 pts)
Occupied Bandwidth
16.3586 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 19.873 kHz
x dB Bandwidth 16.582 MHz*
Signal Track
On Off
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 5.825 GHz
Trig Free
Occupied Bandwidth
Center Freq
5.82500000 GHz
Start Freq
5.80000000 GHz
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Stop Freq
5.85000000 GHz
CF Step
5.00000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Center 5.825 00 GHz
Span 50 MHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 100 ms (601 pts)
Occupied Bandwidth
16.0209 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error -267.055 kHz
x dB Bandwidth 16.715 MHz*
Signal Track
On
Off
Copyright 2000-2008 Agilent Technologies

6.4.6 IEEE 802.11a, HT20

Test Date: Mar. 21, 2011 Temperature: 17℃ Humidity: 54%

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	FCC Limit (kHz)	Chart
149	5745	17.750	500	Page 57
157	5785	17.750	500	Page 58
165	5825	17.750	500	Page 59

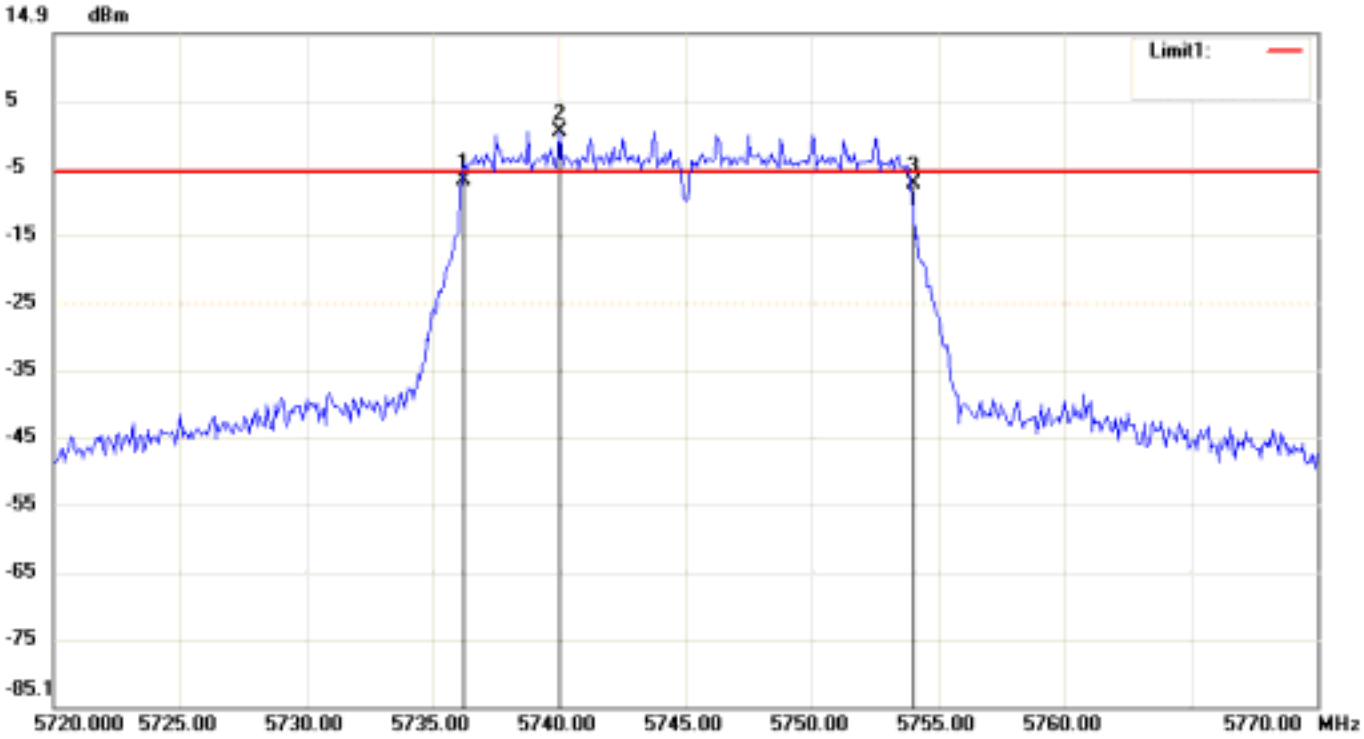
99% bandwidth

Channel	Frequency (MHz)	99% Bandwidth (MHz)	Chart
149	5745	17.8546	Page 60
157	5785	17.8252	Page 61
165	5825	16.4594	Page 62

Note:

1.Please refer to page 57 to page 62 for chart
2. The estimated measurement uncertainty of the result measurement is 8.25×10^{-7} *(1GHz≦f≦ 18GHz)*

File: cisco **Data: #15** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 09:48:23 **Humidity: 54 %**

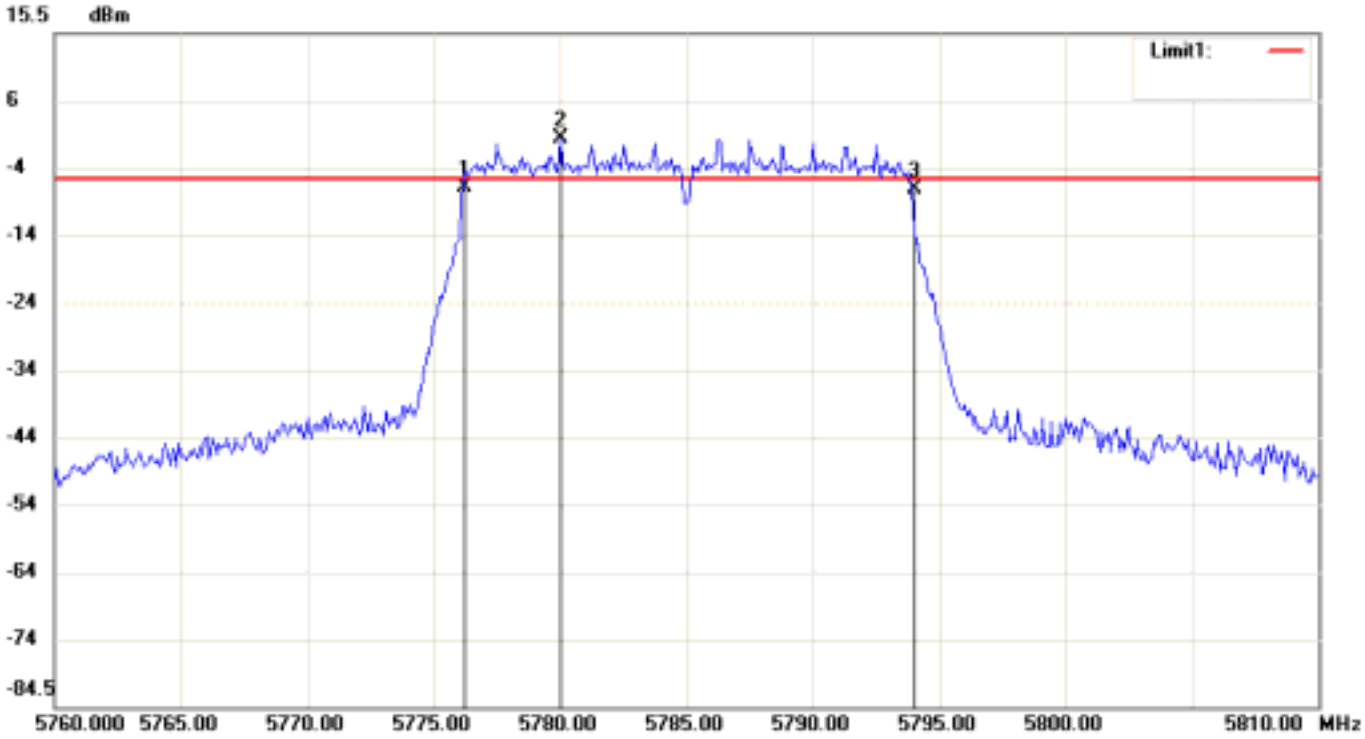


Condition: **-5.75dBm** **Horizontal**
EUT: **Sweep Time: 500ms** **Att.: 20dB**
Model: **RBW: 100 KHz** **VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11an_HT20 Channel 149-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	5736.16670	-7.04
2	5740.00000	0.25
3	5753.91670	-7.58

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	17.75	-0.54

File: cisco **Data: #20** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 09:55:31 **Humidity: 54 %**

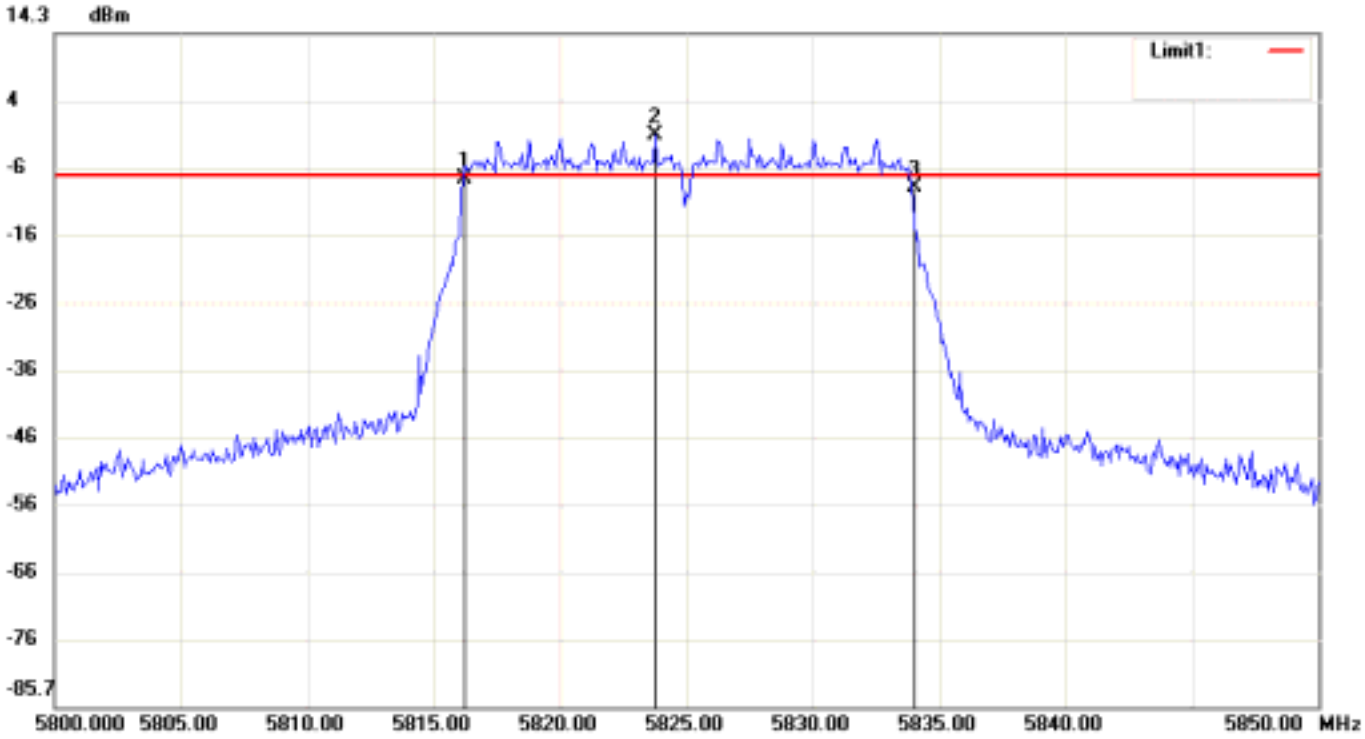


Condition: **-6.09dBm** **Horizontal**
EUT: **Sweep Time: 500ms** **Att.: 20dB**
Model: **RBW: 100 KHz** **VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11an_HT20 Channel 157-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	5776.16670	-7.36
2	5780.00000	-0.09
3	5793.91670	-7.59

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	17.75	-0.23

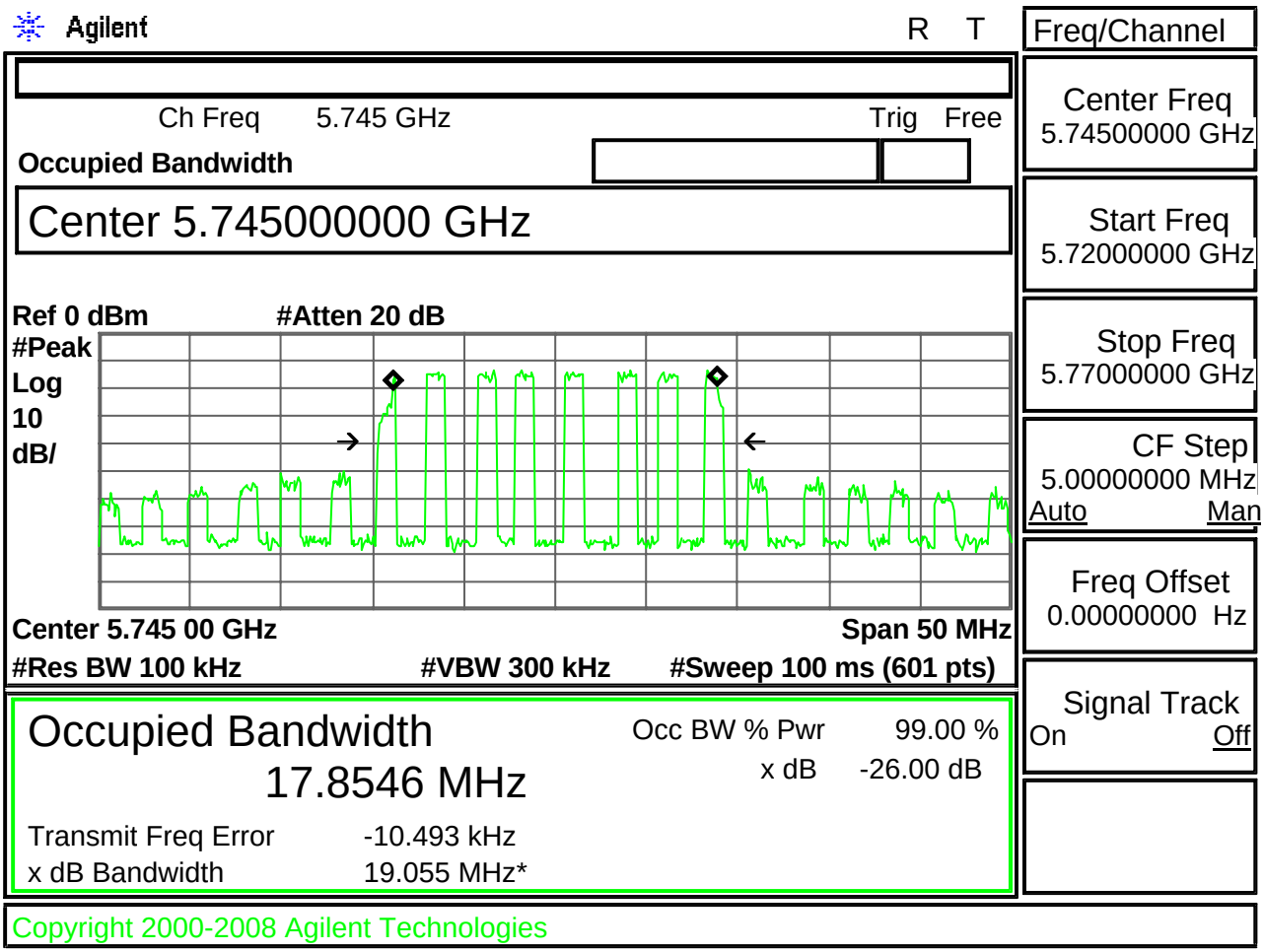
File: cisco **Data: #24** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 10:01:37 **Humidity: 54 %**

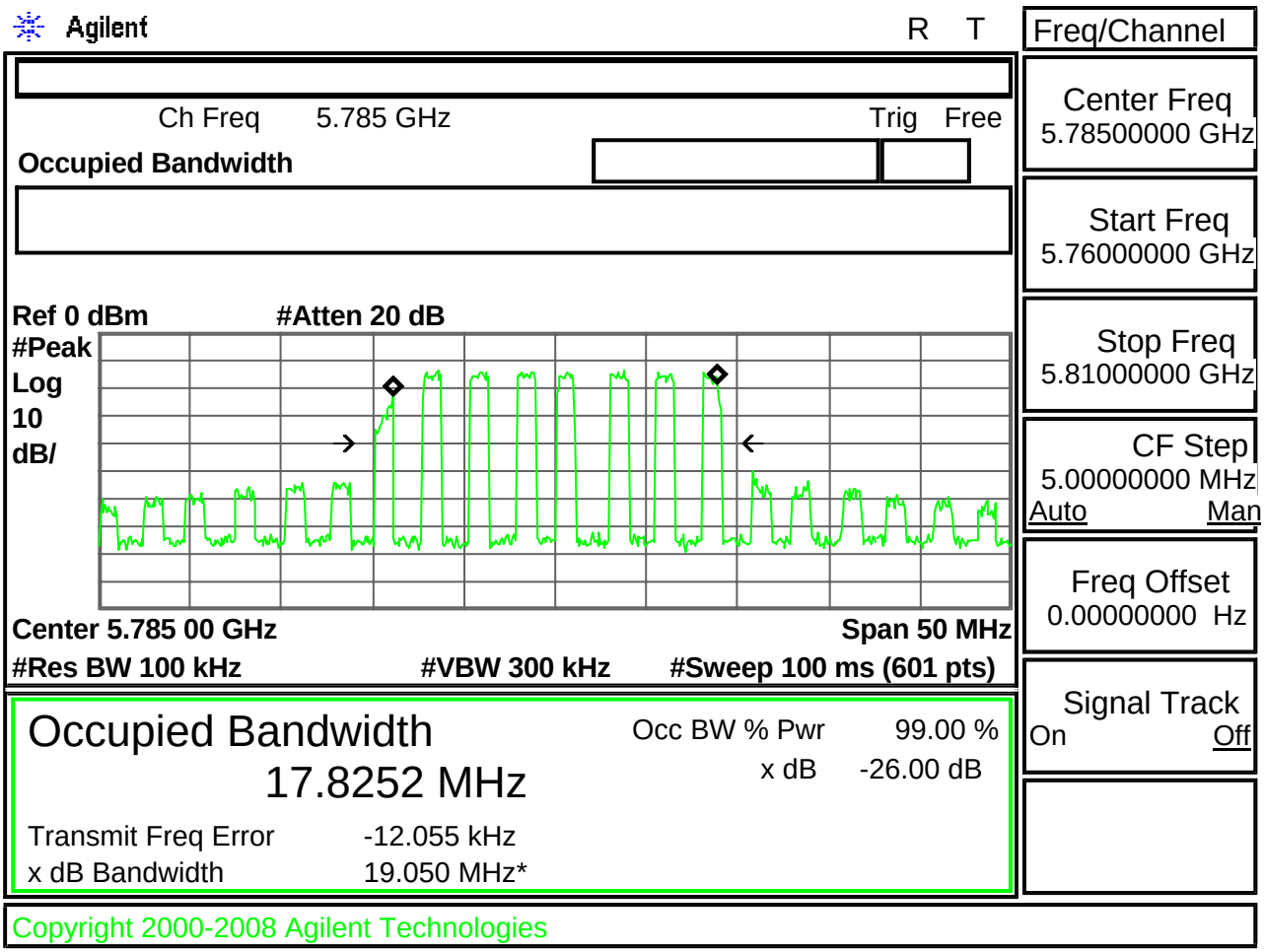


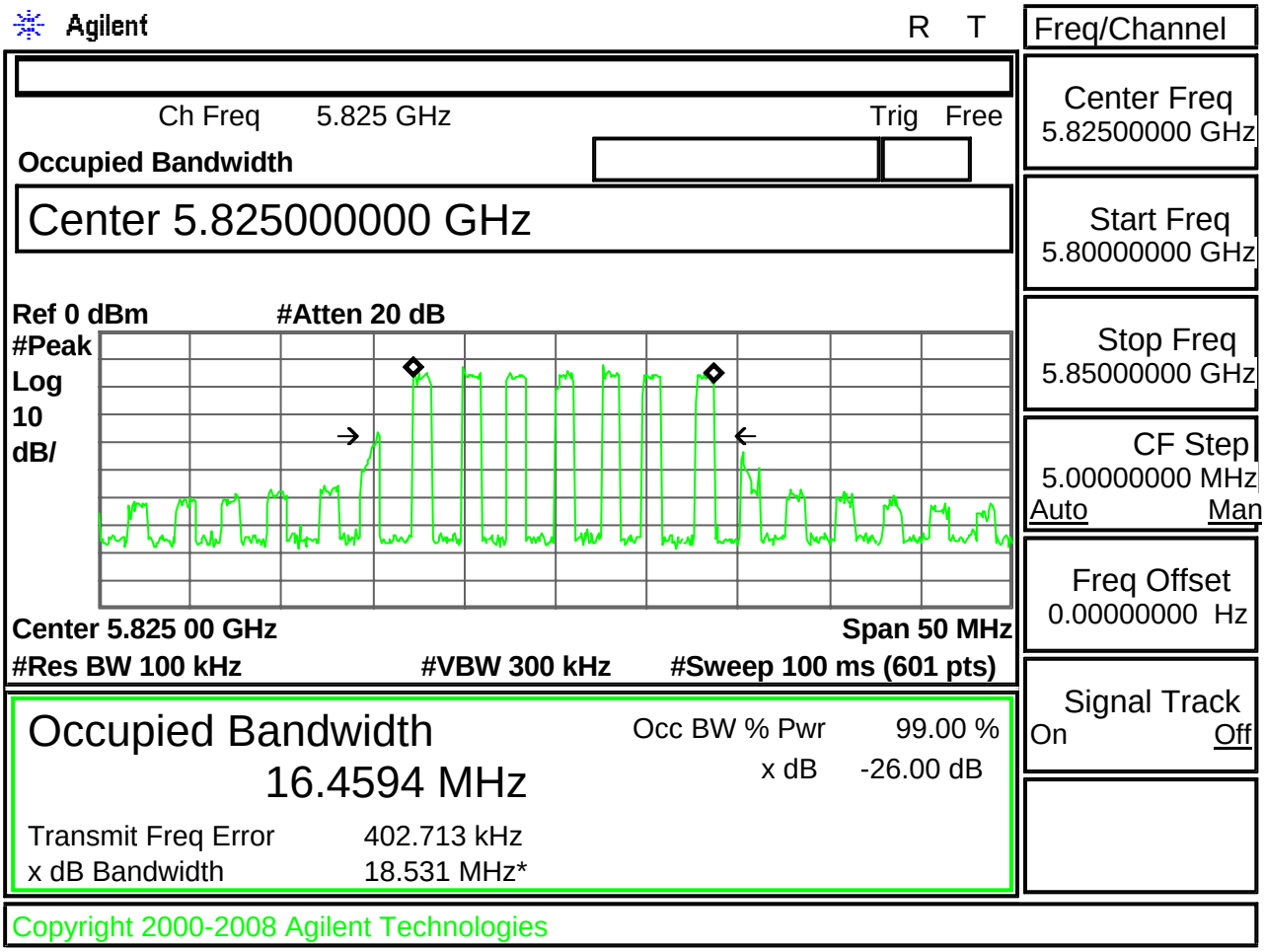
Condition: **-6.77dBm** **Horizontal**
EUT: **Sweep Time: 500ms** **Att.: 20dB**
Model: **RBW: 100 KHz** **VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11an_HT20 Channel 1491-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	5816.16670	-7.27
2	5823.75000	-0.77
3	5833.91670	-8.64

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	17.75	-1.37


Agilent
R T
Freq/Channel
Ch Freq 5.745 GHz
Trig Free
Occupied Bandwidth
Center 5.745000000 GHz
Ref 0 dBm
#Atten 20 dB
#Peak
Log
10
dB/
Center 5.745 00 GHz
Span 50 MHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 100 ms (601 pts)
Occupied Bandwidth
17.8546 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error -10.493 kHz
x dB Bandwidth 19.055 MHz*
Center Freq
5.74500000 GHz
Start Freq
5.72000000 GHz
Stop Freq
5.77000000 GHz
CF Step
5.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 5.785 GHz
Trig Free
Occupied Bandwidth
Center Freq
5.78500000 GHz
Start Freq
5.76000000 GHz
Stop Freq
5.81000000 GHz
CF Step
5.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 0 dBm
#Atten 20 dB
#Peak
Log
10
dB/
Center 5.785 00 GHz
Span 50 MHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 100 ms (601 pts)
Occupied Bandwidth
17.8252 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error -12.055 kHz
x dB Bandwidth 19.050 MHz*
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 5.825 GHz
Trig Free
Occupied Bandwidth
Center 5.825000000 GHz
Ref 0 dBm
#Atten 20 dB
#Peak
Log
10
dB/
Center 5.825 00 GHz
Span 50 MHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 100 ms (601 pts)
Occupied Bandwidth
16.4594 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 402.713 kHz
x dB Bandwidth 18.531 MHz*
Center Freq
5.82500000 GHz
Start Freq
5.80000000 GHz
Stop Freq
5.85000000 GHz
CF Step
5.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2008 Agilent Technologies

6.4.7 IEEE 802.11a, HT40

Test Date: Dec. 27, 2010 Temperature: 20℃ Humidity: 56%

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	FCC Limit (kHz)	Chart
151	5755	36.500	500	Page 64
159	5795	36.500	500	Page 65

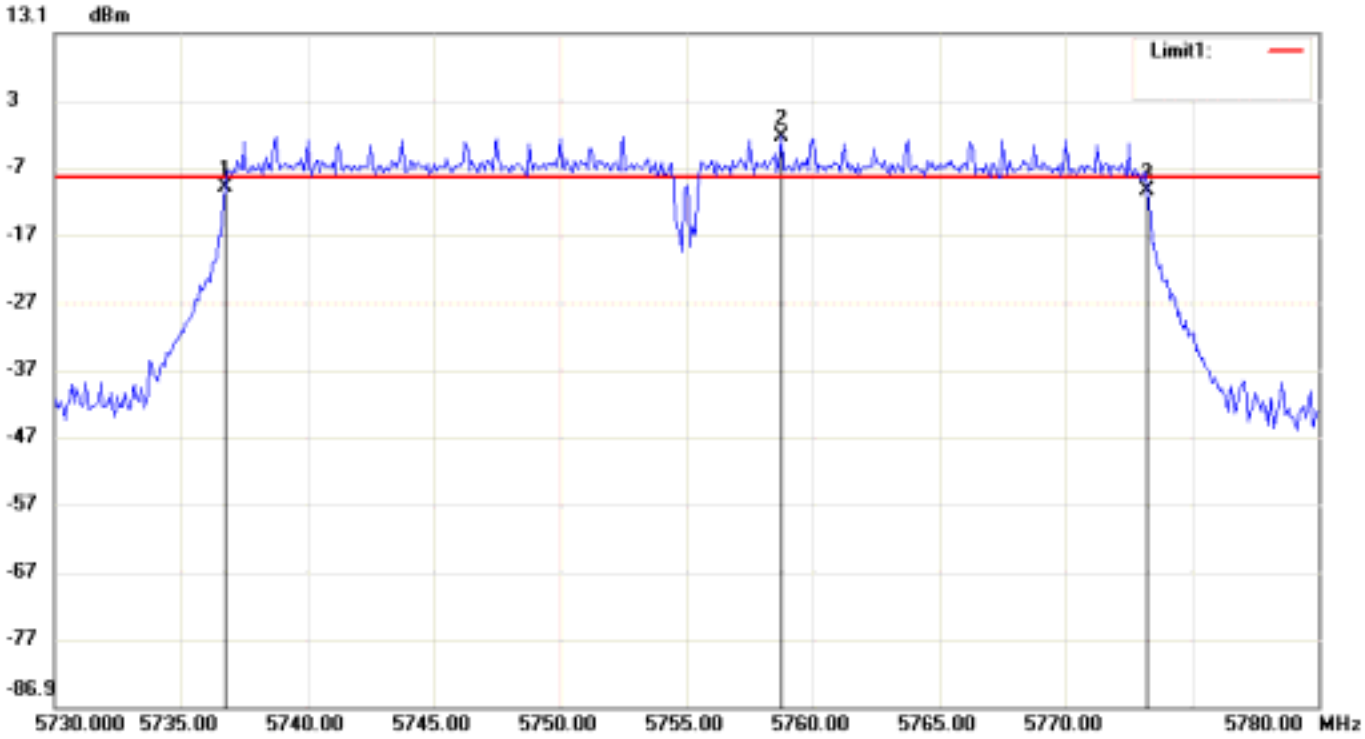
99% bandwidth

Channel	Frequency (MHz)	99% Bandwidth (MHz)	Chart
151	5755	36.8183	Page 66
159	5795	36.0979	Page 67

Note:

1.Please refer to page 64 to page 67 for chart
2. The estimated measurement uncertainty of the result measurement is 8.25×10^{-7} *(1GHz≦f≦ 18GHz)*

File: openpeak abgn Data: #99 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 10:14:44 **Humidity: 56 %**

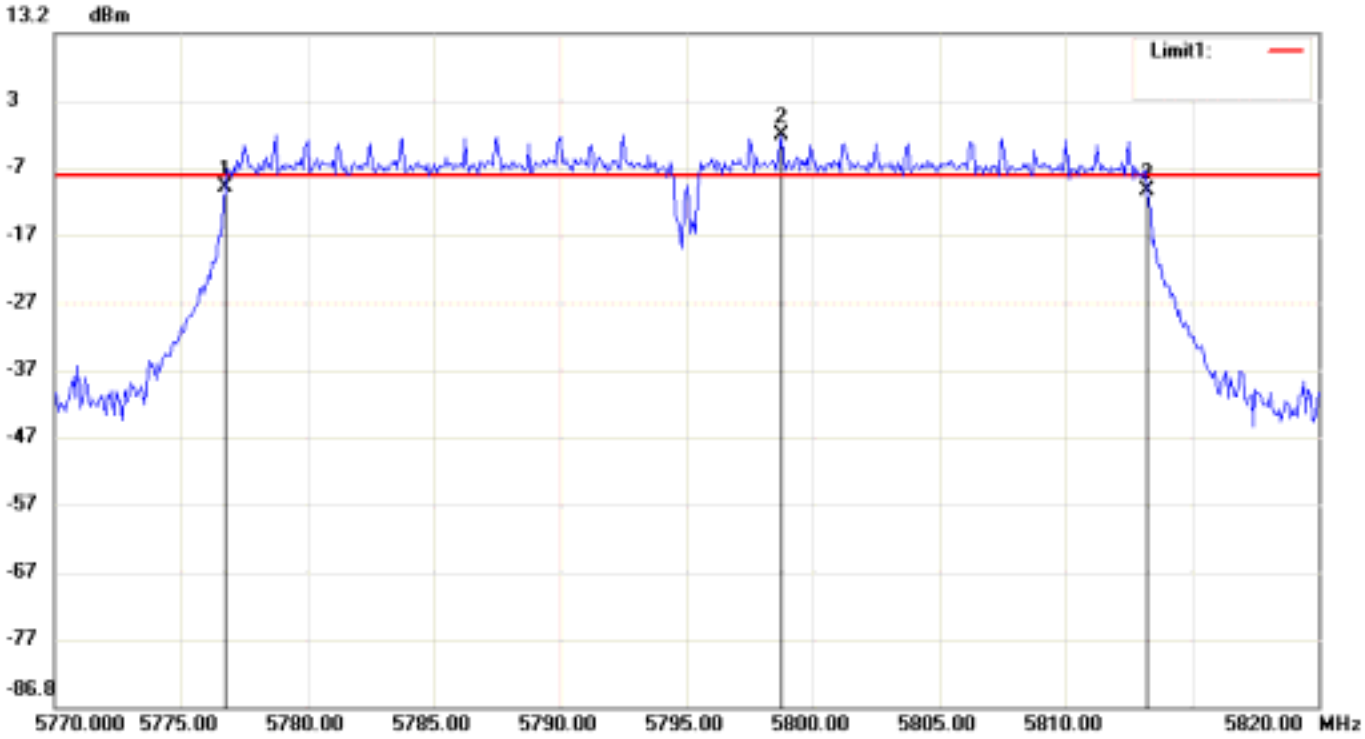


Condition: **-8.14dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11an_HT40 Channel 151-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	5736.75000	-9.87
2	5758.75000	-2.14
3	5773.25000	-10.38

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	36.5	-0.51

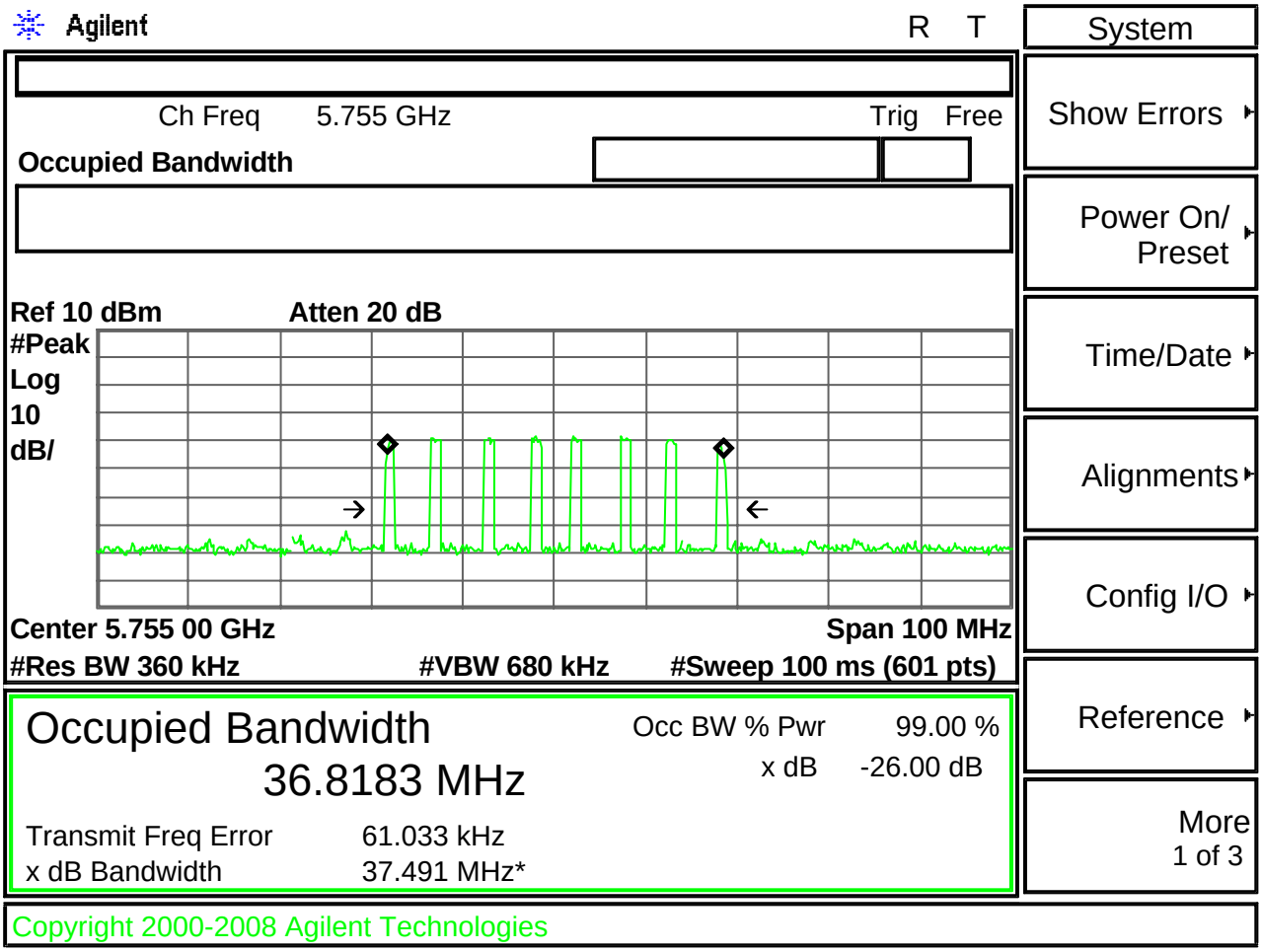
File: openpeak abgn Data: #104 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 10:23:04 **Humidity: 56 %**

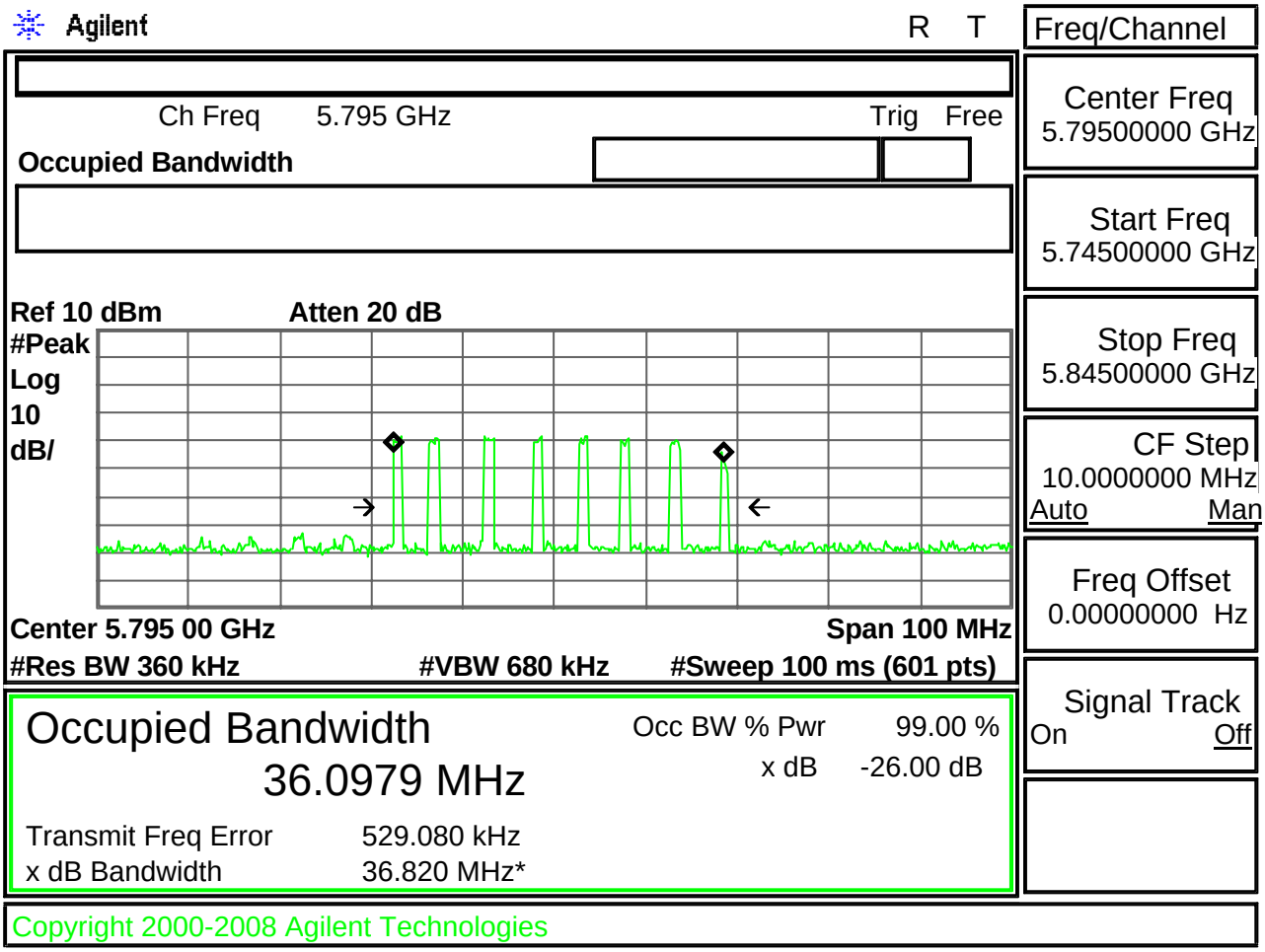


Condition: **-7.93dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11an_HT40 Channel 159-6dB EBW**

No.	Frequency(MHz)	Level(dBm)
1	5776.75000	-9.57
2	5798.75000	-1.93
3	5813.25000	-10.13

No.		△Frequency(MHz)	△Level(dB)
1	mk3-mk1	36.5	-0.56


Agilent
R T
System
Ch Freq 5.755 GHz
Trig Free
Occupied Bandwidth
Show Errors
Power On/ Preset
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Time/Date
Alignments
Config I/O
Center 5.755 00 GHz
Span 100 MHz
#Res BW 360 kHz
#VBW 680 kHz
#Sweep 100 ms (601 pts)
Reference
Occupied Bandwidth
36.8183 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 61.033 kHz
x dB Bandwidth 37.491 MHz*
More
1 of 3
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 5.795 GHz
Trig Free
Occupied Bandwidth
Center Freq
5.79500000 GHz
Start Freq
5.74500000 GHz
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Stop Freq
5.84500000 GHz
CF Step
10.0000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Center 5.795 00 GHz
Span 100 MHz
#Res BW 360 kHz
#VBW 680 kHz
#Sweep 100 ms (601 pts)
Signal Track
On Off
Occupied Bandwidth
36.0979 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 529.080 kHz
x dB Bandwidth 36.820 MHz*
Copyright 2000-2008 Agilent Technologies

7 OUTPUT POWER MEASUREMENT

7.1 Standard Applicable

For direct sequence system, according to 15.247(b), the maximum peak output power of the transmitter shall not exceed 1 Watt. If transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

7.2 Measurement Procedure

1. The test is performed in accordance with FCC KDB Publication No. 558074: Guidance on Measurements for Digital Transmission Systems (47 CFR 15.247)
2. Position the EUT as shown in figure 2.

7.3 Measurement Equipment

Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Agilent	E4446A	09/26/2011

7.4 Measurement Data

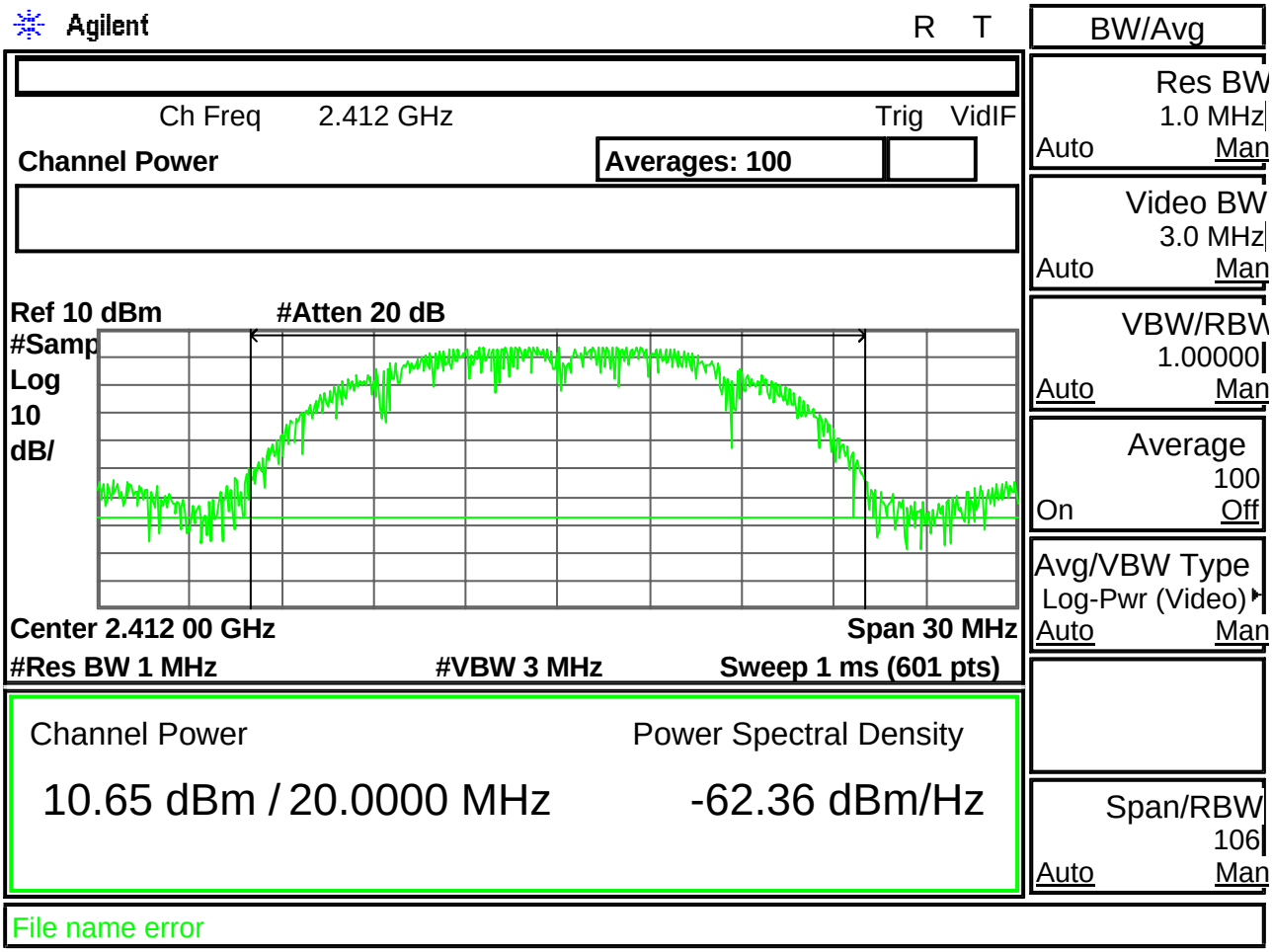
7.4.1 IEEE 802.11b

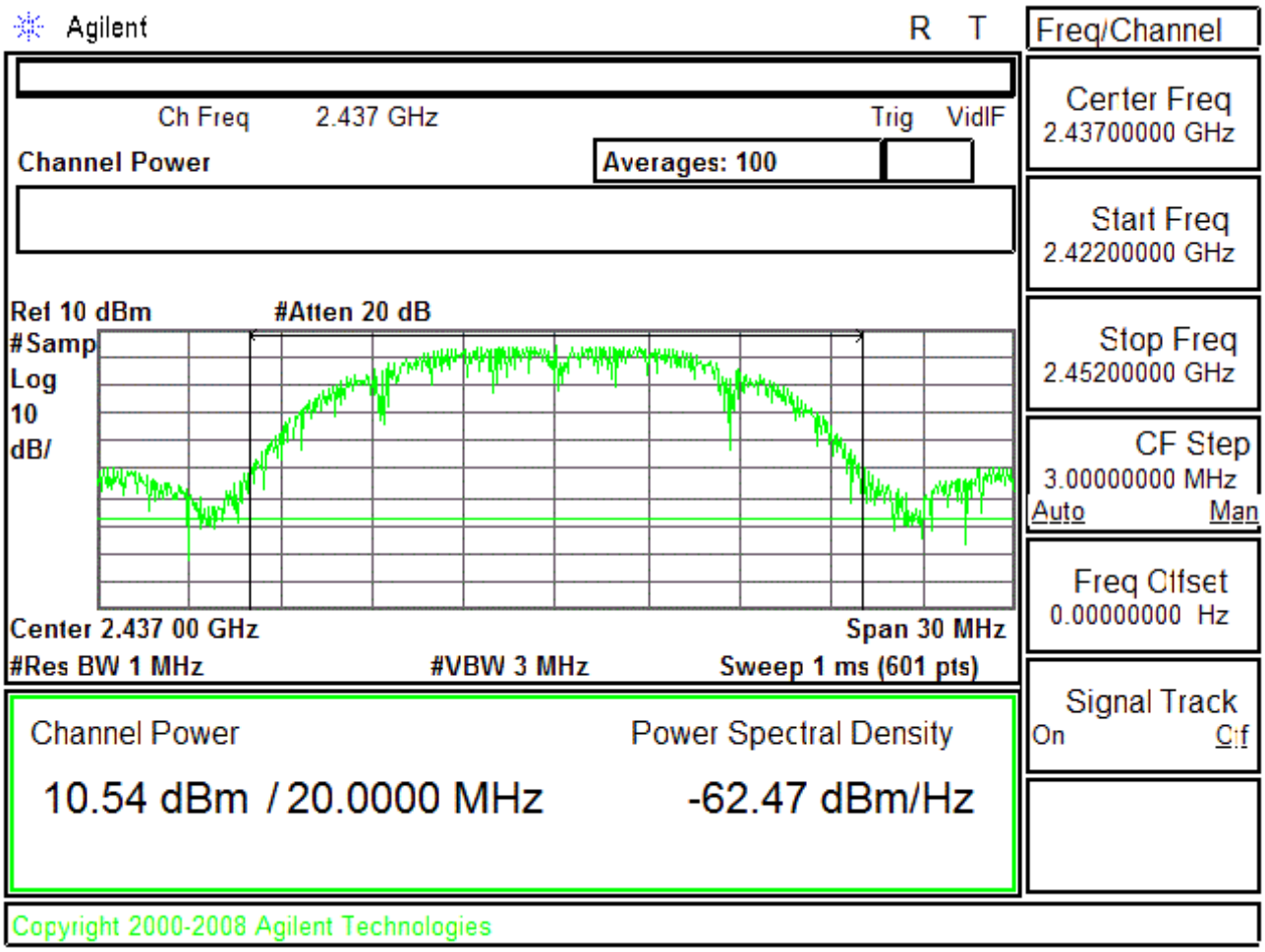
Test Date: Mar. 21, 2011 Temperature: 17℃ Humidity: 54%

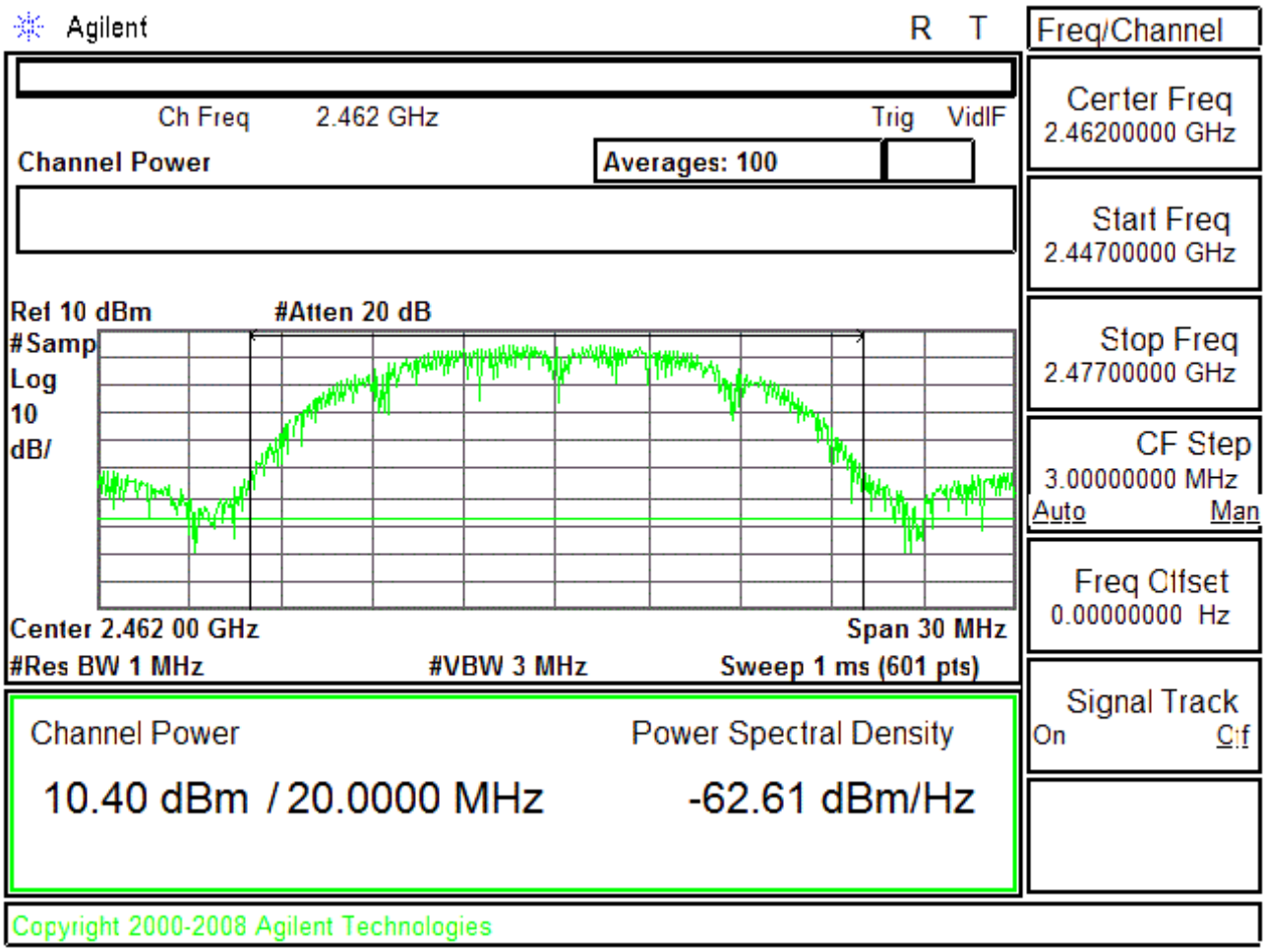
Channel	Frequency (MHz)	Maximum Peak Output Power (dBm)	Maximum Peak Output Power (mW)	FCC Limit (mW)	Chart
1	2412	10.65	11.614	1000	Page 70
6	2437	10.54	11.324	1000	Page 71
11	2462	10.40	10.965	1000	Page 72

Note:

1. Please refer to page 70 to page 72 for chart
2. The estimated measurement uncertainty of the result measurement is ±1.5dB(1GHz≦f≦18GHz)


Agilent
R T
BW/Avg
Ch Freq 2.412 GHz
Trig VidIF
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
1.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Log-Pwr (Video)
Auto Man
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 2.412 00 GHz
Span 30 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
10.65 dBm / 20.0000 MHz
Power Spectral Density
-62.36 dBm/Hz
Span/RBW
106
Auto Man
File name error


Agilent
R T
Freq/Channel
Ch Freq 2.437 GHz
Trig VidIF
Channel Power
Averages: 100
Center Freq
2.43700000 GHz
Start Freq
2.42200000 GHz
Stop Freq
2.45200000 GHz
CF Step
3.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 2.437 00 GHz
Span 30 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
10.54 dBm / 20.0000 MHz
Power Spectral Density
-62.47 dBm/Hz
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 2.462 GHz
Trig VidIF
Channel Power
Averages: 100
Center Freq
2.46200000 GHz
Start Freq
2.44700000 GHz
Stop Freq
2.47700000 GHz
CF Step
3.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 2.462 00 GHz
Span 30 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
10.40 dBm / 20.0000 MHz
Power Spectral Density
-62.61 dBm/Hz
Copyright 2000-2008 Agilent Technologies

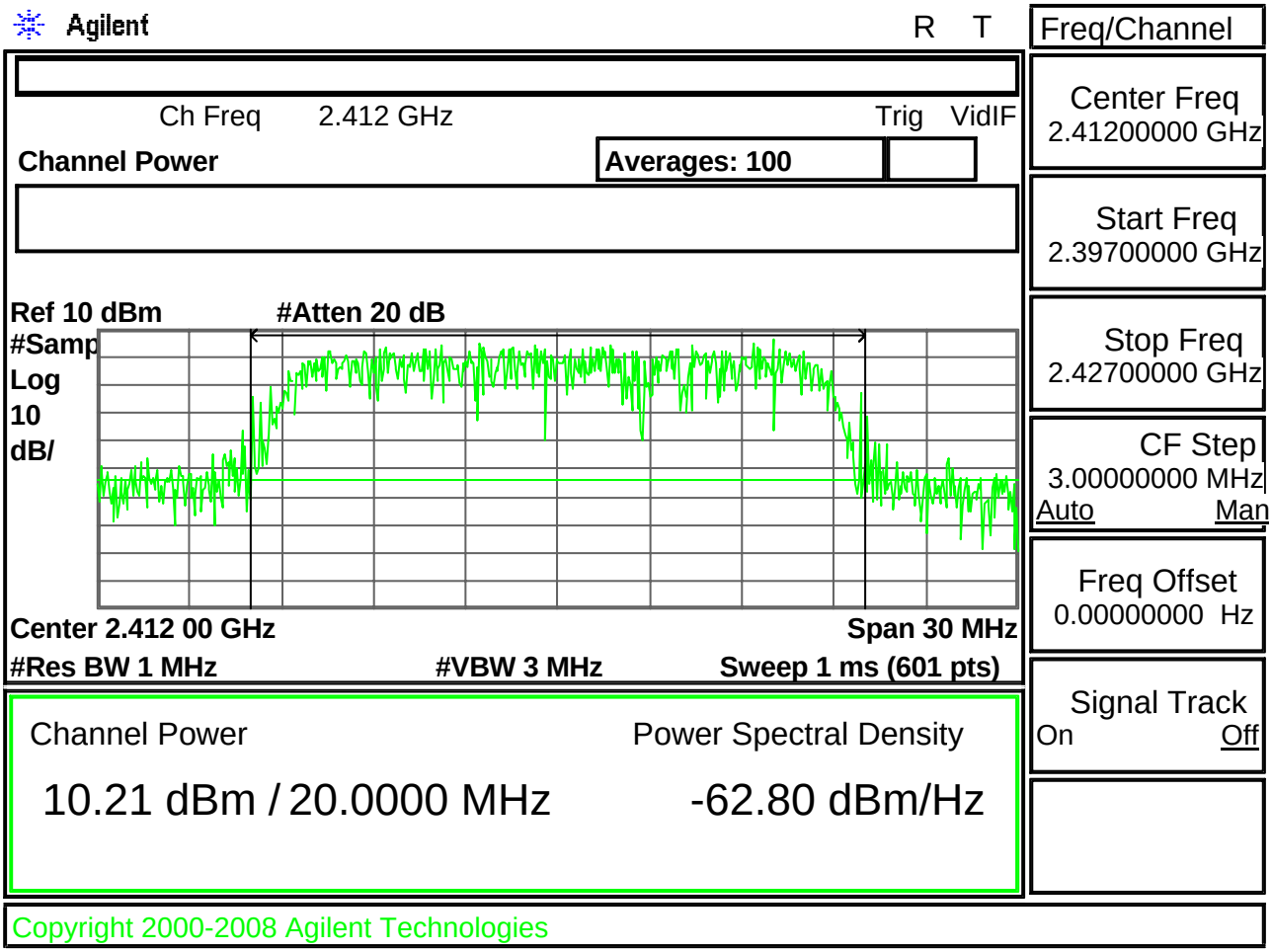
7.4.2 IEEE 802.11g

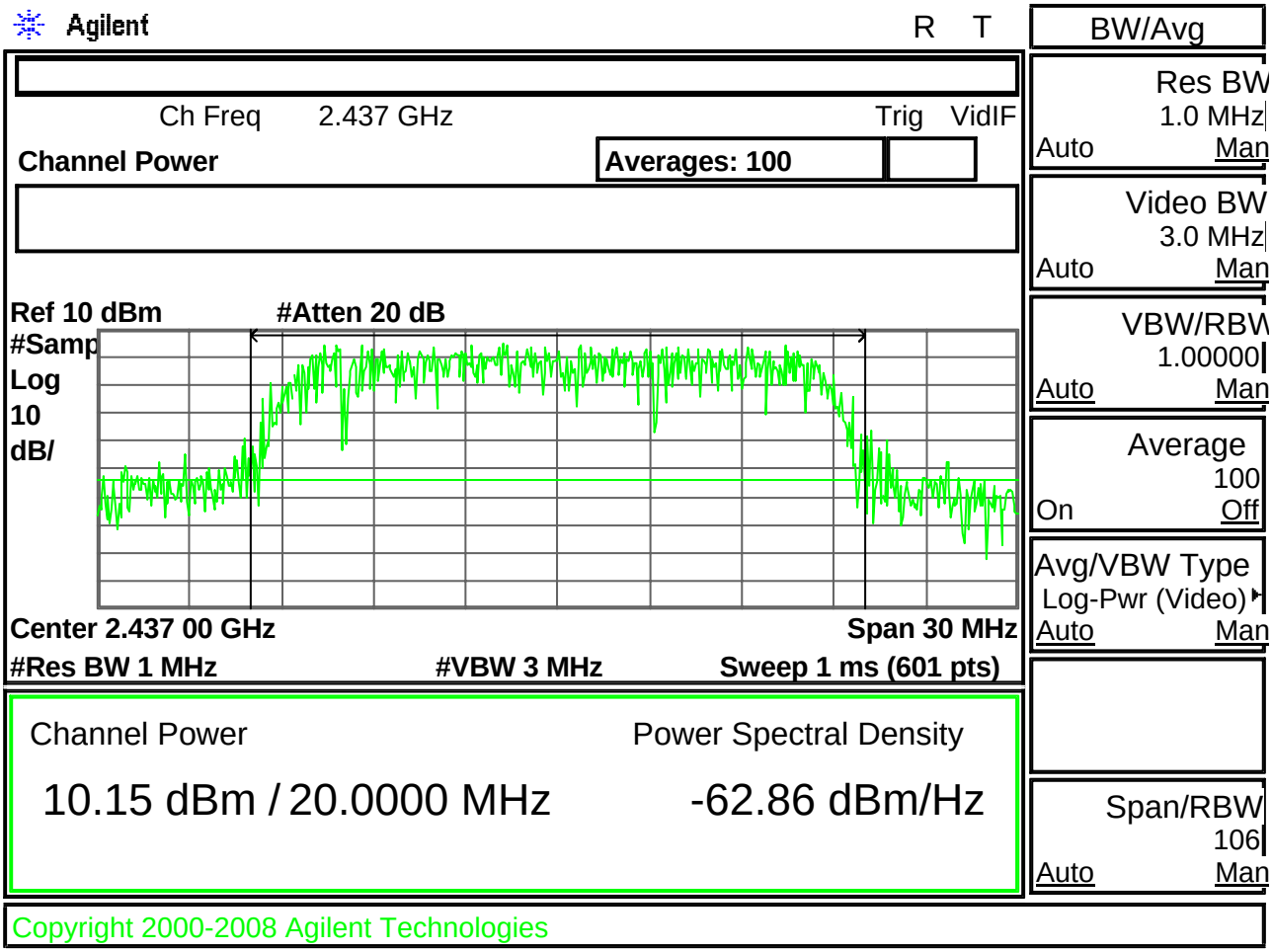
Test Date: Mar. 21, 2011 Temperature: 17℃ Humidity: 54%

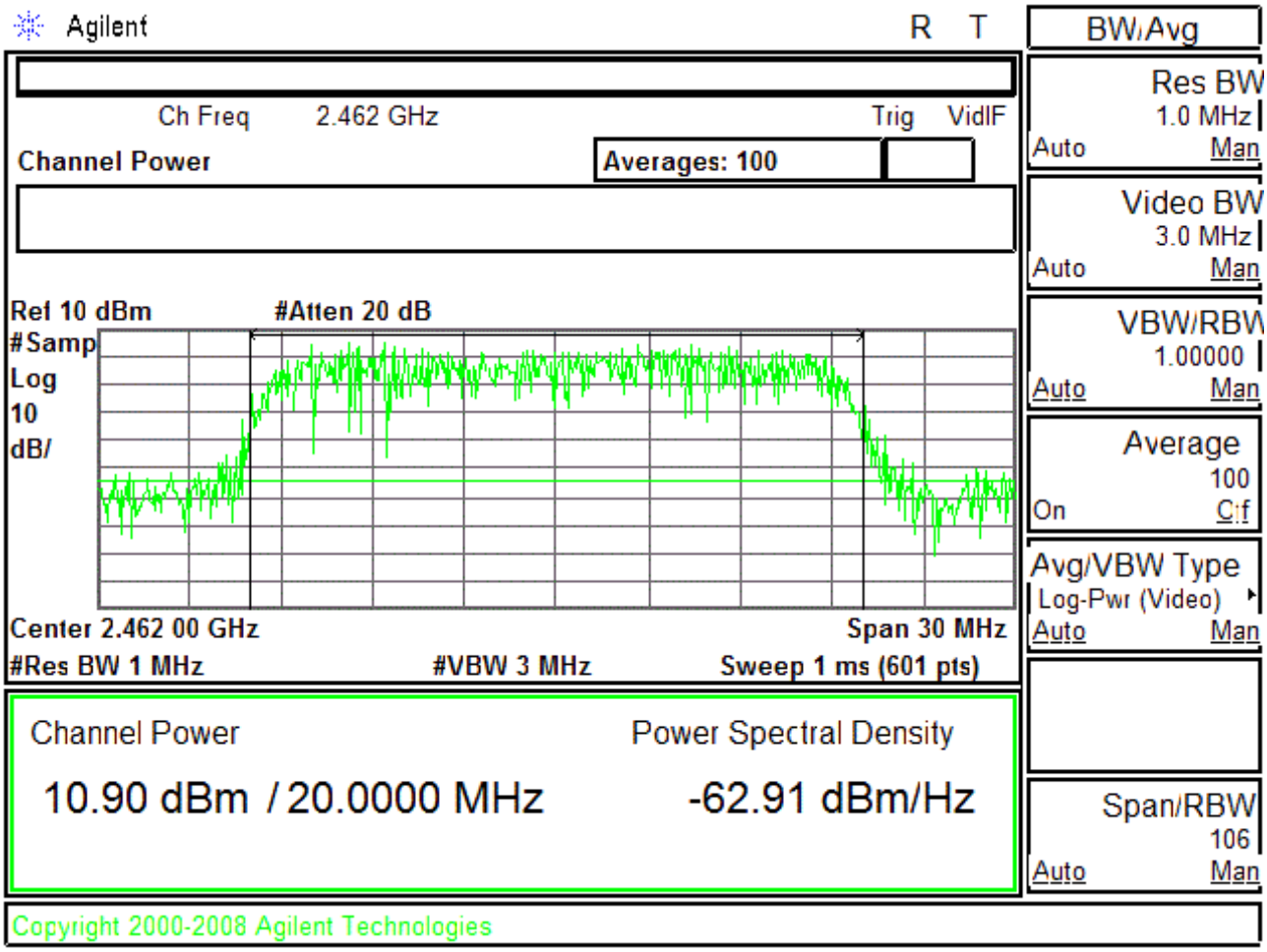
Channel	Frequency (MHz)	Maximum Peak Output Power (dBm)	Maximum Peak Output Power (mW)	FCC Limit (mW)	Chart
1	2412	10.21	10.495	1000	Page 74
6	2437	10.15	10.351	1000	Page 75
11	2462	10.90	12.203	1000	Page 76

Note:

1. Please refer to page 74 to page 76 for chart
2. The estimated measurement uncertainty of the result measurement is ±1.5dB(1GHz≦f≦18GHz)


Agilent
R T
Freq/Channel
Ch Freq 2.412 GHz
Trig VidIF
Channel Power
Averages: 100
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 2.412 00 GHz
Span 30 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
10.21 dBm / 20.0000 MHz
Power Spectral Density
-62.80 dBm/Hz
Center Freq
2.41200000 GHz
Start Freq
2.39700000 GHz
Stop Freq
2.42700000 GHz
CF Step
3.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2008 Agilent Technologies


Agilent
R T
BW/Avg
Ch Freq 2.437 GHz
Trig VidIF
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
1.00000
Auto Man
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Average
100
On Off
Avg/VBW Type
Log-Pwr (Video)
Auto Man
Center 2.437 00 GHz
Span 30 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
10.15 dBm / 20.0000 MHz
Power Spectral Density
-62.86 dBm/Hz
Span/RBW
106
Auto Man
Copyright 2000-2008 Agilent Technologies


Agilent
R T
BW/Avg
Ch Freq 2.462 GHz
Trig VidIF
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
VBW/RBW
1.00000
Auto Man
Average
100
On Cif
Avg/VBW Type
Log-Pwr (Video)
Auto Man
Center 2.462 00 GHz
Span 30 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
10.90 dBm / 20.0000 MHz
Power Spectral Density
-62.91 dBm/Hz
Span/RBW
106
Auto Man
Copyright 2000-2008 Agilent Technologies

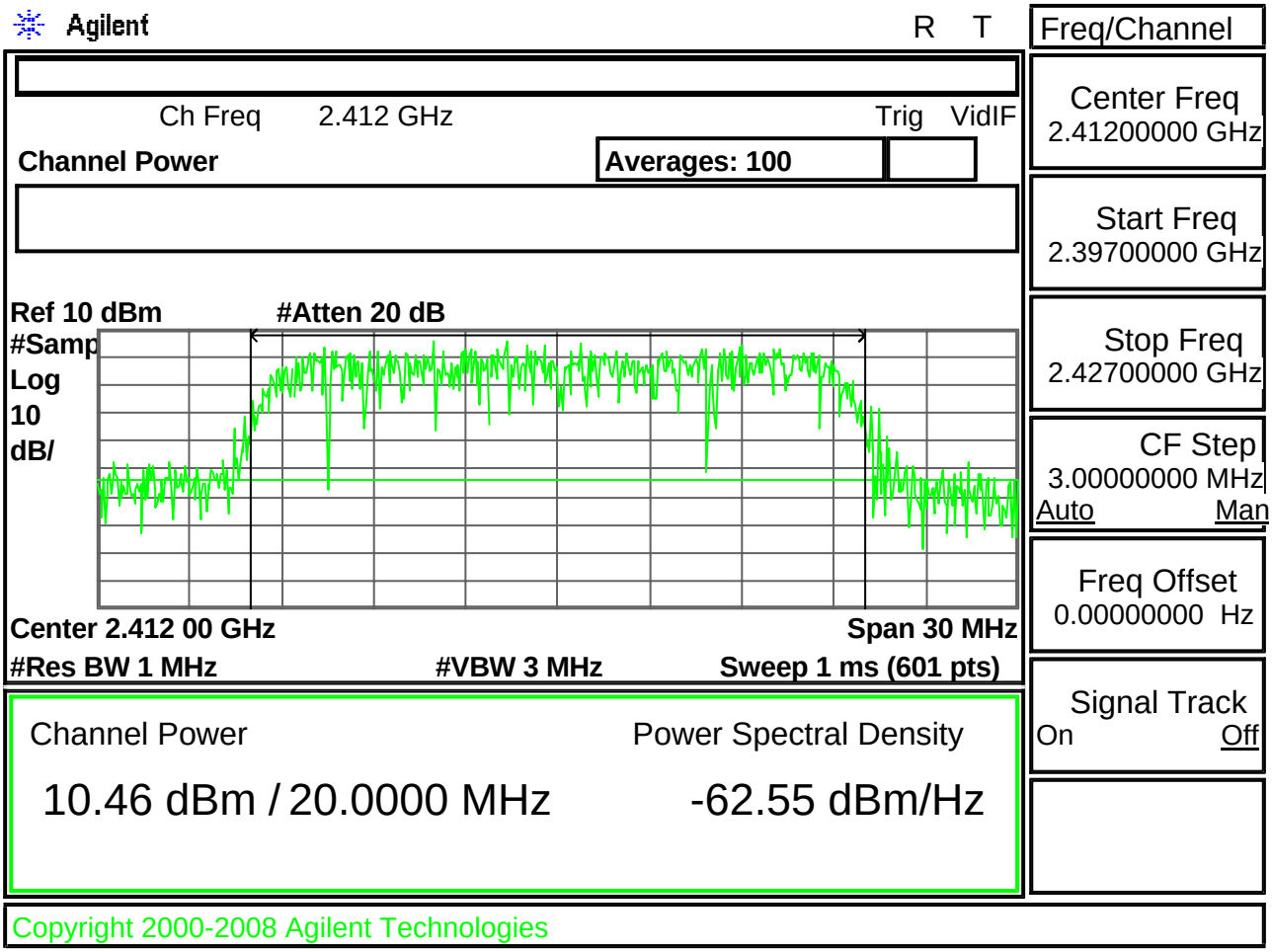
7.4.3 IEEE 802.11gn, HT20

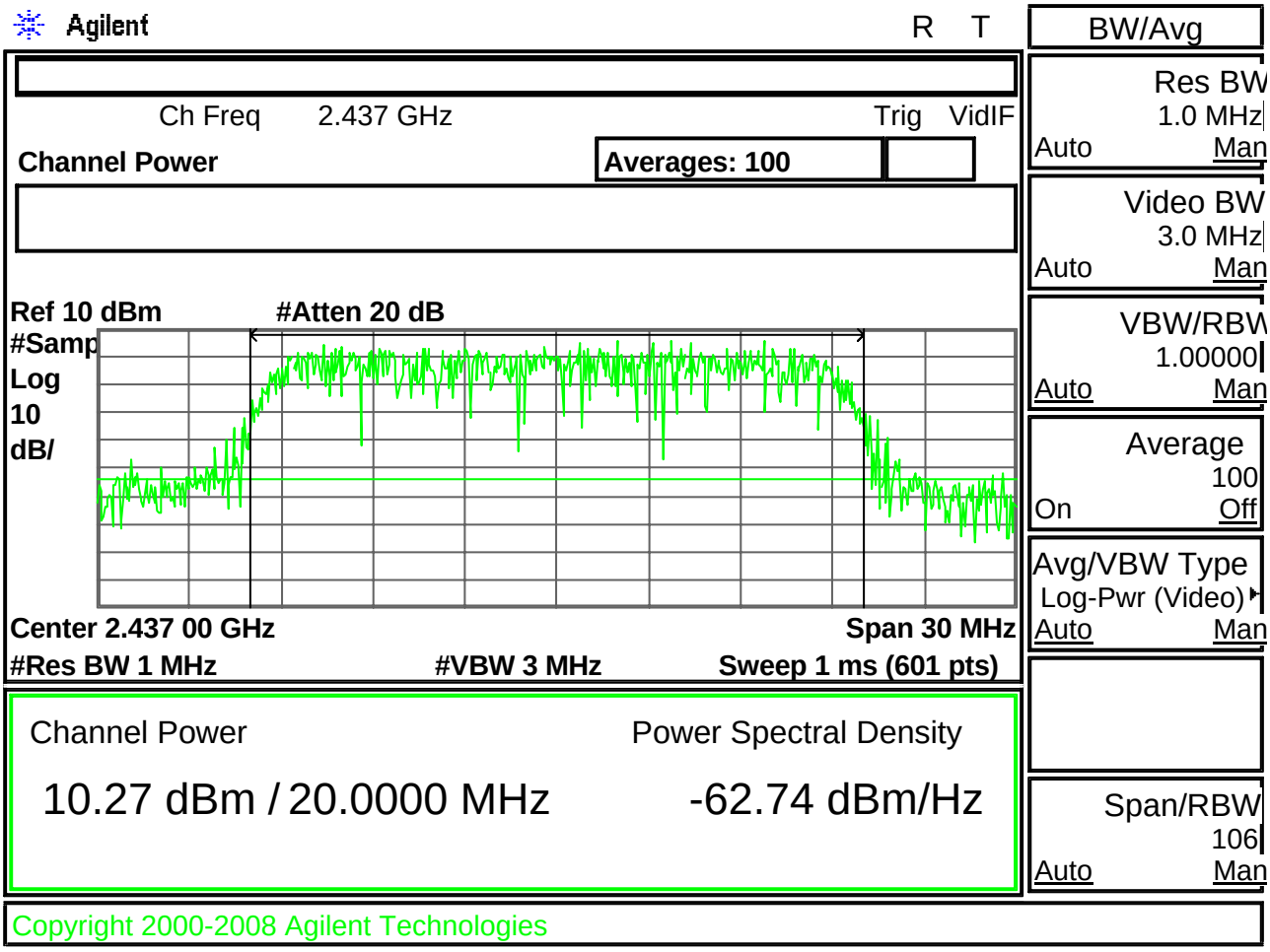
Test Date: Mar. 21, 2011 Temperature: 17℃ Humidity: 54%

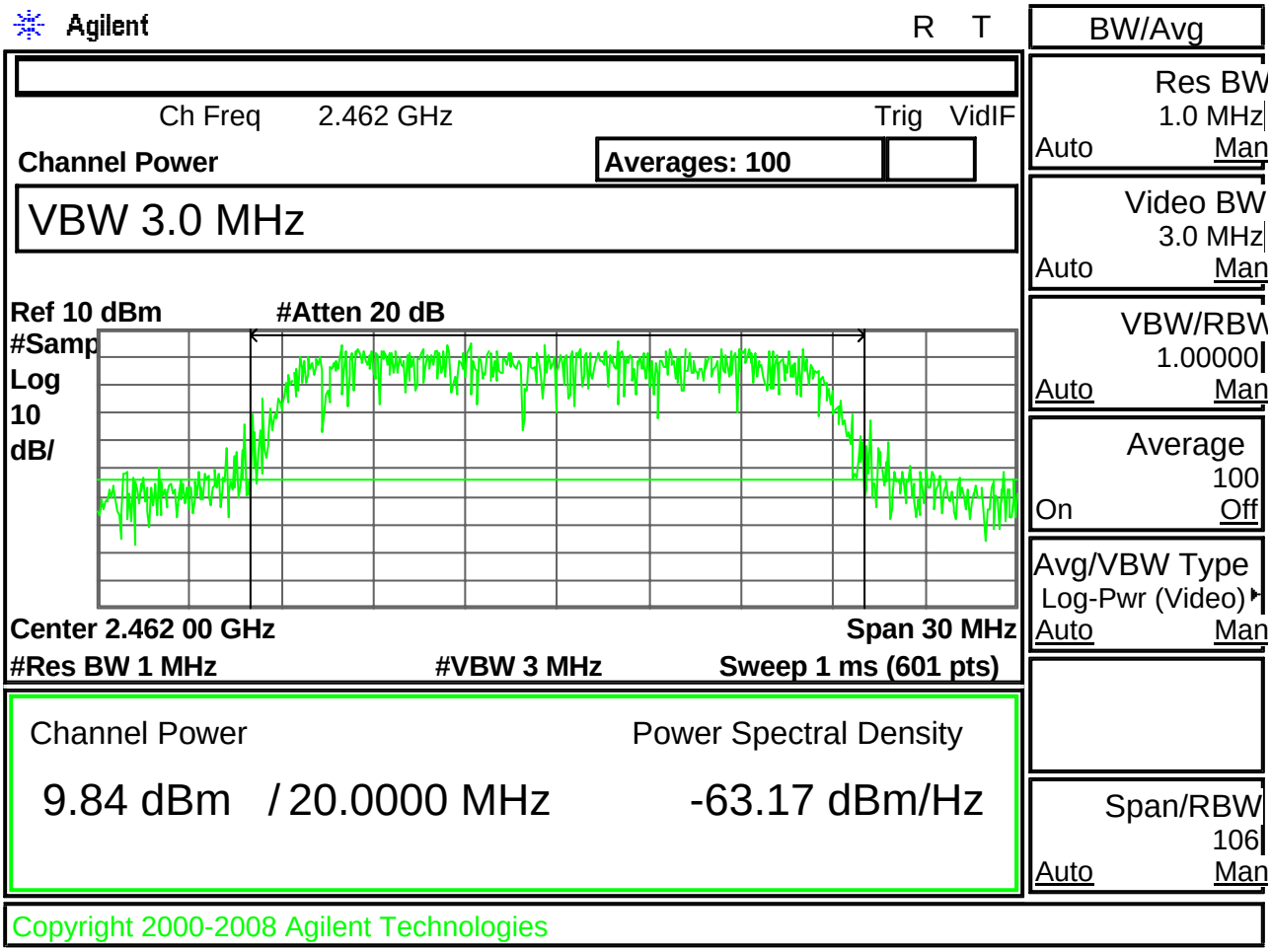
Channel	Frequency (MHz)	Maximum Peak Output Power (dBm)	Maximum Peak Output Power (mW)	FCC Limit (mW)	Chart
1	2412	10.46	11.117	1000	Page 78
6	2437	10.27	10.641	1000	Page 79
11	2462	9.84	9.638	1000	Page 80

Note:

1. Please refer to page 78 to page 80 for chart
2. The estimated measurement uncertainty of the result measurement is ±1.5dB(1GHz≦f≦18GHz)


Agilent
R T
Freq/Channel
Ch Freq 2.412 GHz
Trig VidIF
Channel Power
Averages: 100
Center Freq
2.41200000 GHz
Start Freq
2.39700000 GHz
Stop Freq
2.42700000 GHz
CF Step
3.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 2.412 00 GHz
Span 30 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
10.46 dBm / 20.0000 MHz
Power Spectral Density
-62.55 dBm/Hz
Copyright 2000-2008 Agilent Technologies


Agilent
R T
BW/Avg
Ch Freq 2.437 GHz
Trig VidIF
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
VBW/RBW
1.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Log-Pwr (Video)
Auto Man
Center 2.437 00 GHz
Span 30 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
10.27 dBm / 20.0000 MHz
Power Spectral Density
-62.74 dBm/Hz
Span/RBW
106
Auto Man
Copyright 2000-2008 Agilent Technologies


Agilent
R T
BW/Avg
Ch Freq 2.462 GHz
Trig VidIF
Channel Power
Averages: 100
VBW 3.0 MHz
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 2.462 00 GHz
Span 30 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
1.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Log-Pwr (Video)
Auto Man
Span/RBW
106
Auto Man
Channel Power
9.84 dBm / 20.0000 MHz
Power Spectral Density
-63.17 dBm/Hz
Copyright 2000-2008 Agilent Technologies

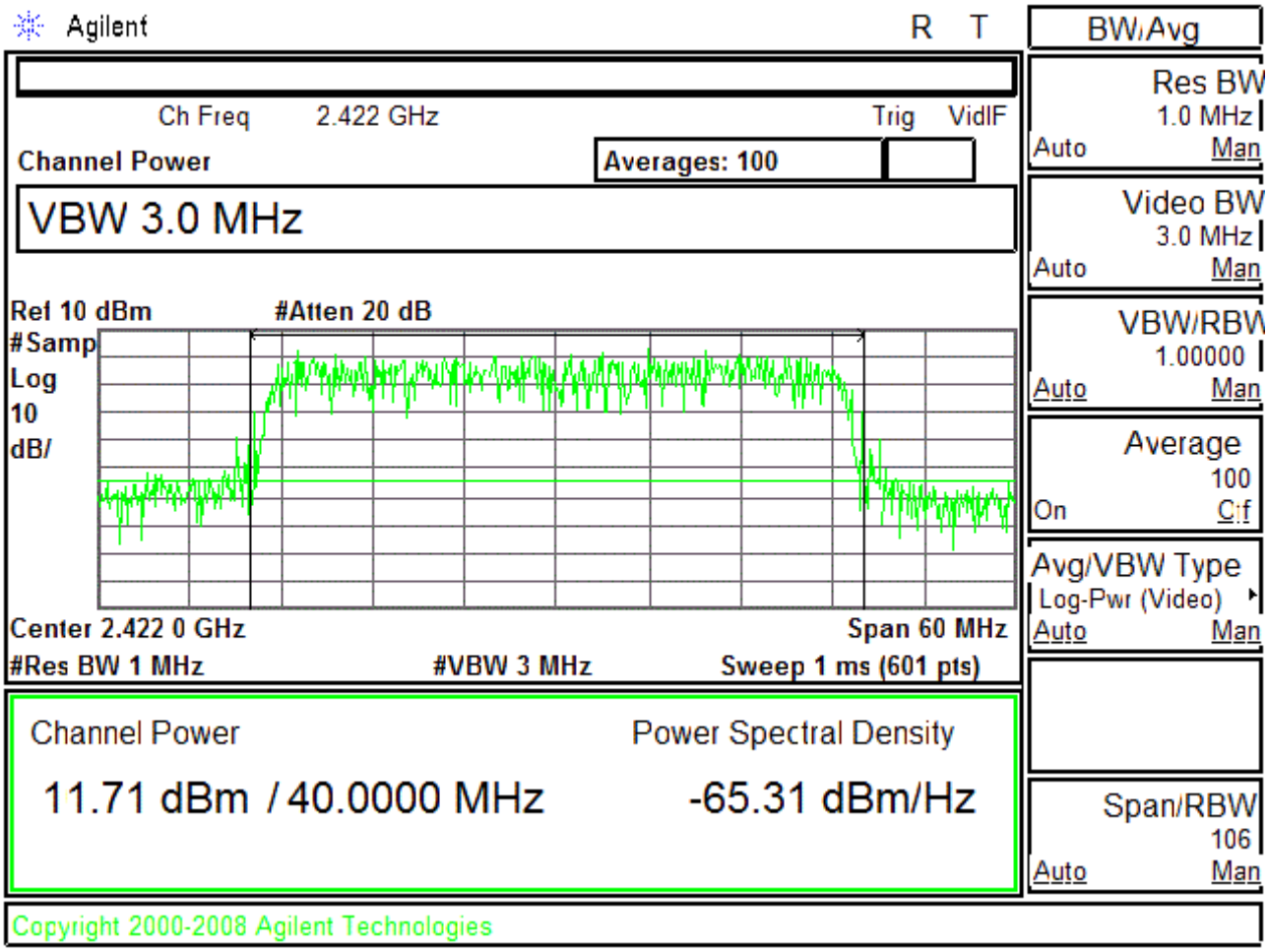
7.4.4 IEEE 802.11gn, HT40

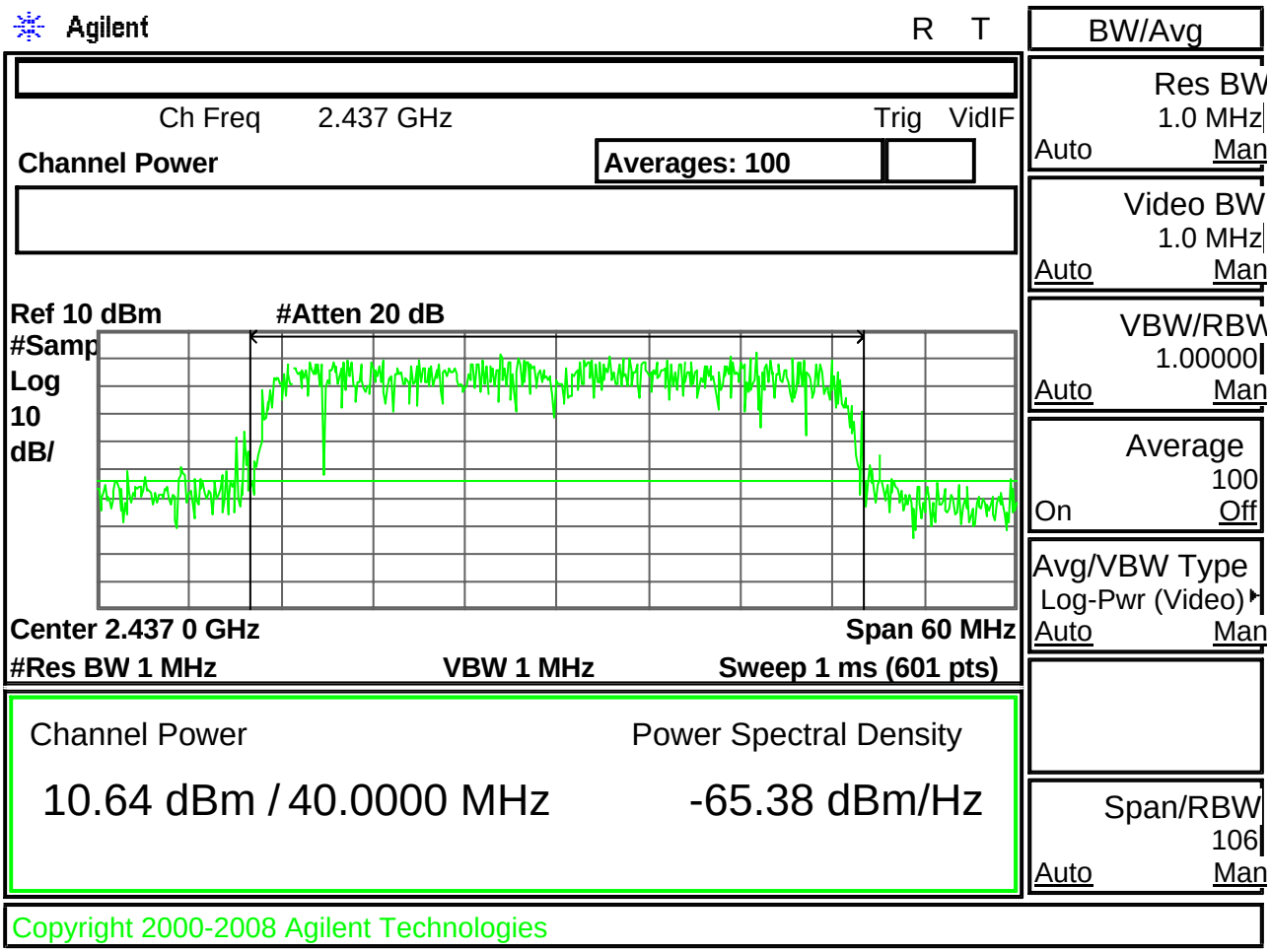
Test Date: Mar. 21, 2011 Temperature: 17℃ Humidity: 54%

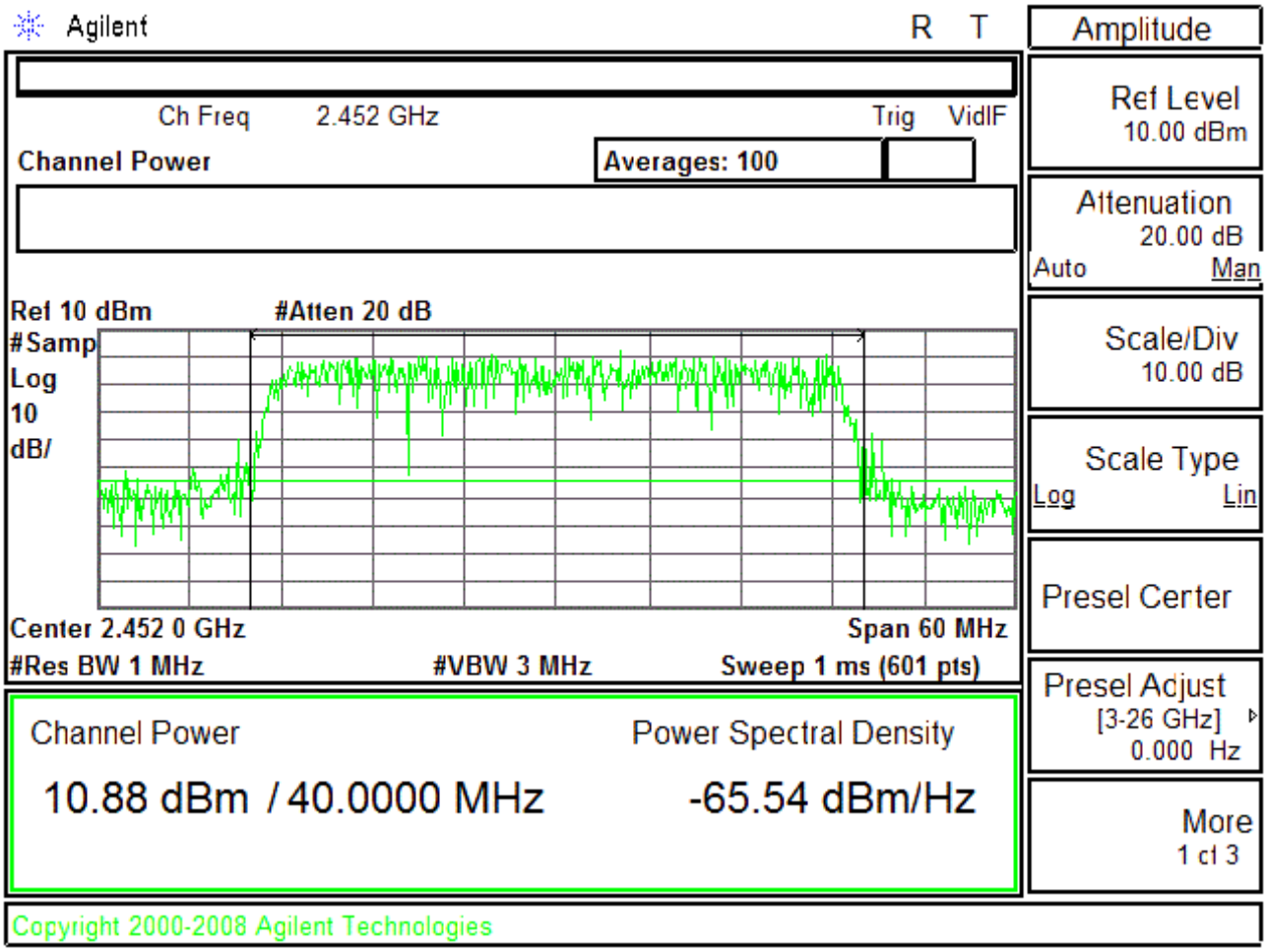
Channel	Frequency (MHz)	Maximum Peak Output Power (dBm)	Maximum Peak Output Power (mW)	FCC Limit (mW)	Chart
3	2422	11.71	14.825	1000	Page 82
6	2437	10.64	11.588	1000	Page 83
9	2452	10.88	12.246	1000	Page 84

Note:

1. Please refer to page 82 to page 84 for chart
2. The estimated measurement uncertainty of the result measurement is ±1.5dB(1GHz≦f≦18GHz)


Agilent
R T
BW/Avg
Ch Freq 2.422 GHz
Trig VidIF
Channel Power
Averages: 100
VBW 3.0 MHz
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 2.422 0 GHz
Span 60 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
11.71 dBm / 40.0000 MHz
Power Spectral Density
-65.31 dBm/Hz
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
1.00000
Auto Man
Average
100
On Cyf
Avg/VBW Type
Log-Pwr (Video)
Auto Man
Span/RBW
106
Auto Man
Copyright 2000-2008 Agilent Technologies


Agilent
R T
BW/Avg
Ch Freq 2.437 GHz
Trig VidIF
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
1.0 MHz
Auto Man
VBW/RBW
1.00000
Auto Man
Average
100
On Off
Avg/VBW Type
Log-Pwr (Video)
Auto Man
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 2.437 0 GHz
Span 60 MHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 1 ms (601 pts)
Channel Power
10.64 dBm / 40.0000 MHz
Power Spectral Density
-65.38 dBm/Hz
Span/RBW
106
Auto Man
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Amplitude
Ch Freq 2.452 GHz
Trig VidIF
Channel Power
Averages: 100
Ref Level
10.00 dBm
Attenuation
20.00 dB
Auto Man
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Scale/Div
10.00 dB
Scale Type
Log Lin
Presel Center
Center 2.452 0 GHz
Span 60 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Presel Adjust
[3-26 GHz]
0.000 Hz
Channel Power
10.88 dBm / 40.0000 MHz
Power Spectral Density
-65.54 dBm/Hz
More
1 of 3
Copyright 2000-2008 Agilent Technologies

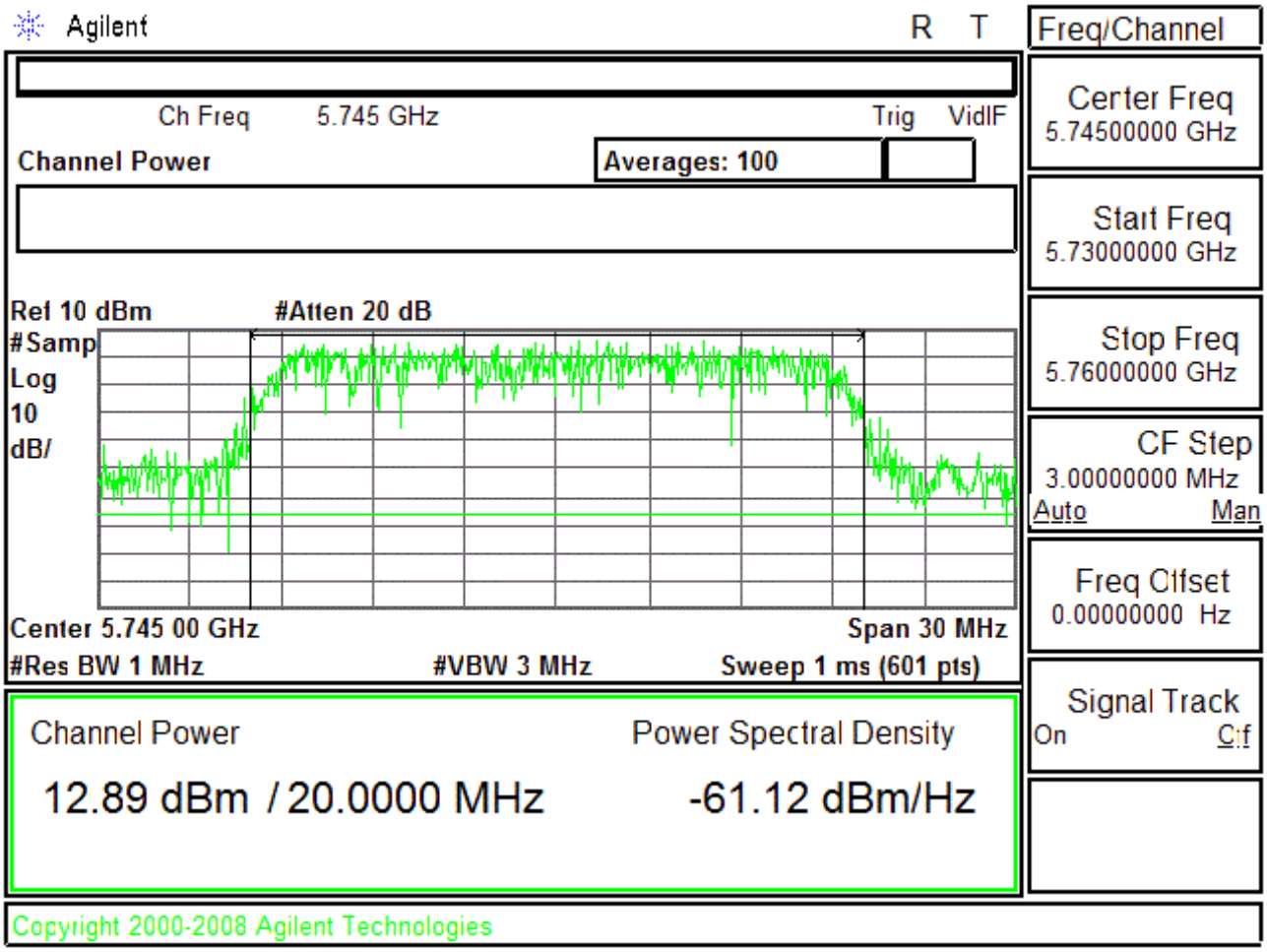
7.4.5 IEEE 802.11a

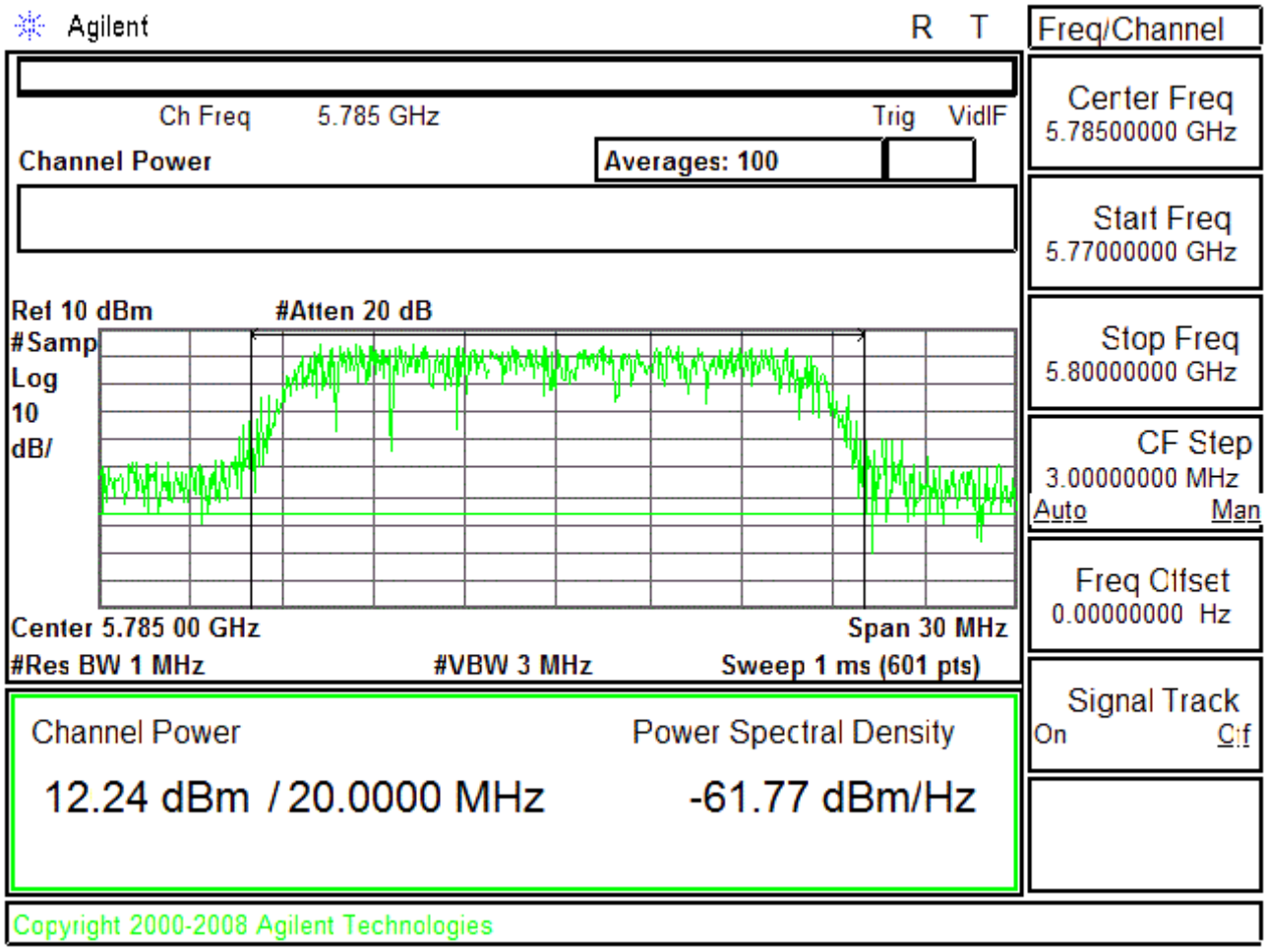
Test Date: Mar. 21, 2011 Temperature: 17℃ Humidity: 54%

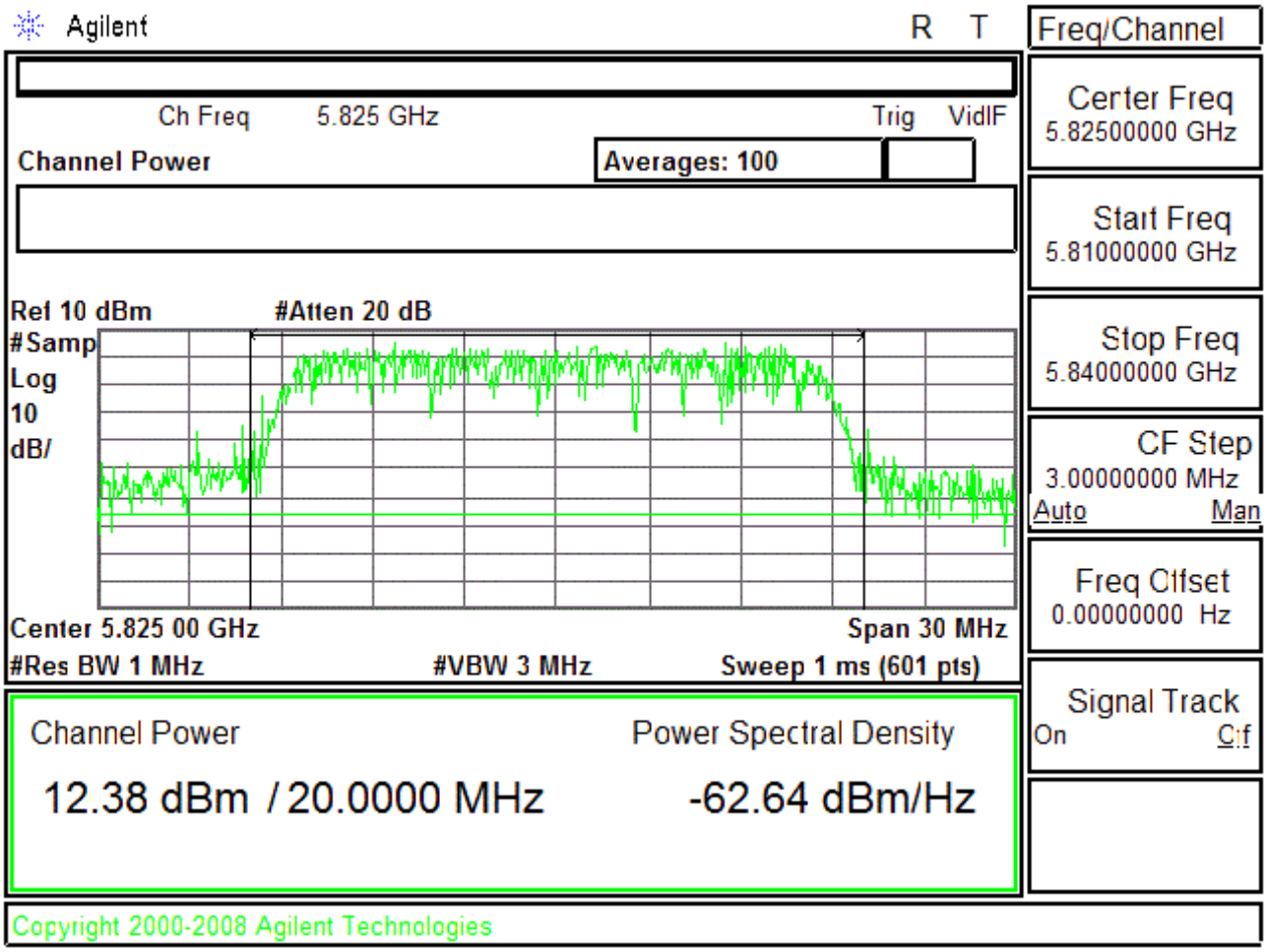
Channel	Frequency (MHz)	Maximum Peak Output Power (dBm)	Maximum Peak Output Power (mW)	FCC Limit (mW)	Chart
149	5745	12.89	19.454	1000	Page 86
157	5785	12.24	16.749	1000	Page 87
165	5825	12.38	17.298	1000	Page 88

Note:

1. Please refer to page 86 to page 88 for chart
2. The estimated measurement uncertainty of the result measurement is ±1.5dB(1GHz≦f≦18GHz)


Agilent
R T
Freq/Channel
Ch Freq 5.745 GHz
Trig VidIF
Channel Power
Averages: 100
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 5.745 00 GHz
Span 30 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
12.89 dBm / 20.0000 MHz
Power Spectral Density
-61.12 dBm/Hz
Center Freq
5.74500000 GHz
Start Freq
5.73000000 GHz
Stop Freq
5.76000000 GHz
CF Step
3.00000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 5.785 GHz
Trig VidIF
Channel Power
Averages: 100
Center Freq
5.78500000 GHz
Start Freq
5.77000000 GHz
Stop Freq
5.80000000 GHz
CF Step
3.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 5.785 00 GHz
Span 30 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
12.24 dBm / 20.0000 MHz
Power Spectral Density
-61.77 dBm/Hz
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 5.825 GHz
Trig VidIF
Channel Power
Averages: 100
Center Freq
5.82500000 GHz
Start Freq
5.81000000 GHz
Stop Freq
5.84000000 GHz
CF Step
3.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 5.825 00 GHz
Span 30 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
12.38 dBm / 20.0000 MHz
Power Spectral Density
-62.64 dBm/Hz
Copyright 2000-2008 Agilent Technologies

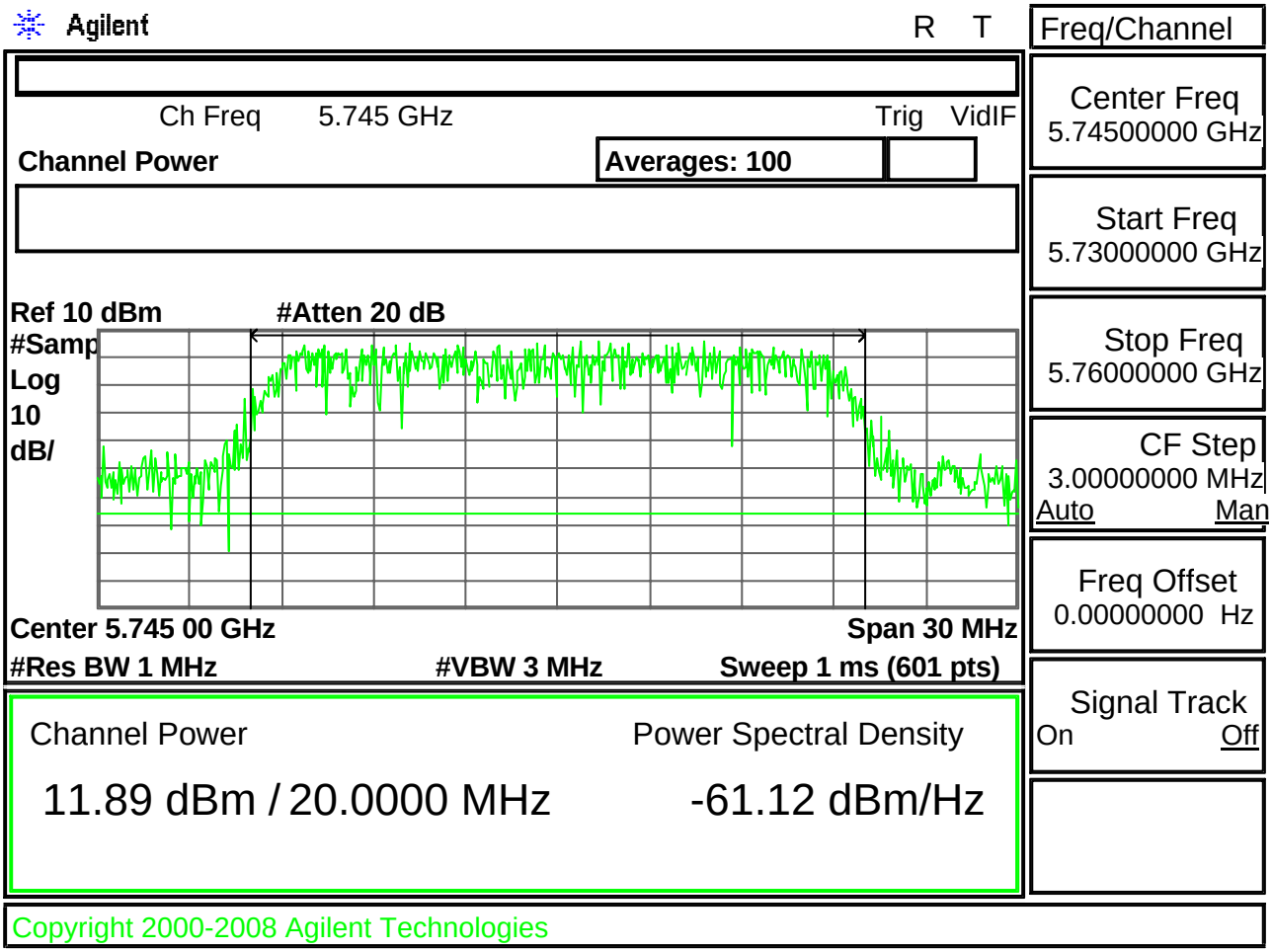
7.4.6 IEEE 802.11a, HT20

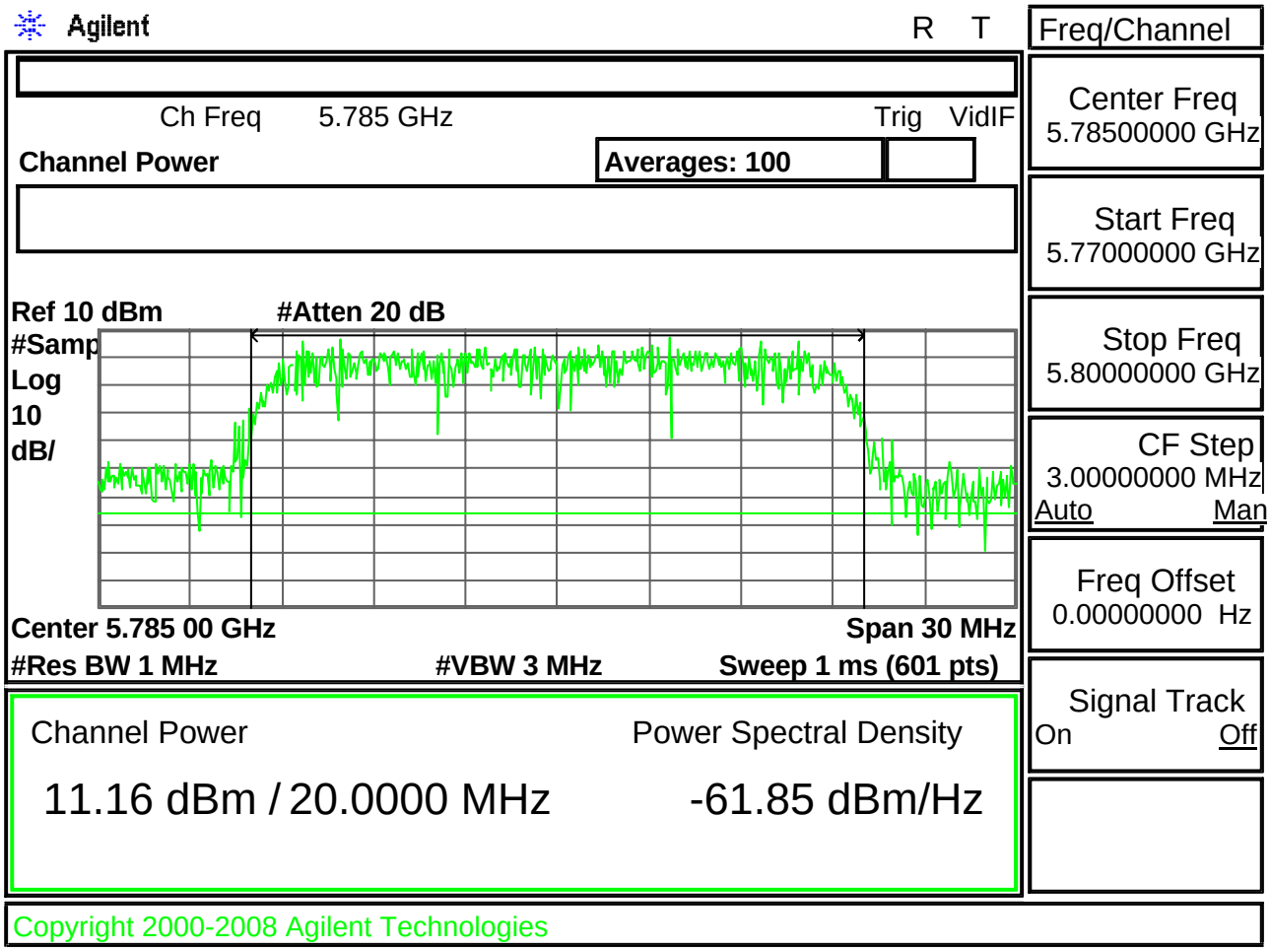
Test Date: Mar. 21, 2011 Temperature: 17℃ Humidity: 54%

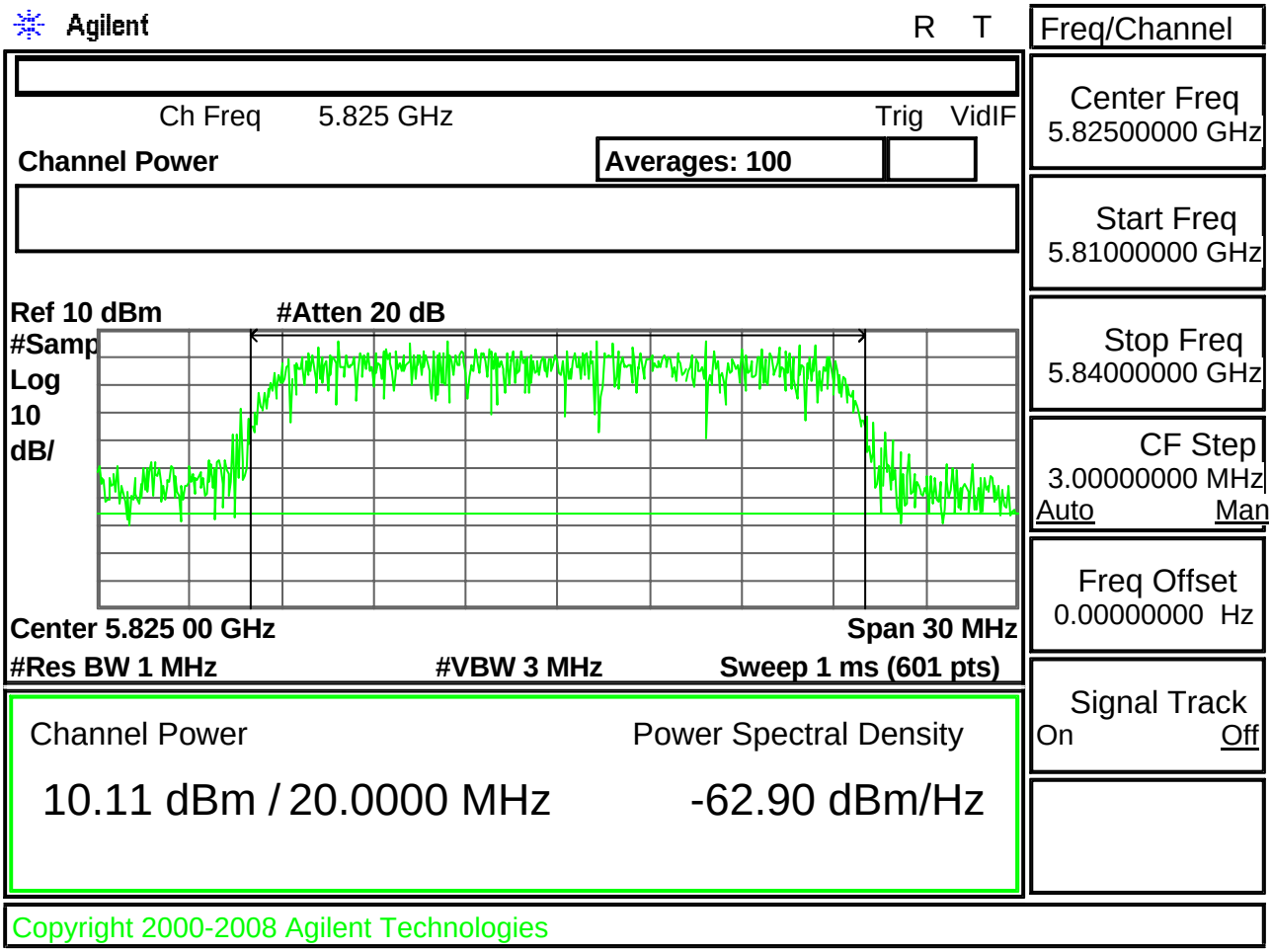
Channel	Frequency (MHz)	Maximum Peak Output Power (dBm)	Maximum Peak Output Power (mW)	FCC Limit (mW)	Chart
149	5745	11.89	15.453	1000	Page 90
157	5785	11.16	13.062	1000	Page 91
165	5825	10.11	10.257	1000	Page 92

Note:

1. Please refer to page 90 to page 92 for chart
2. The estimated measurement uncertainty of the result measurement is ±1.5dB(1GHz≦f≦18GHz)


Agilent
R T
Freq/Channel
Ch Freq 5.745 GHz
Trig VidIF
Channel Power
Averages: 100
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 5.745 00 GHz
Span 30 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
11.89 dBm / 20.0000 MHz
Power Spectral Density
-61.12 dBm/Hz
Center Freq
5.74500000 GHz
Start Freq
5.73000000 GHz
Stop Freq
5.76000000 GHz
CF Step
3.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 5.785 GHz
Trig VidIF
Channel Power
Averages: 100
Center Freq
5.78500000 GHz
Start Freq
5.77000000 GHz
Stop Freq
5.80000000 GHz
CF Step
3.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 5.785 00 GHz
Span 30 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
11.16 dBm / 20.0000 MHz
Power Spectral Density
-61.85 dBm/Hz
Copyright 2000-2008 Agilent Technologies


Agilent
R T
Freq/Channel
Ch Freq 5.825 GHz
Trig VidIF
Channel Power
Averages: 100
Center Freq
5.82500000 GHz
Start Freq
5.81000000 GHz
Stop Freq
5.84000000 GHz
CF Step
3.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 5.825 00 GHz
Span 30 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
10.11 dBm / 20.0000 MHz
Power Spectral Density
-62.90 dBm/Hz
Copyright 2000-2008 Agilent Technologies

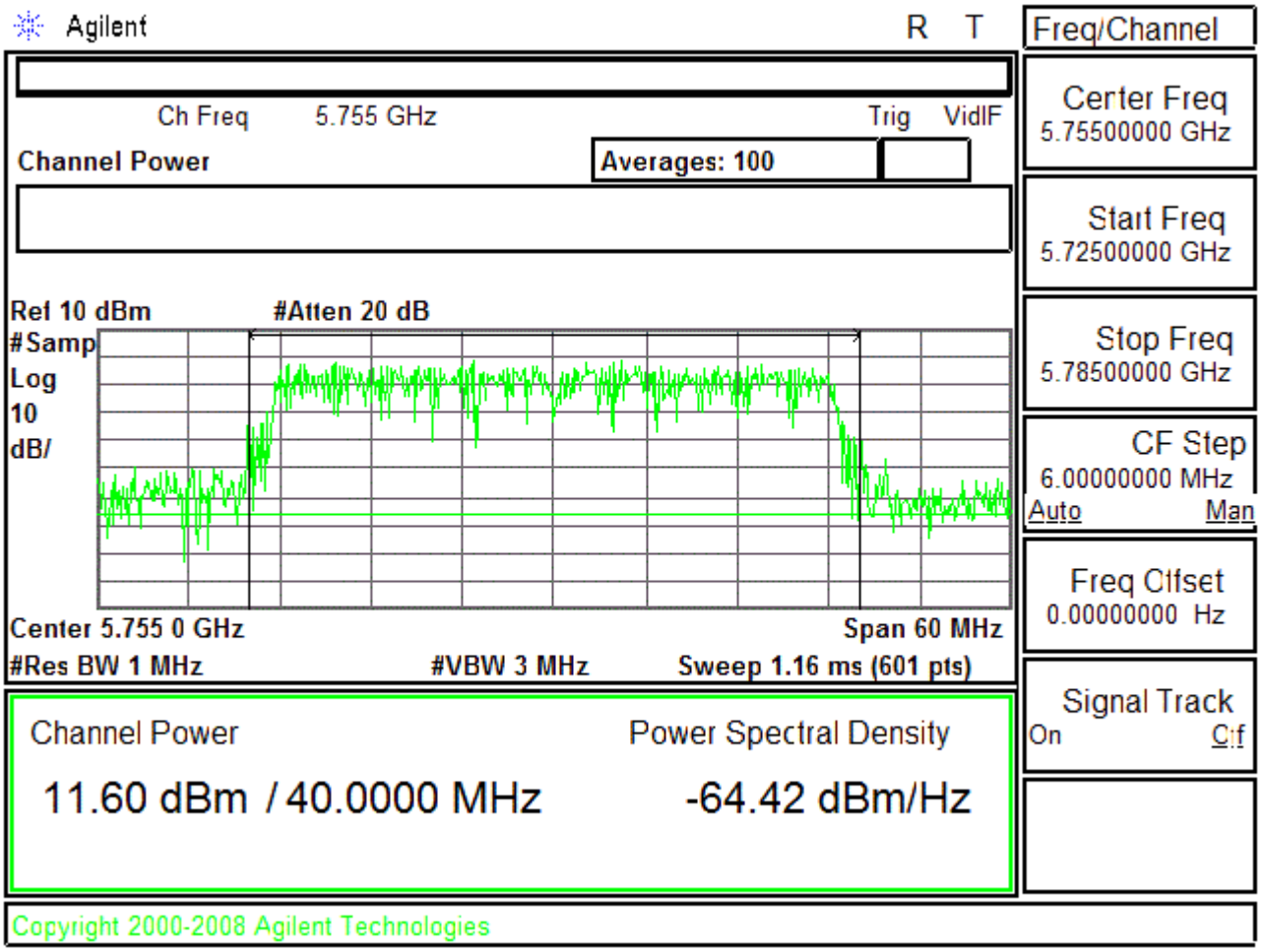
7.4.7 IEEE 802.11a, HT40

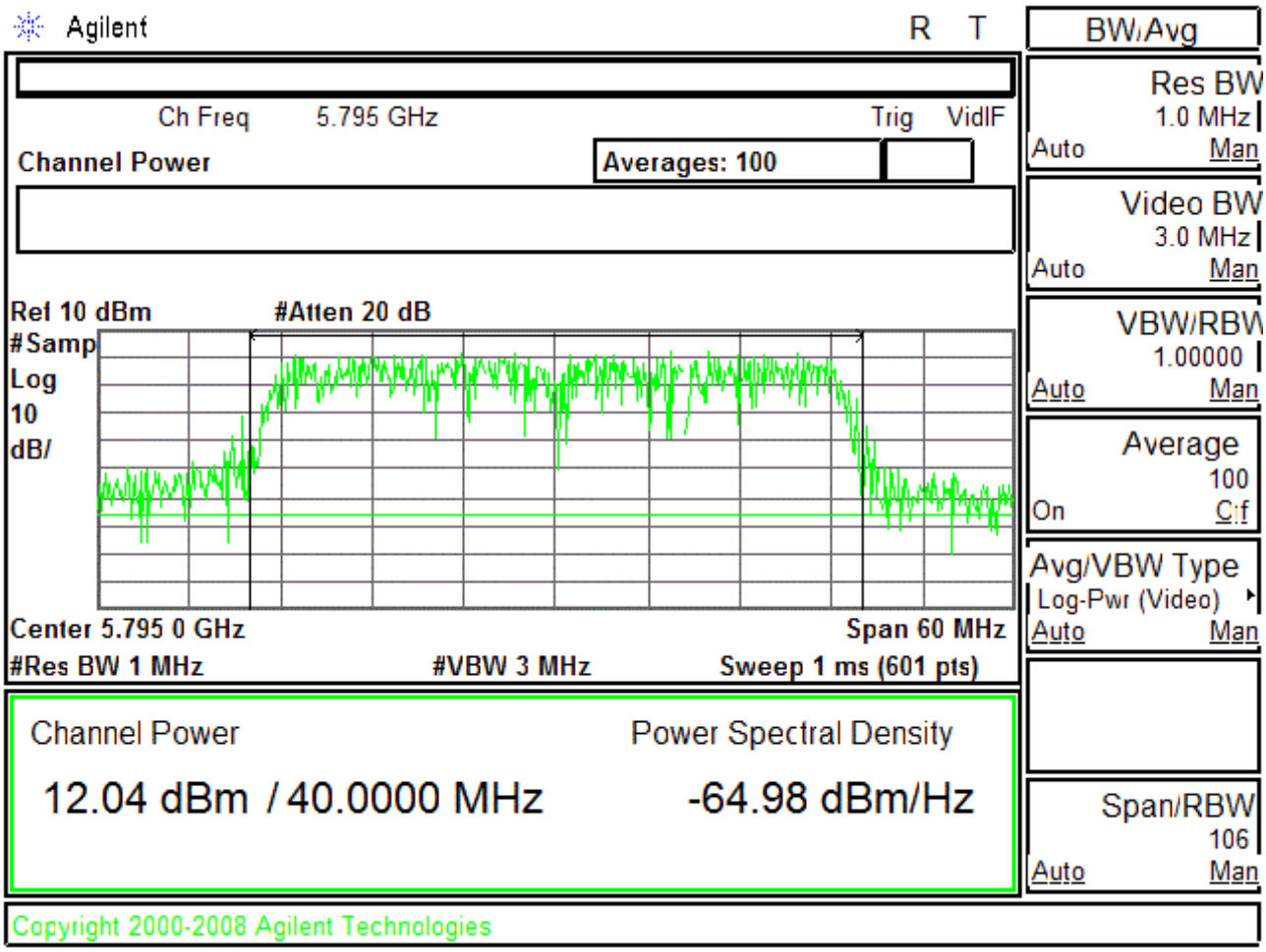
Test Date: Mar. 21, 2011 Temperature: 17°C Humidity: 54%

Channel	Frequency (MHz)	Maximum Peak Output Power (dBm)	Maximum Peak Output Power (mW)	FCC Limit (mW)	Chart
151	5755	11.60	14.454	1000	Page 94
159	5795	11.04	12.706	1000	Page 95

Note:

1. Please refer to page 94 to page 95 for chart
2. The estimated measurement uncertainty of the result measurement is ±1.5dB(1GHz≦f≦18GHz)


Agilent
R T
Freq/Channel
Ch Freq 5.755 GHz
Trig VidIF
Channel Power
Averages: 100
Center Freq
5.75500000 GHz
Start Freq
5.72500000 GHz
Stop Freq
5.78500000 GHz
CF Step
6.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 5.755 0 GHz
Span 60 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1.16 ms (601 pts)
Channel Power
11.60 dBm / 40.0000 MHz
Power Spectral Density
-64.42 dBm/Hz
Copyright 2000-2008 Agilent Technologies


Agilent
R T
BW/Avg
Ch Freq 5.795 GHz
Trig VidIF
Channel Power
Averages: 100
Res BW
1.0 MHz
Auto Man
Video BW
3.0 MHz
Auto Man
VBW/RBW
1.00000
Auto Man
Average
100
On C:f
Avg/VBW Type
Log-Pwr (Video)
Auto Man
Ref 10 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Center 5.795 0 GHz
Span 60 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Channel Power
12.04 dBm / 40.0000 MHz
Power Spectral Density
-64.98 dBm/Hz
Span/RBW
106
Auto Man
Copyright 2000-2008 Agilent Technologies

8 POWER DENSITY MEASUREMENT

8.1 Standard Applicable

According to 15.247(e), for direct sequence systems, the transmitted power density averaged over any 1 second interval shall not be greater than 8 dBm in any 3 kHz bandwidth within these bands.

8.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT as shown in figure 2. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set EUT to any one measured frequency within its operating range and make sure the instrument is operated in its linear range.
3. Adjust the center frequency of spectrum analyzer on highest level appearing on spectral display within a 300 kHz frequency span.
4. Set the spectrum analyzer on a 3 kHz resolution bandwidth and 10 kHz video bandwidth as well as max. hold function, then record the measurement result.
5. Repeat above procedures until all measured frequencies were complete.

8.3 Measurement Equipment

Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Agilent	E4446A	09/26/2011

8.4 Measurement Data

8.4.1 IEEE 802.11b

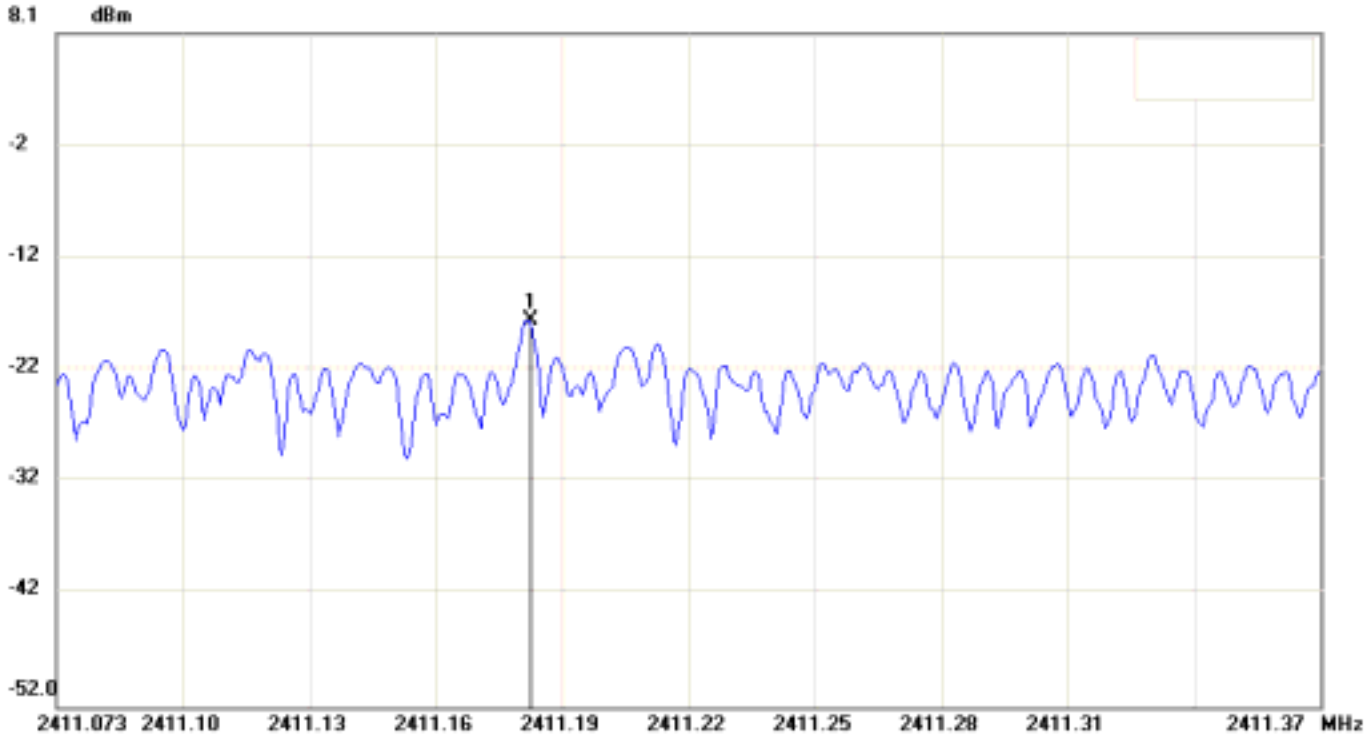
Test Date: Dec. 24, 2010 Temperature: 20℃ Humidity: 56%

Channel	Frequency (MHz)	Peak Power Spectral Density (dBm)	FCC Limit (dBm)	Chart
1	2412	-17.59	8	Page 98
6	2437	-18.61	8	Page 99
11	2462	-18.80	8	Page 100

Note:

1. *Please refer to page 98 to page 100 for chart*
2. *The estimated measurement uncertainty of the result measurement is ±1.5dB(1GHz≦f≦ 18GHz)*

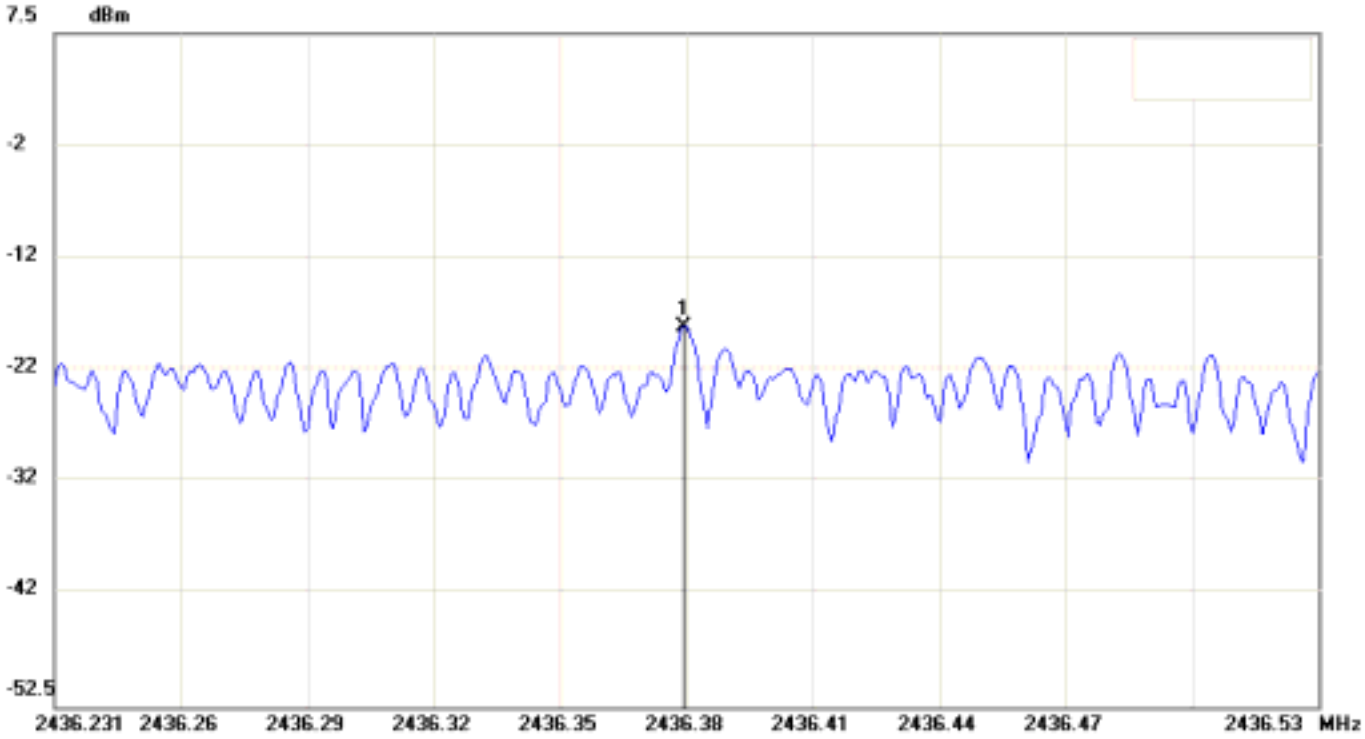
File: openpeak abgn Data: #4 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:12:11 **Humidity: 56 %**



Condition: **RF Conducted**
EUT: **Sweep Time: 100000ms Att.: 10dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11b Channel 01-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	2411.18540	-17.59

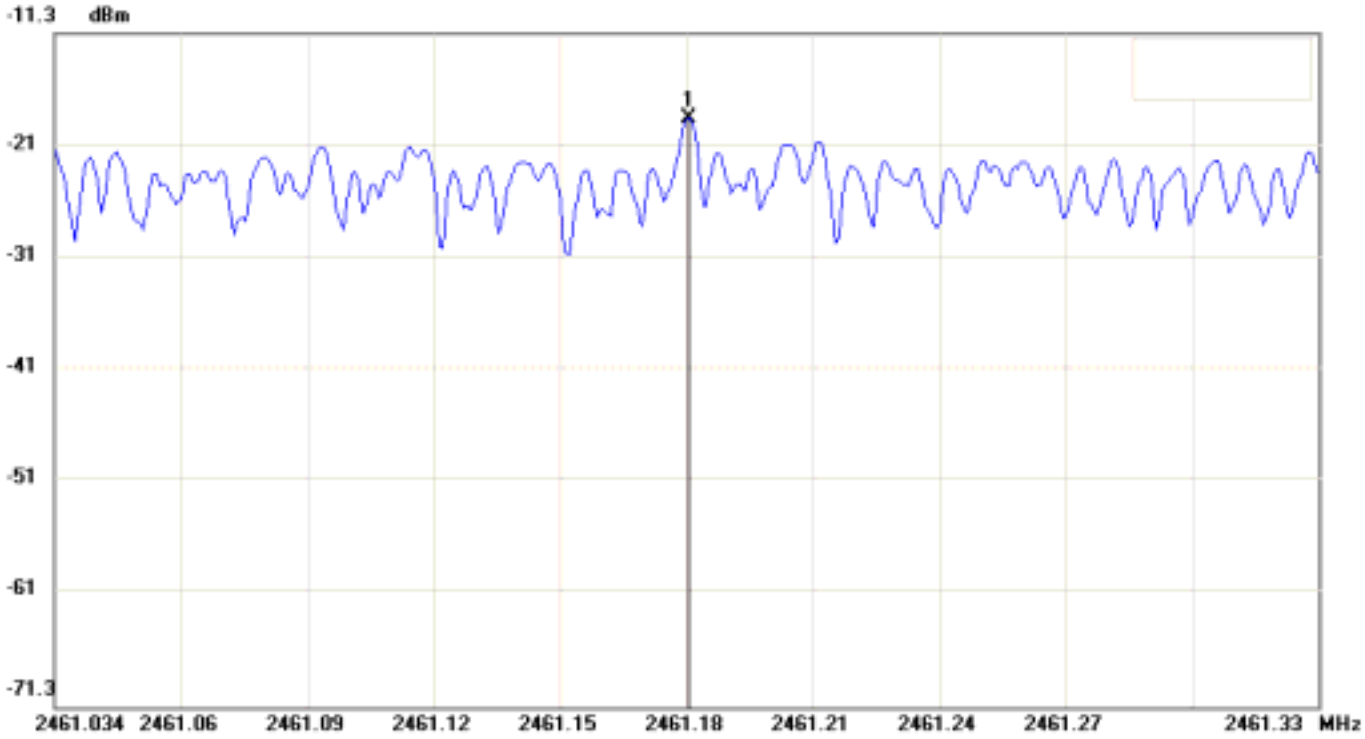
File: openpeak abgn Data: #9 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:19:44 **Humidity: 56 %**



Condition: **RF Conducted**
EUT: **Sweep Time: 100000ms Att.: 10dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11b Channel 06-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	2436.38090	-18.61

File: openpeak abgn Data: #13 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:27:30 **Humidity: 56 %**



Condition: **RF Conducted**
EUT: **Sweep Time: 100000ms Att.: 10dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11b Channel 11-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	2461.18470	-18.80

8.4.2 IEEE 802.11g

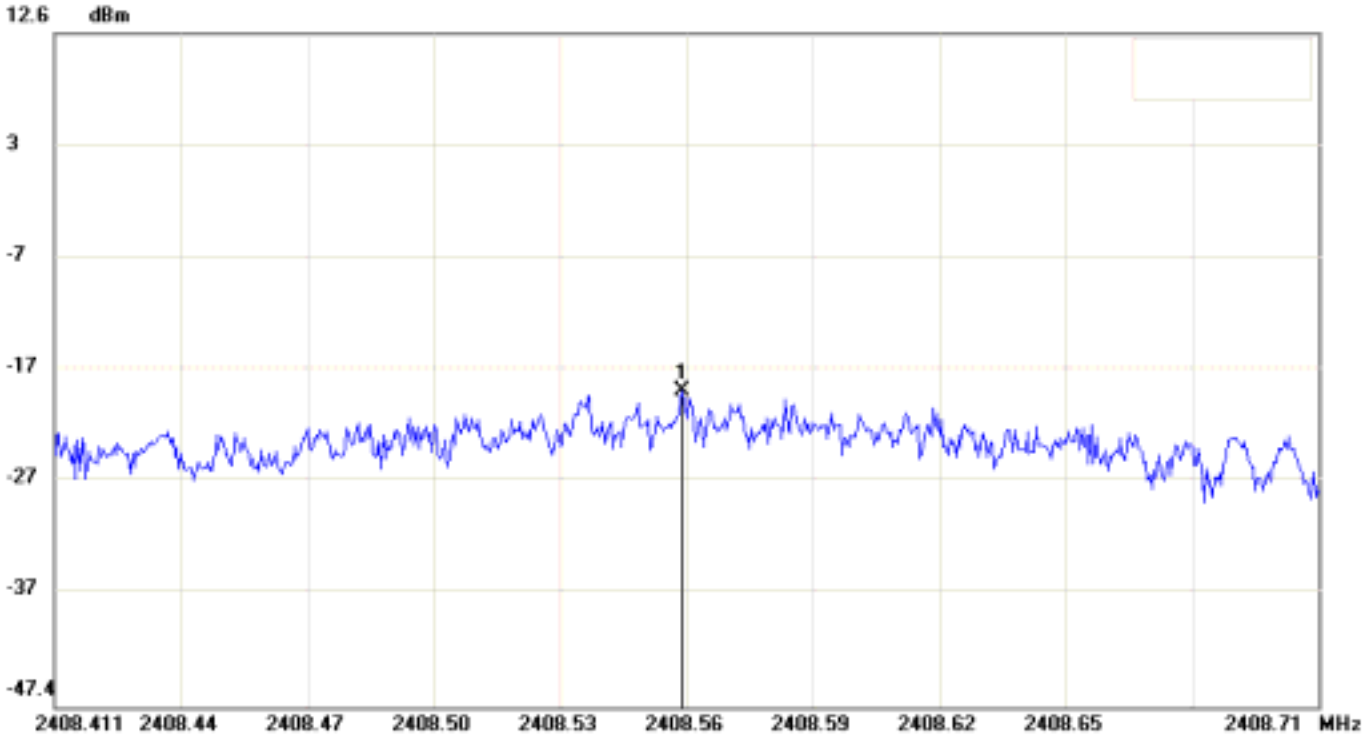
Test Date: Dec. 24, 2010 Temperature: 20℃ Humidity: 56%

Channel	Frequency (MHz)	Peak Power Spectral Density (dBm)	FCC Limit (dBm)	Chart
1	2412	-19.33	8	Page 102
6	2437	-19.77	8	Page 103
11	2462	-20.55	8	Page 104

Note:

1. *Please refer to page 102 to page 104 for chart*
2. *The estimated measurement uncertainty of the result measurement is ±1.5dB(1GHz≦f≦ 18GHz)*

File: openpeak abgn Data: #19 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:43:07 **Humidity: 56 %**



Condition: **RF Conducted**
EUT: **Sweep Time: 100000ms Att.: 20dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11g Channel 01-Power Density (PK)**

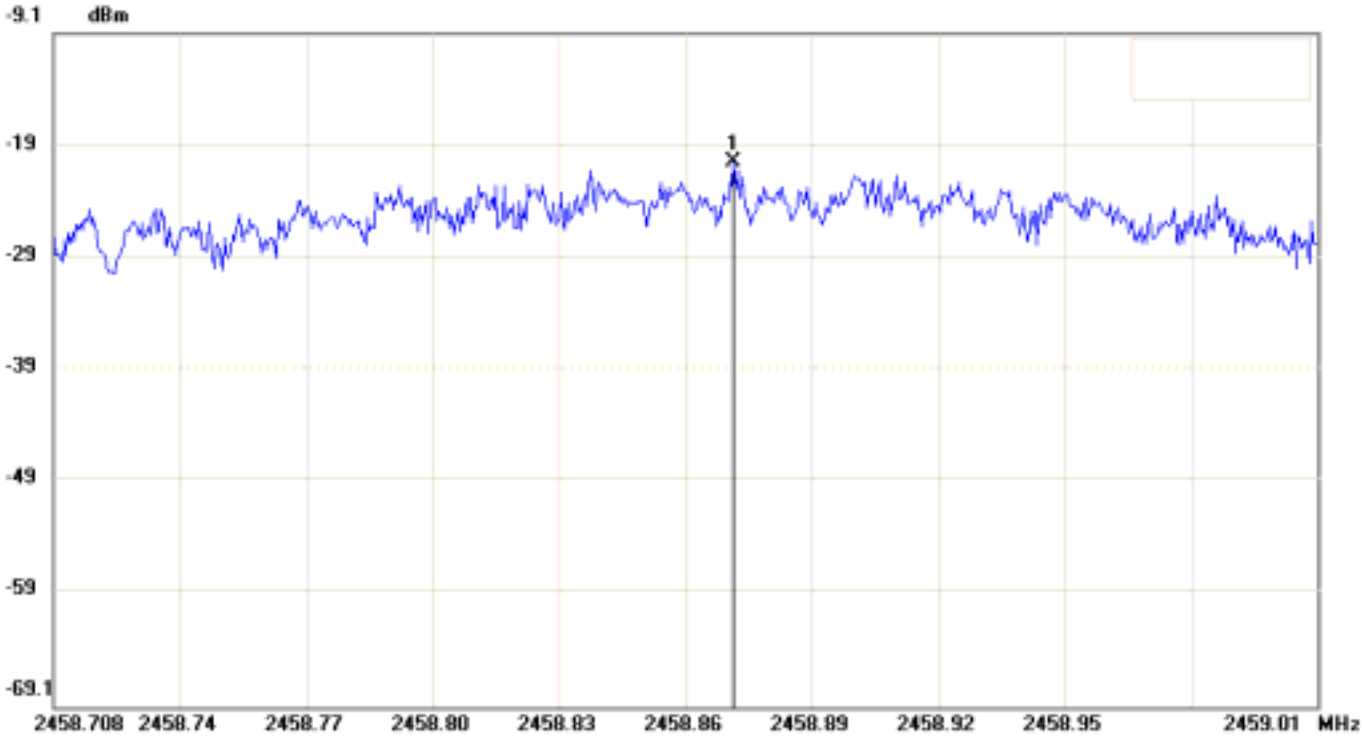
No.	Frequency(MHz)	Level(dBm)
1	2408.55960	-19.33

File: openpeak abgn Data: #24 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:50:54 **Humidity: 56 %**

Condition: **RF Conducted**
EUT: **Sweep Time: 100000ms Att.: 20dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11g Channel 06-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	2433.56070	-19.77

File: openpeak abgn Data: #28 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:58:23 **Humidity: 56 %**



Condition: **RF Conducted**
EUT: **Sweep Time: 100000ms Att.: 10dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11g Channel 11-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	2458.86990	-20.55

8.4.3 IEEE 802.11gn, HT20

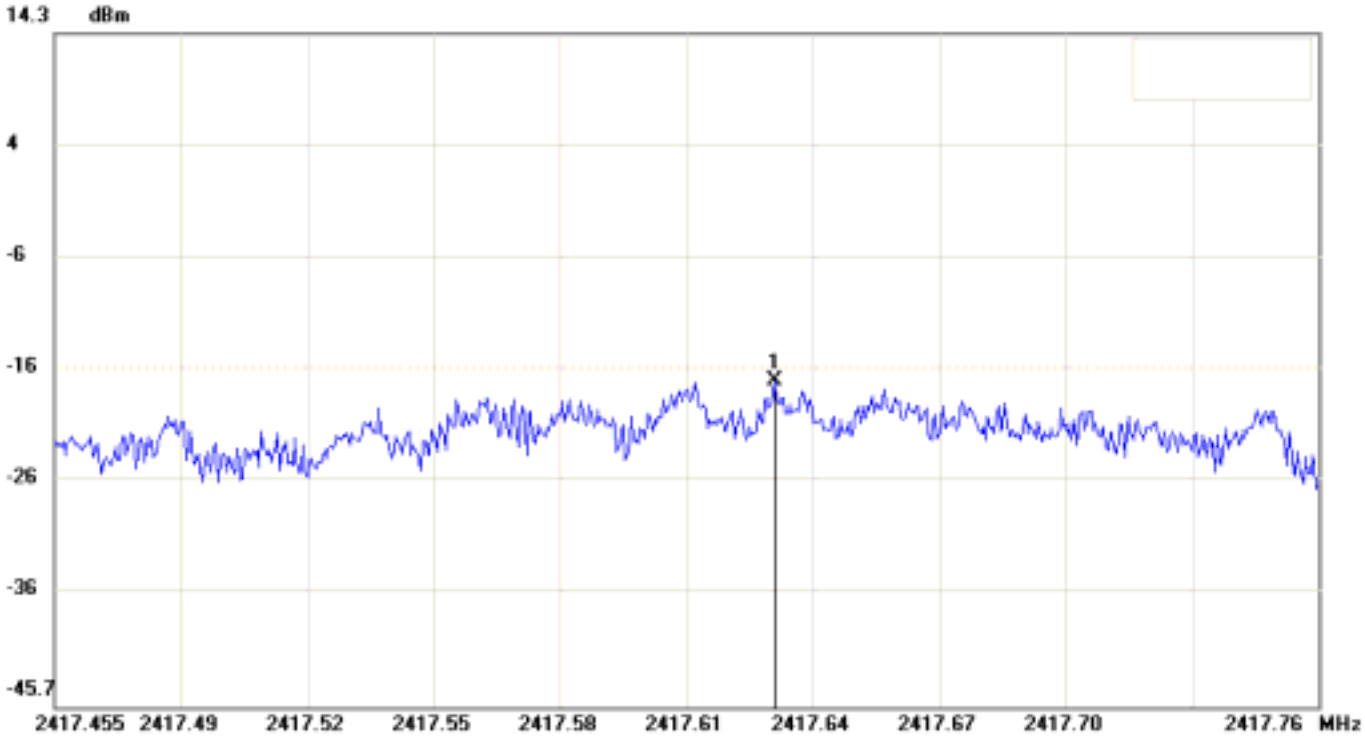
Test Date: Mar. 21, 2011 Temperature: 17℃ Humidity: 54%

Channel	Frequency (MHz)	Peak Power Spectral Density (dBm)	FCC Limit (dBm)	Chart
1	2412	-16.70	8	Page 106
6	2437	-15.67	8	Page 107
11	2462	-14.66	8	Page 108

Note:

1. *Please refer to page 106 to page 108 for chart*
2. *The estimated measurement uncertainty of the result measurement is ±1.5dB(1GHz≦f≦ 18GHz)*

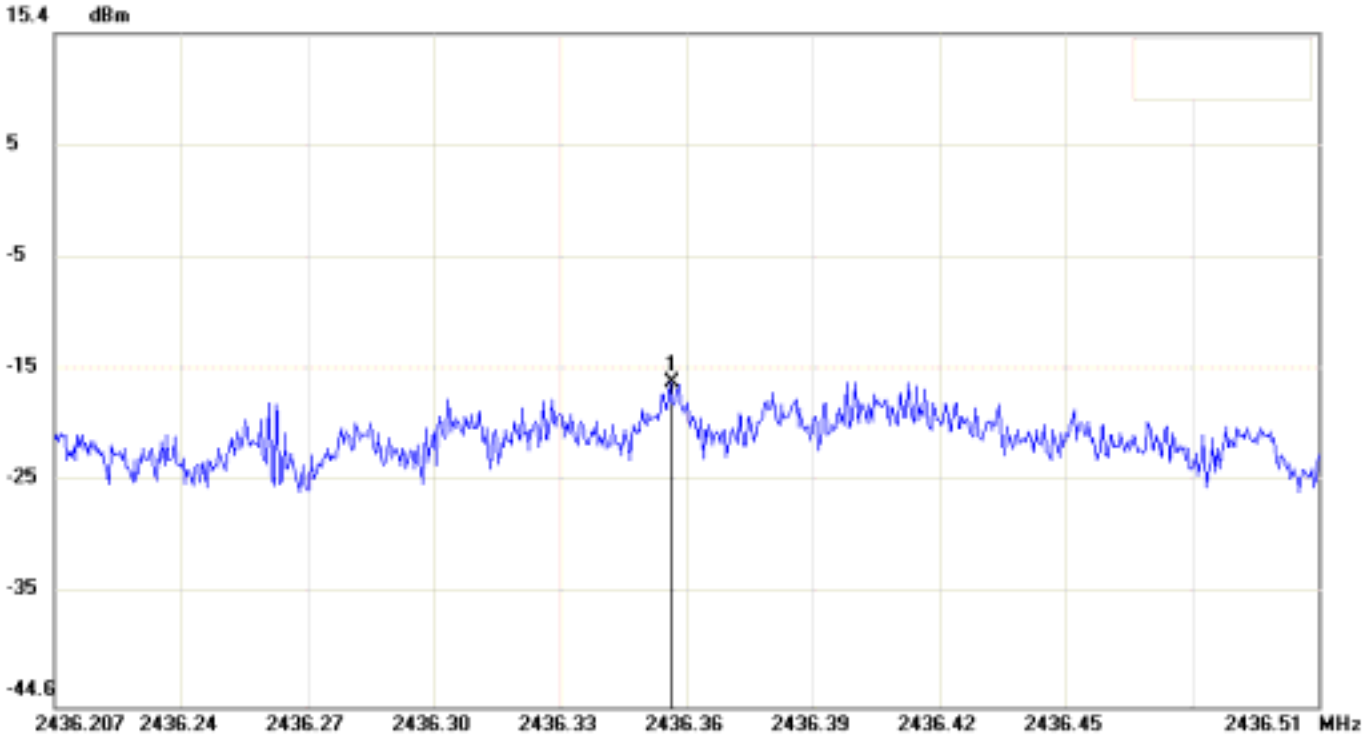
File: cisco **Data: #4** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 09:24:14 **Humidity: 54 %**



Condition: **Horizontal**
EUT: **Sweep Time: 100000ms Att.: 20dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11gn_HT20 Channel 01-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	2417.62600	-16.70

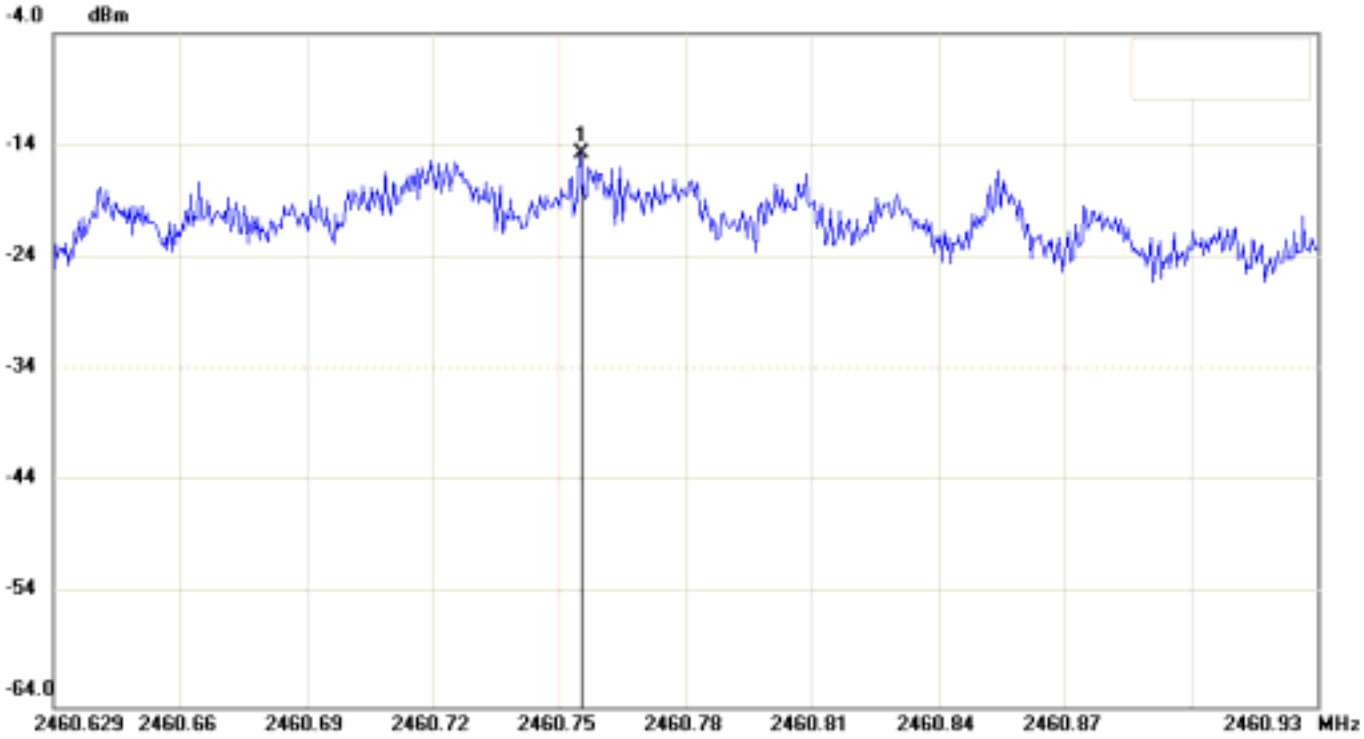
File: cisco **Data: #9** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 09:30:36 **Humidity: 54 %**



Condition: **Horizontal**
EUT: **Sweep Time: 100000ms Att.: 20dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11gn_HT20 Channel 06-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	2436.35340	-15.67

File: cisco **Data: #13** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 09:36:36 **Humidity: 54 %**



Condition: **Horizontal**
EUT: **Sweep Time: 100000ms Att.: 10dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11gn_HT20 Channel 11-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	2460.75380	-14.66

8.4.4 IEEE 802.11gn, HT40

Test Date: Dec. 24, 2010 Temperature: 20℃ Humidity: 56%

Channel	Frequency (MHz)	Peak Power Spectral Density (dBm)	FCC Limit (dBm)	Chart
3	2422	-22.27	8	Page 110
6	2437	-20.30	8	Page 111
9	2452	-21.66	8	Page 112

Note:

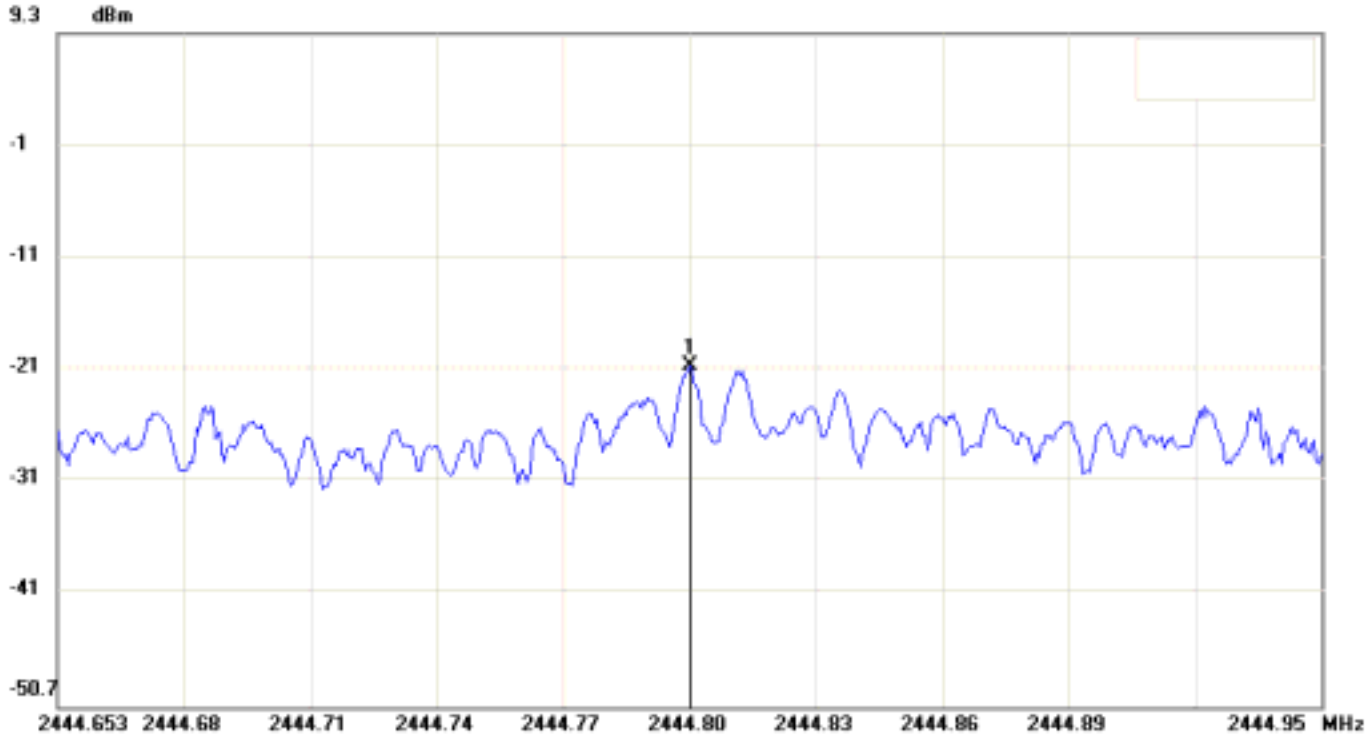
1. *Please refer to page 110 to page 112 for chart*
2. *The estimated measurement uncertainty of the result measurement is ±1.5dB(1GHz≦f≦ 18GHz)*

File: openpeak abgn Data: #47 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: PM 01:11:35 **Humidity: 56 %**

Condition: **RF Conducted**
EUT: **Sweep Time: 100000ms Att.: 10dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11gn_HT40 Channel 03-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	2428.22070	-22.27

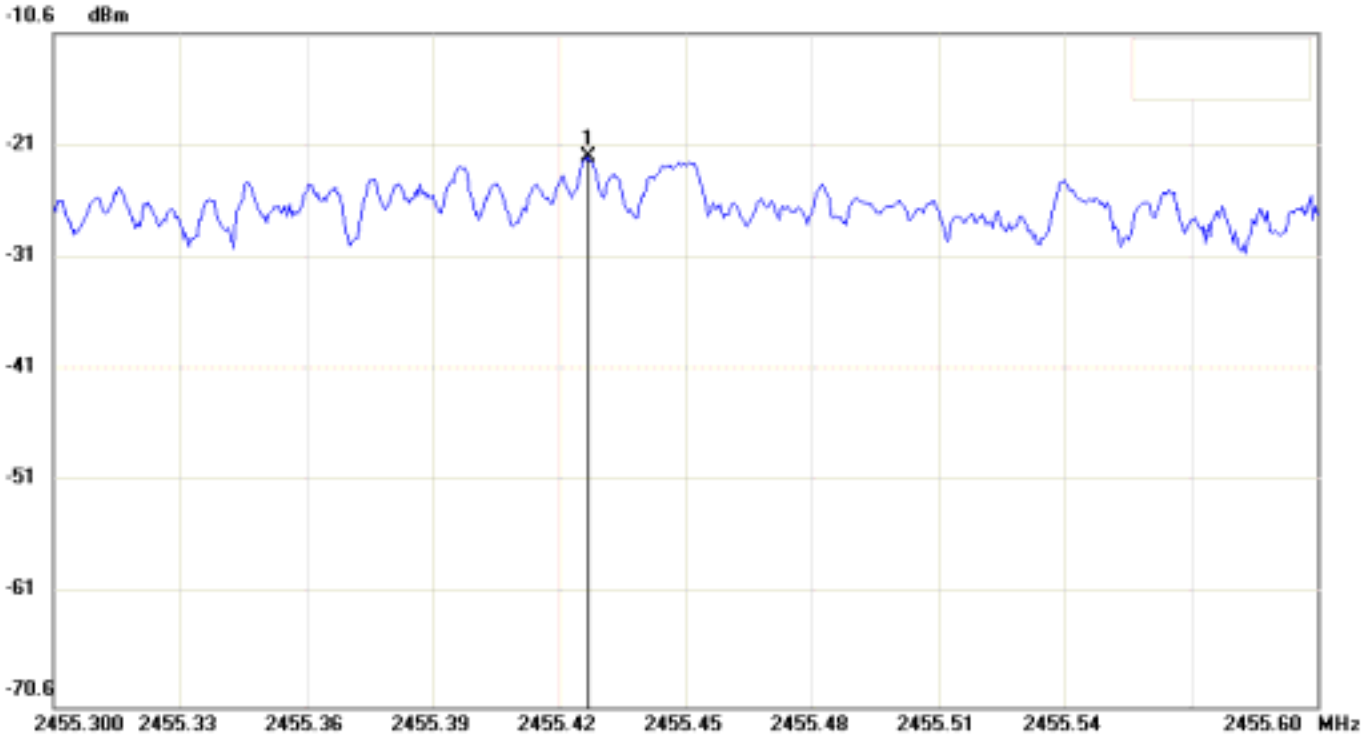
File: openpeak abgn Data: #52 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: PM 01:20:57 **Humidity: 56 %**



Condition: **RF Conducted**
EUT: **Sweep Time: 100000ms Att.: 10dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11gn_HT40 Channel 06-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	2444.80270	-20.30

File: openpeak abgn Data: #56 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: PM 01:54:38 **Humidity: 56 %**



Condition: **RF Conducted**
EUT: **Sweep Time: 100000ms Att.: 10dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11gn_HT40 Channel 09-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	2455.42660	-21.66

8.4.5 IEEE 802.11a

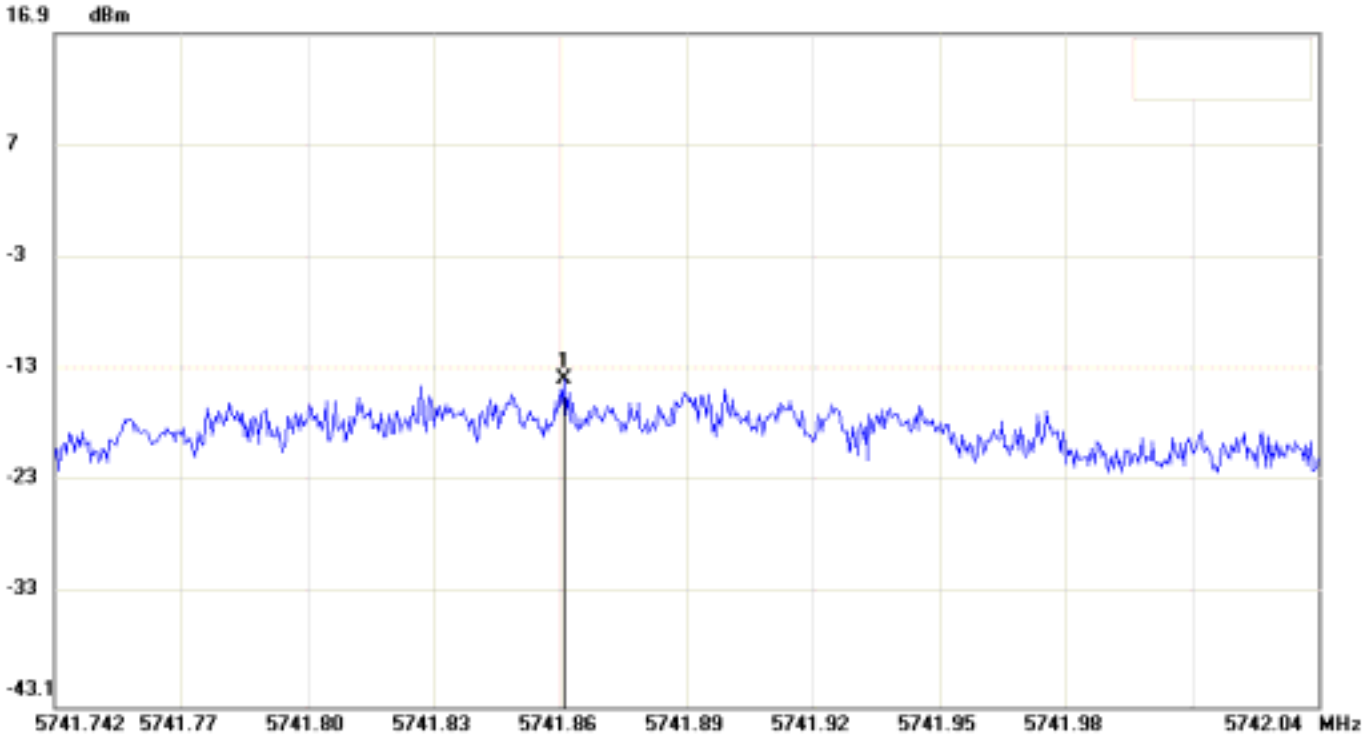
Test Date: Dec. 27, 2010 Temperature: 20℃ Humidity: 56%

Channel	Frequency (MHz)	Peak Power Spectral Density (dBm)	FCC Limit (dBm)	Chart
149	5745	-13.94	8.0	Page 114
157	5785	-13.88	8.0	Page 115
165	5825	-14.18	8.0	Page 116

Note:

1. *Please refer to page 114 to page 116 for chart*
2. *The estimated measurement uncertainty of the result measurement is ±1.5dB(1GHz≦f≦ 18GHz)*

File: openpeak abgn Data: #88 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 09:40:22 **Humidity: 56 %**

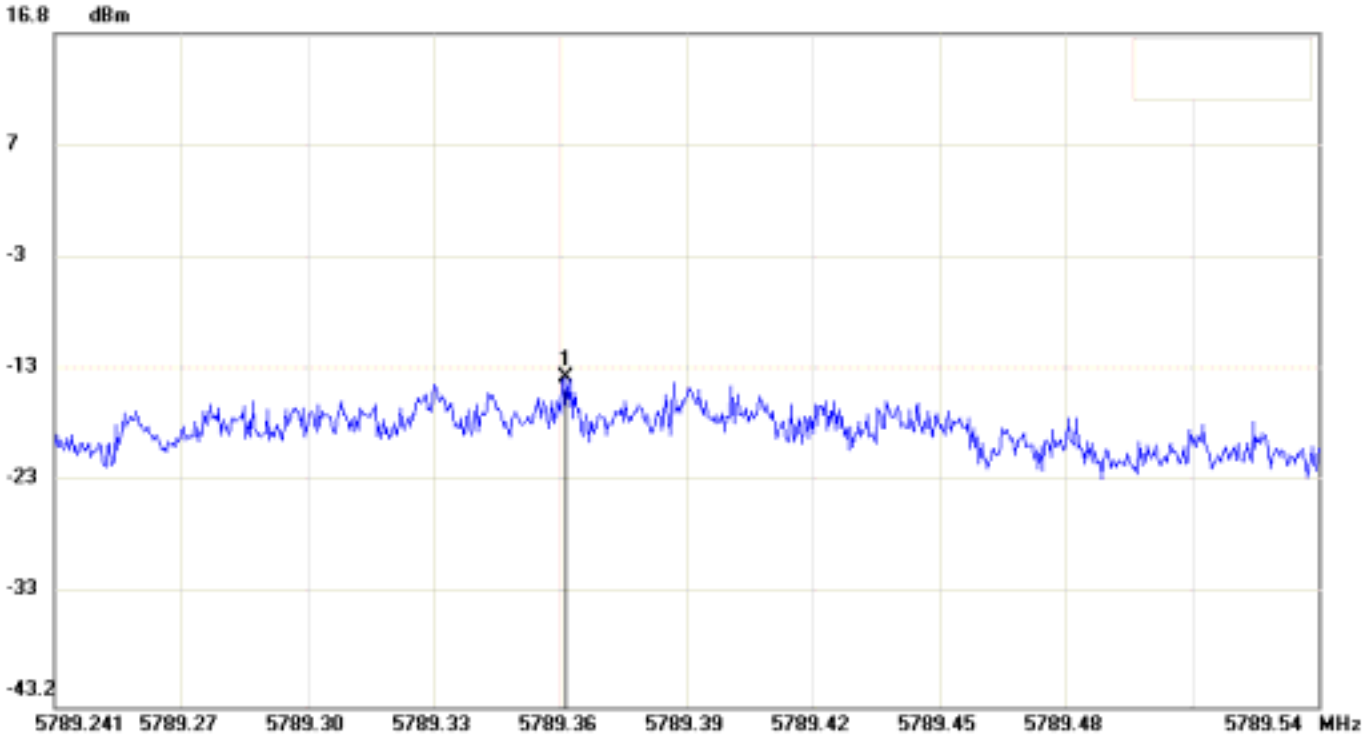


Condition: **RF Conducted**
EUT: **Sweep Time: 100000ms Att.: 20dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11a Channel 149-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	5741.86290	-13.94

File: openpeak abgn Data: #93 **Date: 2010/12/27** **Temperature: 20 ℃**

Time: AM 09:47:53 **Humidity: 56 %**



Condition: **RF Conducted**

EUT: **Sweep Time: 100000ms Att.: 20dB**

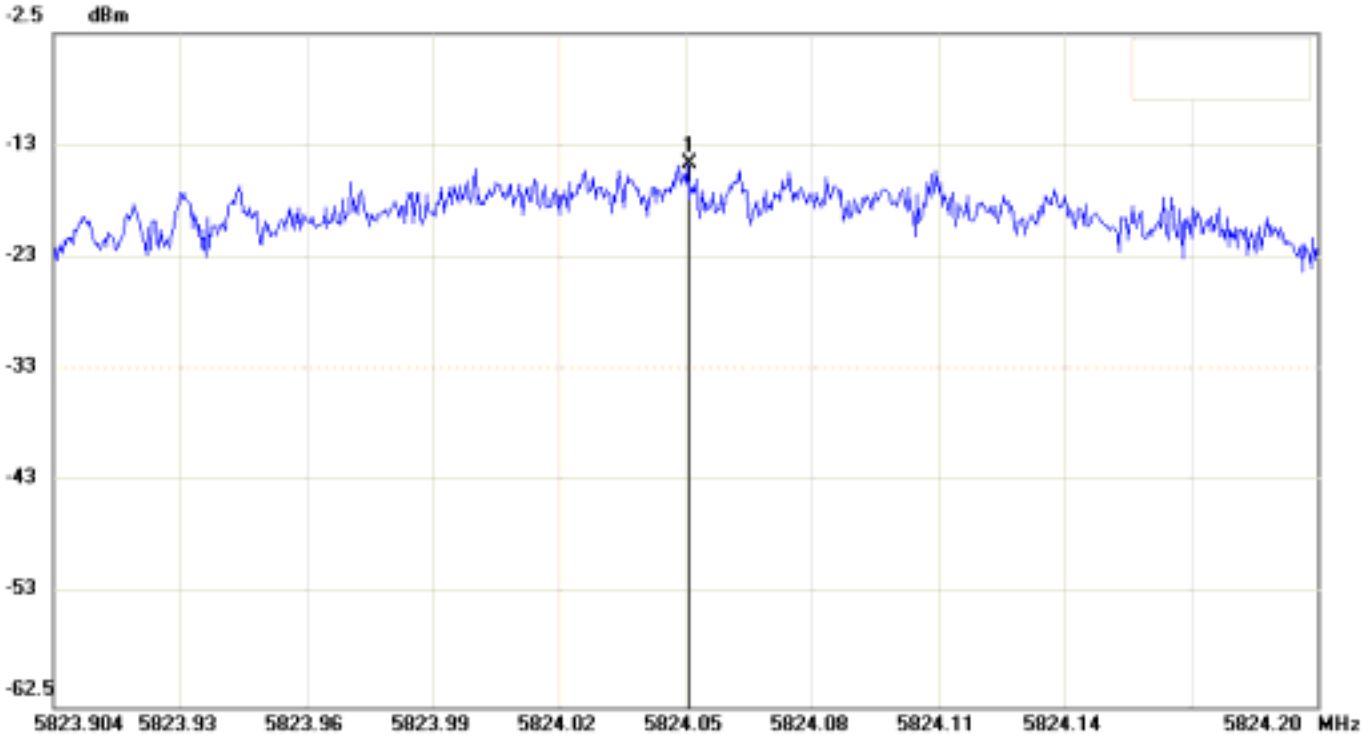
Model: **RBW: 3 KHz VBW: 10 KHz**

Test Mode:

Note: **FCC-802.11a Channel 157-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	5789.36280	-13.88

File: openpeak abgn Data: #97 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 09:56:58 **Humidity: 56 %**



Condition: **RF Conducted**
EUT: **Sweep Time: 100000ms Att.: 10dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11a Channel 1491-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	5824.05420	-14.18

8.4.6 IEEE 802.11a, HT20

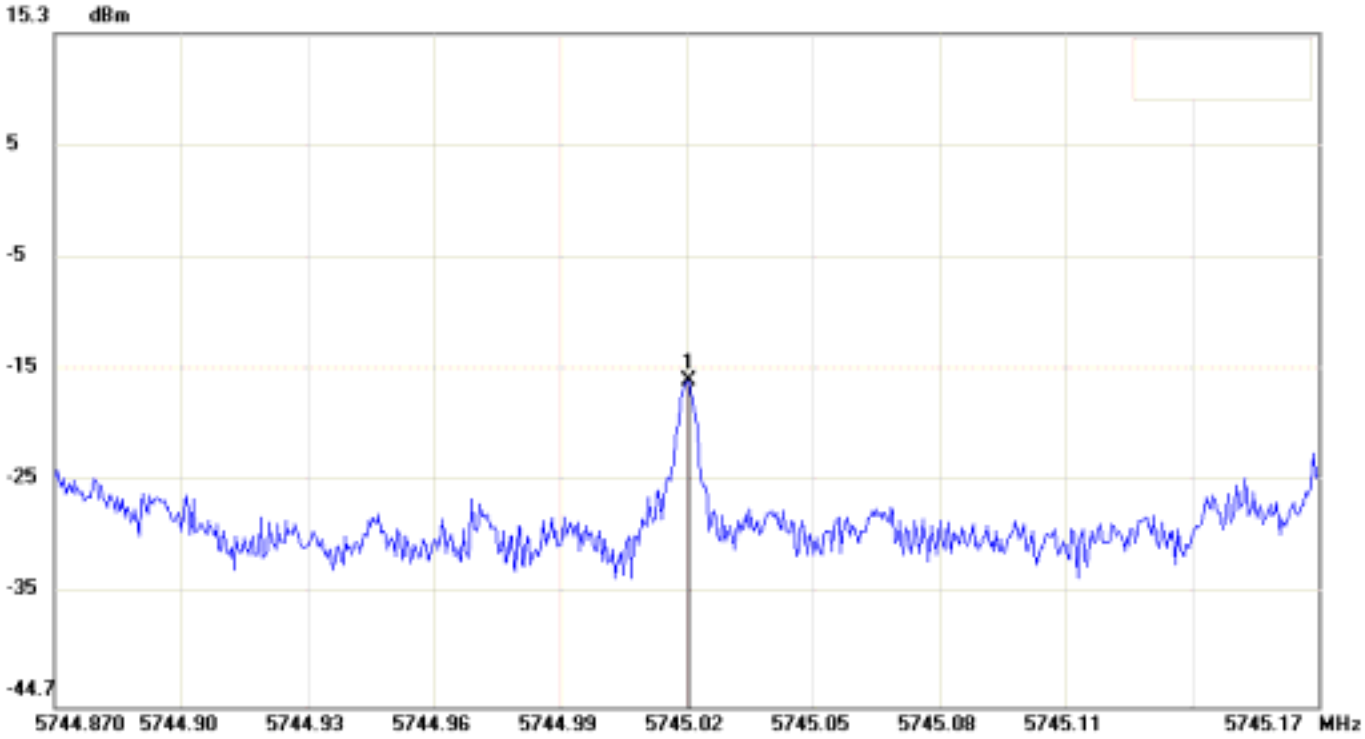
Test Date: Mar. 21, 2011 Temperature: 17℃ Humidity: 54%

Channel	Frequency (MHz)	Peak Power Spectral Density (dBm)	FCC Limit (dBm)	Chart
149	5745	-15.72	8.0	Page 118
157	5785	-14.27	8.0	Page 119
165	5825	-15.64	8.0	Page 120

Note:

1. *Please refer to page 118 to page 120 for chart*
2. *The estimated measurement uncertainty of the result measurement is ±1.5dB(1GHz≦f≦ 18GHz)*

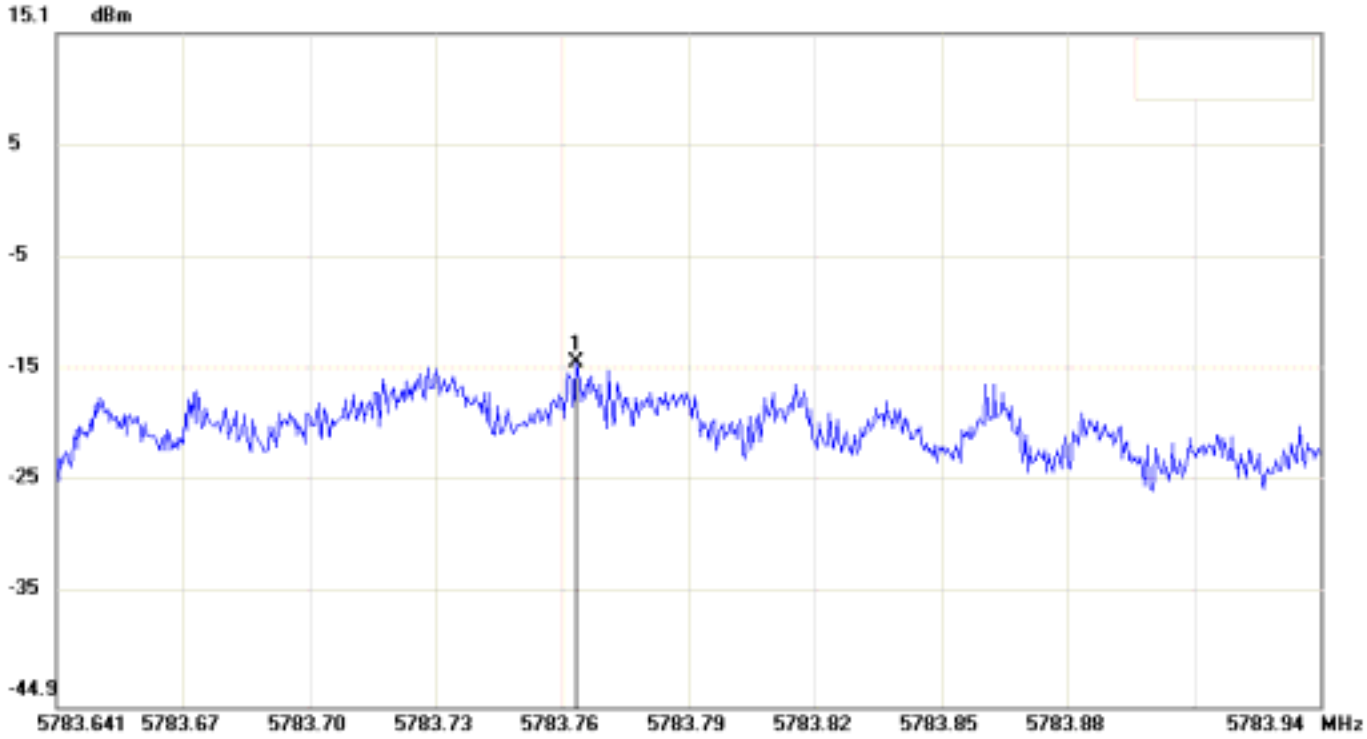
File: cisco **Data: #18** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 09:53:16 **Humidity: 54 %**



Condition: **Horizontal**
EUT: **Sweep Time: 100000ms Att.: 20dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11an_HT20 Channel 149-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	5745.01970	-15.72

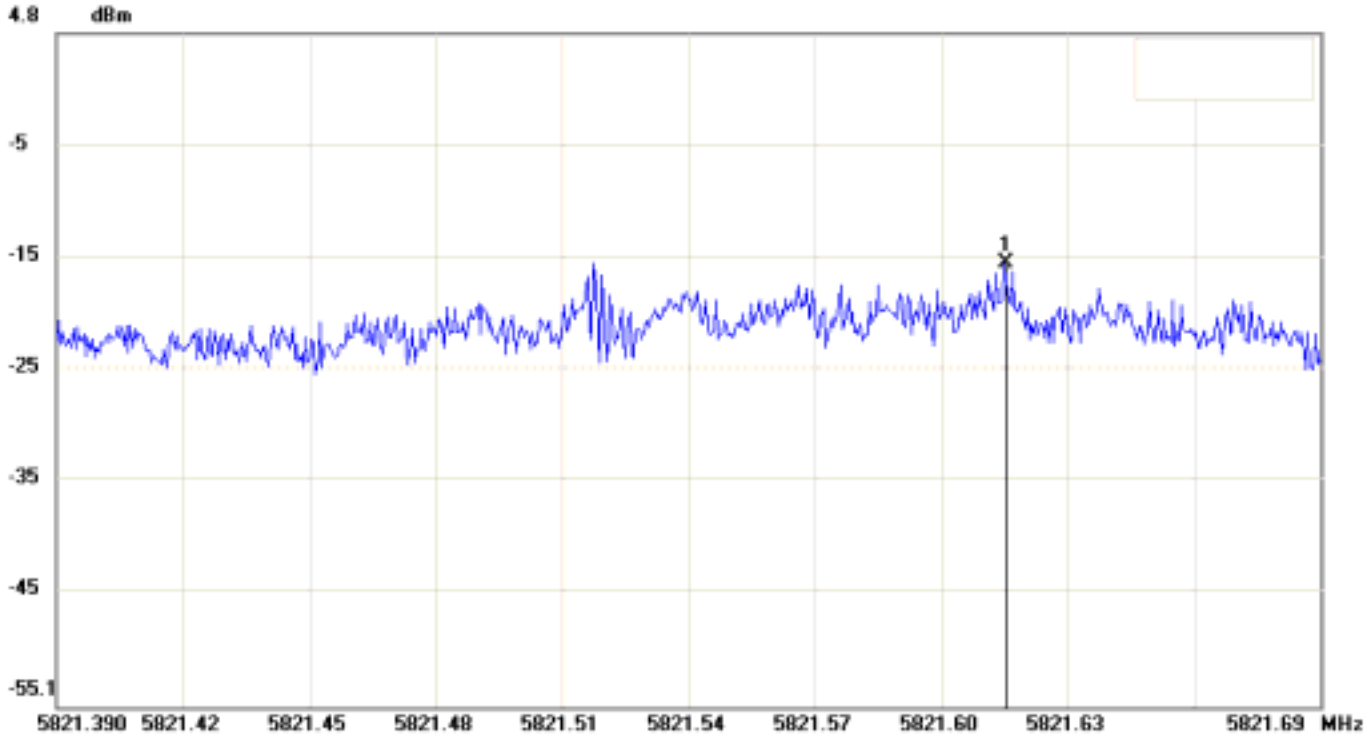
File: cisco **Data: #23** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 10:00:22 **Humidity: 54 %**



Condition: **Horizontal**
EUT: **Sweep Time: 100000ms Att.: 20dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11an_HT20 Channel 157-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	5783.76480	-14.27

File: cisco **Data: #27** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 10:06:50 **Humidity: 54 %**



Condition: **Horizontal**
EUT: **Sweep Time: 100000ms Att.: 10dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11an_HT20 Channel 1491-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	5821.61500	-15.64

8.4.7 IEEE 802.11a, HT40

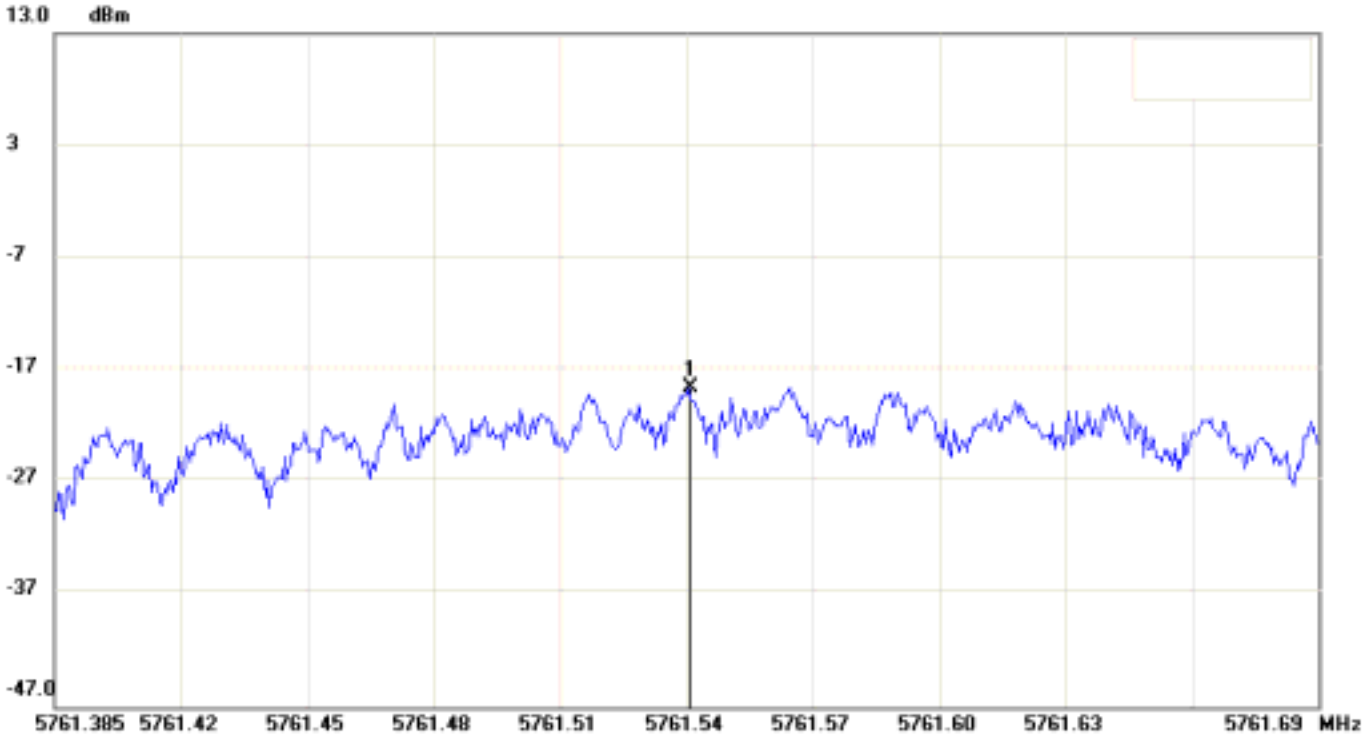
Test Date: Dec. 27, 2010 Temperature: 20℃ Humidity: 56%

Channel	Frequency (MHz)	Peak Power Spectral Density (dBm)	FCC Limit (dBm)	Chart
151	5755	-18.49	8	Page 122
159	5795	-16.89	8	Page 123

Note:

1. *Please refer to page 122 to page 123 for chart*
2. *The estimated measurement uncertainty of the result measurement is ±1.5dB(1GHz≦f≦ 18GHz)*

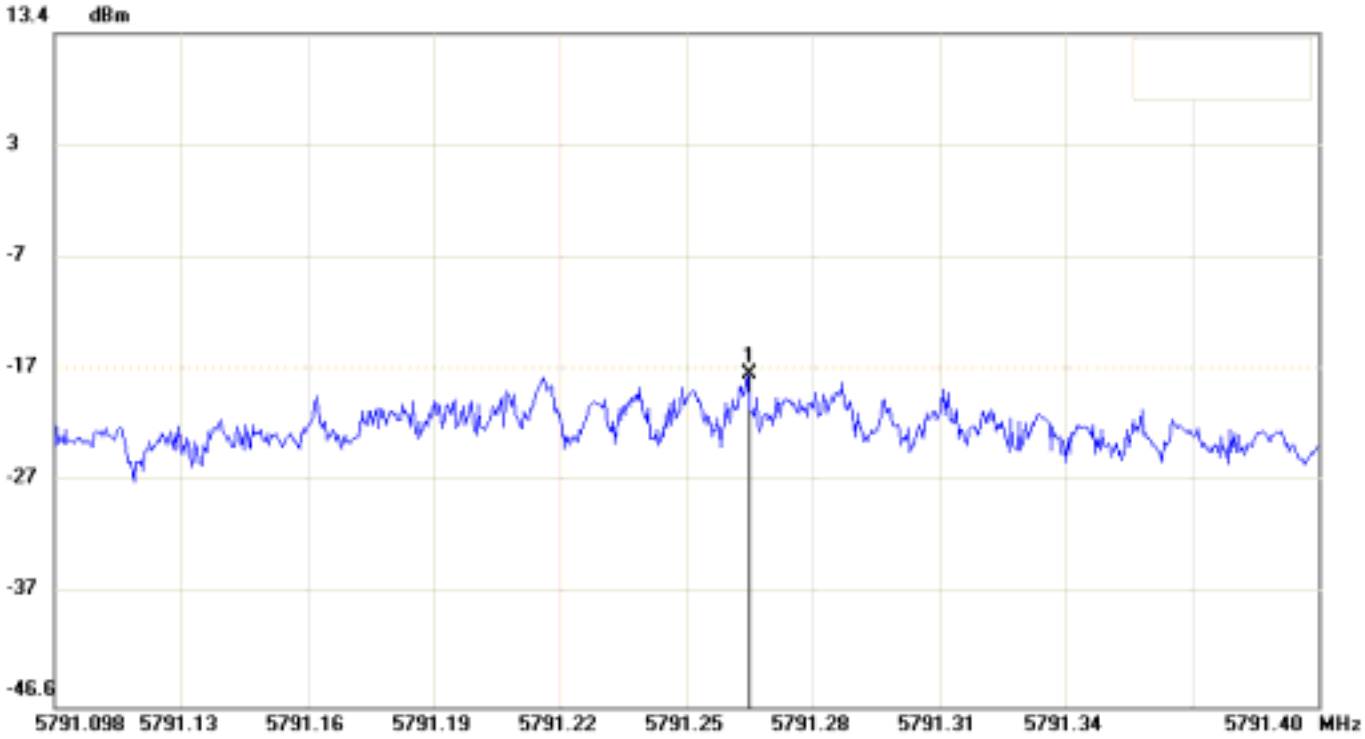
File: openpeak abgn Data: #102 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 10:19:07 **Humidity: 56 %**



Condition: **RF Conducted**
EUT: **Sweep Time: 100000ms Att.: 20dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11an_HT40 Channel 151-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	5761.53580	-18.49

File: openpeak abgn Data: #107 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 10:27:27 **Humidity: 56 %**



Condition: **RF Conducted**
EUT: **Sweep Time: 100000ms Att.: 20dB**
Model: **RBW: 3 KHz VBW: 10 KHz**
Test Mode:
Note: **FCC-802.11an_HT40 Channel 159-Power Density (PK)**

No.	Frequency(MHz)	Level(dBm)
1	5791.26290	-16.89

9 SPURIOUS EMISSION - RF CONDUCTED MEASUREMENT

9.1 Standard Applicable

According to 12.247 (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) (see Section 15.205(c)).

9.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT as shown in figure 2. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range and make sure the instrument is operated in its linear range.
3. Set both RBW and VBW of spectrum analyzer to 100 kHz with a convenient frequency span including 100kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

9.3 Measurement Equipment

Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Agilent	E4446A	09/26/2011

9.4 Measurement Data

9.4.1 IEEE 802.11b

Test Date: Dec. 24, 2010 Temperature: 20℃ Humidity: 56%

Channel	Frequency(MHz)	Chart
1	2412	Page 128, Page 130
6	2437	Page 131
11	2462	Page 129, Page 132

Frequency Band: 2400 MHz ~ 2483.5 MHz
All out-of –band conducted emissions were more than 20dB below the carrier.

Note: 1. Please refer to page 128 to page 132 for chart
2. An external attenuator is used as part of the test system for these measurements, the attenuation introduced by the external attenuator has not been explicitly compensated in the measured power level as it is irrelevant to these specific measurement results.

9.4.2 IEEE 802.11g

Test Date: Dec. 24, 2010 Temperature: 20℃ Humidity: 56%

Channel	Frequency(MHz)	Chart
1	2412	Page 133, Page 135
6	2437	Page 136
11	2462	Page 134, Page 137

Frequency Band: 2400 MHz ~ 2483.5 MHz
All out-of –band conducted emissions were more than 20dB below the carrier.

Note: 1. Please refer to page 133 to page 137 for chart
2. An external attenuator is used as part of the test system for these measurements, the attenuation introduced by the external attenuator has not been explicitly compensated in the measured power level as it is irrelevant to these specific measurement results.

9.4.3 IEEE 802.11gn, HT20

Test Date: Mar. 21, 2011 Temperature: 17℃ Humidity: 54%

Channel	Frequency(MHz)	Chart
1	2412	Page 138, Page 140
6	2437	Page 141
11	2462	Page 139, Page 142

Frequency Band: 2400 MHz ~ 2483.5 MHz
All out-of –band conducted emissions were more than 20dB below the carrier.

Note: 1. Please refer to page 138 to page 142 for chart
2. An external attenuator is used as part of the test system for these measurements, the attenuation introduced by the external attenuator has not been explicitly compensated in the measured power level as it is irrelevant to these specific measurement results.

9.4.4 IEEE 802.11gn, HT40

Test Date: Dec. 24, 2010 Temperature: 20℃ Humidity: 56%

Channel	Frequency(MHz)	Chart
3	2422	Page 143, Page 145
6	2437	Page 146
9	2452	Page 144, Page 147

Frequency Band: 2400 MHz ~ 2483.5 MHz
All out-of –band conducted emissions were more than 20dB below the carrier.

Note: 1. Please refer to page 143 to page 147 for chart
2. An external attenuator is used as part of the test system for these measurements, the attenuation introduced by the external attenuator has not been explicitly compensated in the measured power level as it is irrelevant to these specific measurement results.

9.4.5 IEEE 802.11a

Test Date: Dec. 27, 2010 Temperature: 20℃ Humidity: 56%

Channel	Frequency(MHz)	Chart
149	5745	Page 148, Page 150
157	5785	Page151
165	5825	Page 149, Page 152

Frequency Band: 5745 MHz ~ 5850 MHz
All out-of –band conducted emissions were more than 20dB below the carrier.

Note: 1. Please refer to page 148 to page 152 for chart

2. An external attenuator is used as part of the test system for these measurements, the attenuation introduced by the external attenuator has not been explicitly compensated in the measured power level as it is irrelevant to these specific measurement results.

9.4.6 IEEE 802.11a, HT20

Test Date: Mar. 21, 2011 Temperature: 17℃ Humidity: 54%

Channel	Frequency(MHz)	Chart
149	5745	Page 153, Page 155
157	5785	Page156
165	5825	Page 154, Page 157

Frequency Band: 5745 MHz ~ 5850 MHz
All out-of –band conducted emissions were more than 20dB below the carrier.

Note: 1. Please refer to page 153 to page 157 for chart

2. An external attenuator is used as part of the test system for these measurements, the attenuation introduced by the external attenuator has not been explicitly compensated in the measured power level as it is irrelevant to these specific measurement results.

9.4.7 IEEE 802.11a, HT40

Test Date: Dec. 27, 2010 Temperature: 20℃ Humidity: 56%

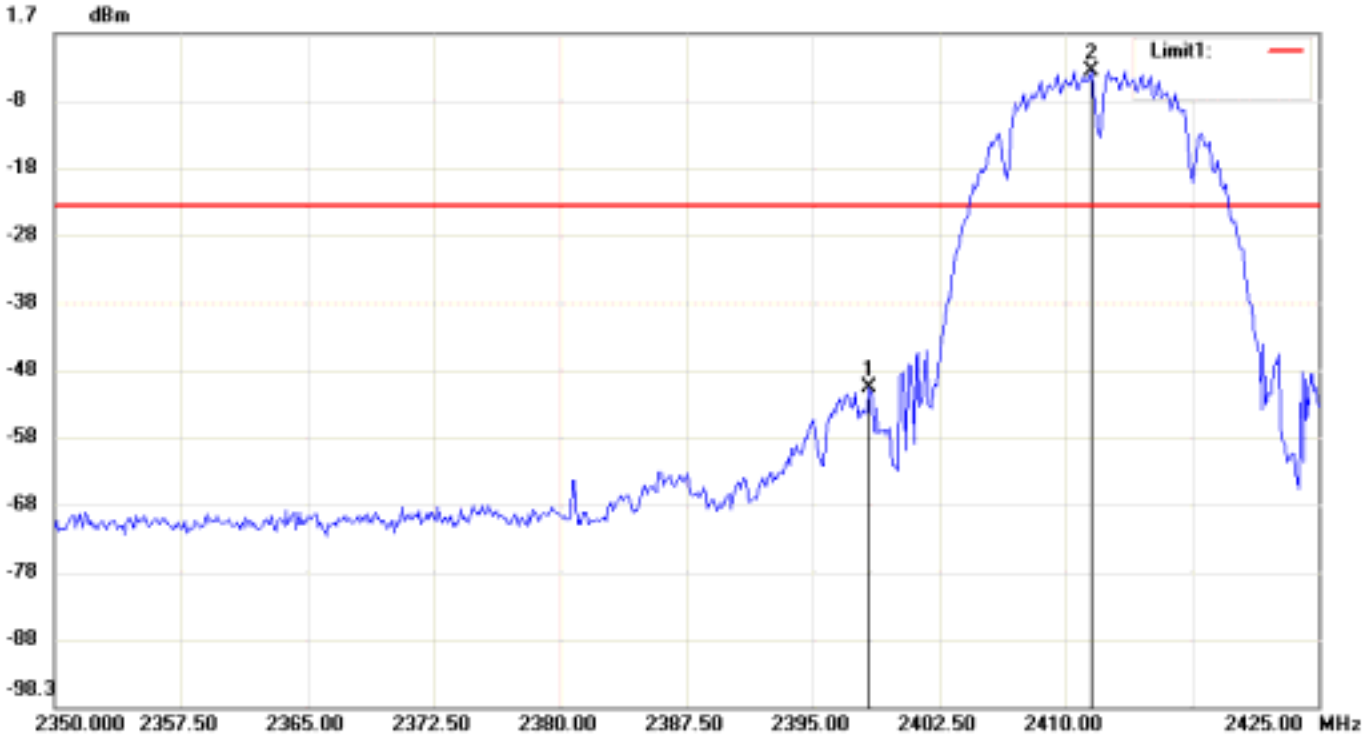
Channel	Frequency(MHz)	Chart
151	5755	Page 158, Page 160
159	5795	Page 159, Page 161

Frequency Band: 5745 MHz ~ 5850 MHz
All out-of –band conducted emissions were more than 20dB below the carrier.

Note: 1. Please refer to page 158 to page 161 for chart

2. An external attenuator is used as part of the test system for these measurements, the attenuation introduced by the external attenuator has not been explicitly compensated in the measured power level as it is irrelevant to these specific measurement results.

File: openpeak abgn Data: #5 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:12:46 **Humidity: 56 %**



Condition: **-23.84dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11b Channel 01-Bandedge**

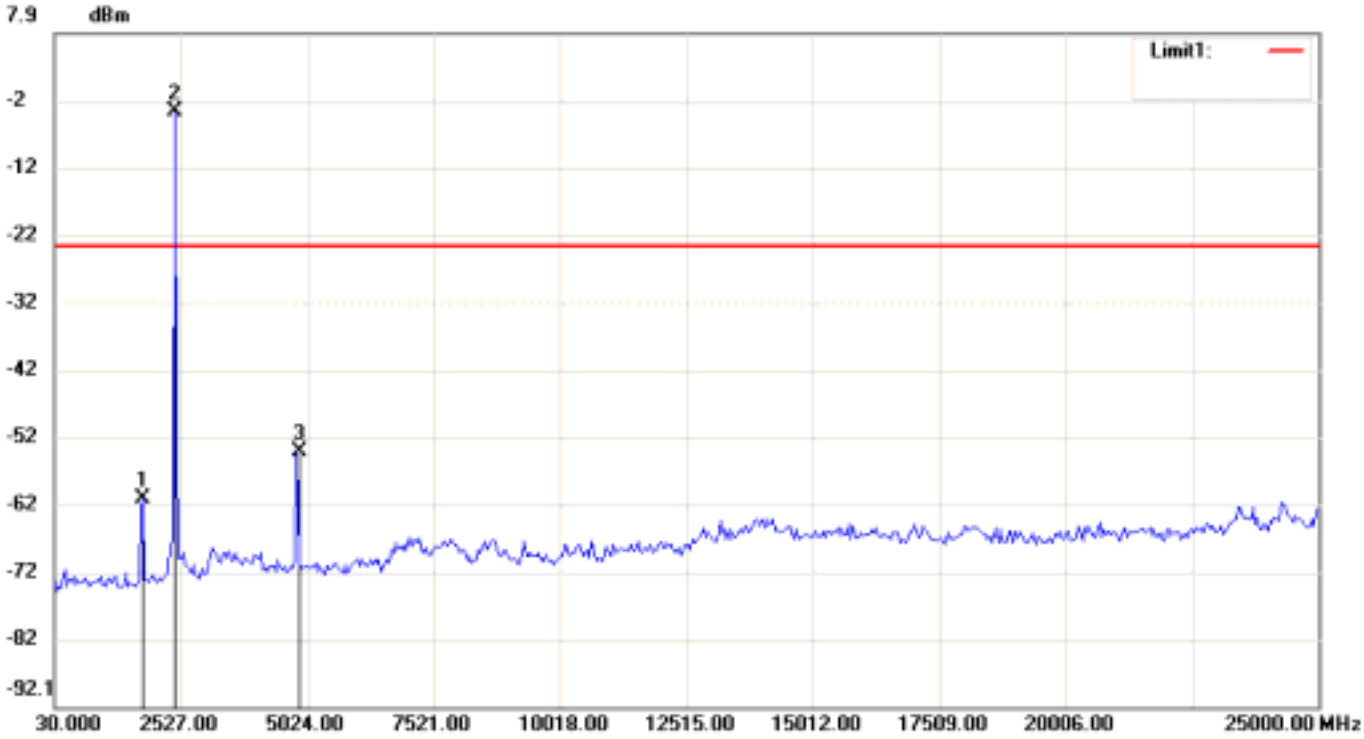
No.	Frequency(MHz)	Level(dBm)
1	2398.37500	-50.91
2	2411.50000	-3.84

File: openpeak abgn Data: #14 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:28:05 **Humidity: 56 %**

Condition: **-25.04dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11b Channel 11-Bandedge**

No.	Frequency(MHz)	Level(dBm)
1	2462.45670	-5.04
2	2487.98670	-61.60

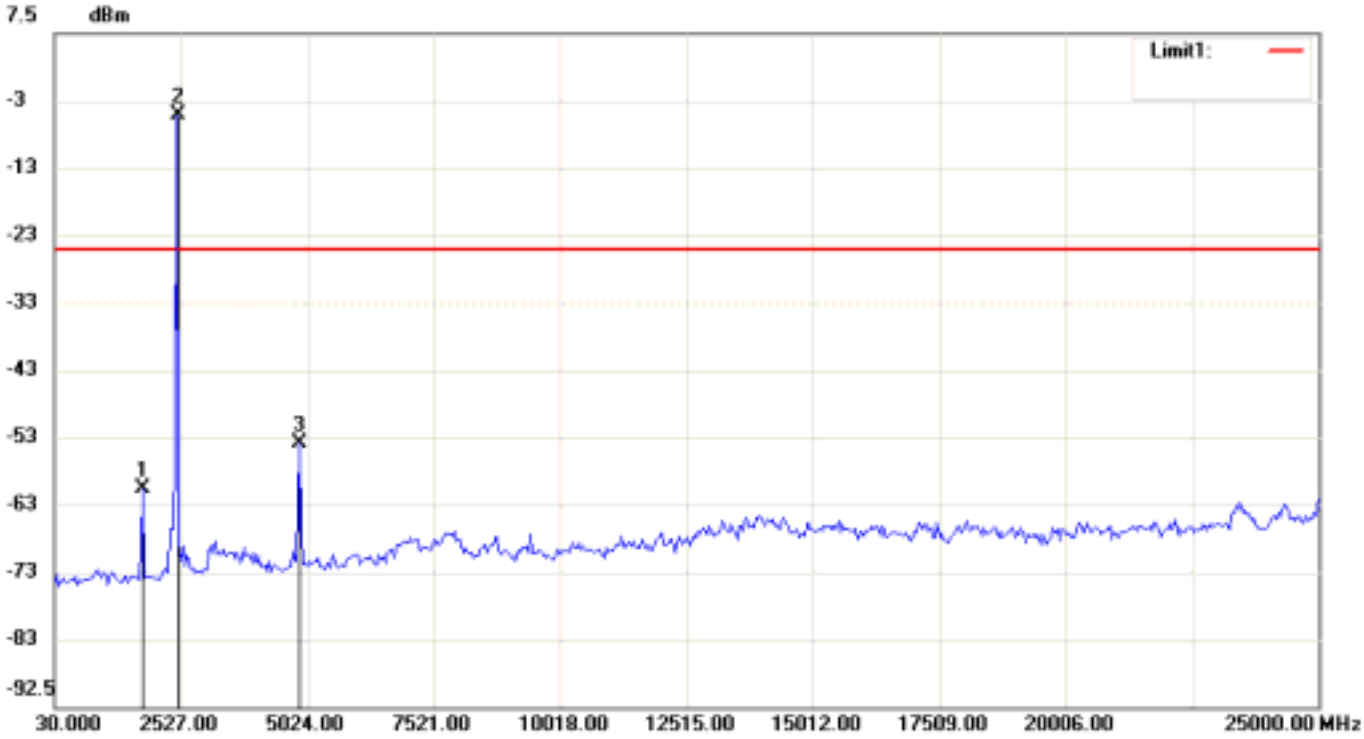
File: openpeak abgn Data: #2 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:08:36 **Humidity: 56 %**



Condition: **-23.74dBm** **RF Conducted**
EUT: **Sweep Time: 2386.4ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11b Channel 01-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	1777.90000	-61.24
2	2402.15000	-3.74
3	4815.91670	-54.26

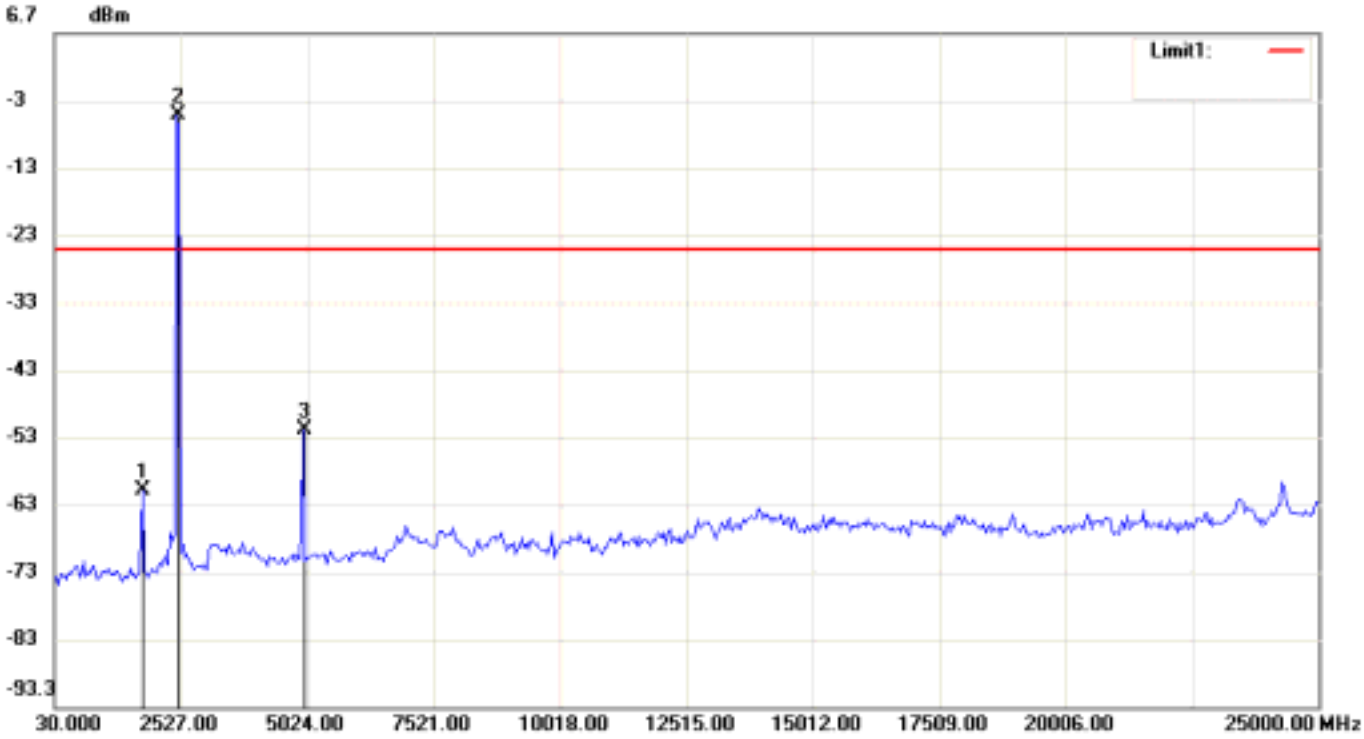
File: openpeak abgn Data: #7 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:16:09 **Humidity: 56 %**



Condition: **-24.74dBm** **RF Conducted**
EUT: **Sweep Time: 2386.4ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11b Channel 06-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	1777.90000	-60.21
2	2443.76670	-4.74
3	4857.53330	-53.51

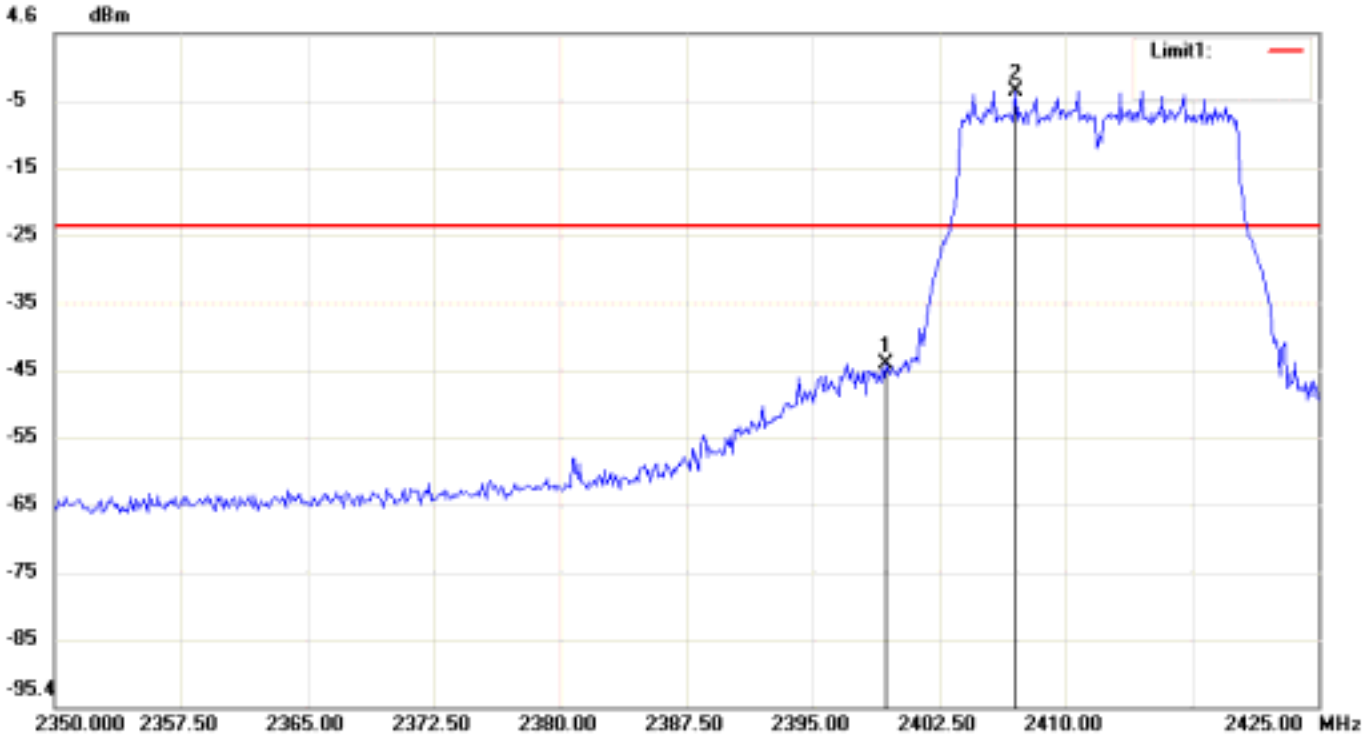
File: openpeak abgn Data: #11 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:23:34 **Humidity: 56 %**



Condition: **-25.4dBm** **RF Conducted**
EUT: **Sweep Time: 2386.4ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11b Channel 11-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	1777.90000	-61.26
2	2443.76670	-5.40
3	4940.76670	-52.10

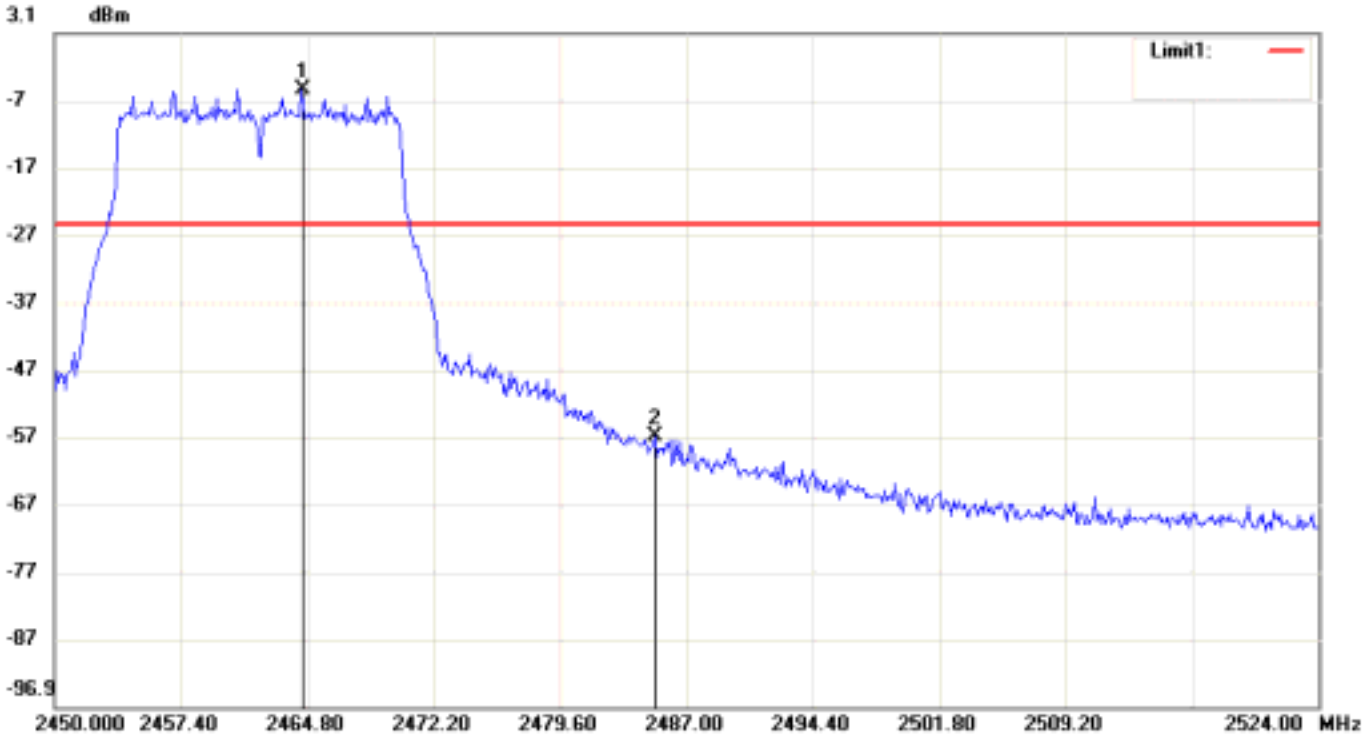
File: openpeak abgn Data: #20 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:43:43 **Humidity: 56 %**



Condition: **-23.96dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11g Channel 01-Bandedge**

No.	Frequency(MHz)	Level(dBm)
1	2399.37500	-44.59
2	2407.00000	-3.96

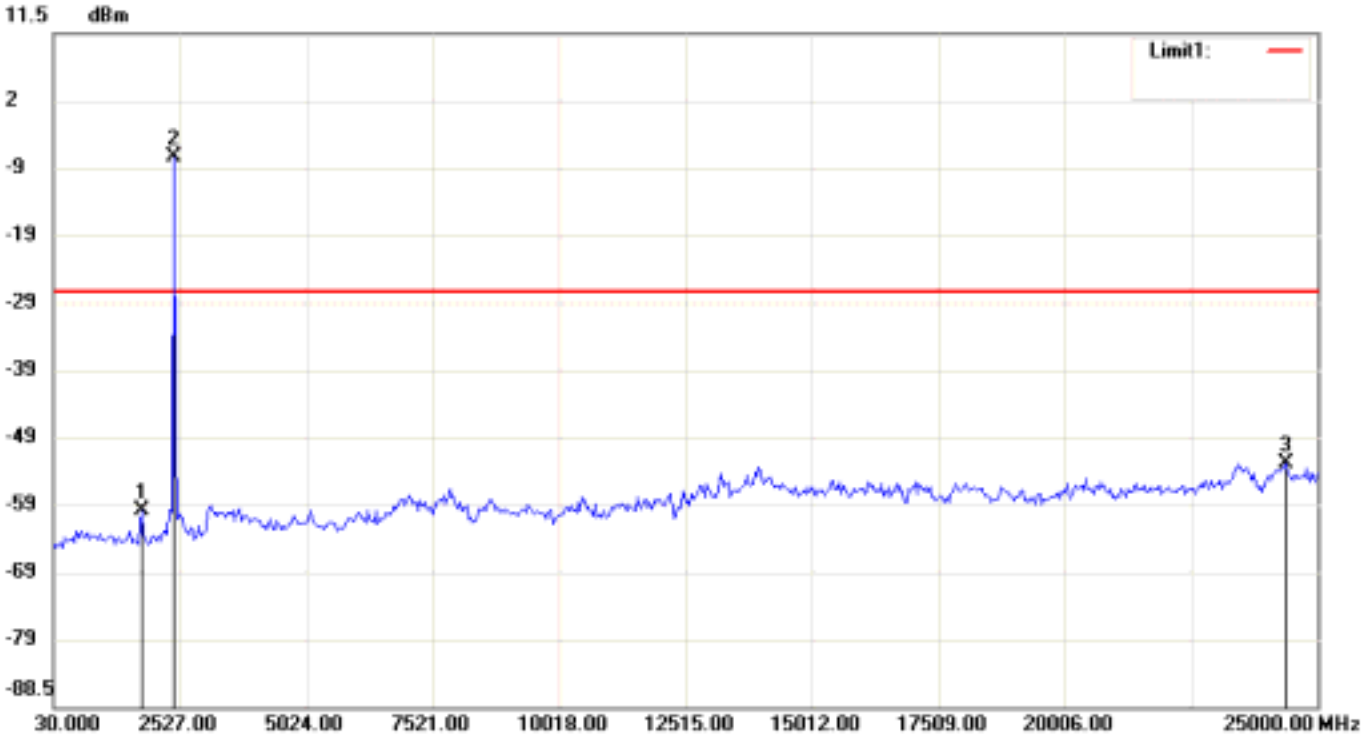
File: openpeak abgn Data: #29 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:58:58 **Humidity: 56 %**



Condition: **-25.3dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11g Channel 11-Bandedge**

No.	Frequency(MHz)	Level(dBm)
1	2464.43000	-5.30
2	2485.15000	-56.79

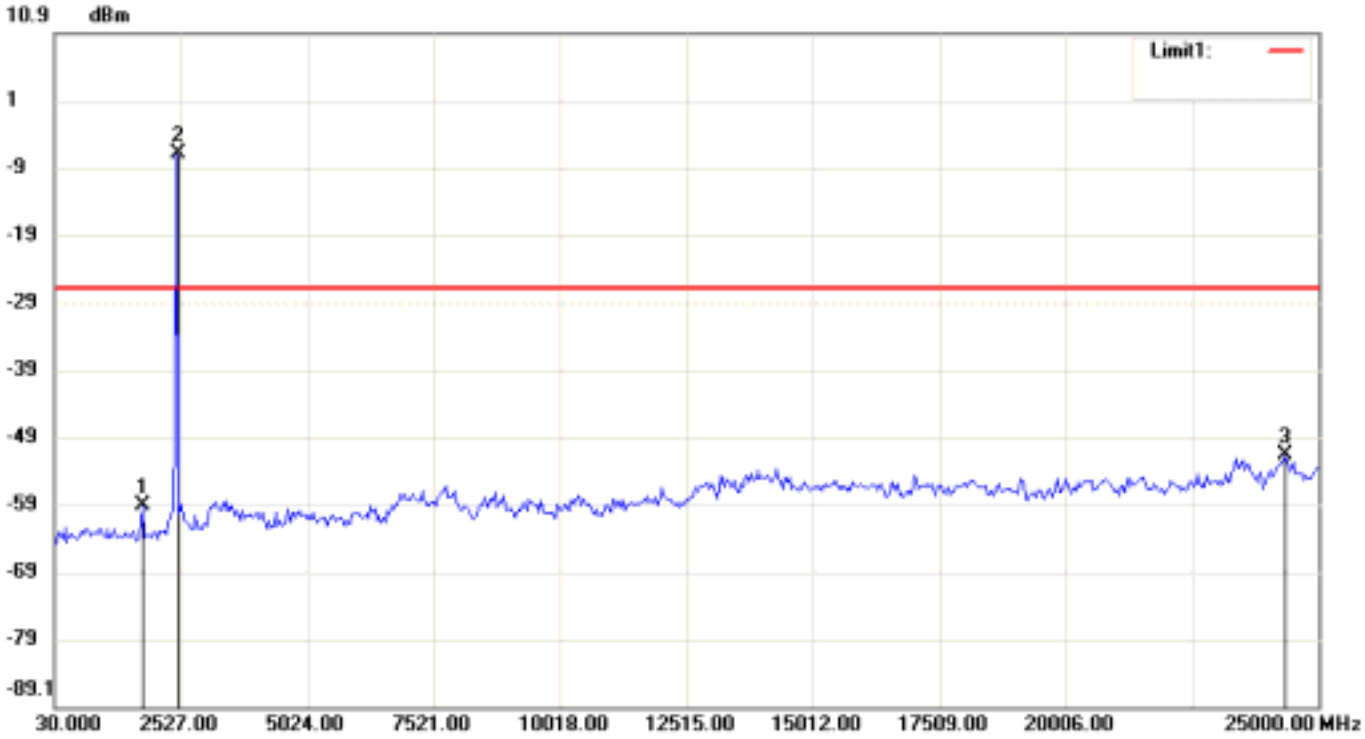
File: openpeak abgn Data: #17 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:39:33 **Humidity: 56 %**



Condition: **-26.9dBm** **RF Conducted**
EUT: **Sweep Time: 2386.4ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11g Channel 01-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	1777.90000	-59.26
2	2402.15000	-6.90
3	24375.75000	-52.35

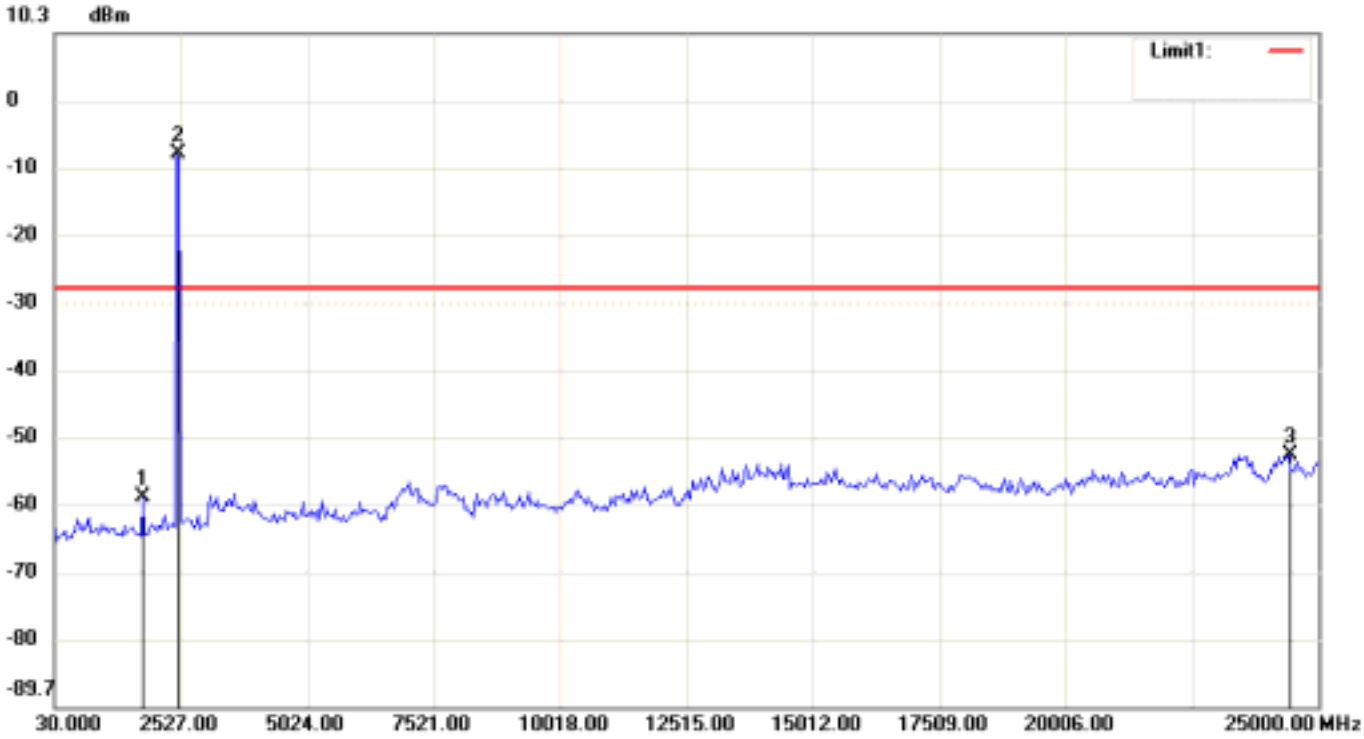
File: openpeak abgn Data: #22 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:47:19 **Humidity: 56 %**



Condition: **-26.92dBm** **RF Conducted**
EUT: **Sweep Time: 2386.4ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11g Channel 06-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	1777.90000	-59.09
2	2443.76670	-6.92
3	24334.13330	-51.76

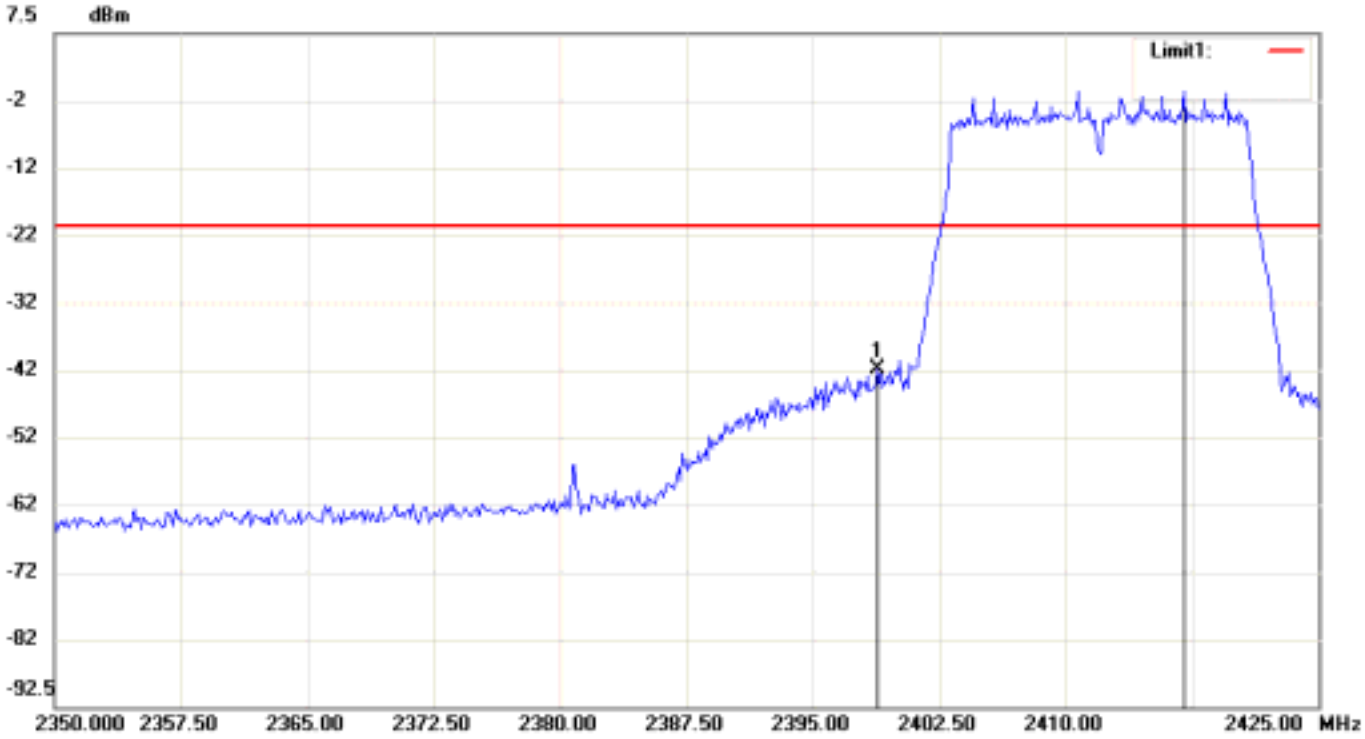
File: openpeak abgn Data: #26 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: AM 11:54:26 **Humidity: 56 %**



Condition: **-27.62dBm** **RF Conducted**
EUT: **Sweep Time: 2386.4ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11g Channel 11-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	1777.90000	-58.48
2	2443.76670	-7.62
3	24417.36670	-52.17

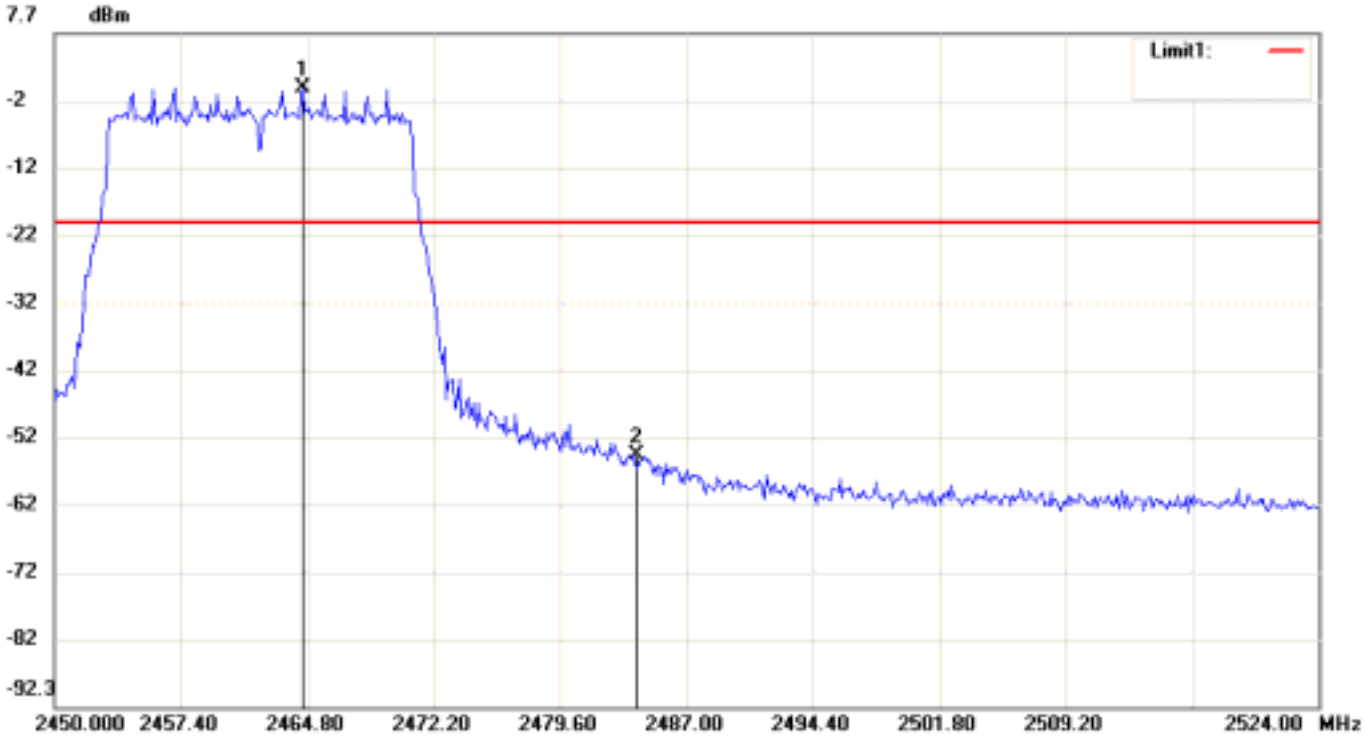
File: cisco **Data: #5** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 09:24:59 **Humidity: 54 %**



Condition: **-21.14dBm** **Horizontal**
EUT: **Sweep Time: 500ms** **Att.: 10dB**
Model: **RBW: 100 KHz** **VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT20 Channel 01-Bandedge**

No.	Frequency(MHz)	Level(dBm)
1	2398.87500	-42.27
2	2417.00000	-1.14

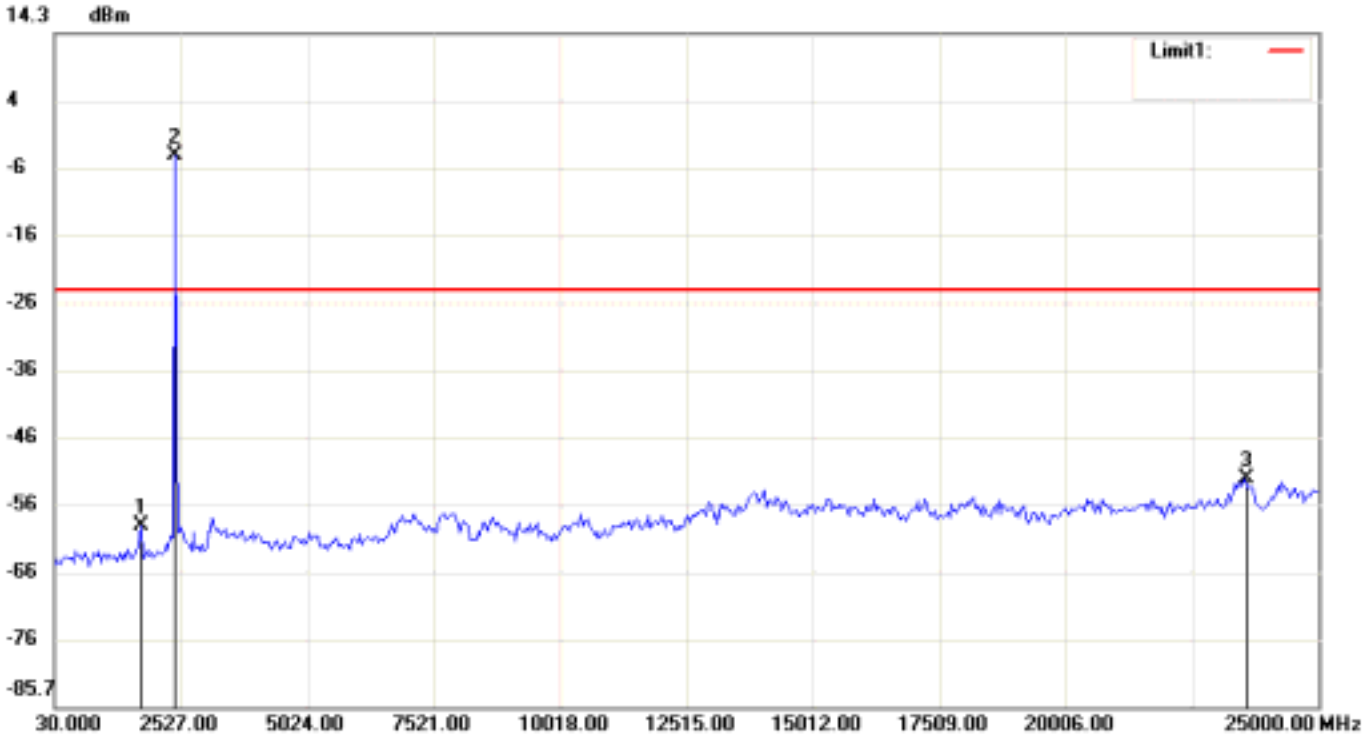
File: cisco **Data: #14** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 09:37:21 **Humidity: 54 %**



Condition: **-20.38dBm** **Horizontal**
EUT: **Sweep Time: 500ms** **Att.: 10dB**
Model: **RBW: 100 KHz** **VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT20 Channel 11-Bandedge**

No.	Frequency(MHz)	Level(dBm)
1	2464.55330	-0.38
2	2483.91670	-55.03

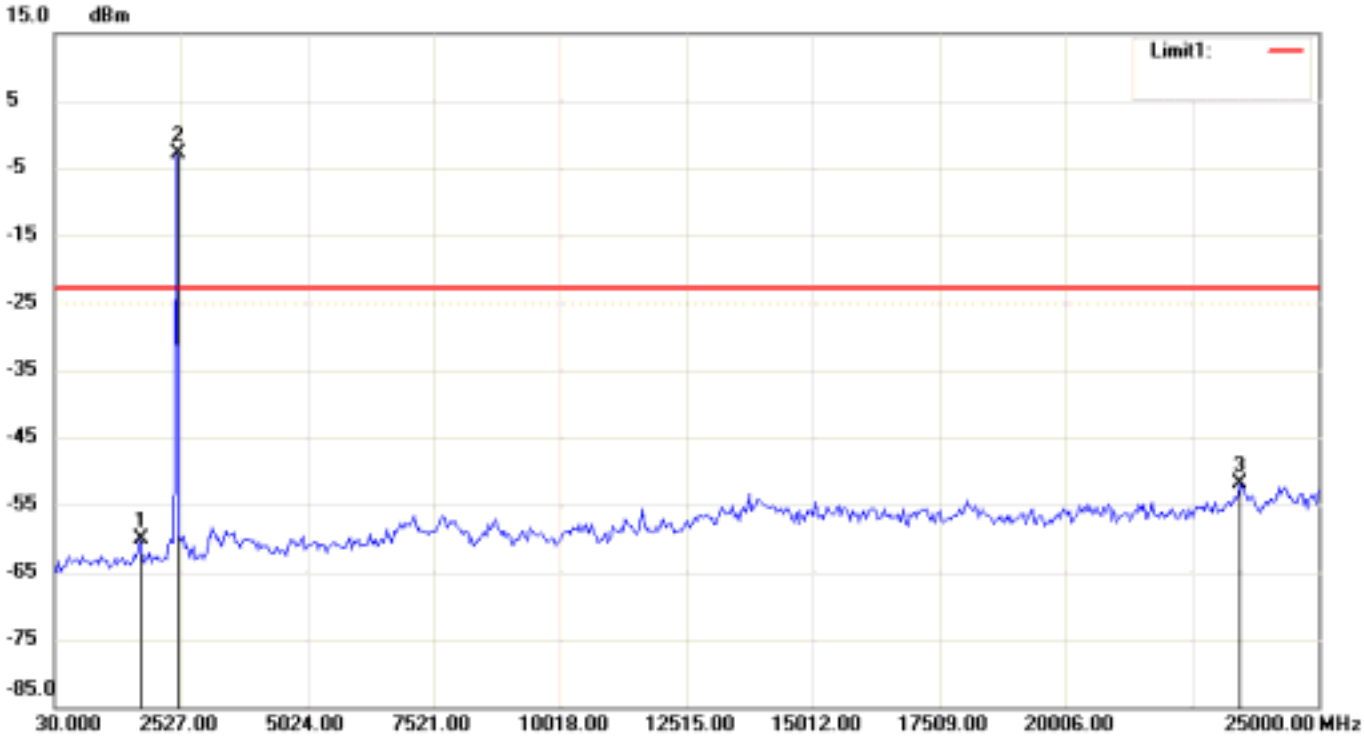
File: **cisco** **Data:** **#2** **Date:** **2011/3/21** **Temperature:** **17 ℃**
Time: **AM 09:20:21** **Humidity:** **54 %**



Condition: **-23.73dBm** **Horizontal**
EUT: **Sweep Time: 2386.4ms** **Att.: 20dB**
Model: **RBW: 100 KHz** **VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT20 Channel 01-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	1736.28330	-58.88
2	2402.15000	-3.73
3	23543.41670	-51.81

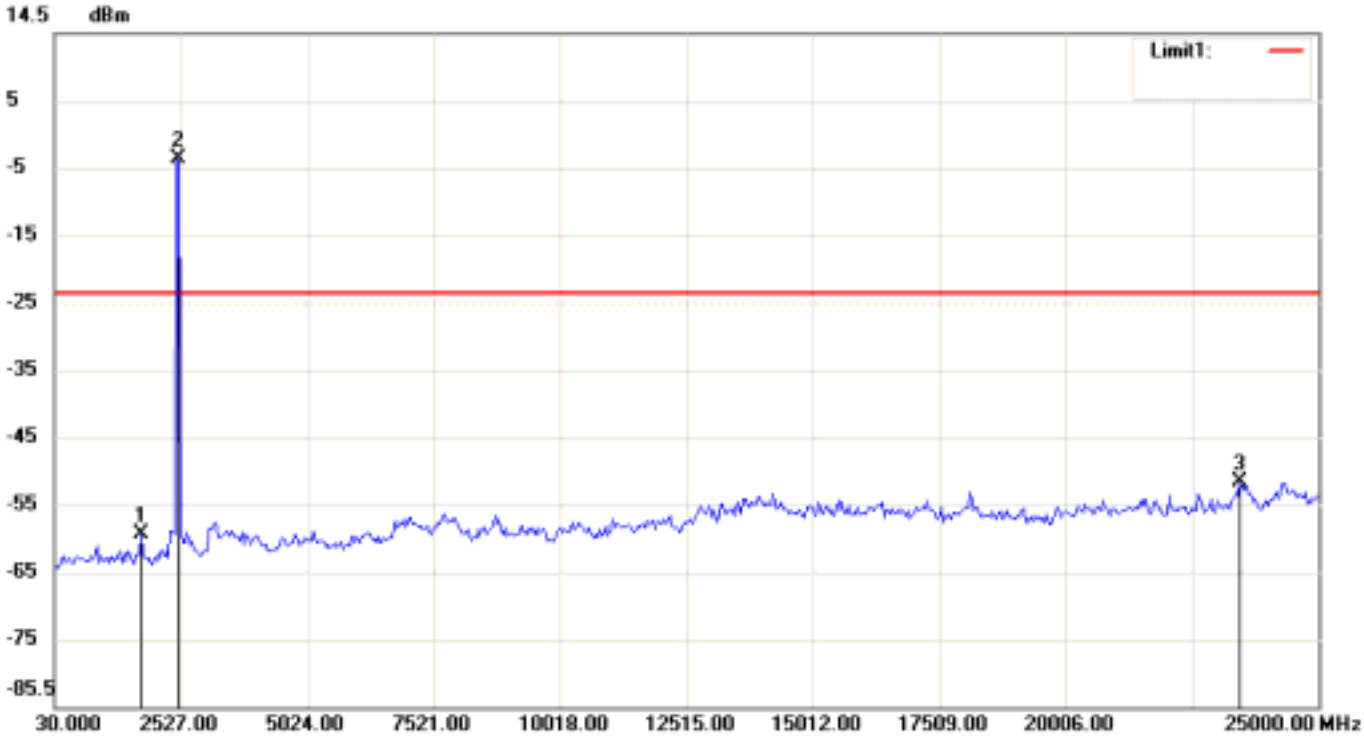
File: cisco **Data: #7** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 09:26:42 **Humidity: 54 %**



Condition: **-22.83dBm** **Horizontal**
EUT: **Sweep Time: 2386.4ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT20 Channel 06-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	1694.66670	-60.16
2	2443.76670	-2.83
3	23460.18330	-51.87

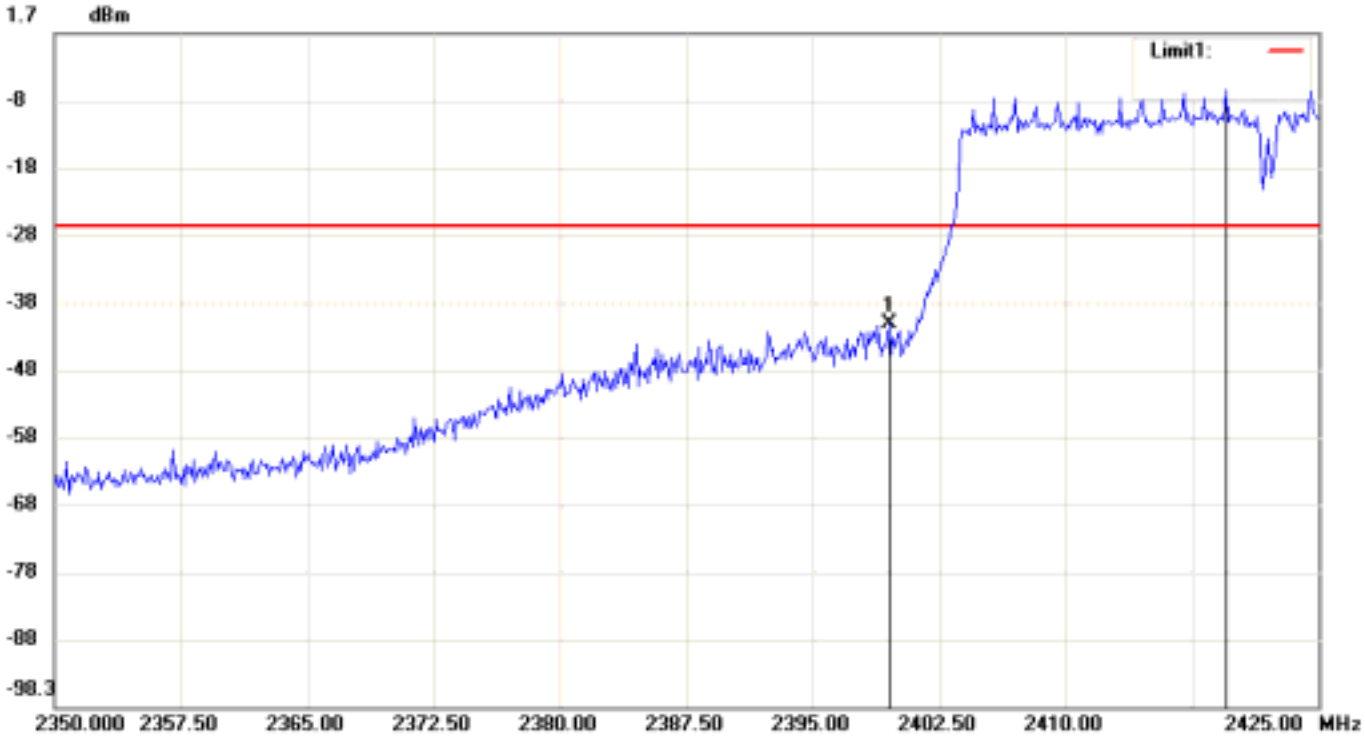
File: **cisco** **Data:** **#11** **Date:** **2011/3/21** **Temperature:** **17 ℃**
Time: **AM 09:32:20** **Humidity:** **54 %**



Condition: **-24.15dBm** **Horizontal**
EUT: **Sweep Time: 2386.4ms** **Att.: 20dB**
Model: **RBW: 100 KHz** **VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT20 Channel 11-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	1736.28330	-59.91
2	2443.76670	-4.15
3	23460.18330	-52.14

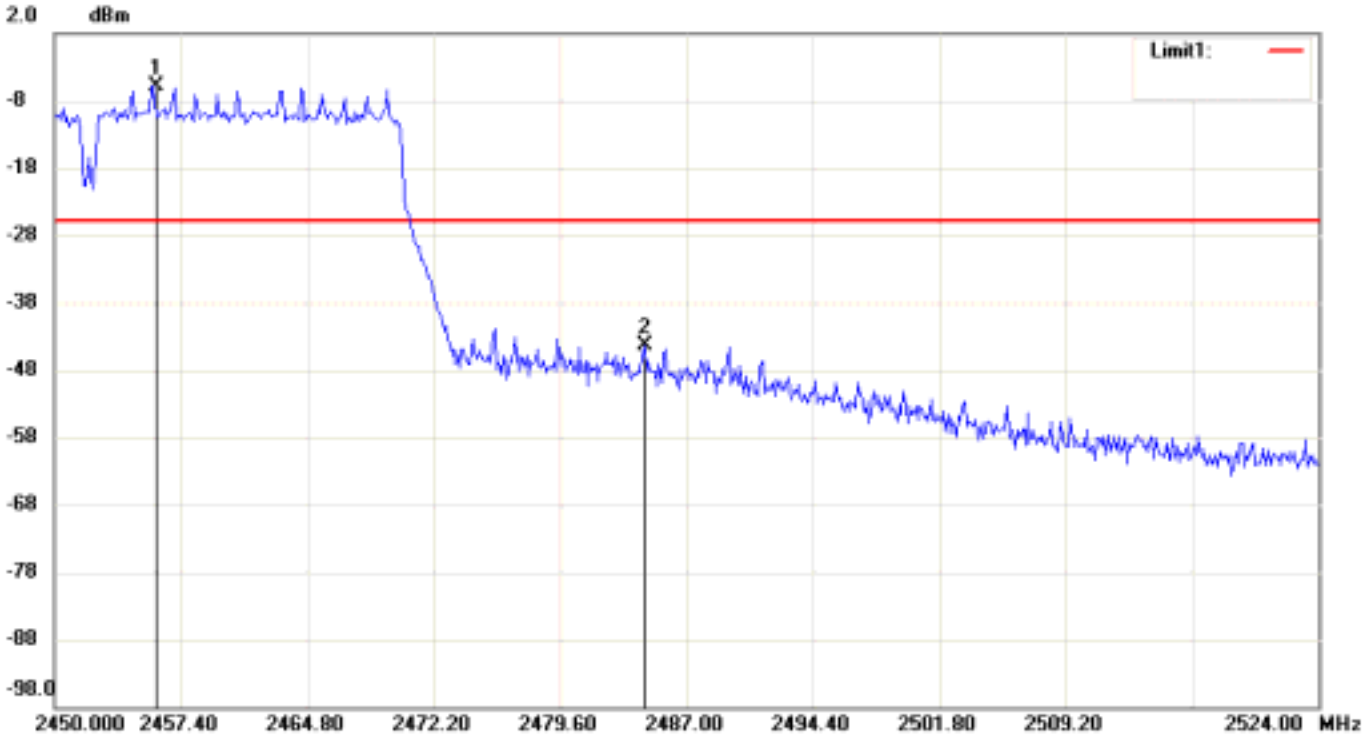
File: openpeak abgn Data: #48 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: PM 01:12:11 **Humidity: 56 %**



Condition: **-26.78dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT40 Channel 03-Bandedge**

No.	Frequency(MHz)	Level(dBm)
1	2399.50000	-41.42
2	2419.50000	-6.78

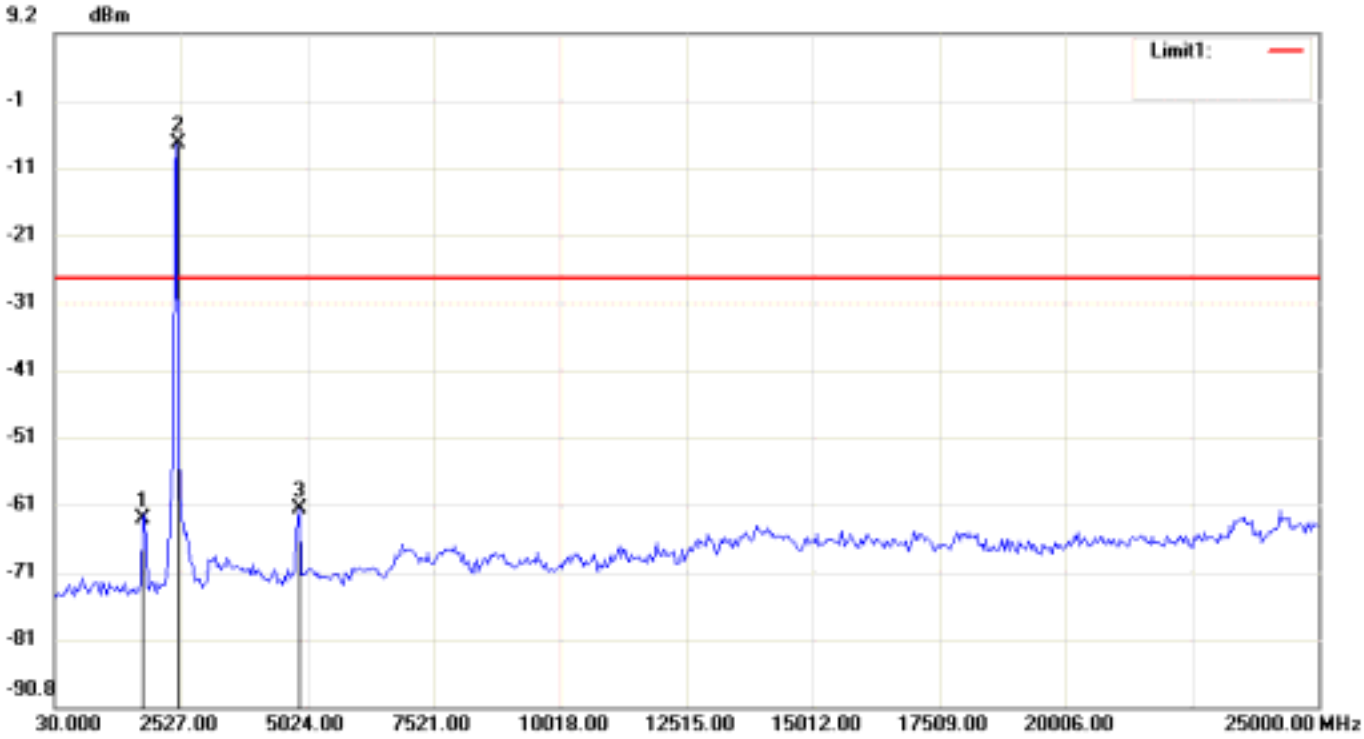
File: openpeak abgn Data: #57 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: PM 01:55:13 **Humidity: 56 %**



Condition: **-25.92dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT40 Channel 09-Bandedge**

No.	Frequency(MHz)	Level(dBm)
1	2455.79670	-5.92
2	2484.53330	-44.49

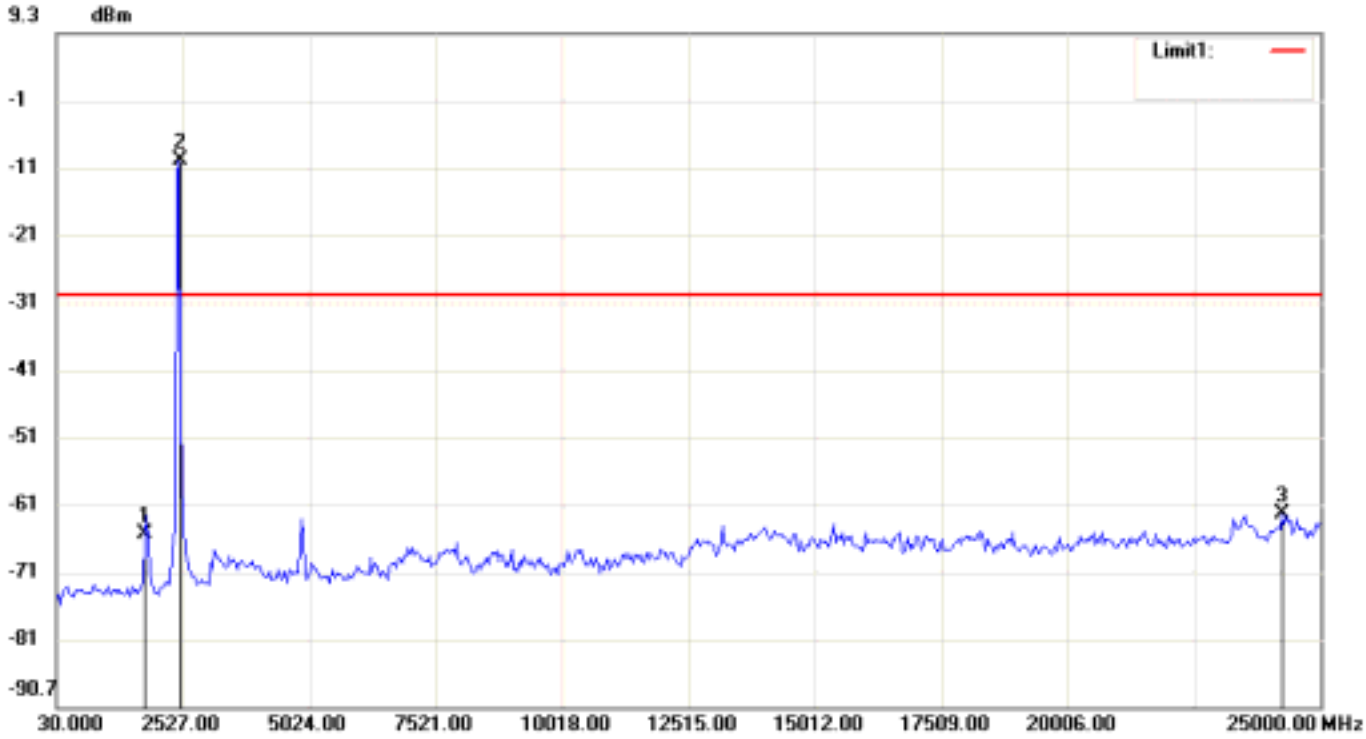
File: openpeak abgn Data: #45 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: PM 01:07:59 **Humidity: 56 %**



Condition: **-27.21dBm** **RF Conducted**
EUT: **Sweep Time: 2386.4ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT40 Channel 03-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	1777.90000	-62.89
2	2443.76670	-7.21
3	4857.53330	-61.53

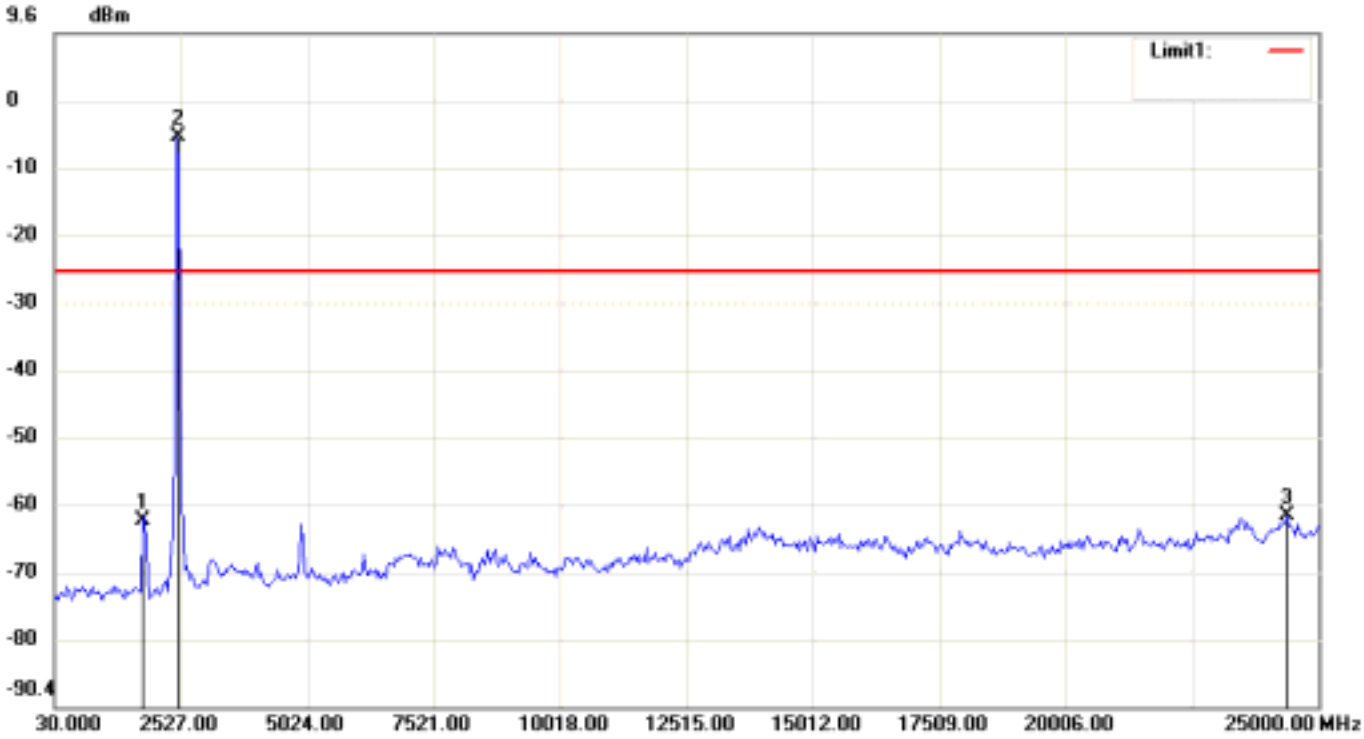
File: openpeak abgn Data: #50 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: PM 01:17:21 **Humidity: 56 %**



Condition: **-29.68dBm** **RF Conducted**
EUT: **Sweep Time: 2386.4ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT40 Channel 06-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	1777.90000	-65.20
2	2443.76670	-9.68
3	24250.90000	-62.21

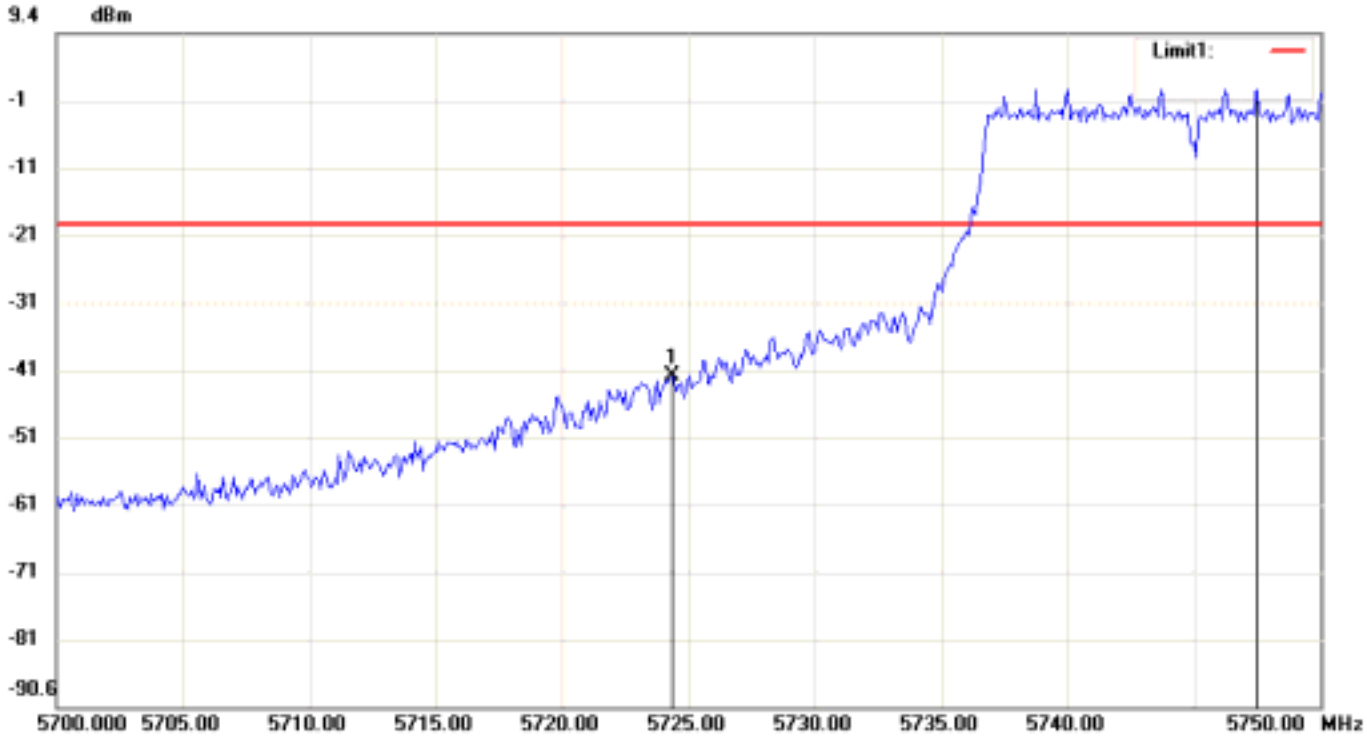
File: openpeak abgn Data: #54 **Date: 2010/12/24** **Temperature: 20 ℃**
Time: PM 01:50:41 **Humidity: 56 %**



Condition: **-25.71dBm** **RF Conducted**
EUT: **Sweep Time: 2386.4ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11gn_HT40 Channel 09-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	1777.90000	-62.70
2	2443.76670	-5.71
3	24375.75000	-61.94

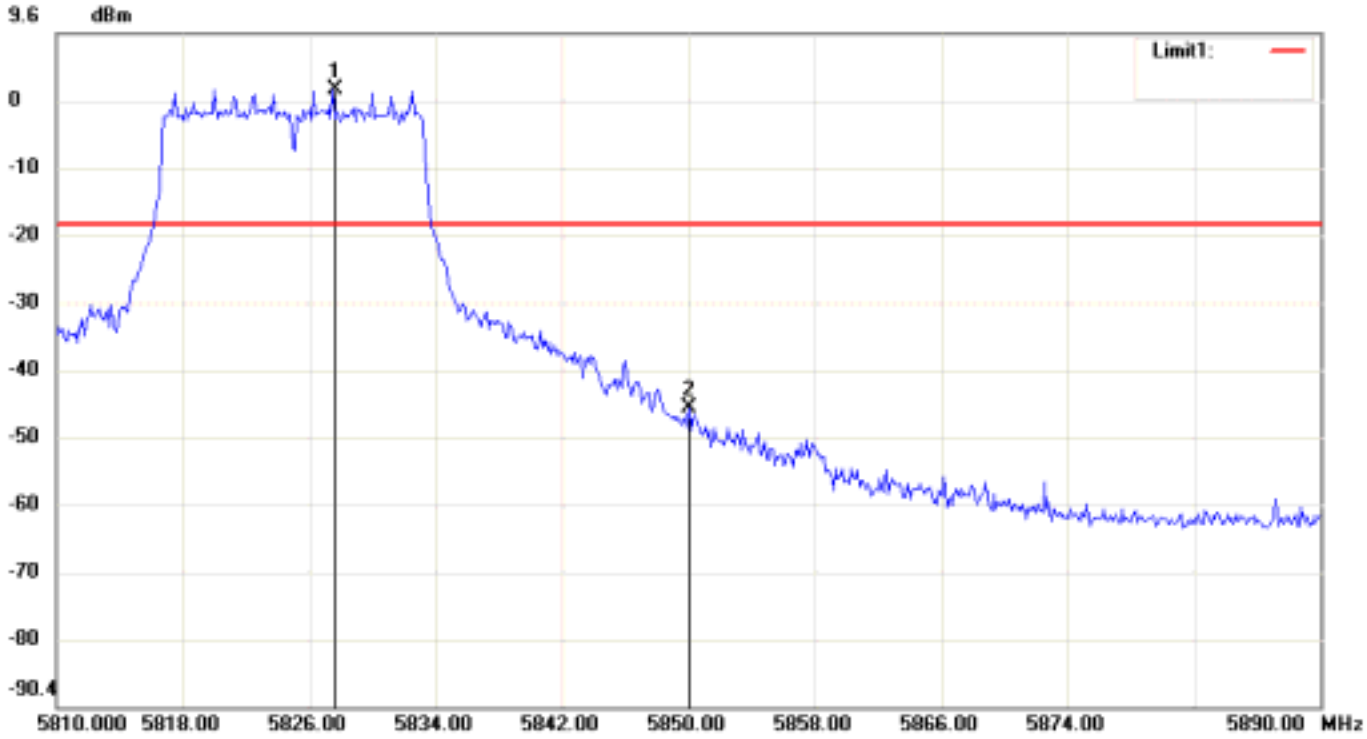
File: openpeak abgn Data: #89 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 09:40:58 **Humidity: 56 %**



Condition: **-18.86dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11a Channel 149-Bandedge**

No.	Frequency(MHz)	Level(dBm)
1	5724.33330	-41.36
2	5747.50000	1.14

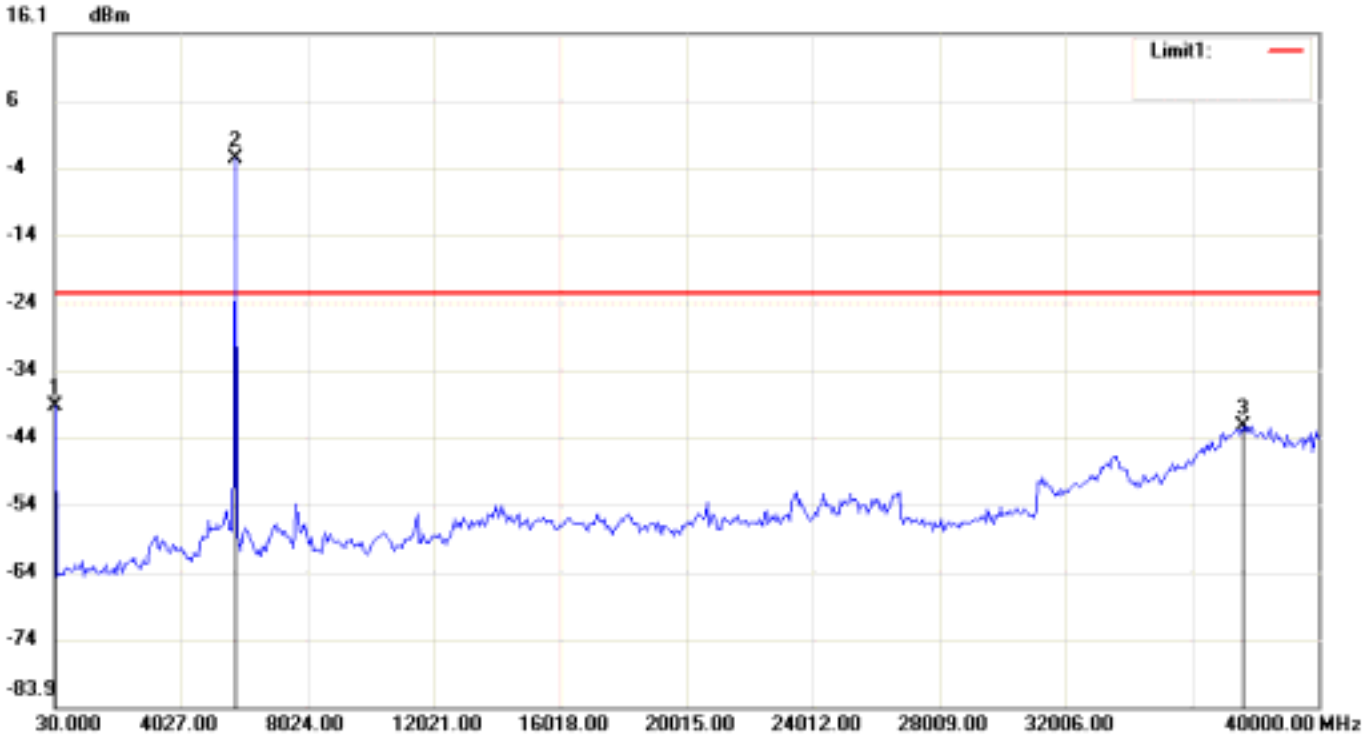
File: openpeak abgn Data: #98 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 09:57:33 **Humidity: 56 %**



Condition: **-18.77dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11a Channel 1491-Bandedge**

No.	Frequency(MHz)	Level(dBm)
1	5827.46670	1.23
2	5850.00000	-46.17

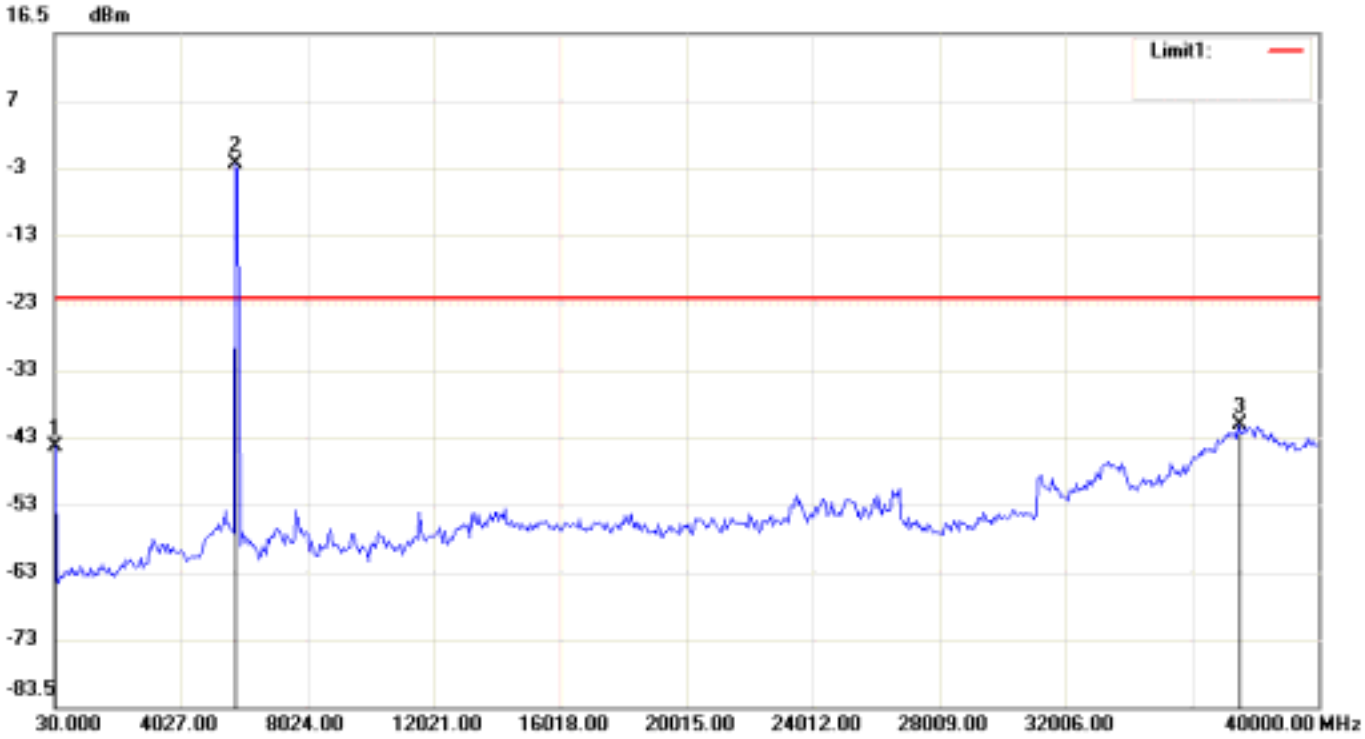
File: openpeak abgn Data: #86 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 09:36:46 **Humidity: 56 %**



Condition: **-22.37dBm** **RF Conducted**
EUT: **Sweep Time: 3819.92ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11a Channel 149-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	30.0000	-39.13
2	5759.03330	-2.37
3	37601.80000	-42.24

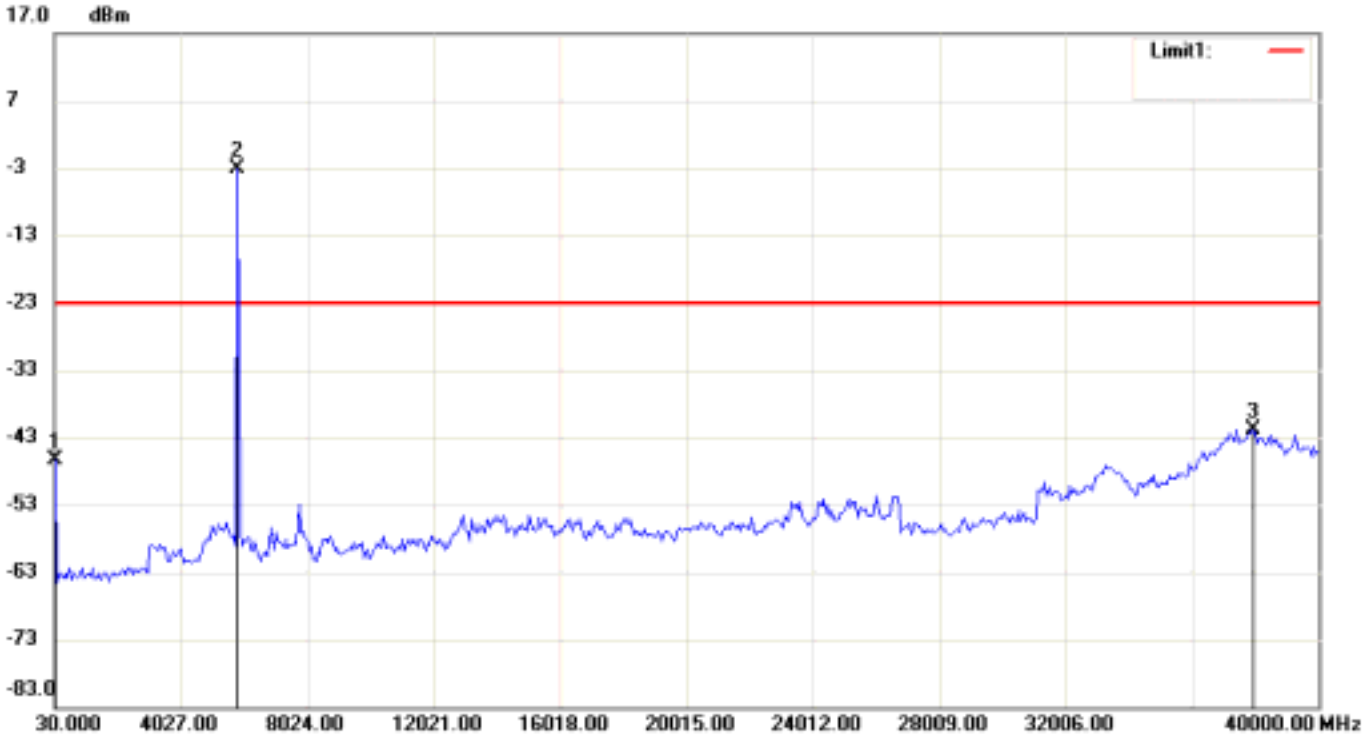
File: openpeak abgn Data: #91 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 09:44:18 **Humidity: 56 %**



Condition: **-22.72dBm** **RF Conducted**
EUT: **Sweep Time: 3819.92ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11a Channel 157-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	30.0000	-44.90
2	5759.03330	-2.72
3	37468.56670	-41.52

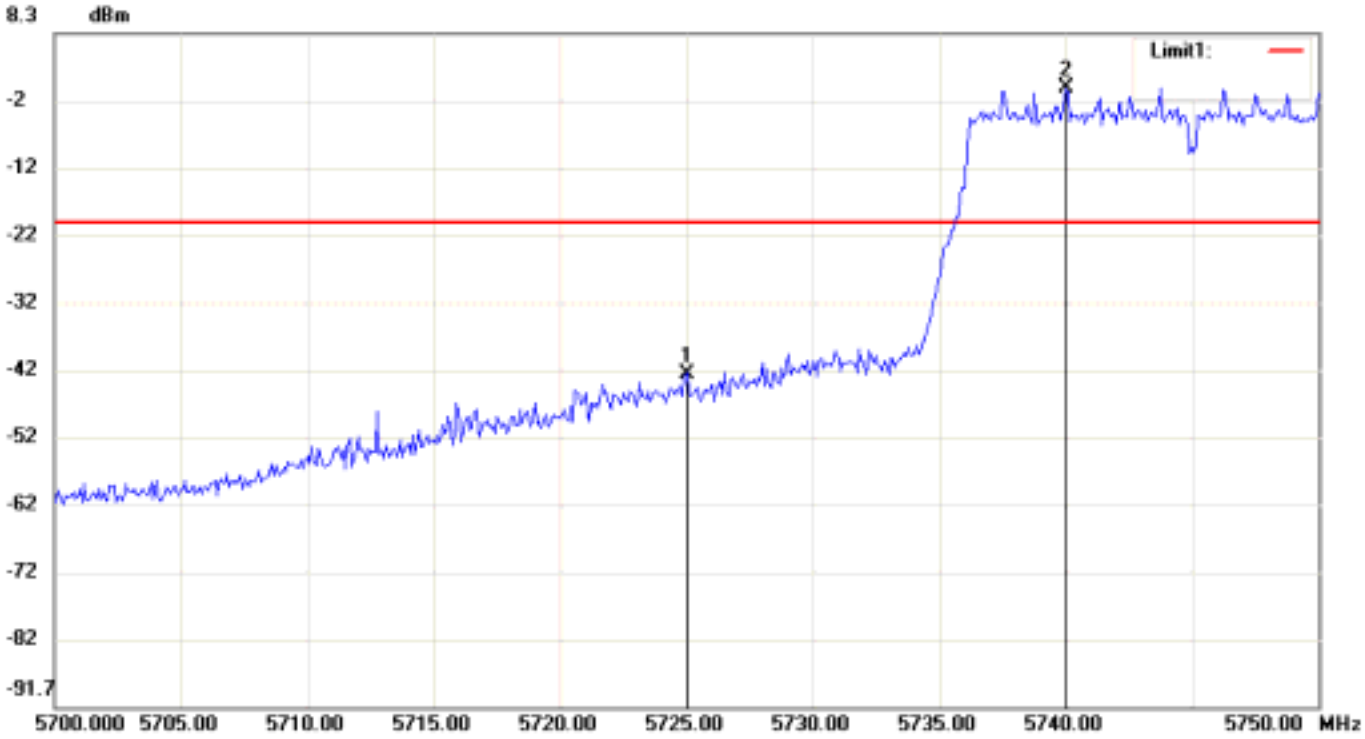
File: openpeak abgn Data: #95 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 09:53:02 **Humidity: 56 %**



Condition: **-22.99dBm** **RF Conducted**
EUT: **Sweep Time: 3819.92ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11a Channel 1491-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	30.0000	-46.29
2	5825.65000	-2.99
3	37868.26670	-41.84

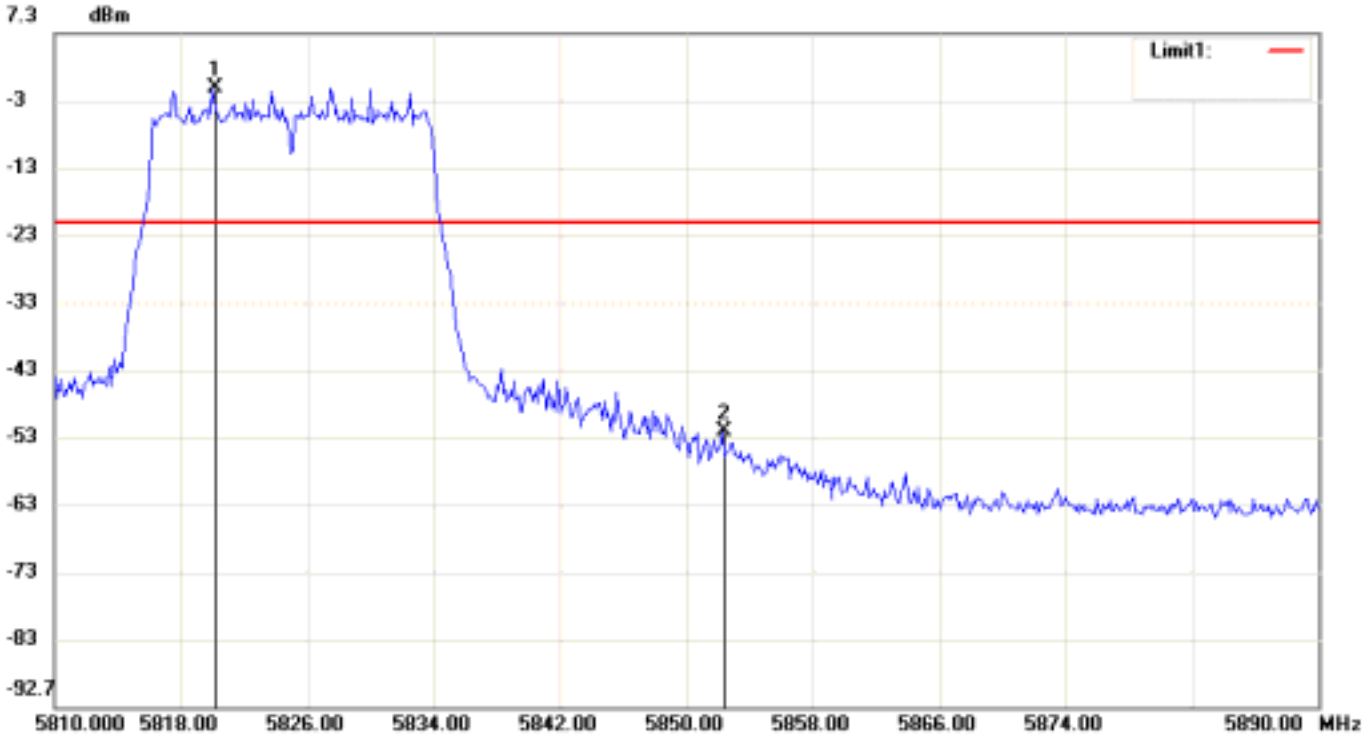
File: cisco **Data: #19** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 09:54:00 **Humidity: 54 %**



Condition: **-19.77dBm** **Horizontal**
EUT: **Sweep Time: 500ms** **Att.: 10dB**
Model: **RBW: 100 KHz** **VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11an_HT20 Channel 149-Bandedge**

No.	Frequency(MHz)	Level(dBm)
1	5725.00000	-42.22
2	5740.00000	0.23

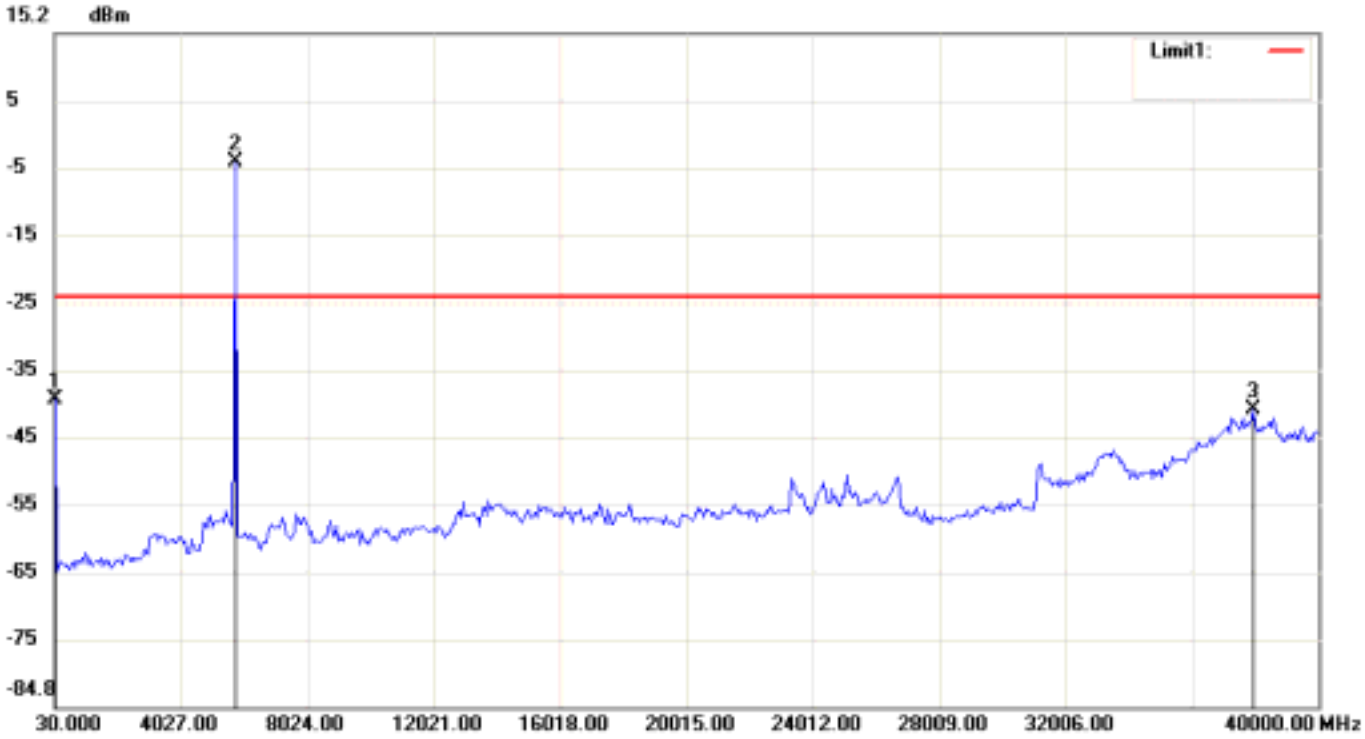
File: cisco **Data: #28** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 10:07:35 **Humidity: 54 %**



Condition: **-20.7dBm** **Horizontal**
EUT: **Sweep Time: 500ms** **Att.: 10dB**
Model: **RBW: 100 KHz** **VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11an_HT20 Channel 1491-Bandedge**

No.	Frequency(MHz)	Level(dBm)
1	5820.00000	-0.70
2	5852.26670	-51.79

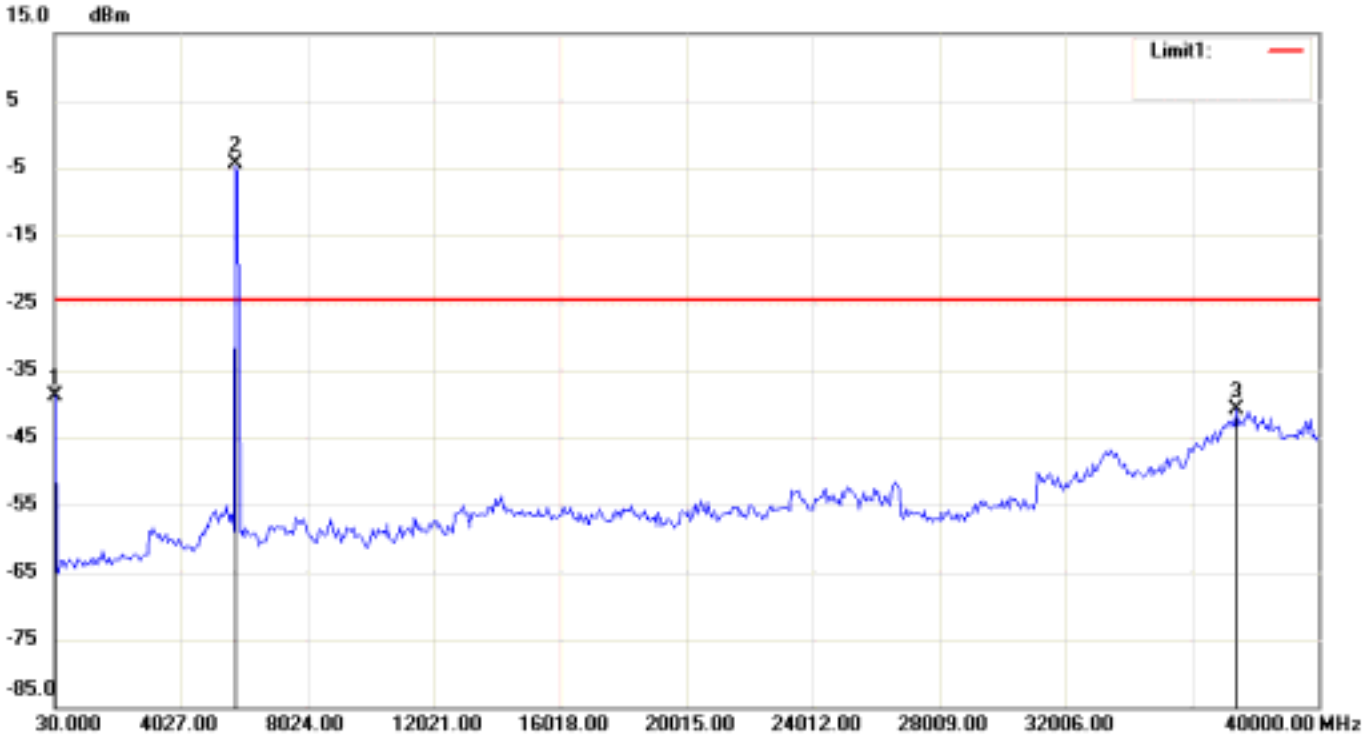
File: **cisco** **Data:** **#16** **Date:** **2011/3/21** **Temperature:** **17 ℃**
Time: **AM 09:49:22** **Humidity:** **54 %**



Condition: **-23.95dBm** **Horizontal**
EUT: **Sweep Time: 3819.92ms** **Att.: 20dB**
Model: **RBW: 100 KHz** **VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11an_HT20 Channel 149-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	30.0000	-39.11
2	5759.03330	-3.95
3	37934.88330	-40.77

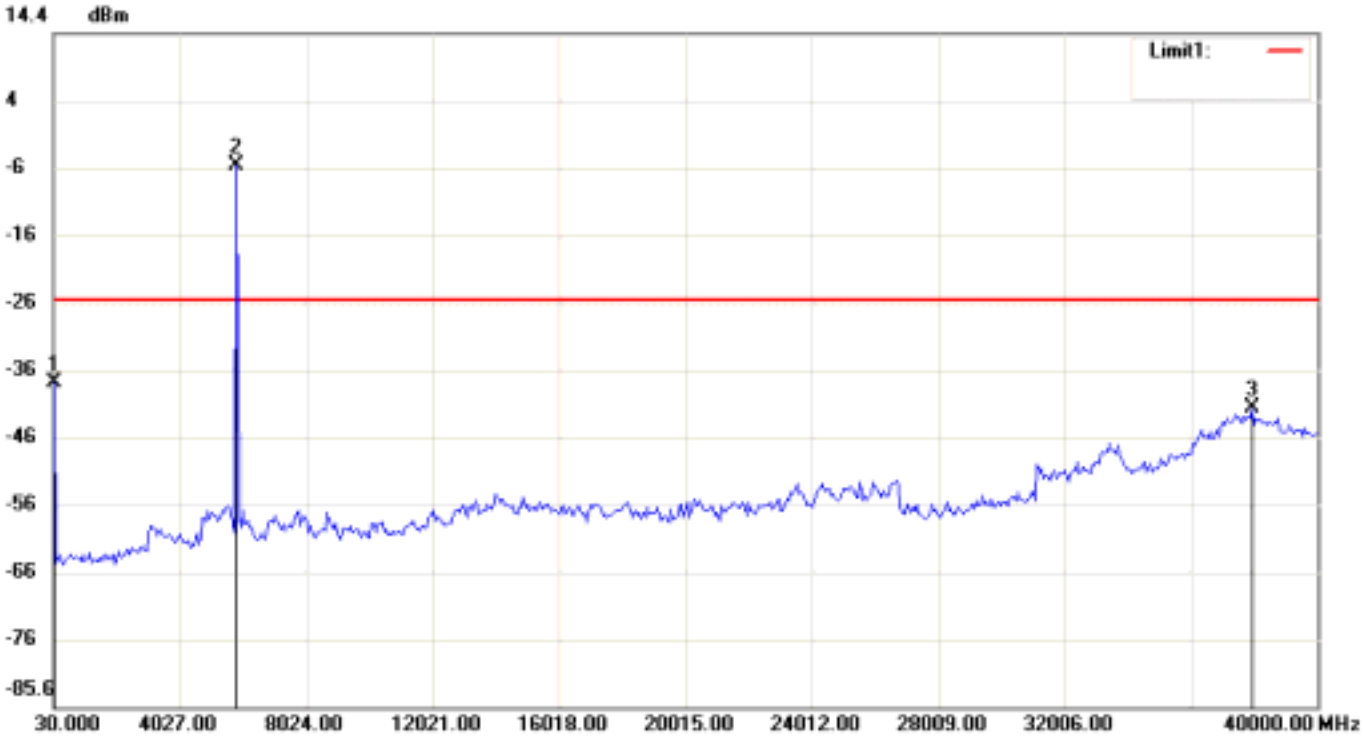
File: cisco **Data: #21** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 09:56:29 **Humidity: 54 %**



Condition: **-24.46dBm** **Horizontal**
EUT: **Sweep Time: 3819.92ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11an_HT20 Channel 157-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	30.0000	-38.78
2	5759.03330	-4.46
3	37401.95000	-40.77

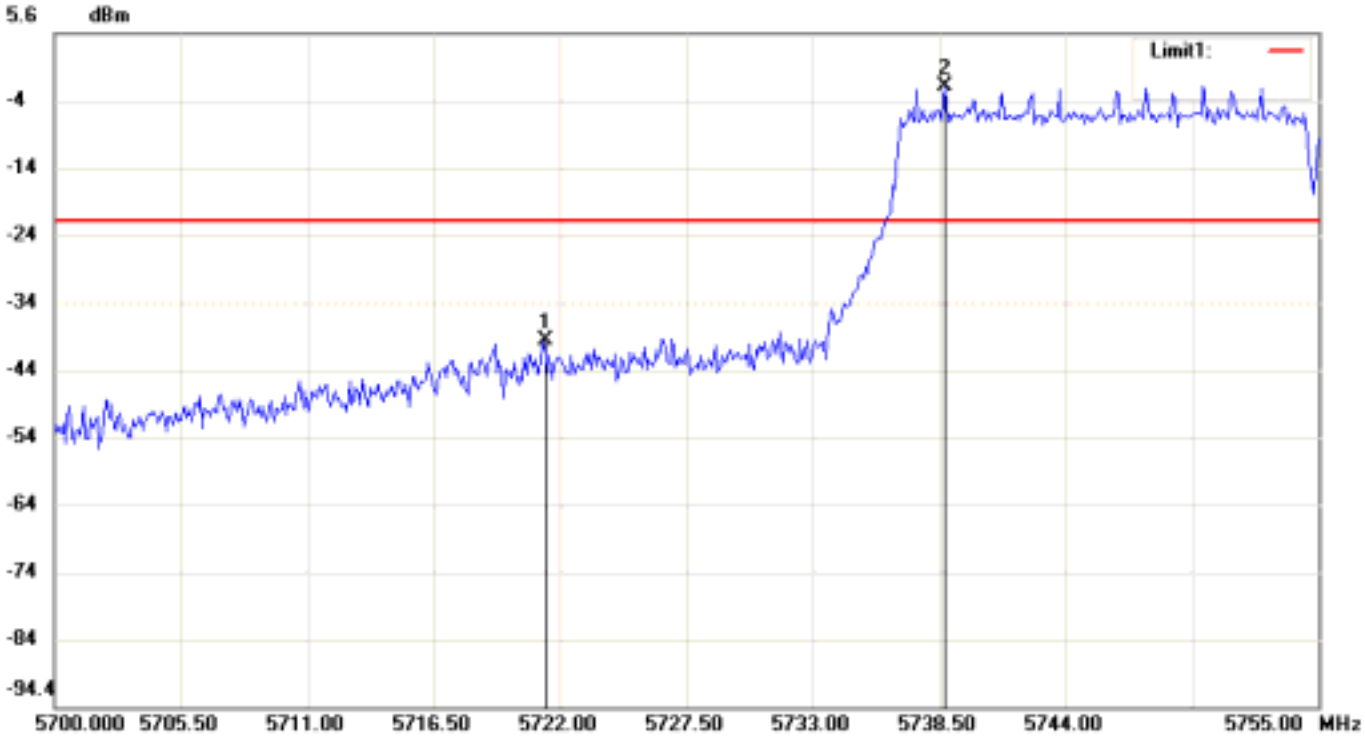
File: cisco **Data: #25** **Date: 2011/3/21** **Temperature: 17 ℃**
Time: AM 10:02:35 **Humidity: 54 %**



Condition: **-25.32dBm** **Horizontal**
EUT: **Sweep Time: 3819.92ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11an_HT20 Channel 1491-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	30.0000	-37.39
2	5825.65000	-5.32
3	37934.88330	-41.27

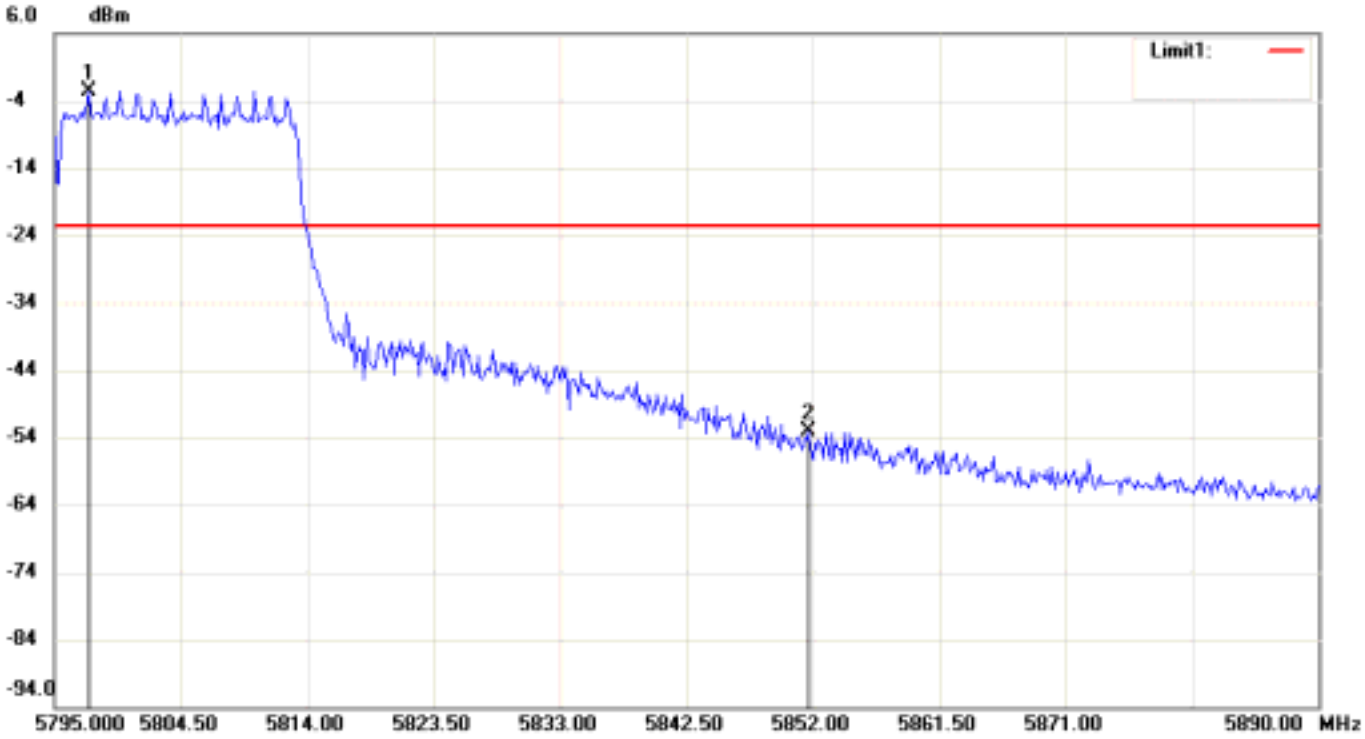
File: openpeak abgn Data: #103 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 10:19:44 **Humidity: 56 %**



Condition: **-22.2dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11an_HT40 Channel 151-Bandedge**

No.	Frequency(MHz)	Level(dBm)
1	5721.26670	-40.09
2	5738.77500	-2.20

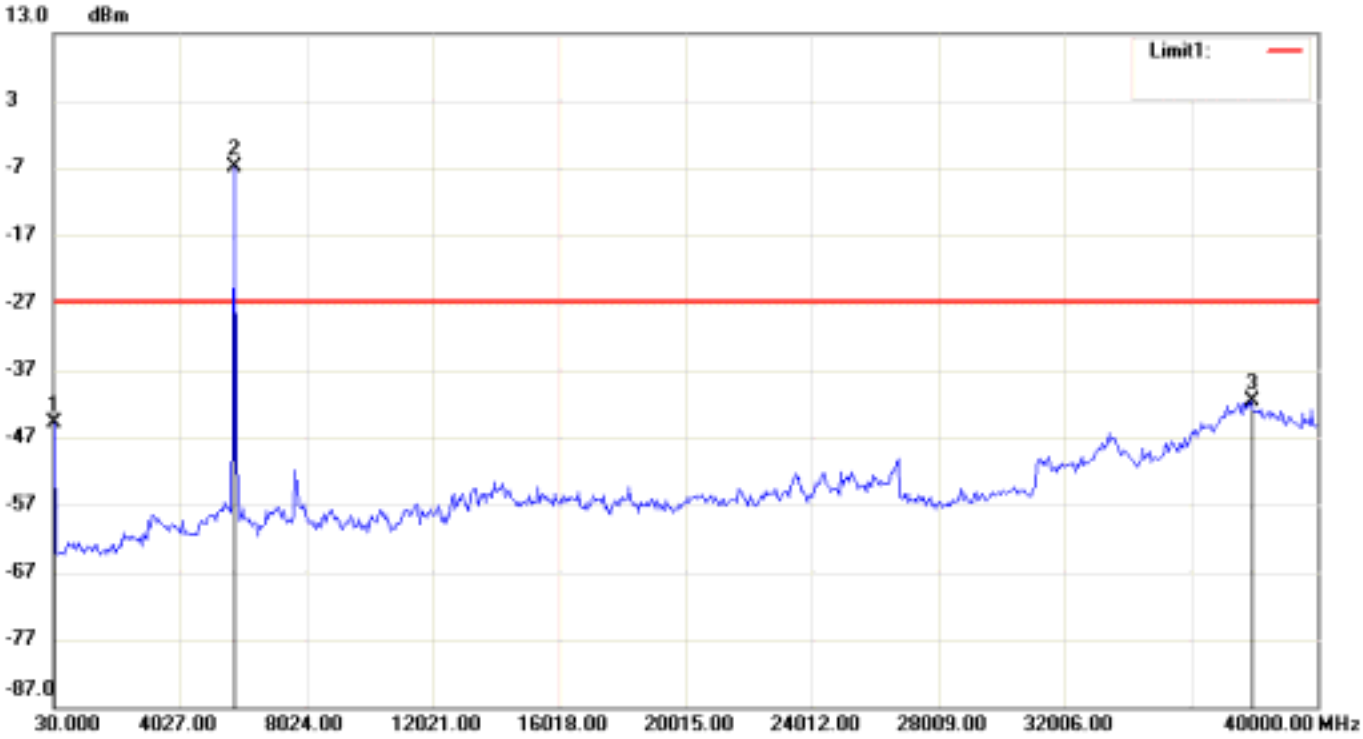
File: openpeak abgn Data: #108 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 10:28:03 **Humidity: 56 %**



Condition: **-22.56dBm** **RF Conducted**
EUT: **Sweep Time: 500ms Att.: 10dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11an_HT40 Channel 159-Bandedge**

No.	Frequency(MHz)	Level(dBm)
1	5797.53330	-2.56
2	5851.68330	-53.12

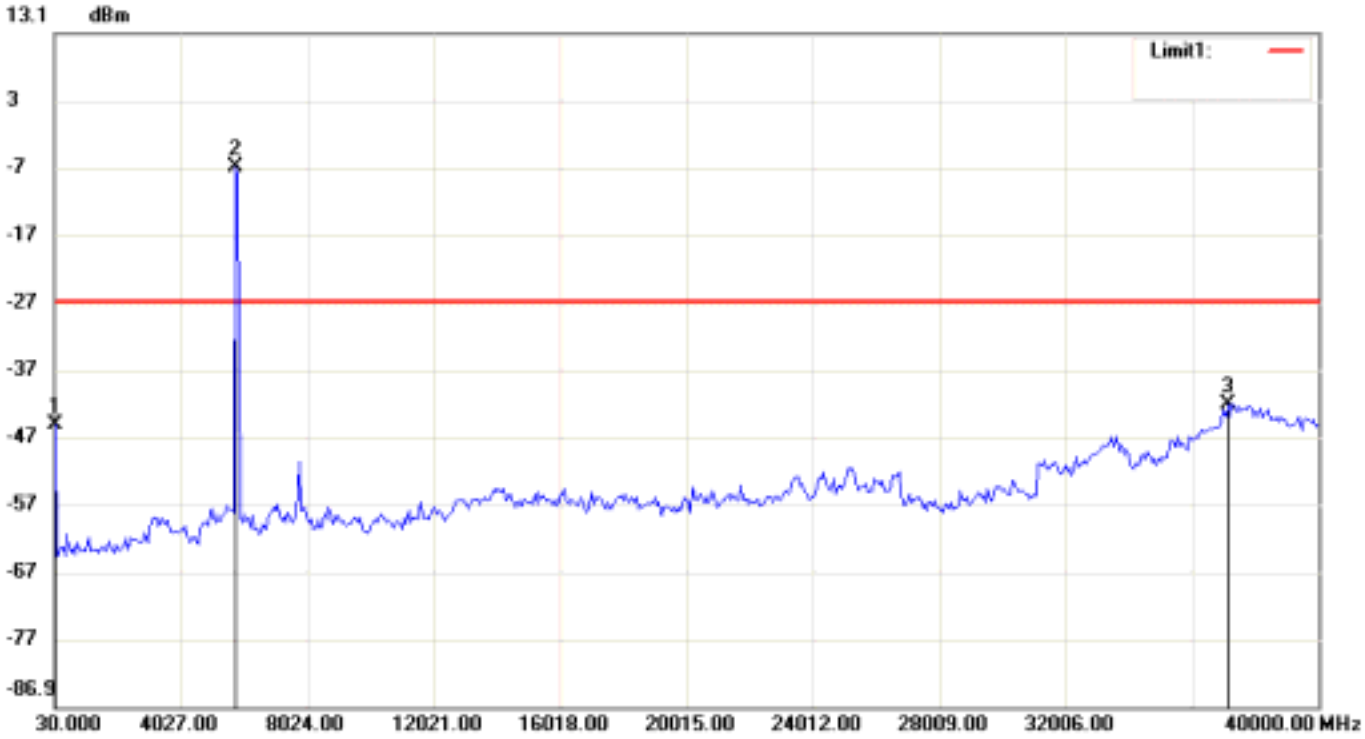
File: openpeak abgn Data: #100 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 10:15:34 **Humidity: 56 %**



Condition: **-26.98dBm** **RF Conducted**
EUT: **Sweep Time: 3819.92ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11an_HT40 Channel 151-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	30.0000	-44.89
2	5759.03330	-6.98
3	37868.26670	-41.61

File: openpeak abgn Data: #105 **Date: 2010/12/27** **Temperature: 20 ℃**
Time: AM 10:23:54 **Humidity: 56 %**



Condition: **-26.68dBm** **RF Conducted**
EUT: **Sweep Time: 3819.92ms Att.: 20dB**
Model: **RBW: 100 KHz VBW: 300 KHz**
Test Mode:
Note: **FCC-802.11an_HT40 Channel 159-Conducted Spurious**

No.	Frequency(MHz)	Level(dBm)
1	30.0000	-45.02
2	5759.03330	-6.68
3	37135.48330	-42.05

10 RADIATED EMISSION MEASUREMENT

10.1 Standard Applicable

For unintentional radiator, the radiated emission shall comply with §15.109(a).

For intentional radiators, according to §15.247 (a), operation under this provision is limited to frequency hopping and direct sequence spread spectrum, and the out band emission shall be comply with §15.247 (d)

10.2 Measurement Procedure

A.Preliminary Measurement For Portable Devices.

For portable devices, the following procedure was performed to determine the maximum emission axis of EUT (X, Y and Z axis):

1. With the receiving antenna is H polarization, rotate the EUT in turns with three orthogonal axes to determine the axis of maximum emission.
2. With the receiving antennna is V polarization, rotate the EUT in turns with three orthogonal axes to determine the axis of maximum emission.
3. Compare the results derived from above two steps. The axis of maximum emission from EUT was determined and the configuration was used to perform the final measurement.
4. The position in which the maximum noise occurred was “X axis”. (Please see the test setup photos)

B. Final Measurement

1. Setup the configuration per figure 3 and 4 for frequencies measured below and above 1 GHz respectively.
2. For emission frequencies measured below 1 GHz, it is performed in a semi-anechoic chamber to determine the accurate frequencies of higher emissions. For emission frequencies measured above 1 GHz, a pre-scan be performed with a 1 meter measuring distance before final test.
3. For emission frequencies measured below and above 1 GHz, set the spectrum analyzer on a 120 kHz and 1 MHz resolution bandwidth respectively for each frequency measured in step 2.
4. The search antenna is to be raised and lowered over a range from 1 to 4 meters in horizontally polarized orientation. Position the highness when the highest value is indicated on spectrum analyzer, then change the orientation of EUT on test table over a range from 0◦ to 360◦ with a speed as slow as possible, and keep the azimuth that highest emission is indicated on the spectrum analyzer. Vary the antenna position again and record the highest value as a final reading. A RF test receiver is also used to confirm emissions measured.
   Note : A filter was used to avoid pre-amplifier saturated when measure TX operation mode.
5. Repeat step 4 until all frequencies need to be measured were complete.
6. Repeat step 5 with search antenna in vertical polarized orientations.
7. Check the three frequencies of highest emission with varying the datarate, placement of ANT. cables associated with EUT to obtain the worse case and record the result.

Figure 3 : Frequencies measured below 1 GHz configuration

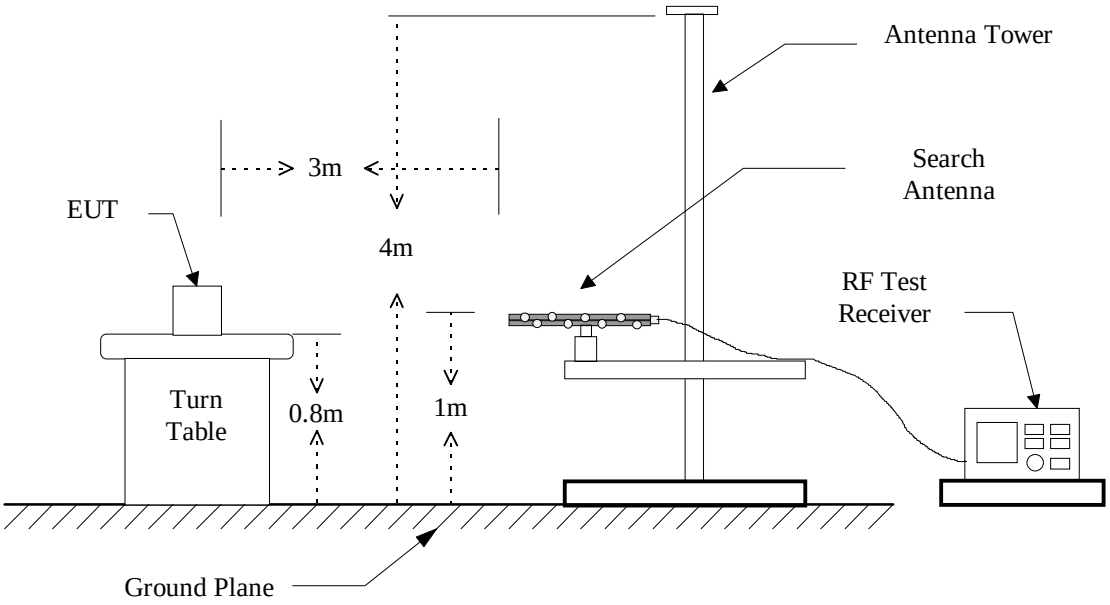
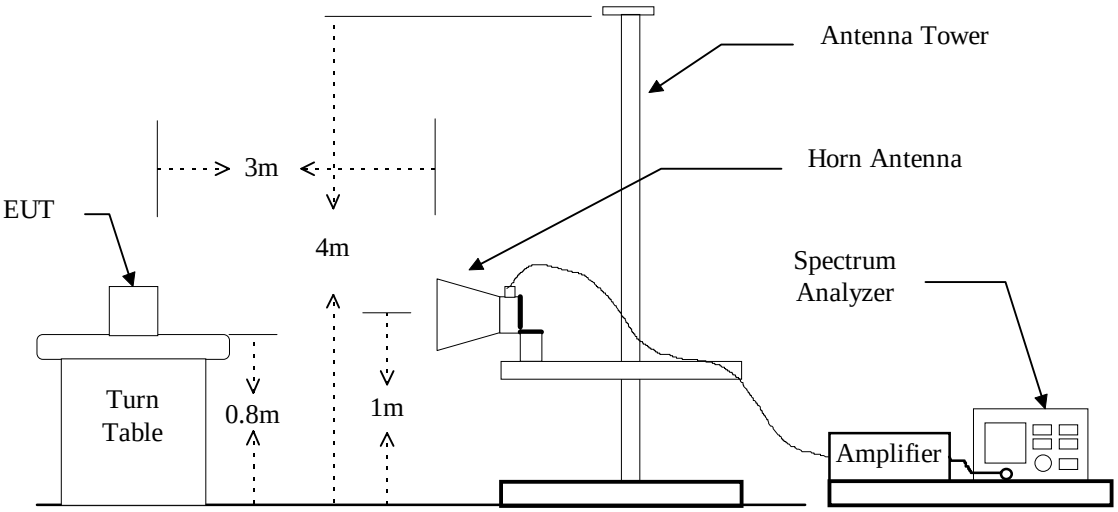


Figure 4 : Frequencies measured above 1 GHz configuration



10.3 Measuring Instrument

The following instrument are used for radiated emissions measurement :

Equipment	Manufacturer	Model No.	Next Cal. Due
EMI Test Receiver	R&S	ESIB7	07/19/2011
Spectrum Analyzer	Rohde & Schwarz	FSU46	11/25/2011
Horn Antenna	EMCO	3115	07/18/2011
BiLog Antenna	Schaffner	CBL 6112B	09/02/2011
Horn Antenna	EMCO	3116	07/16/2011
Preamplifier	Hewlett-Packard	8449B	10/10/2011

Measuring instrument setup in measured frequency band when specified detector function is used :

Frequency Band (MHz)	Instrument	Function	Resolution Bandwidth	Video Bandwidth
30 to 1000	RF Test Receiver	Quasi-Peak	120 kHz	300 kHz
	Spectrum Analyzer	Peak	120 kHz	300 kHz
Above 1000	Spectrum Analyzer	Peak	1 MHz	1 MHz
	Spectrum Analyzer	Average	1 MHz	10 Hz

10.4 Radiated Emission Data

10.4.1 Harmonic

10.4.1.1 Operation Mode: TX

10.4.1.1.1 IEEE 802.11b
Test Date: Dec. 23, 2010 Temperature: 26℃ Humidity: 57%

a) Channel 1
Fundamental Frequency: 2412 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
4824.000	---	---	---	---	-2.3	---	---	74.0	54.0
7236.000	---	---	---	---	-0.3	---	---	74.0	54.0
14472.000	---	---	---	---	8.8	---	---	74.0	54.0
19296.000	---	---	---	---	-6.4	---	---	74.0	54.0

b) Channel 6
Fundamental Frequency: 2437 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
4874.000	---	---	---	---	-2.3	---	---	74.0	54.0
7311.000	---	---	---	---	0.9	---	---	74.0	54.0
12185.000	---	---	---	---	4.2	---	---	74.0	54.0
19496.000	---	---	---	---	-6.4	---	---	74.0	54.0

c) Channel 11
Fundamental Frequency: 2462 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
4924.000	---	---	---	---	-2.3	---	---	74.0	54.0
7386.000	---	---	---	---	0.9	---	---	74.0	54.0
12310.000	---	---	---	---	4.4	---	---	74.0	54.0
19696.000	---	---	---	---	-6.4	---	---	74.0	54.0
22158.000	---	---	---	---	-4.5	---	---	74.0	54.0

Note :
1. Item of margin shown in above table refer to average limit.
2. Remark "---" means that the emissions level is too low to be measured.

10.4.1.1.2 IEEE 802.11g
Operation Mode: TX
Test Date : Dec. 23, 2010 Temperature: 26℃ Humidity : 57%

a) Channel 1
Fundamental Frequency: 2412 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
4824.000	---	---	---	---	-2.3	---	---	74.0	54.0
7236.000	---	---	---	---	-0.3	---	---	74.0	54.0
9648.000	---	---	---	---	2.0	---	---	74.0	54.0
19296.000	---	---	---	---	-6.4	---	---	74.0	54.0

b) Channel 6
Fundamental Frequency: 2437 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
4874.000	---	---	---	---	-2.3	---	---	74.0	54.0
7311.000	---	---	---	---	0.9	---	---	74.0	54.0
9748.000	---	---	---	---	2.3	---	---	74.0	54.0
19496.000	---	---	---	---	-6.4	---	---	74.0	54.0

c) Channel 11
Fundamental Frequency: 2462 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
4924.000	---	---	---	---	-2.3	---	---	74.0	54.0
7386.000	---	---	---	---	0.9	---	---	74.0	54.0
9848.000	---	---	---	---	2.3	---	---	74.0	54.0
19696.000	---	---	---	---	-6.4	---	---	74.0	54.0
22158.000	---	---	---	---	-4.5	---	---	74.0	54.0

Note :

1. Item of margin shown in above table refer to average limit.
2. Remark "---" means that the emissions level is too low to be measured.

10.4.1.1.3 IEEE 802.11gn, HT20
Operation Mode: TX
Test Date: Mar. 21, 2011 Temperature: 17℃ Humidity: 54%

a) Channel 1
Fundamental Frequency: 2412 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
4824.000	---	---	---	---	-2.3	---	---	74.0	54.0
7236.000	---	---	---	---	-0.3	---	---	74.0	54.0
9648.000	---	---	---	---	2.0	---	---	74.0	54.0
19296.000	---	---	---	---	-6.4	---	---	74.0	54.0

b) Channel 6
Fundamental Frequency: 2437 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
4874.000	---	---	---	---	-2.3	---	---	74.0	54.0
7311.000	---	---	---	---	0.9	---	---	74.0	54.0
9748.000	---	---	---	---	2.3	---	---	74.0	54.0
19496.000	---	---	---	---	-6.4	---	---	74.0	54.0

c) Channel 11
Fundamental Frequency: 2462 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
4924.000	---	---	---	---	-2.3	---	---	74.0	54.0
7386.000	---	---	---	---	0.9	---	---	74.0	54.0
9848.000	---	---	---	---	2.3	---	---	74.0	54.0
19696.000	---	---	---	---	-6.4	---	---	74.0	54.0
22158.000	---	---	---	---	-4.5	---	---	74.0	54.0

Note :

1. Item of margin shown in above table refer to average limit.
2. Remark "---" means that the emissions level is too low to be measured.

10.4.1.1.4 IEEE 802.11gn, HT40
Operation Mode: TX
Test Date: Dec. 23, 2010 Temperature: 26℃ Humidity: 57%

a) Channel 3
Fundamental Frequency: 2422 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
4844.000	---	---	---	---	-2.3	---	---	74.0	54.0
7266.000	---	---	---	---	0.9	---	---	74.0	54.0
9688.000	---	---	---	---	2.0	---	---	74.0	54.0
19376.000	---	---	---	---	-6.4	---	---	74.0	54.0

b) Channel 6
Fundamental Frequency: 2437 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
4874.000	---	---	---	---	-2.3	---	---	74.0	54.0
7311.000	---	---	---	---	0.9	---	---	74.0	54.0
9748.000	---	---	---	---	2.3	---	---	74.0	54.0
19496.000	---	---	---	---	-6.4	---	---	74.0	54.0

c) Channel 9
Fundamental Frequency: 2452 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
4904.000	---	---	---	---	-2.3	---	---	74.0	54.0
7356.000	---	---	---	---	0.9	---	---	74.0	54.0
9808.000	---	---	---	---	2.3	---	---	74.0	54.0
19616.000	---	---	---	---	-6.4	---	---	74.0	54.0
22068.000	---	---	---	---	-4.5	---	---	74.0	54.0

Note :
1. Item of margin shown in above table refer to average limit.
2. Remark "---" means that the emissions level is too low to be measured.

10.4.1.1.5 IEEE 802.11a
Operation Mode: TX
Test Date : Dec. 23, 2010 Temperature: 26℃ Humidity : 57%

a) Channel 149
Fundamental Frequency: 5745 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
11450.000	---	---	---	---	4.3	---	---	74.0	54.0
17175.000	---	---	---	---	7.4	---	---	74.0	54.0

b) Channel 157
Fundamental Frequency: 5785 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
11570.000	---	---	---	---	4.3	---	---	74.0	54.0
17355.000	---	---	---	---	10.1	---	---	74.0	54.0

c) Channel 165
Fundamental Frequency: 5825 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
11650.000	---	---	---	---	4.3	---	---	74.0	54.0
17475.000	---	---	---	---	10.1	---	---	74.0	54.0

Note :
1. Item of margin shown in above table refer to average limit.
2. Remark "---" means that the emissions level is too low to be measured.

10.4.1.1.6 IEEE 802.11a,HT20
Operation Mode: TX
Test Date: Mar. 21, 2011 Temperature: 17°C Humidity: 54%

a) Channel 149
Fundamental Frequency: 5745 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
11450.000	---	---	---	---	4.3	---	---	74.0	54.0
17175.000	---	---	---	---	7.4	---	---	74.0	54.0

b) Channel 157
Fundamental Frequency: 5785 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
11570.000	---	---	---	---	4.3	---	---	74.0	54.0
17355.000	---	---	---	---	10.1	---	---	74.0	54.0

c) Channel 165
Fundamental Frequency: 5825 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
11650.000	---	---	---	---	4.3	---	---	74.0	54.0
17475.000	---	---	---	---	10.1	---	---	74.0	54.0

Note :
1. Item of margin shown in above table refer to average limit.
2. Remark "---" means that the emissions level is too low to be measured.

10.4.1.1.7 IEEE 802.11a,HT40
Operation Mode: TX
Test Date: Dec. 23, 2010 Temperature: 26℃ Humidity: 57%

a) Channel 151
Fundamental Frequency: 5755 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
11510.000	59.6	44.1	64.8	49.1	4.4	69.2	53.5	74.0	54.0
17265.000	---	---	---	---	8.93	---	---	74.0	54.0

b) Channel 159
Fundamental Frequency: 5795 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
11590.000	59.8	44.3	64.2	49.2	4.4	68.6	53.6	74.0	54.0
17385.000	---	---	---	---	9.58	---	---	74.0	54.0

Note :
1. Item of margin shown in above table refer to average limit.
2. Remark "---" means that the emissions level is too low to be measured.

10.4.1.2 Operation Mode: WiFi IEEE 802.11gn, HT40, Ch 3+ BT, Ch0 (Worse Case)

Operation Mode : IEEE 802.11gn, HT40

Channel 3
Fundamental Frequency: 2422 MHz

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m	
	H		V		(dB)	(dBuV/m)		(dBuV/m)	
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave.
4844.000	---	---	---	---	-2.3	---	---	74.0	54.0
7266.000	---	---	---	---	0.9	---	---	74.0	54.0
9688.000	---	---	---	---	2.0	---	---	74.0	54.0
19376.000	---	---	---	---	-6.4	---	---	74.0	54.0

Note :

1. Item of margin shown in above table refer to average limit.
2. Remark “---” means that the emissions level is too low to be measured.

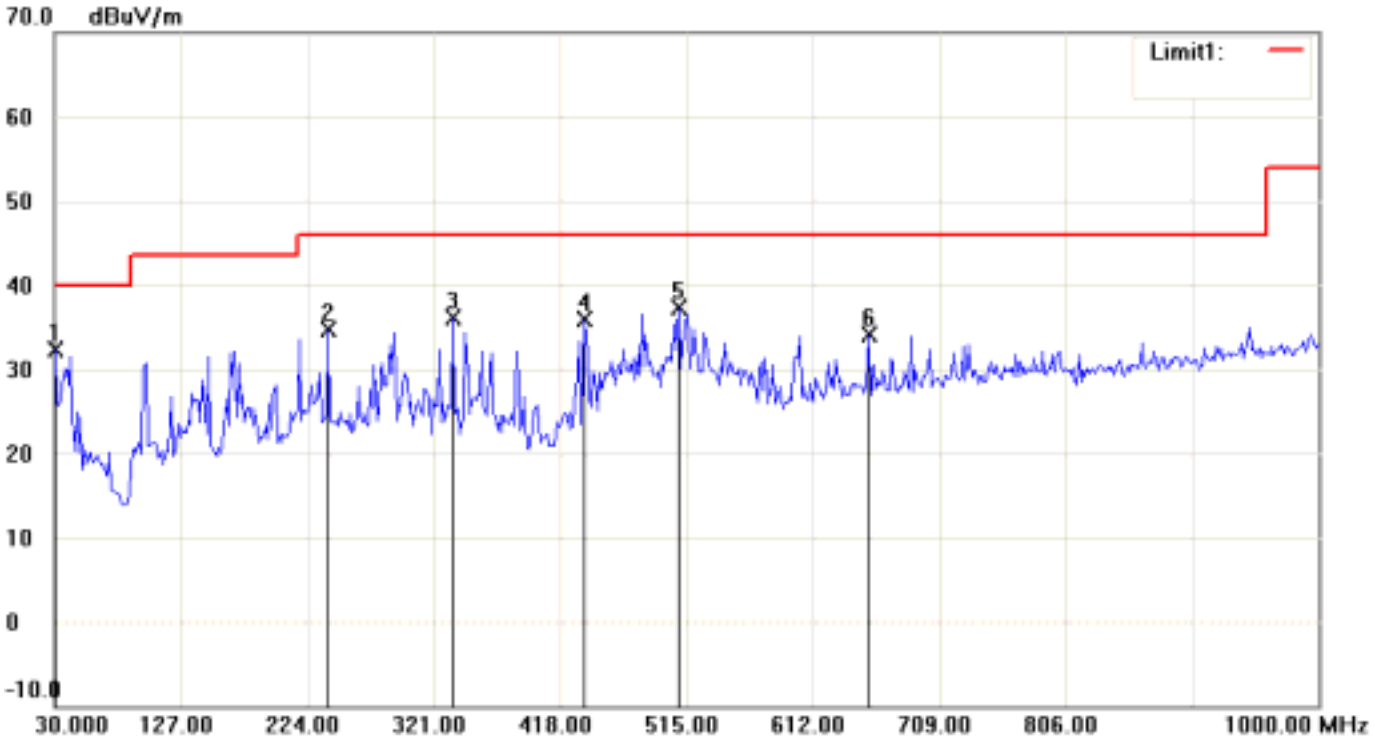
10.4.2 Spurious Emission

10.4.2.1 Operation Mode: Tx

a) Emission frequencies below 1 GHz

File: 837 **Data:** #13 **Date:** 2011/3/20 **Temperature:** 16 ℃

Time: PM 03:03:12 **Humidity:** 58 %



Condition:

EUT:

Model:

Test Mode:

Note:

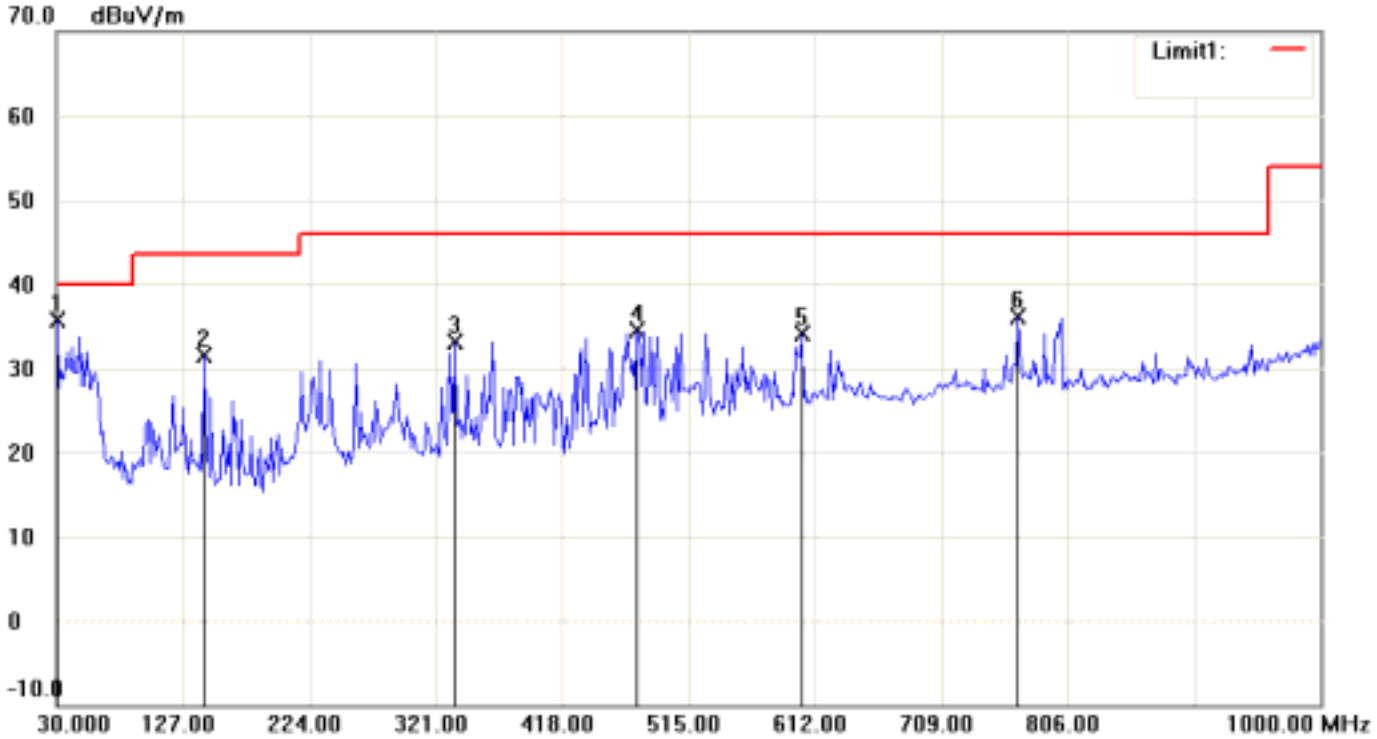
Polarization: Horizontal

Distance: 3m

No.	Frequency (MHz)	Reading (dBuV/m)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	30.0000	12.26	peak	19.97	32.23	40.00	-7.77
2	239.8557	20.45	peak	14.30	34.75	46.00	-11.25
3	336.2340	17.98	peak	18.03	36.01	46.00	-9.99
4	437.2756	15.14	peak	20.75	35.89	46.00	-10.11
5	508.7820	13.29	peak	24.02	37.31	46.00	-8.69
6	654.9038	8.94	peak	25.13	34.07	46.00	-11.93

File: 837 **Data:** #14 **Date:** 2011/3/20 **Temperature:** 16 ℃

Time: PM 03:04:14 **Humidity:** 58 %



Condition:

EUT:

Model:

Test Mode:

Note:

Polarization: Vertical

Distance: 3m

No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
	(MHz)	(dBuV/m)		dB/m	(dBuV/m)	(dBuV/m)	(dB)
1	30.0000	15.66	peak	19.97	35.63	40.00	-4.37
2	143.4774	18.17	peak	13.41	31.58	43.50	-11.92
3	336.2340	15.05	peak	18.03	33.08	46.00	-12.92
4	476.1378	11.89	peak	22.70	34.59	46.00	-11.41
5	602.0511	9.97	peak	24.07	34.04	46.00	-11.96
6	768.3813	8.78	peak	27.31	36.09	46.00	-9.91

b) Emission frequencies above 1 GHz

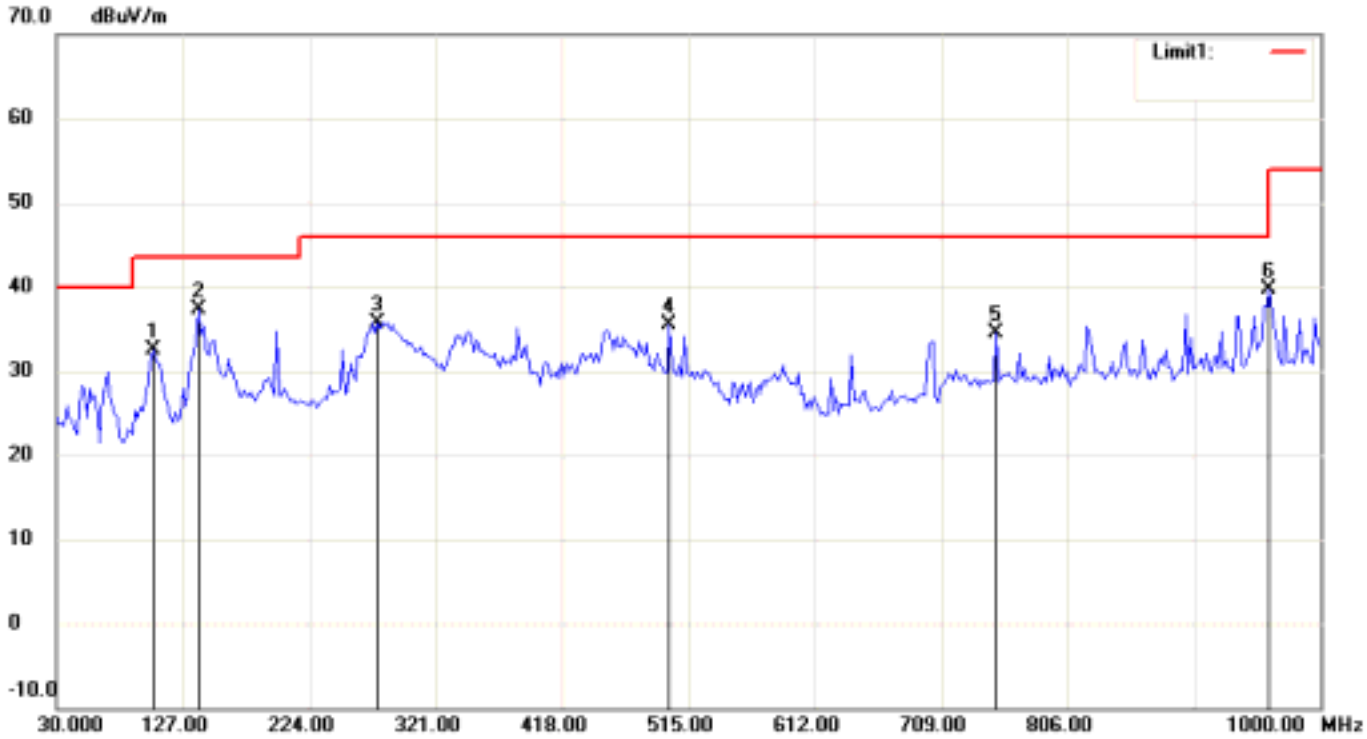
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result @3m (dBuV/m)	Limit @3m (dBuV/m)	Margin (dB)
Radiated emission frequencies above 1 GHz to 25 GHz were too low to be measured.						

Note:

1. Place of Measurement: Measuring site of the ETC.
2. If the data table appeared symbol of "***" means the value was too low to be measured.
3. The estimated measurement uncertainty of the result measurement is
   ±4.6dB (30MHz≦f<300MHz).
   ±4.4dB (300MHz≦f<1000MHz).
   ±2.9dB (1GHz≦f<18GHz).
   ±3.5dB (18GHz≦f≦40GHz).

10.4.2.2 Operation Mode: WiFi IEEE 802.11gn, HT40, Ch 3+ BT, Ch0 (Worse Case)
a) Emission frequencies below 1 GHz

File: 837 **Data:** #2 **Date:** 2011/3/21 **Temperature:** 18 ℃
Time: AM 07:55:21 **Humidity:** 63 %

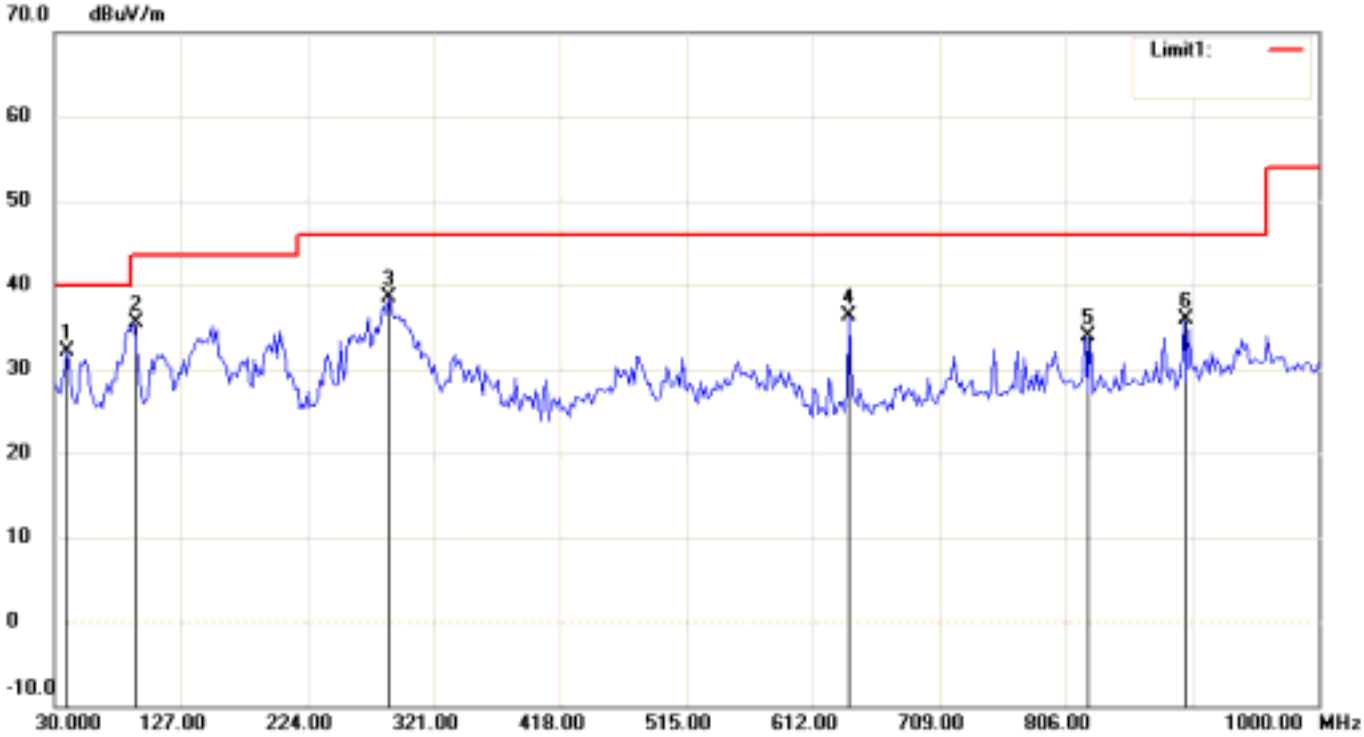


Condition: FCC Part15 RE-Class B_30-1000MHz **Polarization:** Horizontal
EUT: **Distance:** 3m
Model:
Test Mode:

No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
	(MHz)	(dBuV/m)		dB/m	(dBuV/m)	(dBuV/m)	(dB)
1	103.8677	21.41	peak	11.02	32.43	43.50	-11.07
2	138.8577	24.30	peak	13.10	37.40	43.50	-6.10
3	276.8737	19.85	peak	15.93	35.78	46.00	-10.22
4	500.4208	12.49	peak	23.03	35.52	46.00	-10.48
5	751.1824	8.90	peak	25.57	34.47	46.00	-11.53
6	961.1222	11.59	peak	28.13	39.72	54.00	-14.28

File: 837 **Data:** #3 **Date:** 2011/3/21 **Temperature:** 18 ℃

Time: AM 07:57:51 **Humidity:** 63 %



Condition: FCC Part15 RE-Class B_30-1000MHz **Polarization:** Vertical

EUT: **Distance:** 3m

Model:

Test Mode:

No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
	(MHz)	(dBuV/m)		dB/m	(dBuV/m)	(dBuV/m)	(dB)
1	39.7194	17.03	peak	15.10	32.13	40.00	-7.87
2	90.2605	25.04	peak	10.54	35.58	43.50	-7.92
3	286.5932	22.84	peak	15.70	38.54	46.00	-7.46
4	640.3808	13.45	peak	22.82	36.27	46.00	-9.73
5	821.1623	9.17	peak	24.67	33.84	46.00	-12.16
6	896.9740	10.28	peak	25.54	35.82	46.00	-10.18

b) Emission frequencies above 1 GHz

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result @3m (dBuV/m)	Limit @3m (dBuV/m)	Margin (dB)
Radiated emission frequencies above 1 GHz to 25 GHz were too low to be measured.						

Note:

1. Place of Measurement: Measuring site of the ETC.
2. If the data table appeared symbol of "***" means the value was too low to be measured.
3. The estimated measurement uncertainty of the result measurement is
   ±4.6dB (30MHz≦f<300MHz).
   ±4.4dB (300MHz≦f<1000MHz).
   ±2.9dB (1GHz≦f<18GHz).
   ±3.5dB (18GHz≦f≦40GHz).

10.4.3 Radiated Measurement at Bandedge with Fundamental Frequencies and co-location

Test Date : Dec. 23, 2010 Temperature: 26℃ Humidity : 57%

10.4.3.1 Operation Mode: TX

10.4.3.1.1 IEEE 802.11b

Operation Channel	Test Frequency (MHz)	Reading (dBuV) H Peak	Reading (dBuV) H Ave	Reading (dBuV) V Peak	Reading (dBuV) V Ave	Factor (dB) Corr.	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) Ave	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) Ave.
1	2390.000	27.75	15.35	27.95	15.42	29.8	57.75	45.22	74	54
11	2483.500	27.32	15.03	27.50	15.11	29.8	57.30	44.91	74	54

10.4.3.1.2 IEEE 802.11g

Operation Channel	Test Frequency (MHz)	Reading (dBuV) H Peak	Reading (dBuV) H Ave	Reading (dBuV) V Peak	Reading (dBuV) V Ave	Factor (dB) Corr.	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) Ave	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) Ave.
1	2390.000	27.62	14.92	29.32	15.71	29.8	59.12	45.51	74	54
11	2483.500	28.16	15.11	28.34	15.72	29.8	58.14	45.52	74	54

Test Date: Mar. 21, 2011 Temperature: 17℃ Humidity: 54%

10.4.3.1.3 IEEE 802.11gn, HT20

Operation Channel	Test Frequency (MHz)	Reading (dBuV) H Peak	Reading (dBuV) H Ave	Reading (dBuV) V Peak	Reading (dBuV) V Ave	Factor (dB) Corr.	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) Ave	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) Ave.
1	2390.000	27.16	15.33	27.39	15.44	29.8	57.19	45.24	74	54
11	2483.500	27.31	15.08	27.62	15.18	29.8	57.42	44.98	74	54

Test Date : Dec. 23, 2010 Temperature: 26℃ Humidity : 57%

10.4.3.1.4 IEEE 802.11gn, HT40

Operation Channel	Test Frequency (MHz)	Reading (dBuV) H Peak	Reading (dBuV) H Ave	Reading (dBuV) V Peak	Reading (dBuV) V Ave	Factor (dB) Corr.	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) Ave	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) Ave.
1	2390.000	28.56	15.04	30.06	15.73	29.8	59.86	45.53	74	54
11	2483.500	28.36	15.02	27.83	15.14	29.8	58.16	44.94	74	54

Note :

1. Remark "---" means that the emissions level is too low to be measured.
2. The result is the highest value of radiated emission from restrict band of 2310 ~ 2390 MHz and 2483.5 ~ 2500 MHz.

Test Date : Mar. 28, 2011 Temperature: 23℃ Humidity : 58%

10.4.3.2 Operation Mode: WiFi+ BT, Ch0 (Worse Case)

10.4.3.2.1 IEEE 802.11b

Operation Channel	Test Frequency (MHz)	Reading (dBuV) H Peak	H Ave	V Peak	V Ave	Factor (dB) Corr.	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) Ave	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) Ave.
1	2390.000	27.76	15.35	27.85	15.43	29.8	57.65	45.23	74	54
11	2483.500	27.34	15.02	27.66	15.11	29.8	57.46	44.91	74	54

10.4.3.2.2 IEEE 802.11g

Operation Channel	Test Frequency (MHz)	Reading (dBuV) H Peak	H Ave	V Peak	V Ave	Factor (dB) Corr.	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) Ave	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) Ave.
1	2390.000	27.35	14.91	29.44	15.71	29.8	59.24	45.51	74	54
11	2483.500	28.41	15.10	28.39	15.72	29.8	58.21	45.52	74	54

10.4.3.2.3 IEEE 802.11gn, HT20

Operation Channel	Test Frequency (MHz)	Reading (dBuV) H Peak	H Ave	V Peak	V Ave	Factor (dB) Corr.	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) Ave	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) Ave.
1	2390.000	28.58	15.02	30.11	15.73	29.8	59.91	45.53	74	54
11	2483.500	28.52	15.02	27.86	15.12	29.8	58.32	44.92	74	54

10.4.3.2.4 IEEE 802.11gn, HT40

Operation Channel	Test Frequency (MHz)	Reading (dBuV) H Peak	H Ave	V Peak	V Ave	Factor (dB) Corr.	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) Ave	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) Ave.
1	2390.000	27.11	15.32	27.33	15.45	29.8	57.13	45.25	74	54
11	2483.500	27.35	15.08	27.91	15.19	29.8	57.71	44.99	74	54

Note :

1. Remark "---" means that the emissions level is too low to be measured.
2. The result is the highest value of radiated emission from restrict band of 2310 ~ 2390 MHz and 2483.5 ~ 2500 MHz.

10.5 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor, High Pass Filter Loss(if used) and Cable Loss, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

where

Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain