

FCC Part 15C Measurement and Test Report


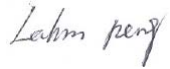

For

Shenzhen Anbash Technology CO., LTD.

Area B, 4/FL, Block G, Heng Chang Rong Xinghui Technology Park, West Hua

Ning Road, Da Lang Community, Bao'an District, Shenzhen, P.R.C

FCC ID: Z6BNC316PW

Report Concerns: Original Report	Equipment Type: Network Camera
Model:	<u>NC316PW</u>
Report No.:	<u>STR12058030I</u>
Test Date:	<u>2012-05-04 to 2012-05-28</u>
Issue Date:	<u>2012-05-29</u>
Tested By:	<u>Jason Jiang / Engineer</u> 
Reviewed By:	<u>Lahm Peng / EMC Manager</u> 
Approved & Authorized By:	<u>Jandy so / PSQ Manager</u> 
Prepared By:	
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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by SEM.Test Compliance Service Co., Ltd.

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Shenzhen Anbash Technology CO., LTD.
 Address of applicant: Area B, 4/FL, Block G, Heng Chang Rong Xinghui Technology Park, West Hua Ning Road, Da Lang Community, Bao'an District, Shenzhen, P.R.C

Manufacturer: Shenzhen Anbash Technology CO., LTD.
 Address of manufacturer: Area B, 4/FL, Block G, Heng Chang Rong Xinghui Technology Park, West Hua Ning Road, Da Lang Community, Bao'an District, Shenzhen, P.R.C

General Description of E.U.T

Items	Description
EUT Description:	Network Camera
Trade Name:	Anbash
Model No.:	NC316PW
Add Model:	NC316W, NC316P, NC326PW, NC326P, NC326W
Rated Voltage:	DC 12V by power adaptor
Adaptor Model:	KSAS0101200100HU
RF Output Power	Max. 7.17dBm(Conducted)
Antenna Gain:	5.0dBi
Frequency range:	2412-2462MHz for 11b/g/n(HT20) 2422-2452MHz for 11n(HT40)
Number of channels:	11for 11b/g/n(HT20), 7 for 11n(HT40)
Channel Separation:	5MHz
Type of Antenna:	External Antenna

Note: The test data is gathered from a production sample, provided by the manufacture. The others models listed in the report have different appearance only of NC316PW without circuit and electronic construction changed, declared by the manufacturer.

1.2 Test Standards

The following report is prepared on behalf of the Shenzhen Anbash Technology CO., LTD. in accordance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted with Low Channel, Middle Channel and High Channel, accordingly in reference to the Operating Instructions.

1.4 Test Facility

- **FCC – Registration No.: 994117**

SEM.Test Compliance Services Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files and the Registration is 994117.

- **Industry Canada (IC) Registration No.: 7673A**

The 3m Semi-anechoic chamber of SEM.Test Compliance Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 7673A.

- **CNAS Registration No.: L4062**

Shenzhen SEM.Test Electronics Service Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 3/F, Jinbao Commerce Building, Xin'an Fanshen Road, Bao'an District, Shenzhen, P.R.C (518101)

1.5 EUT Exercise Software

The EUT exercise program used during the testing was designed to exercise the system components.

1.6 Accessories Equipment List and Details

Description	Manufacturer	Model	Serial Number
ASUS	Notebook	X50R	74N0AS297138

1.7 EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
DC Cable	3.0	Unshielded	Without Core

2. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§ 15.203; § 15.247(c)(1)(i)	Antenna Requirement	Compliant
§ 15.207	Conducted Emission	Compliant
§ 15.247(e)	Power Spectral Density	Compliant
§ 15.247(a)(2)	6 dB Bandwidth	Compliant
§ 15.247(b)(3)	Power Output	Compliant
§ 15.209(a)(d)	Radiated Emission	Compliant
§ 15.247(d)	Band edge	Compliant

3. CONDUCTED EMISSIONS

3.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 2.88 dB.

3.2 Test Equipment List and Details

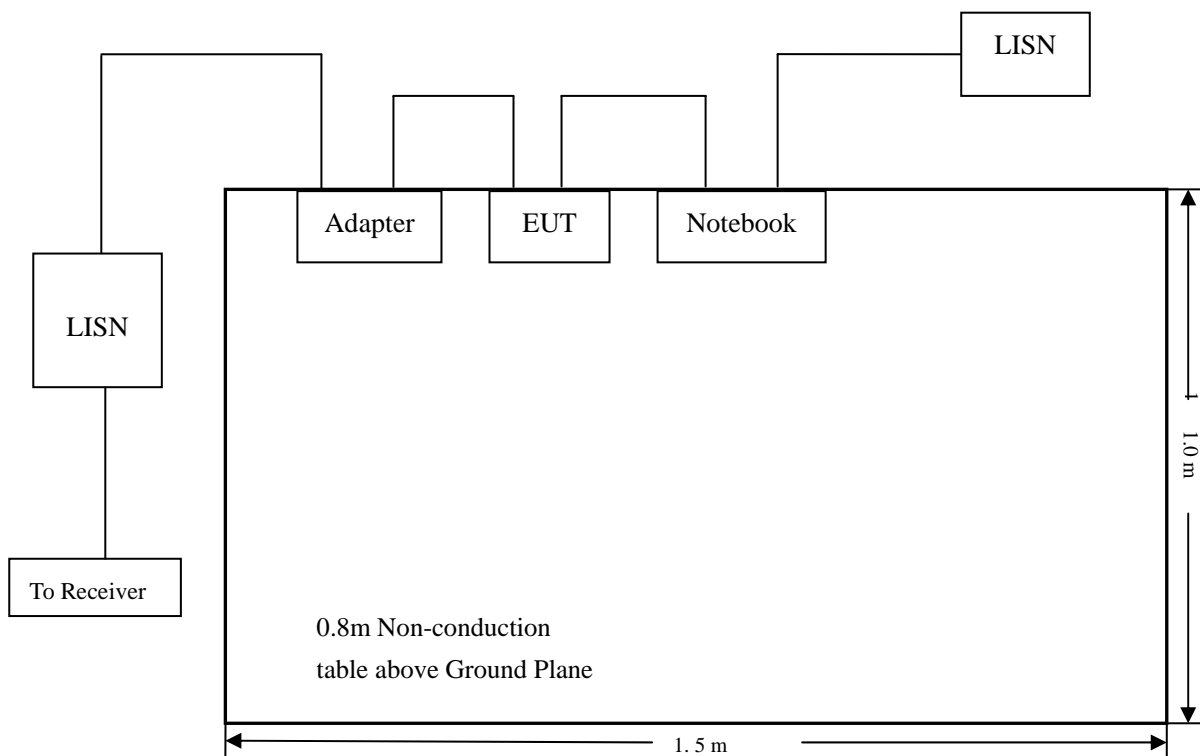
Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2012-03-28	2013-03-27
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2012-03-28	2013-03-27
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2012-03-28	2013-03-27

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

3.3 Test Procedure

Test is conducting under the description of ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

3.4 Basic Test Setup Block Diagram



3.5 Environmental Conditions

Temperature:	20° C
Relative Humidity:	52%
ATM Pressure:	1011 mbar

3.6 Summary of Test Results/Plots

According to the data in section 3.7, the EUT complied with the FCC 15.207 Conducted margin for a Class B device, with the *worst* margin reading of:

-12.13 dB μ V at 18.242 MHz in the Line Average Detector, 0.15-30MHz

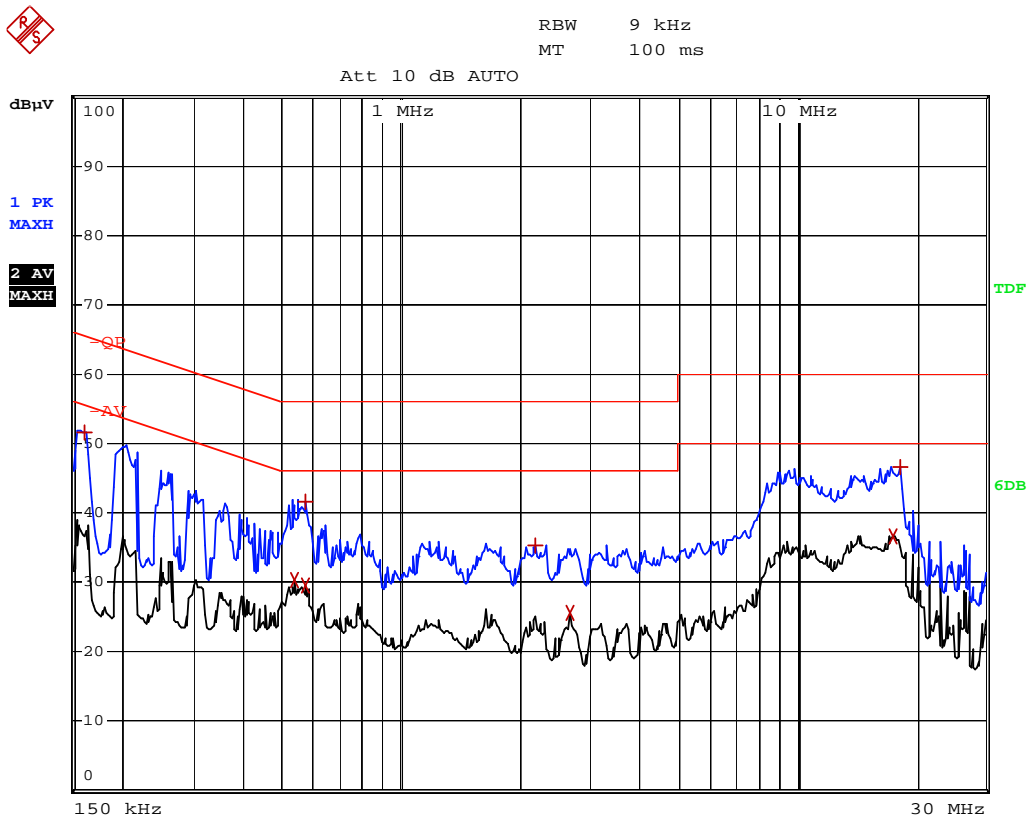
3.7 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

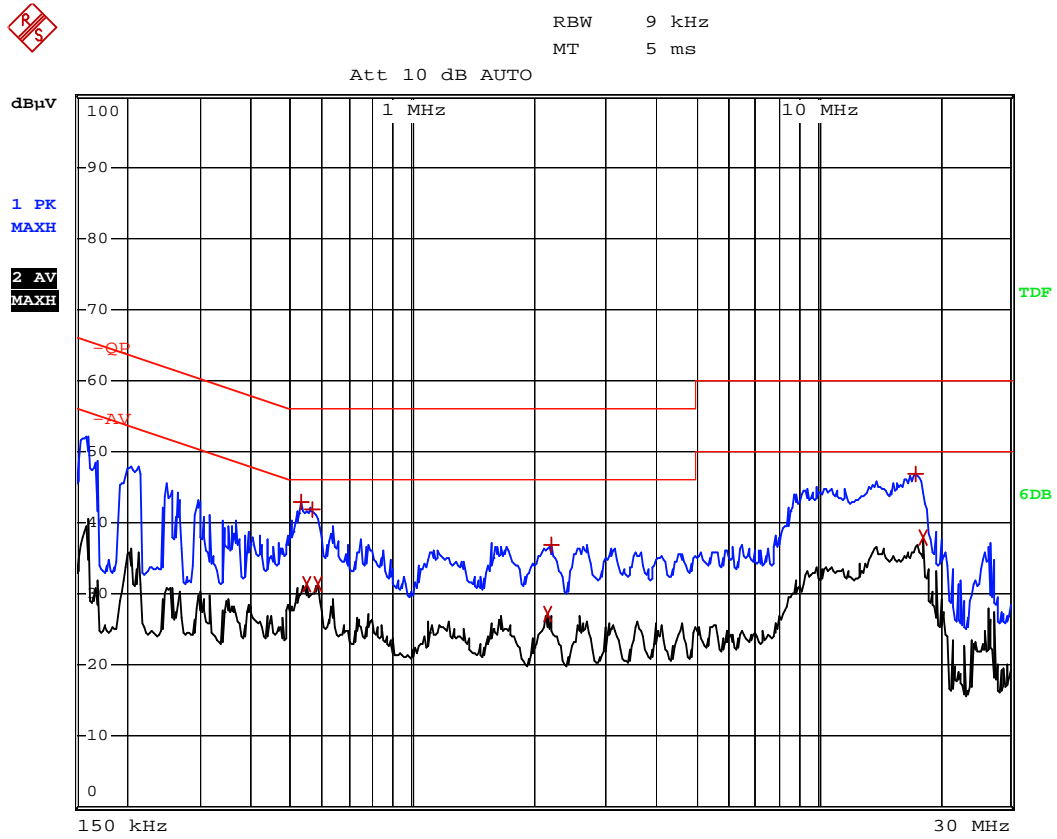
EUT: Network Camera
 Tested Model: NC316PW
 Operating Condition: Operating
 Comment: Connect to PC

Test Specification: Neutral



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Max Peak	162 kHz	51.57	-13.78
2 Average	534 kHz	30.33	-15.66
1 Max Peak	570 kHz	41.61	-14.38
2 Average	570 kHz	29.56	-16.43
1 Max Peak	2.194 MHz	35.42	-20.57
2 Average	2.662 MHz	25.50	-20.49
2 Average	17.494 MHz	36.71	-13.29
1 Max Peak	18.242 MHz	46.60	-13.39

Test Specification: Line



EDIT PEAK LIST (Prescan Results)			
Trace1:		-QP	
Trace2:		-AV	
Trace3:		---	
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Max Peak	530 kHz	42.83	-13.16
2 Average	546 kHz	31.32	-14.67
1 Max Peak	566 kHz	41.86	-14.13
2 Average	582 kHz	31.28	-14.71
2 Average	2.162 MHz	27.09	-18.90
1 Max Peak	2.198 MHz	36.97	-19.02
1 Max Peak	17.482 MHz	46.75	-13.24
2 Average	18.242 MHz	37.86	-12.13

4. §15.203 - ANTENNA REQUIREMENT

4.1 Standard Applicable

According to FCC 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

4.2 Test Result

This product has a detachable and unique antenna, fulfill the requirement of this section.

5. POWER SPECTRAL DENSITY

5.1 Standard Applicable

According to 15.247(a)(1)(iii), For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

5.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2012-03-28	2013-03-27
Attenuator	ATTEN	ATS100-4-20	/	2012-03-28	2013-03-27

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

5.3 Test Procedure

1. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set center frequency of spectrum analyzer = operating frequency.
3. Set the spectrum analyzer as RBW, VBW=3KHz, Span = 20MHz.
4. Repeat above procedures until all frequency measured was complete.

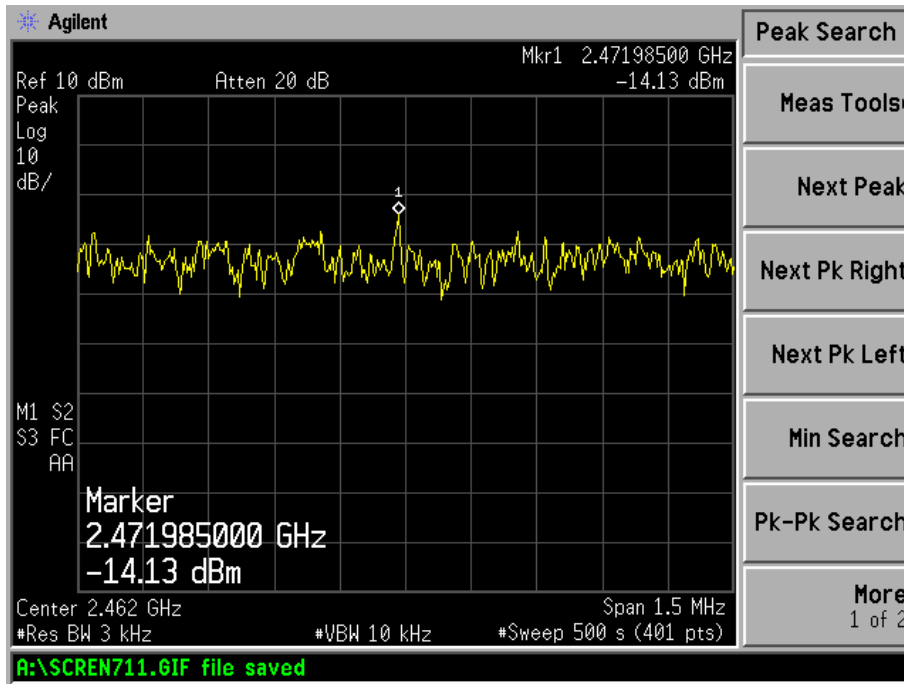
5.4 Environmental Conditions

Temperature:	20° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

5.5 Summary of Test Results/Plots

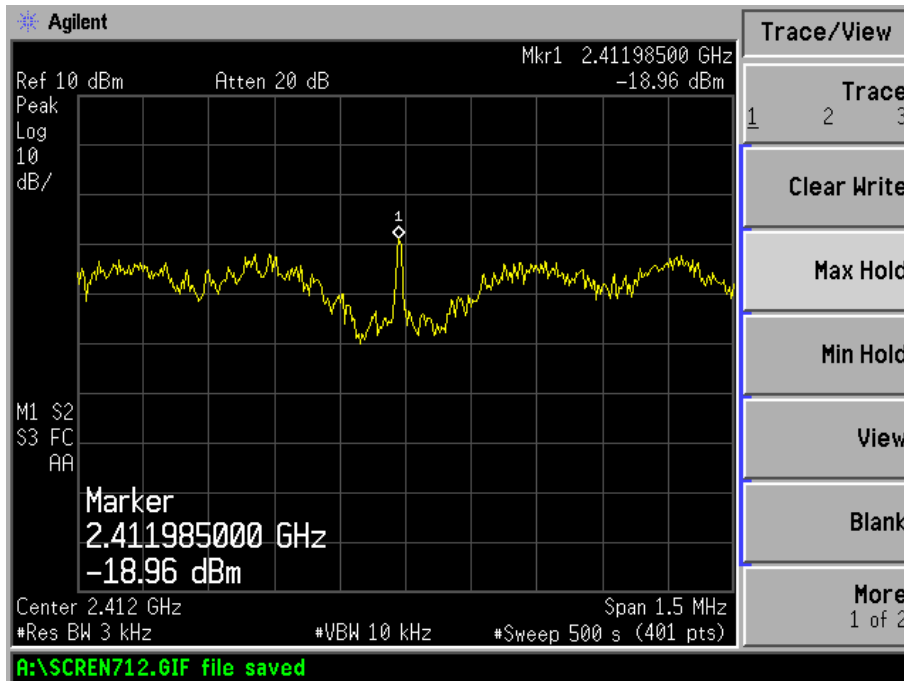
Test mode	Test channel	Reading dBm/3kHz	Limit dBm/3kHz
802.11b	Low channel (2412MHz)	-14.07	8
	Middle channel (2437MHz)	-15.21	8
	High channel (2462MHz)	-14.13	8
802.11g	Low channel (2412MHz)	-18.96	8
	Middle channel (2437MHz)	-21.39	8
	High channel (2462MHz)	-20.64	8
802.11n (HT20)	Low channel (2412MHz)	-19.77	8
	Middle channel (2437MHz)	-21.75	8
	High channel (2462MHz)	-24.07	8
802.11n (HT40)	Low channel (2422MHz)	-20.68	8
	Middle channel (2437MHz)	-19.45	8
	High channel (2452MHz)	-20.89	8

High Channel:

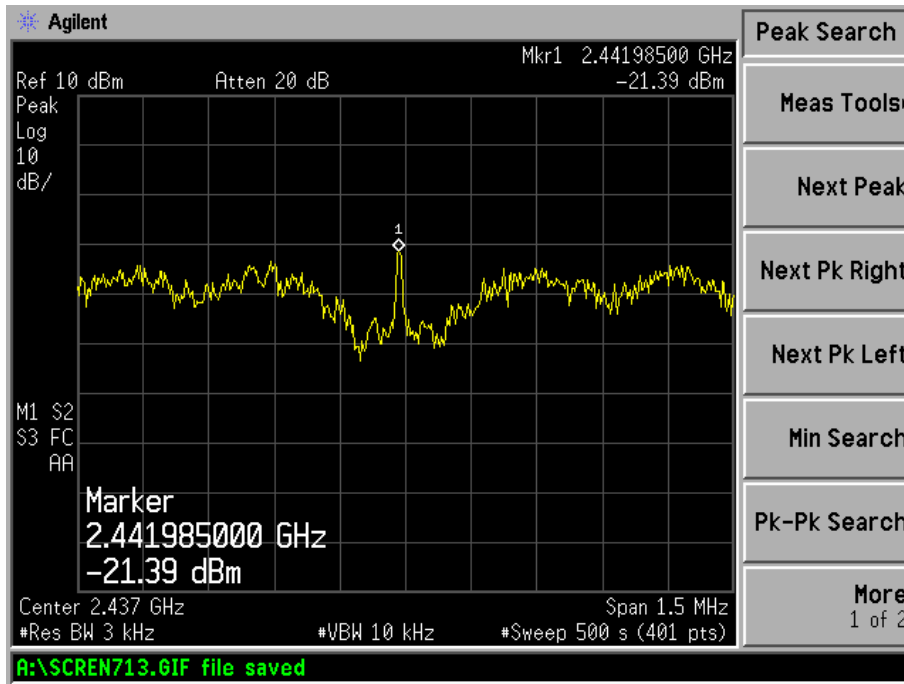


For 802.11g

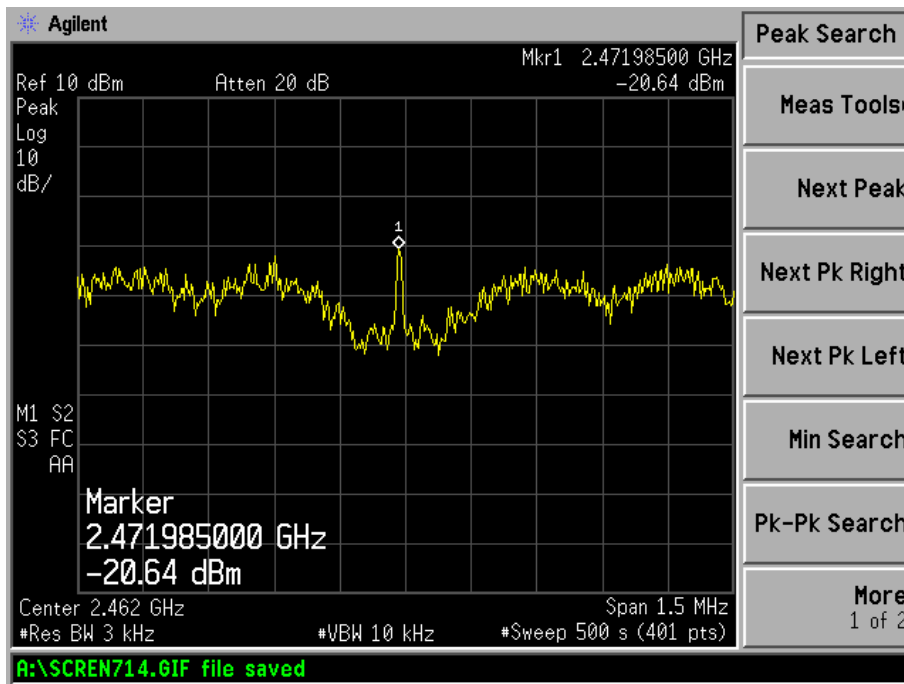
Low Channel:



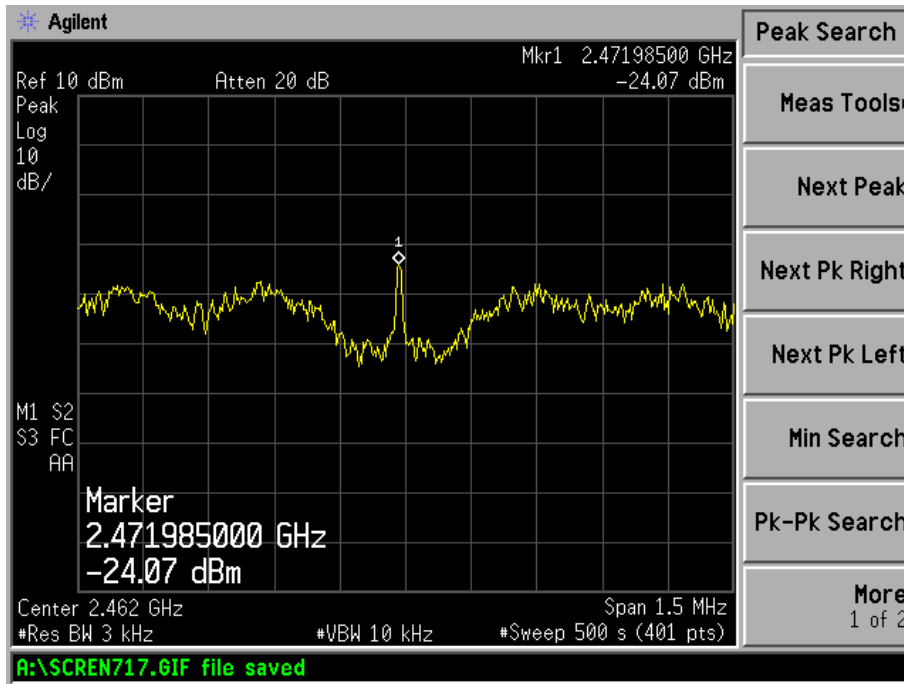
Middle Channel:



High Channel:

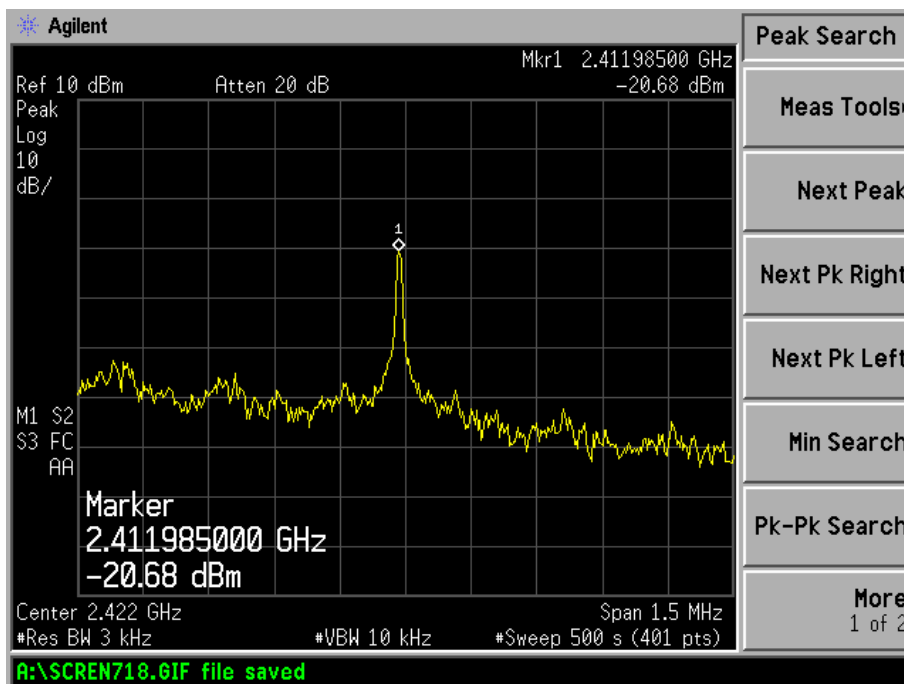


High Channel:

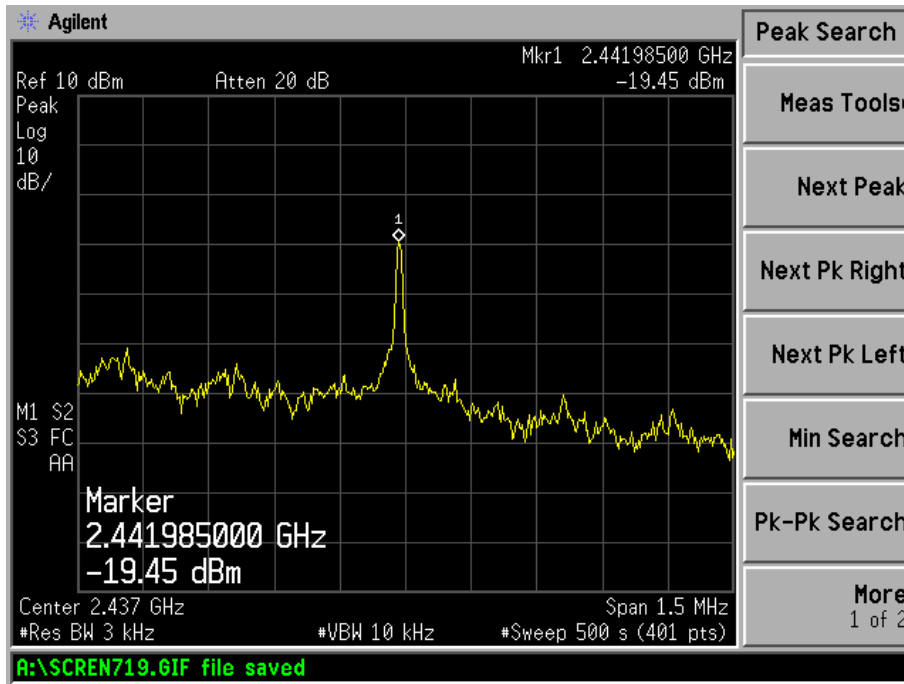


For 802.11n HT 40M

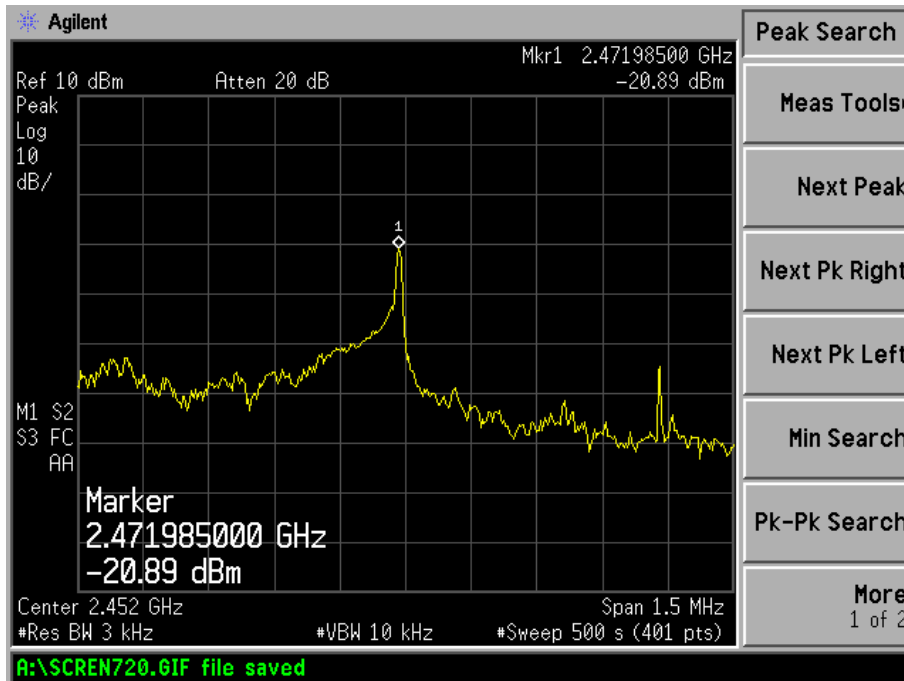
Low Channel:



Middle Channel:



High Channel:



6. 6-dB BANDWIDTH

6.1 Standard Applicable

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.

6.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2012-03-28	2013-03-27
Attenuator	ATTEN	ATS100-4-20	/	2012-03-28	2013-03-27

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

6.3 Test Procedure

1. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set center frequency of spectrum analyzer = operating frequency.
3. The spectrum analyzer as RBW=300KHz (1 % of Bandwidth.), Sweep=auto
4. Mark the peak frequency and –6dB (upper and lower) frequency.

6.4 Environmental Conditions

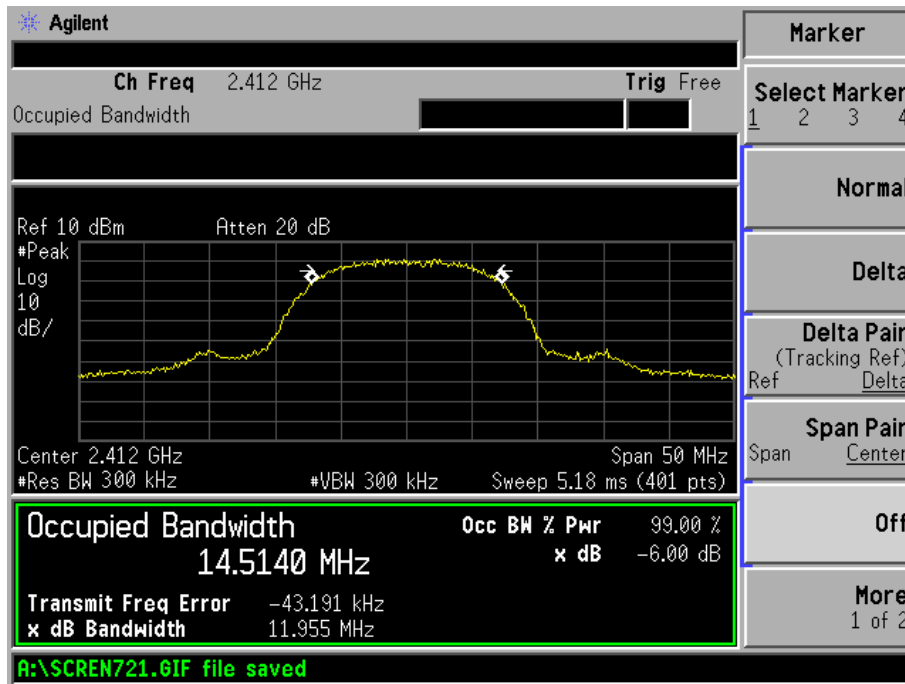
Temperature:	24° C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

6.5 Summary of Test Results/Plots

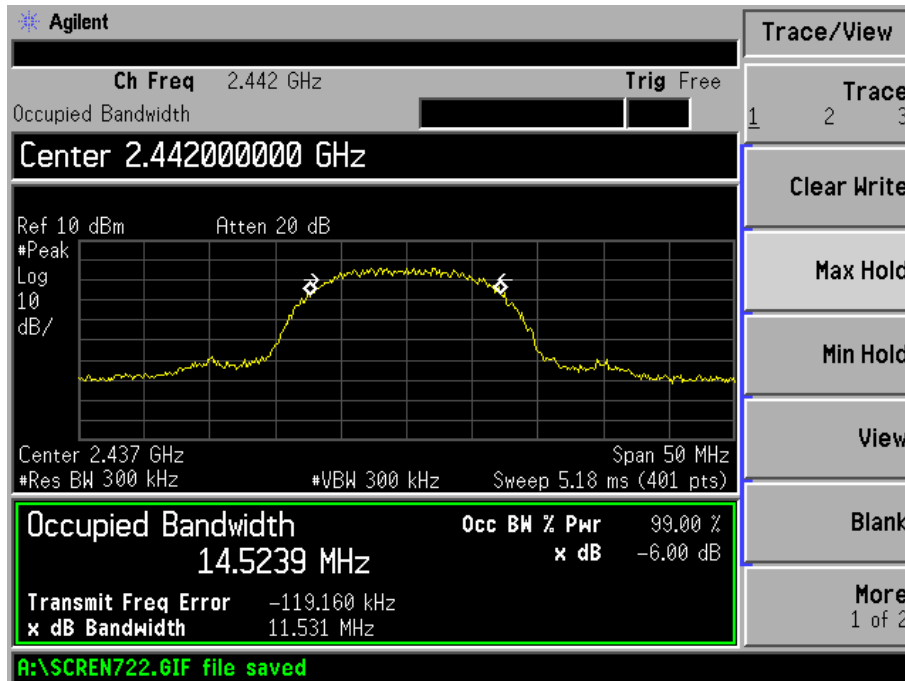
Test mode	Frequency MHz	6 dB Bandwidth kHz	Limit kHz
802.11b	2412	11955	500
	2437	11531	500
	2462	10296	500
802.11g	2412	15401	500
	2437	15492	500
	2462	16005	500
802.11n (HT20)	2412	15.258	500
	2437	15534	500
	2462	15638	500
802.11n (HT40)	2422	32616	500
	2437	33847	500
	2452	33804	500

For 802.11b

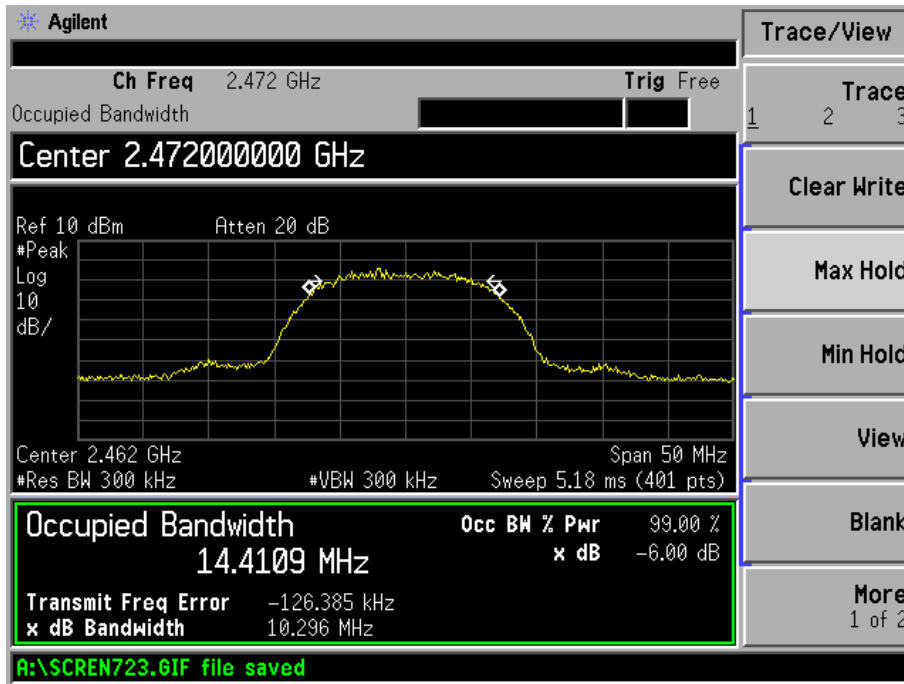
Low Channel:



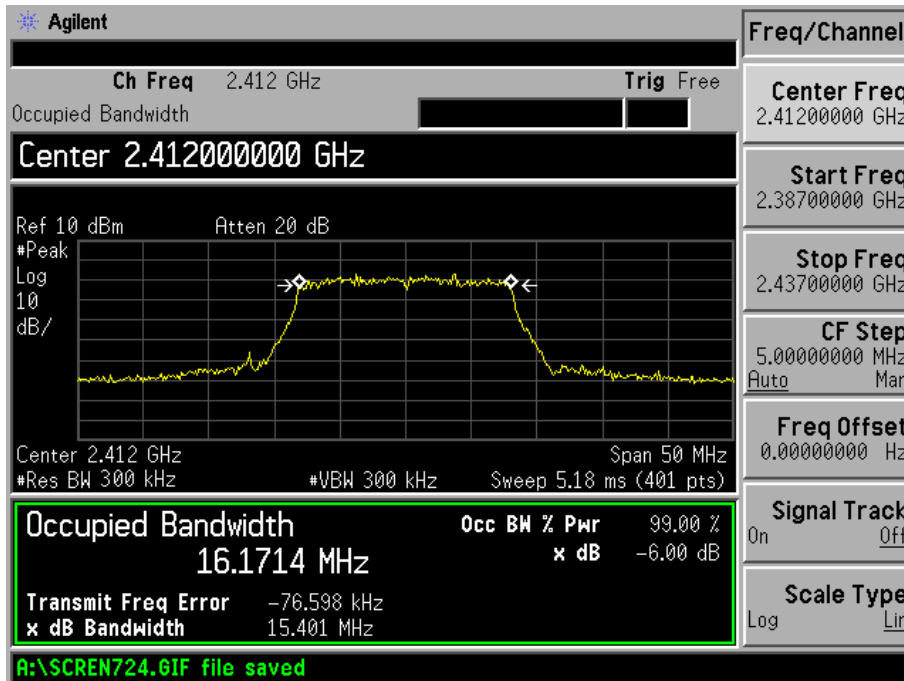
Mid Channel:



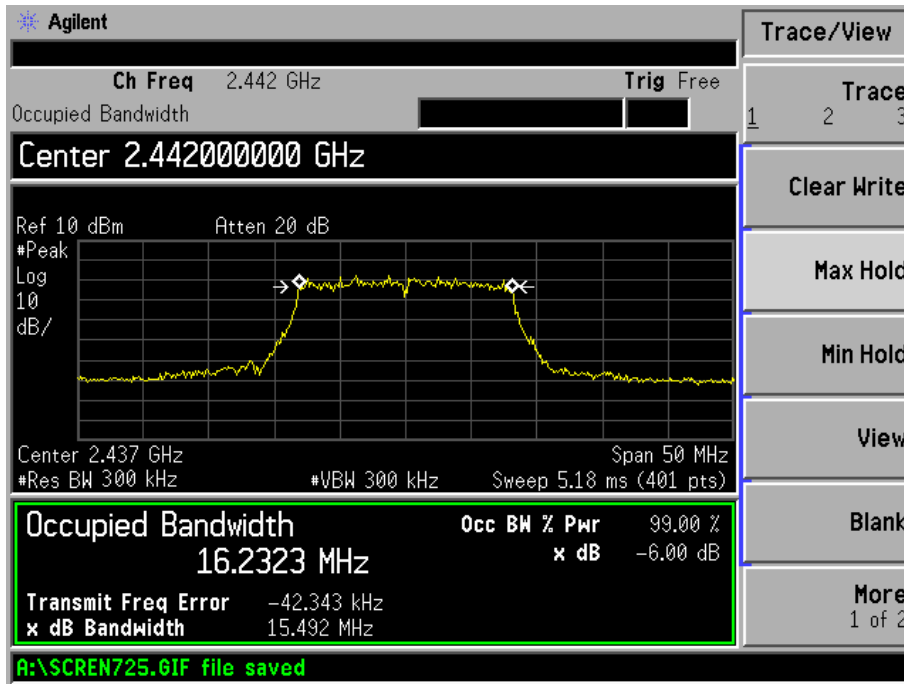
High Channel:



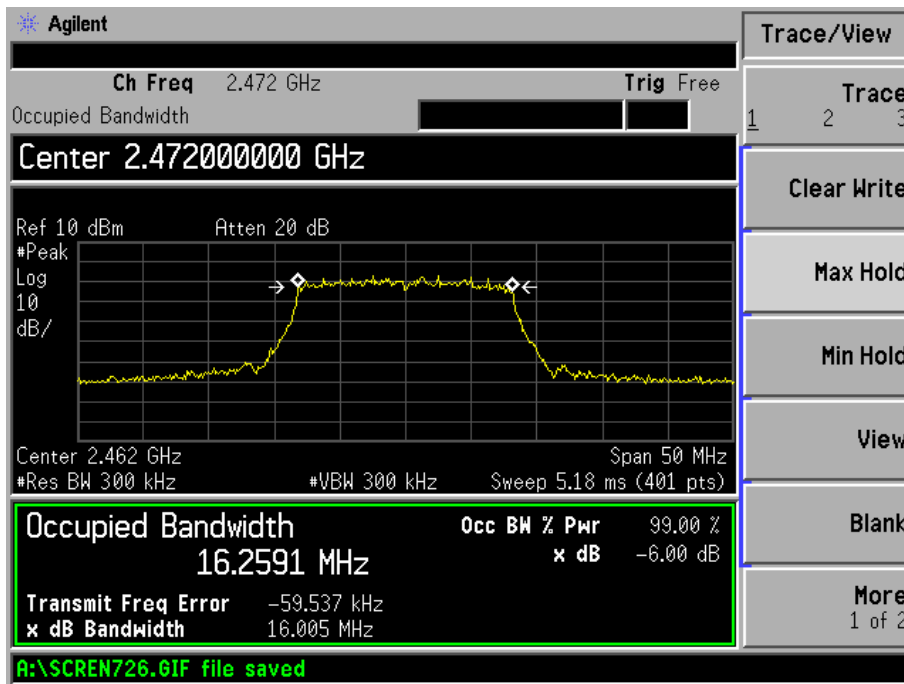
For 802.11g
Low Channel:



Mid Channel:

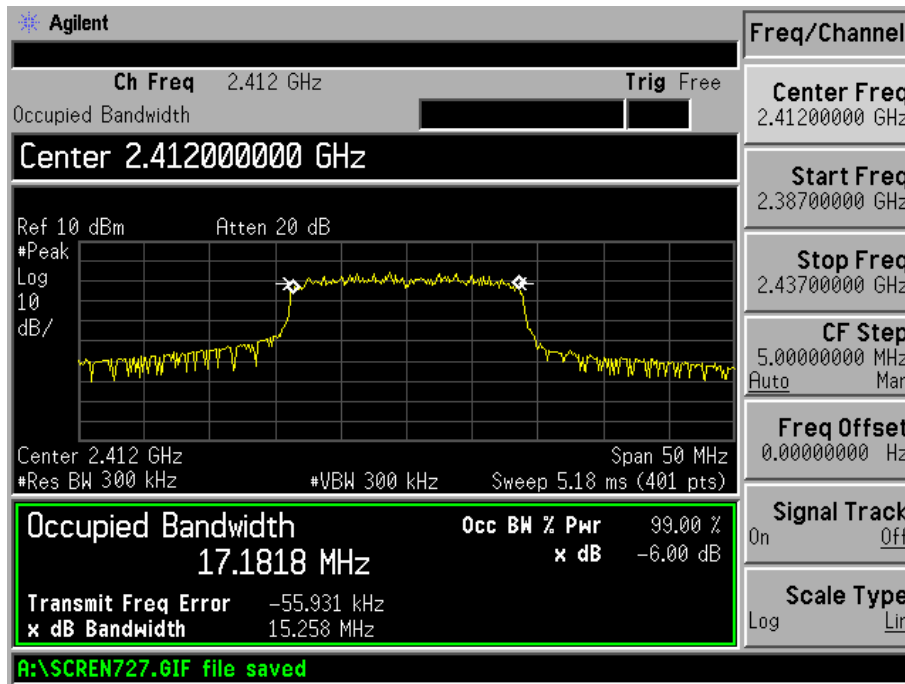


High Channel:

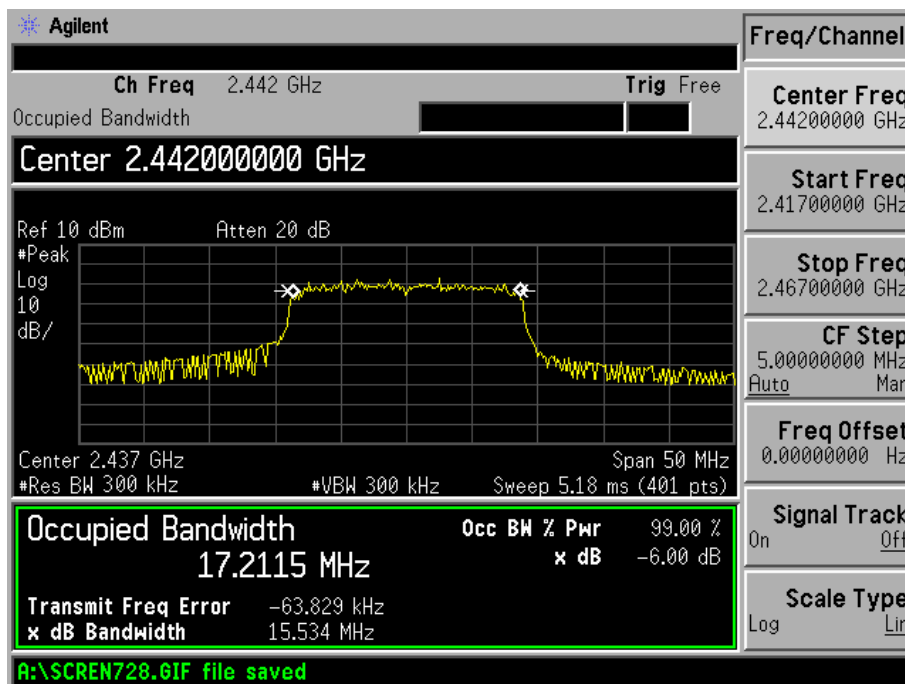


For 802.11n HT 20M

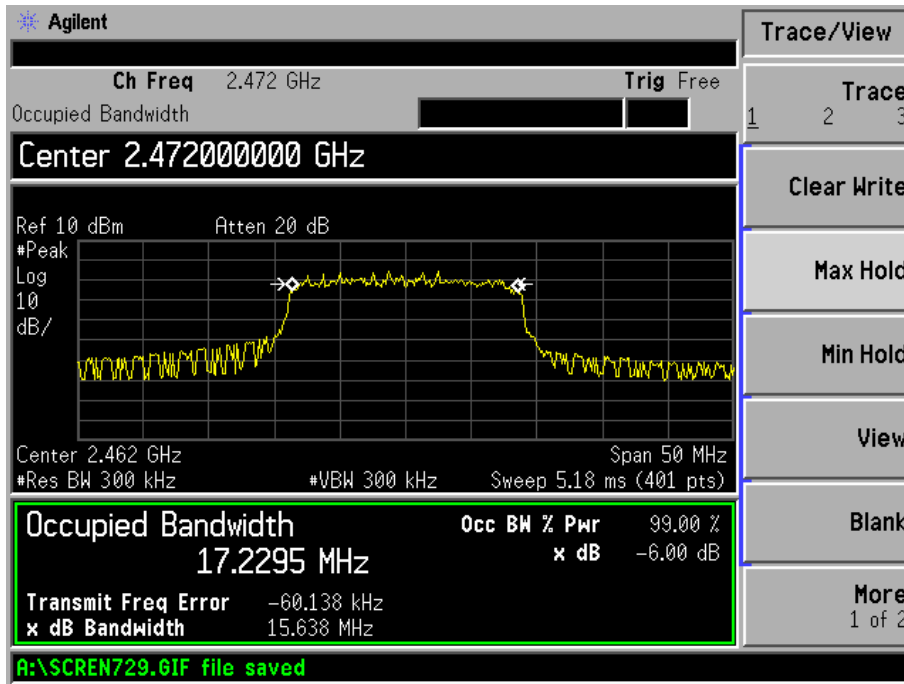
Low Channel:



Mid Channel:

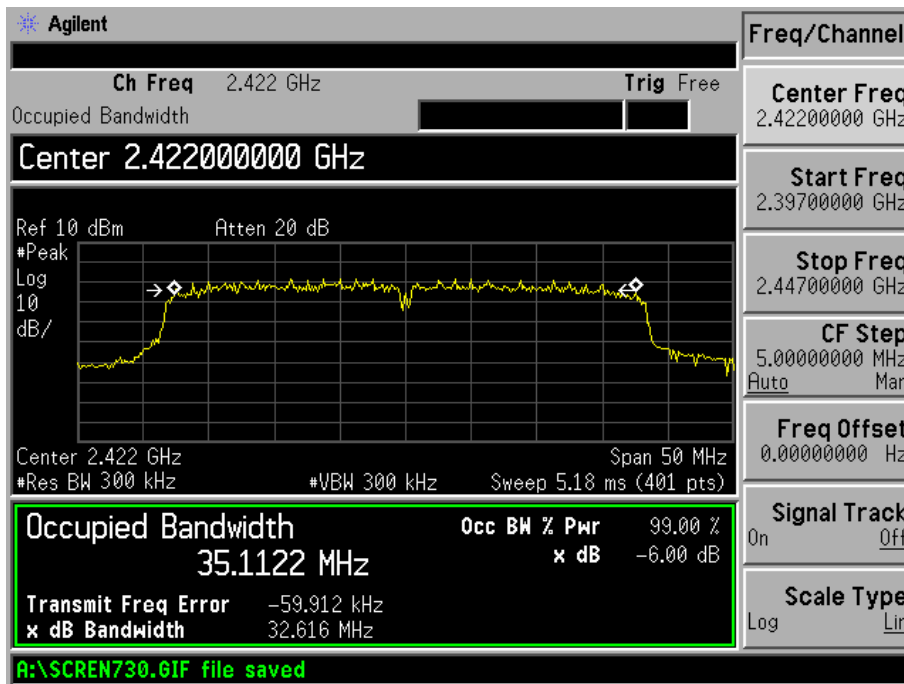


High Channel:

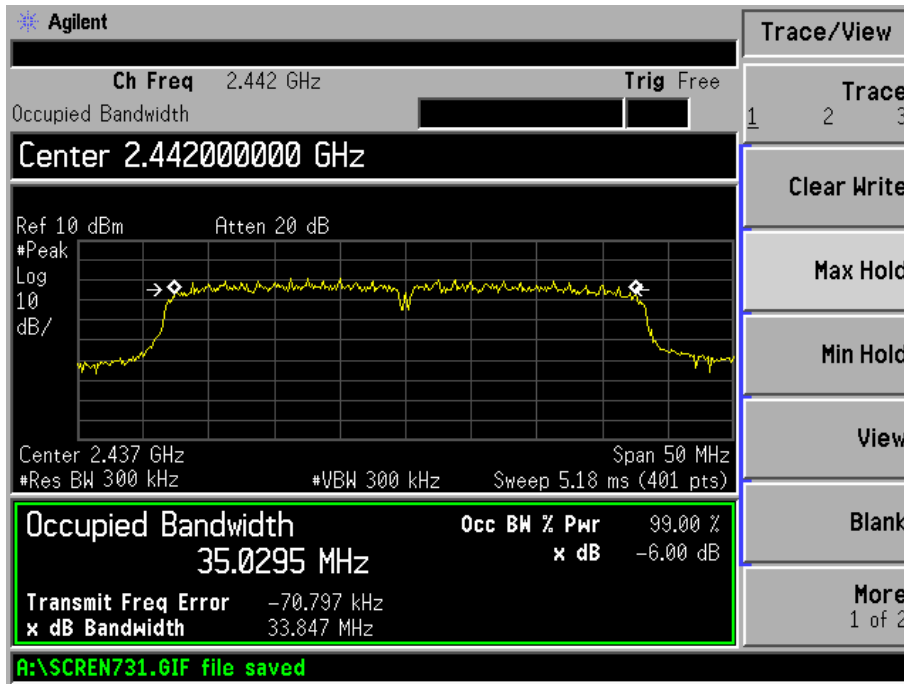


For 802.11n HT 40M

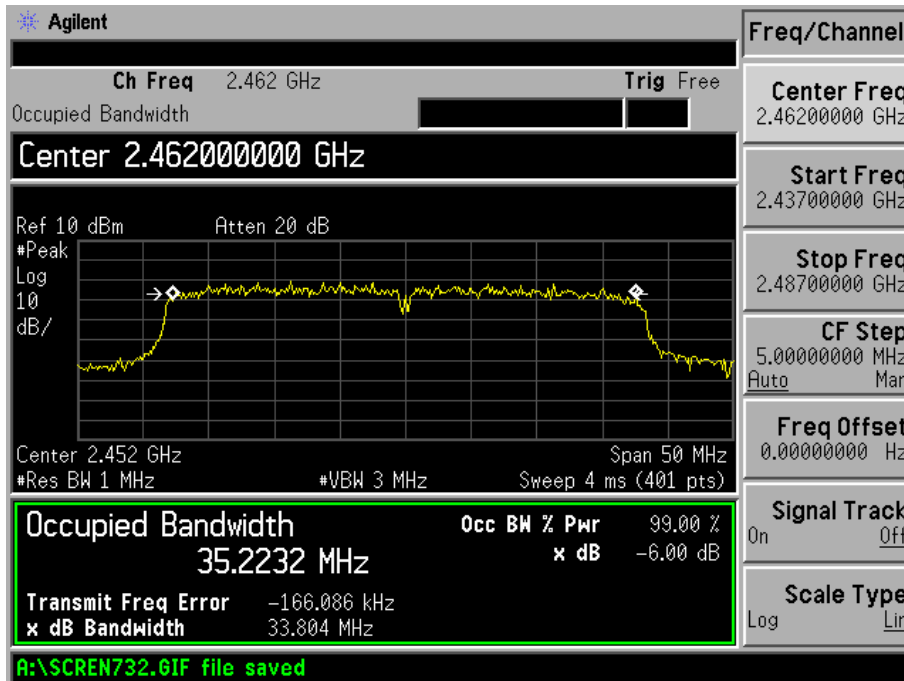
Low Channel:



Mid Channel:



High Channel:



7. POWER OUTPUT

7.1 Standard Applicable

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

7.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2012-03-28	2013-03-27
Attenuator	ATTEN	ATS100-4-20	/	2012-03-28	2013-03-27

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

7.3 Test Procedure

According to section 15.247(b)-power output of the KDB-558074 (2005), the method #1 of the power output option2 was used, the following is the measurement procedure.

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW \geq 3 MHz.
4. Use sample detector mode if bin width (i.e., span/number of points in spectrum display) $<$ 0.5 RBW. Otherwise use peak detector mode.
5. Use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at full control power for entire sweep of every sweep. If the device transmits continuously, with no off intervals or reduced power intervals, the trigger may be set to “free run”.
6. Trace average 100 traces in power averaging mode.
7. Compute power by integrating the spectrum across the 26 dB EBW of the signal. The integration can be performed using the spectrum analyzer’s band power measurement function with band limits set equal to the EBW band edges.

7.4 Environmental Conditions

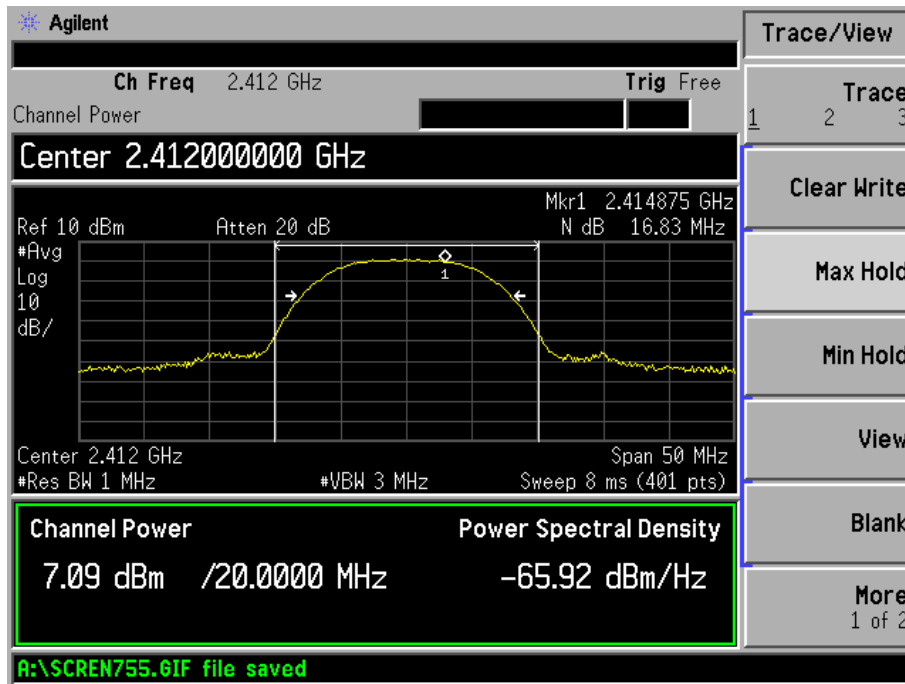
Temperature:	21° C
Relative Humidity:	55%
ATM Pressure:	1011 mbar

7.5 Summary of Test Results/Plots

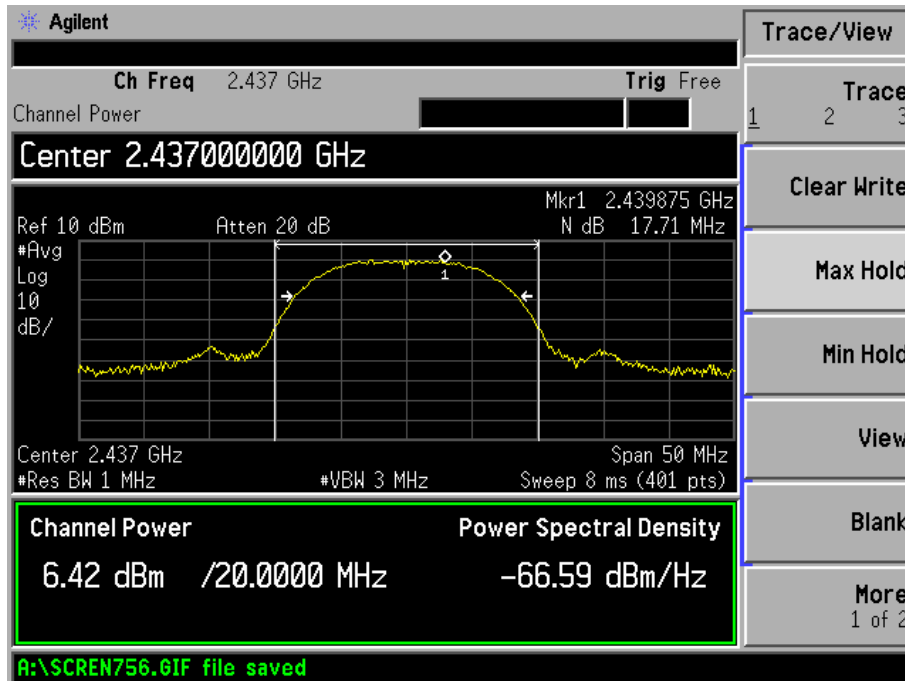
Test mode	Frequency MHz	Reading dBm	Output power W	Limit W
802.11b (1M)	2412	7.09	0.00512	1
	2437	6.42	0.00439	1
	2462	6.40	0.00437	1
802.11b (11M)	2412	7.17	0.00521	1
	2437	6.76	0.00474	1
	2462	5.00	0.00316	1
802.11g (6M)	2412	6.13	0.00410	1
	2437	5.84	0.00384	1
	2462	4.42	0.00277	1
802.11g (54M)	2412	5.42	0.00348	1
	2437	5.40	0.00347	1
	2462	4.09	0.00256	1
802.11n HT 20M	2412	5.82	0.00382	1
	2437	5.05	0.00320	1
	2462	3.72	0.00236	1
802.11n HT 40M	2422	3.32	0.00215	1
	2437	2.61	0.00182	1
	2452	3.93	0.00247	1

For 802.11b_1M rate

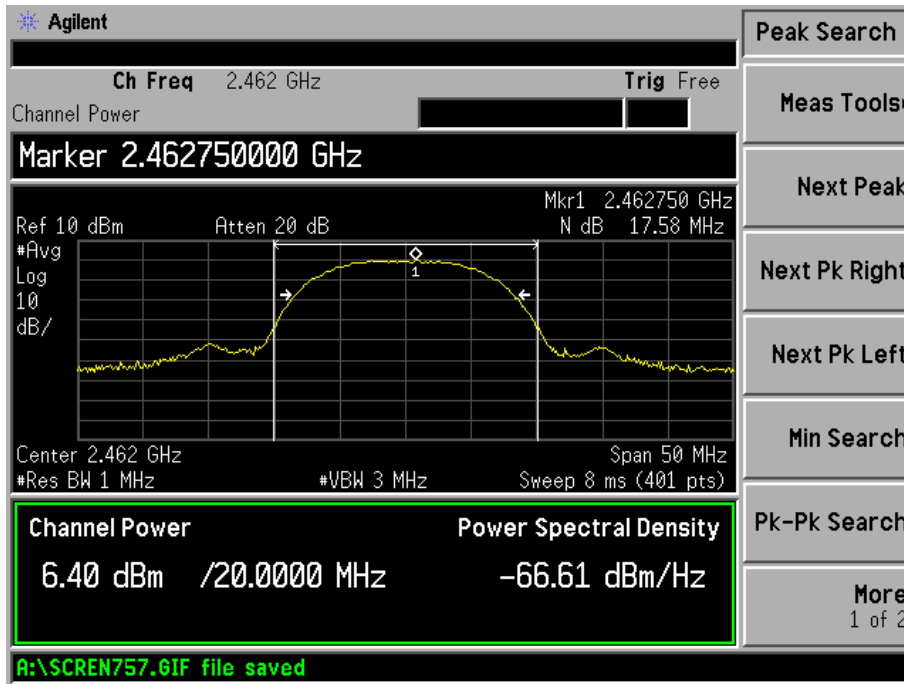
Low Channel:



Middle Channel:

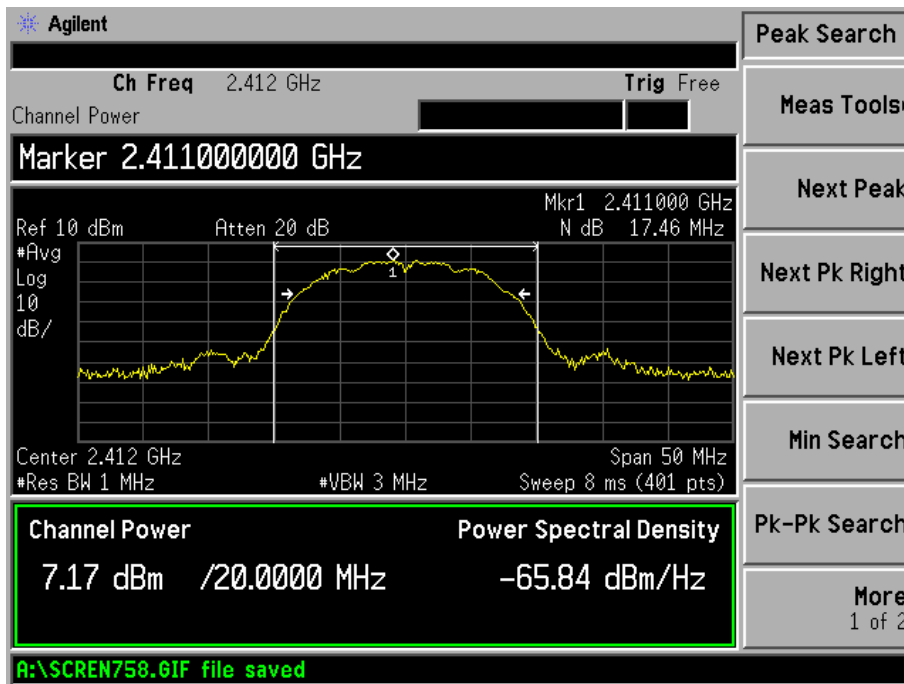


High Channel:

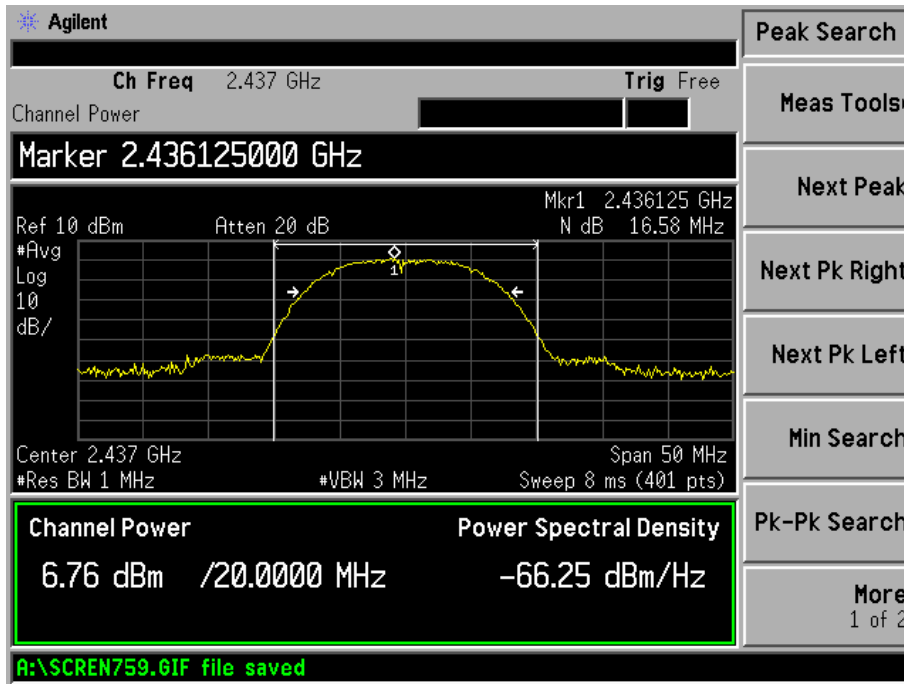


For 802.11b_11M rate

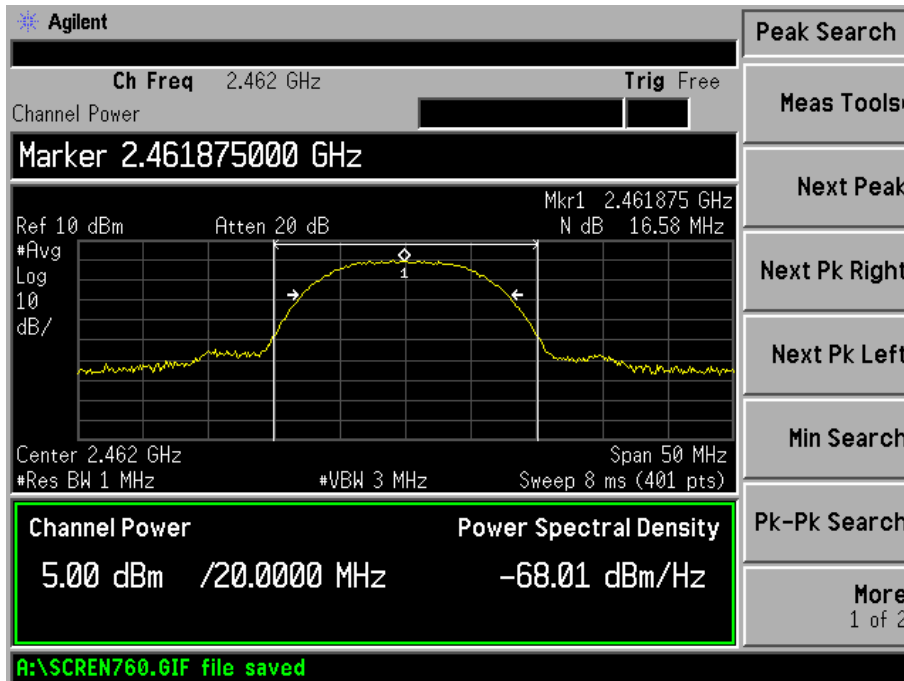
Low Channel:



Middle Channel:

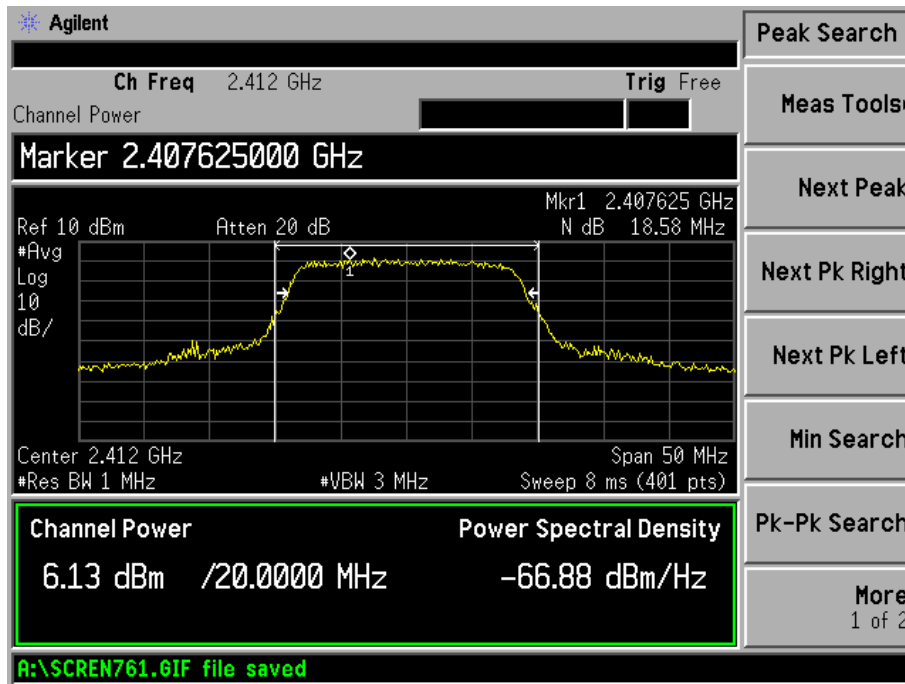


High Channel:

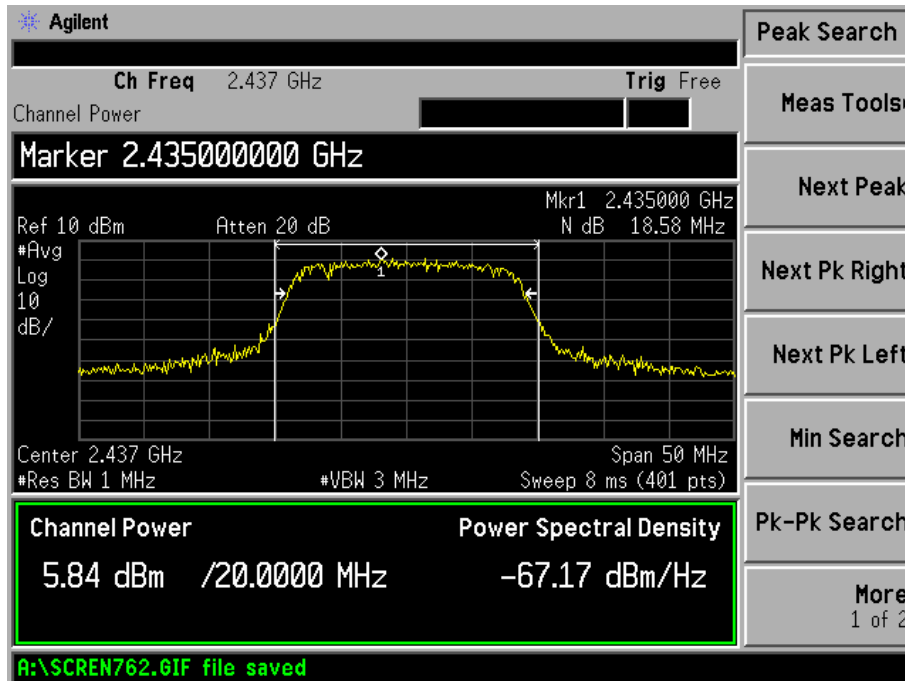


For 802.11g_6M rate

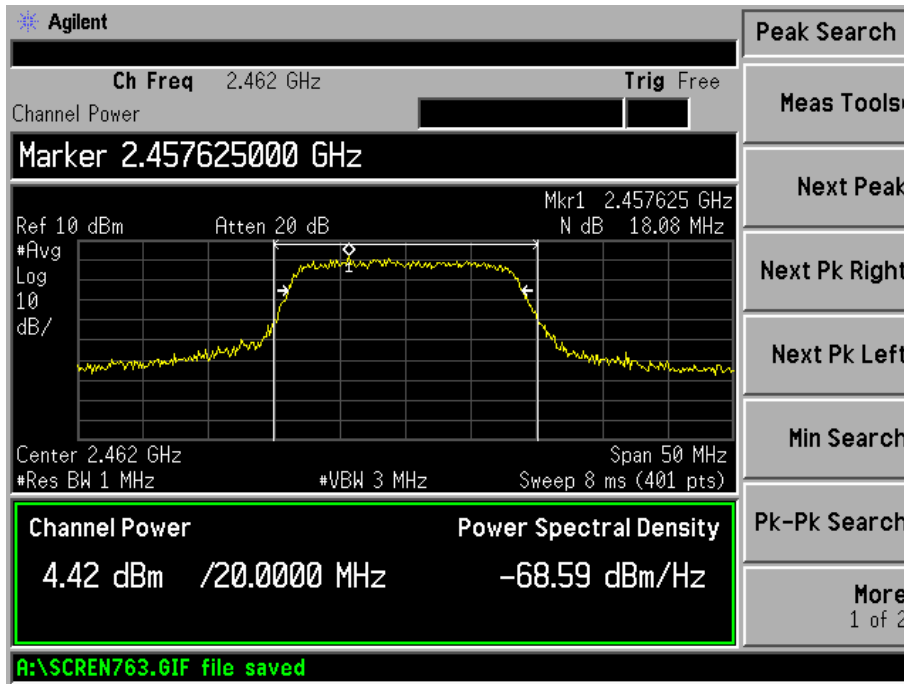
Low Channel:



Middle Channel:

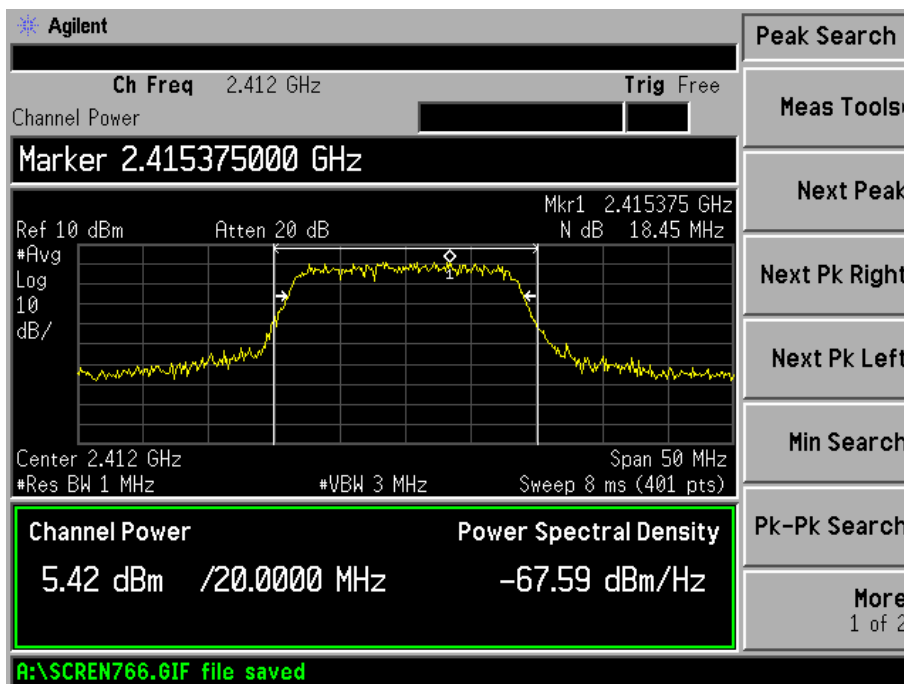


High Channel:

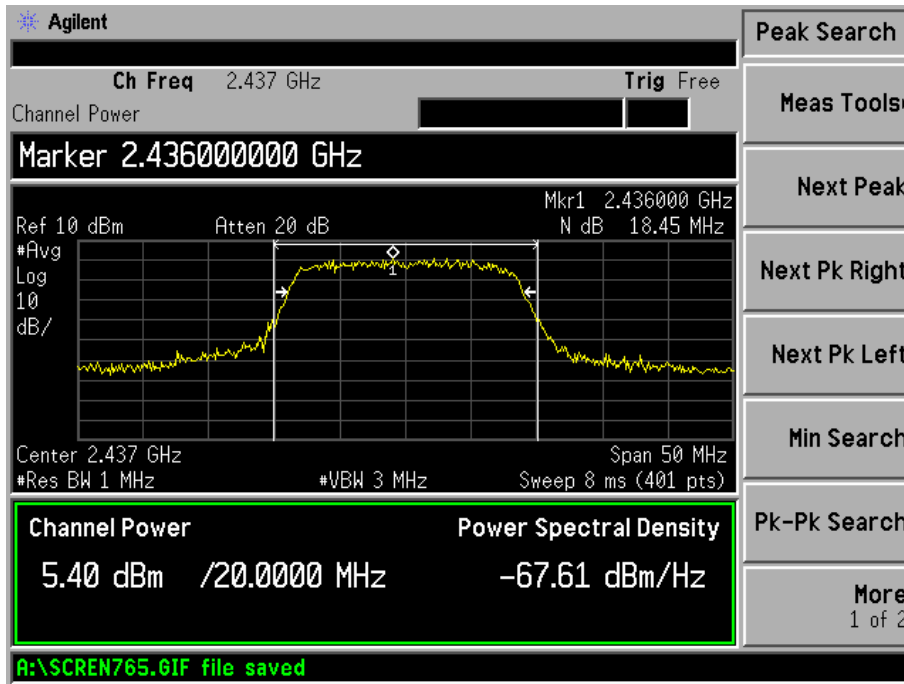


For 802.11g_54M rate

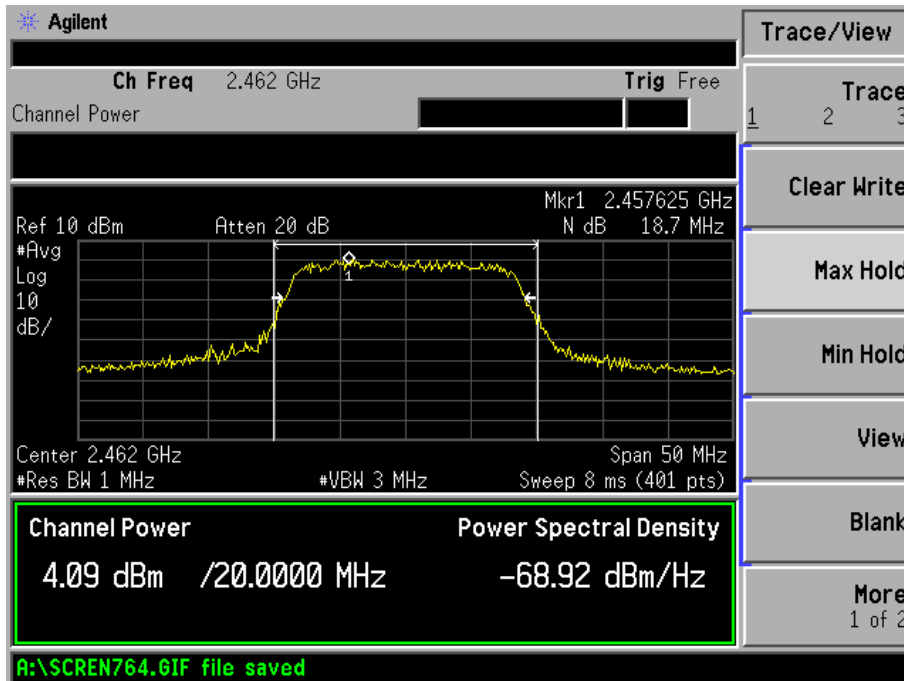
Low Channel:



Middle Channel:

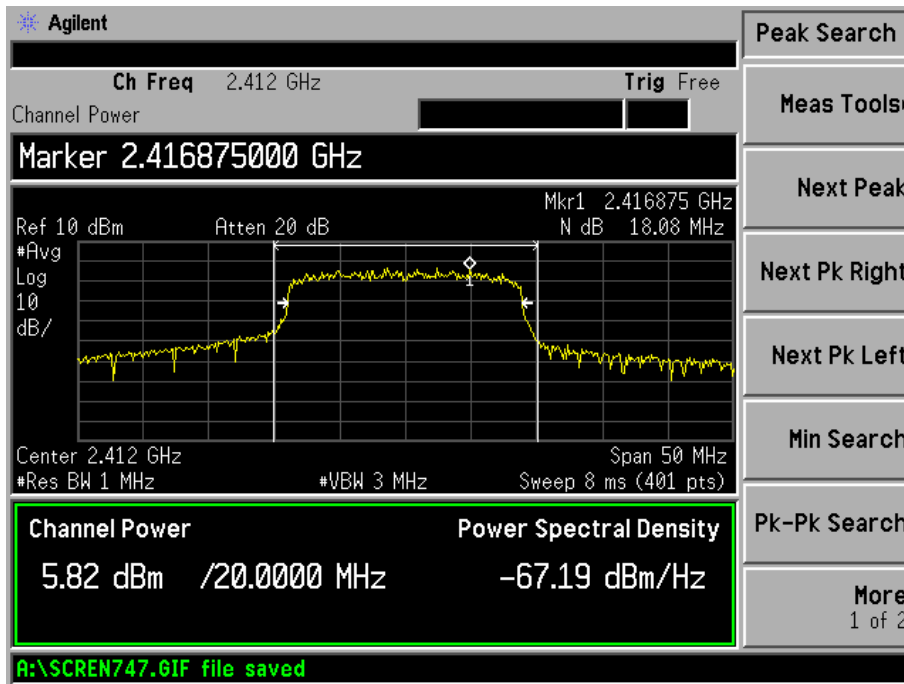


High Channel:

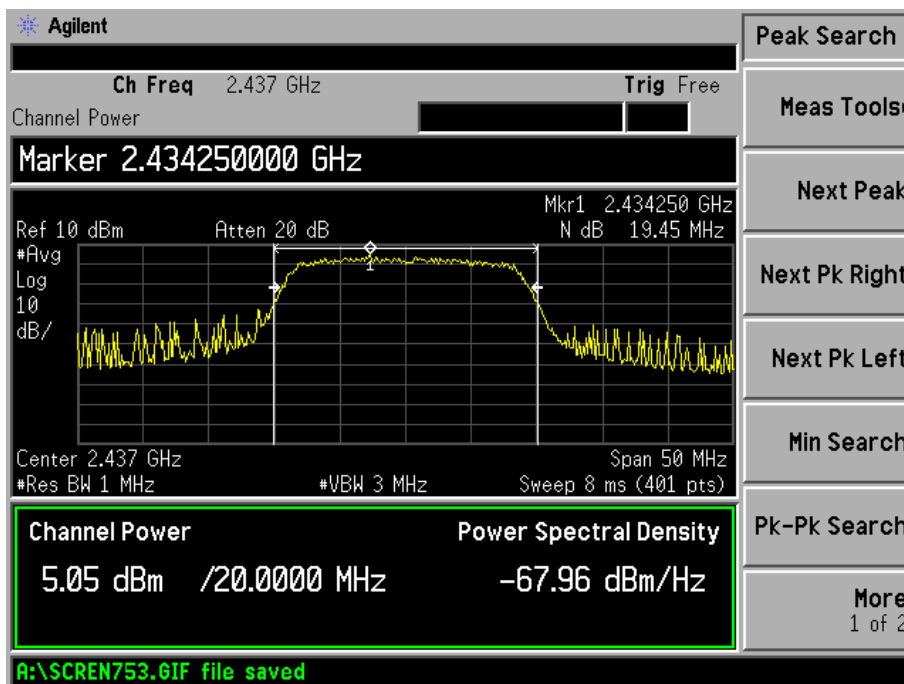


For 802.11n_HT 20M rate

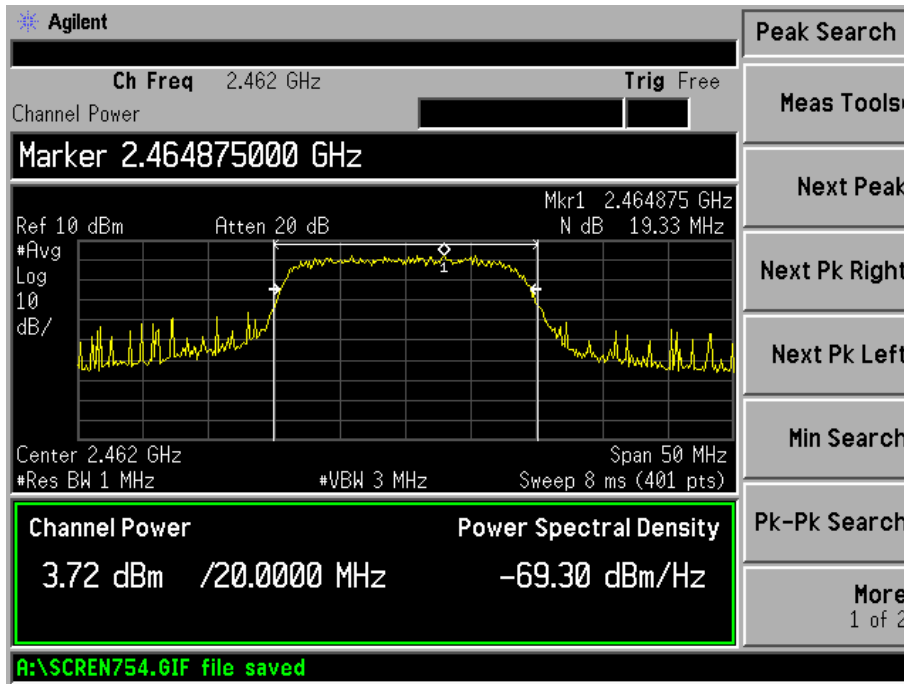
Low Channel:



Middle Channel:

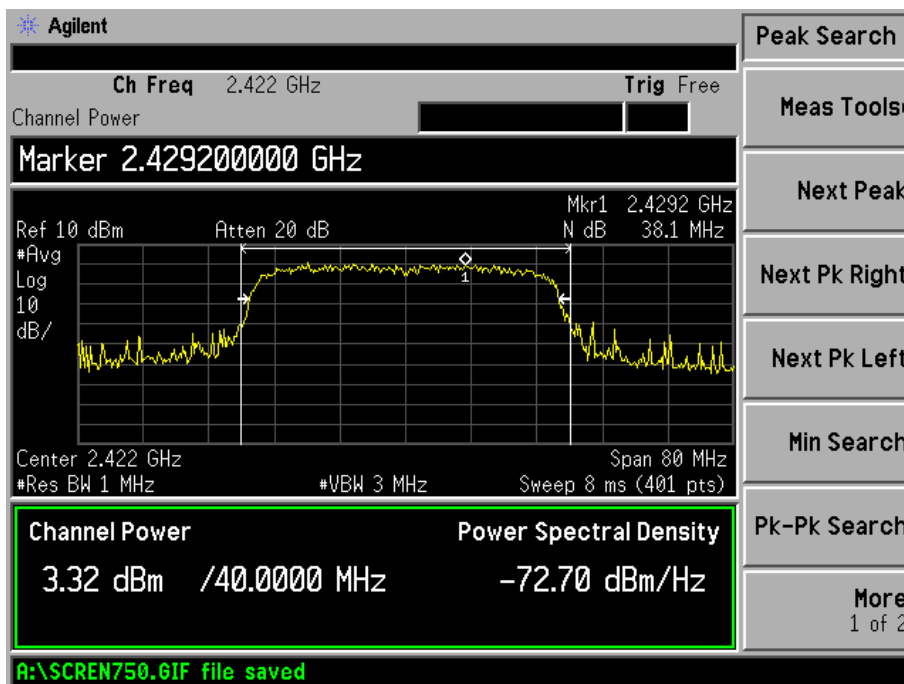


High Channel:

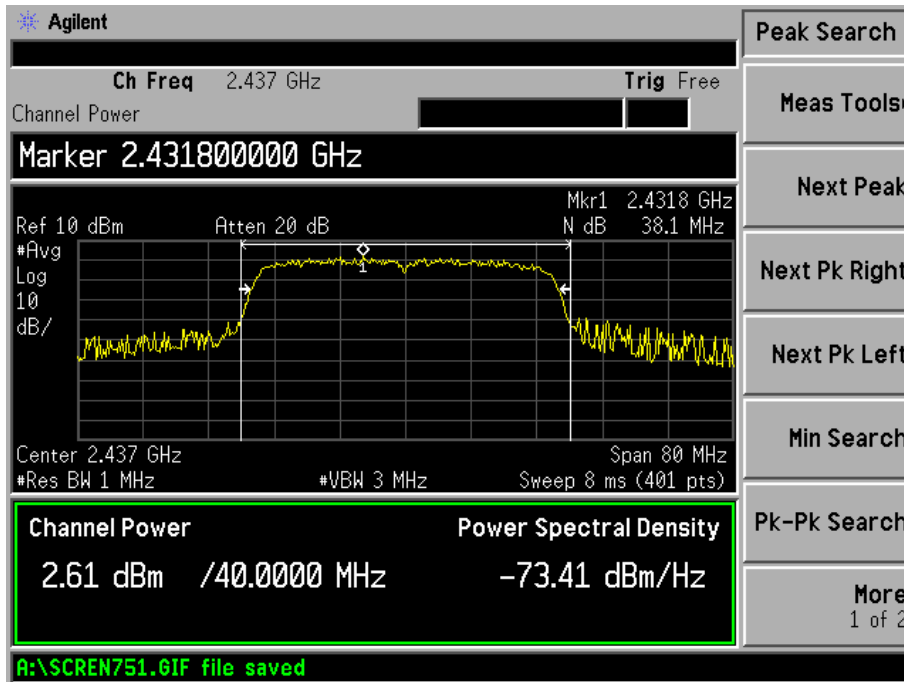


For 802.11n_HT 40M rate

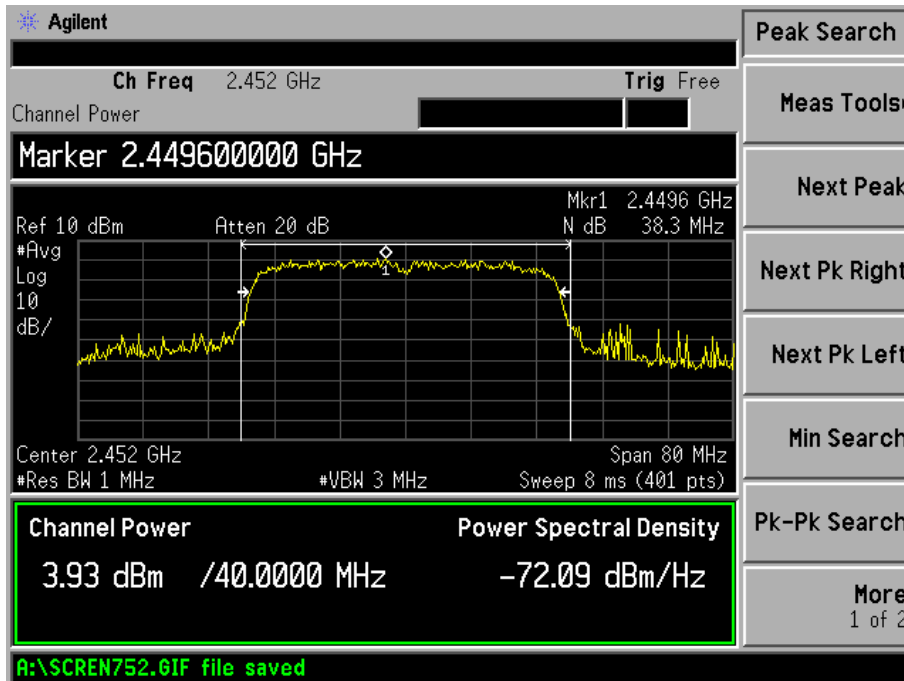
Low Channel:



Middle Channel:



High Channel:



8. FIELD STRENGTH OF SPURIOUS EMISSIONS

8.1 Measurement Uncertainty

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement is ± 5.10 dB.

8.2 Standard Applicable

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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply. Spurious Radiated Emissions measurements starting below or at the lowest crystal frequency.

8.3 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2012-03-28	2013-03-27
EMI Test Receiver	R&S	ESVB	825471/005	2012-03-28	2013-03-27
Pre-amplifier	Agilent	8447F	3113A06717	2012-03-28	2013-03-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2012-03-28	2013-03-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2012-02-25	2013-02-24
Horn Antenna	ETS	3117	00086197	2012-02-25	2013-02-24
Horn Antenna	ETS	3116B	00088203	2012-02-25	2013-02-24
Loop Antenna	SCHWARZECK	HFRA 5165	9365	2012-02-25	2013-02-24

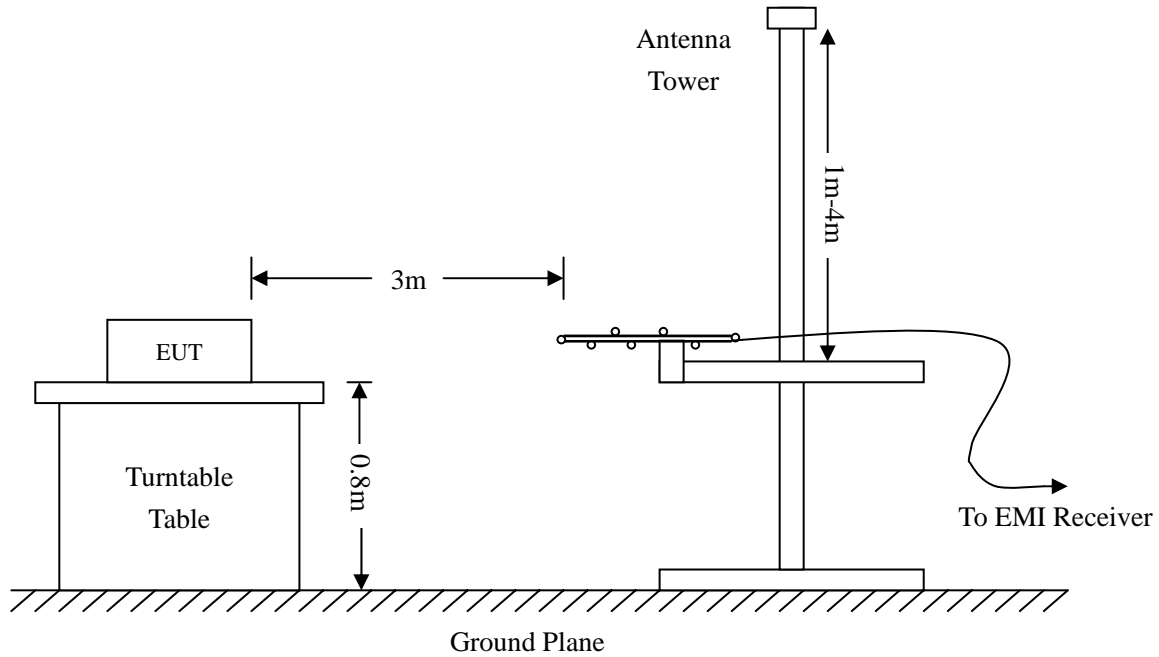
Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

8.4 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.205 15.247(a) and FCC Part 15.209 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.



8.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Ant. Factor} + \text{Cable Loss} - \text{Ampl. Gain}$$

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dBμV means the emission is 6dBμV below the maximum limit for Class B. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15 Limit}$$

8.6 Environmental Conditions

Temperature:	22° C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

8.7 Summary of Test Results/Plots

According to the data below, the FCC Part 15.205, 15.209 and 15.247 standards, and had the worst margin of:

-5.16 dB μ V at 60.0691MHz in the Vertical polarization, Transmitting 802.11n_HT 20M High Channel test mode with, 9 kHz to 25 GHz, 3Meters

Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported.

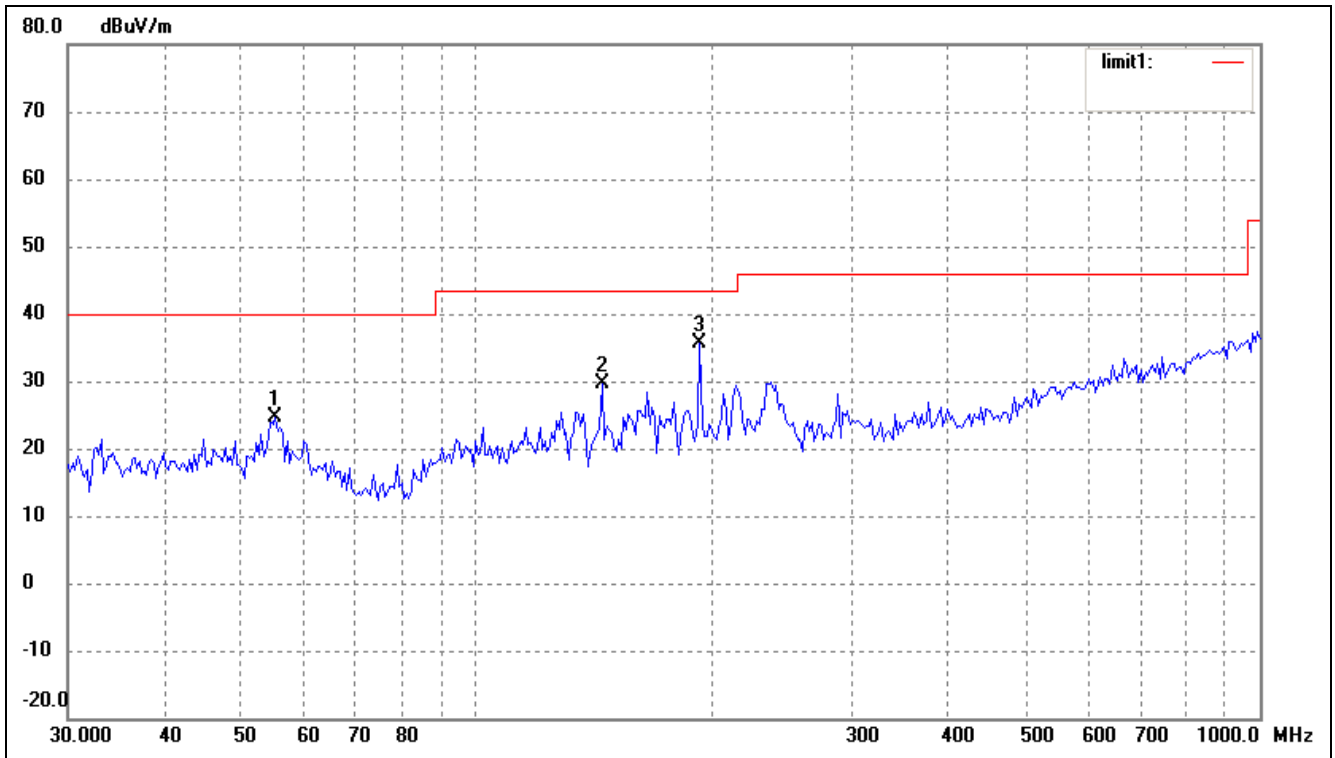
Test Result/Plots:

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11b) Low Channel (2412MHz)

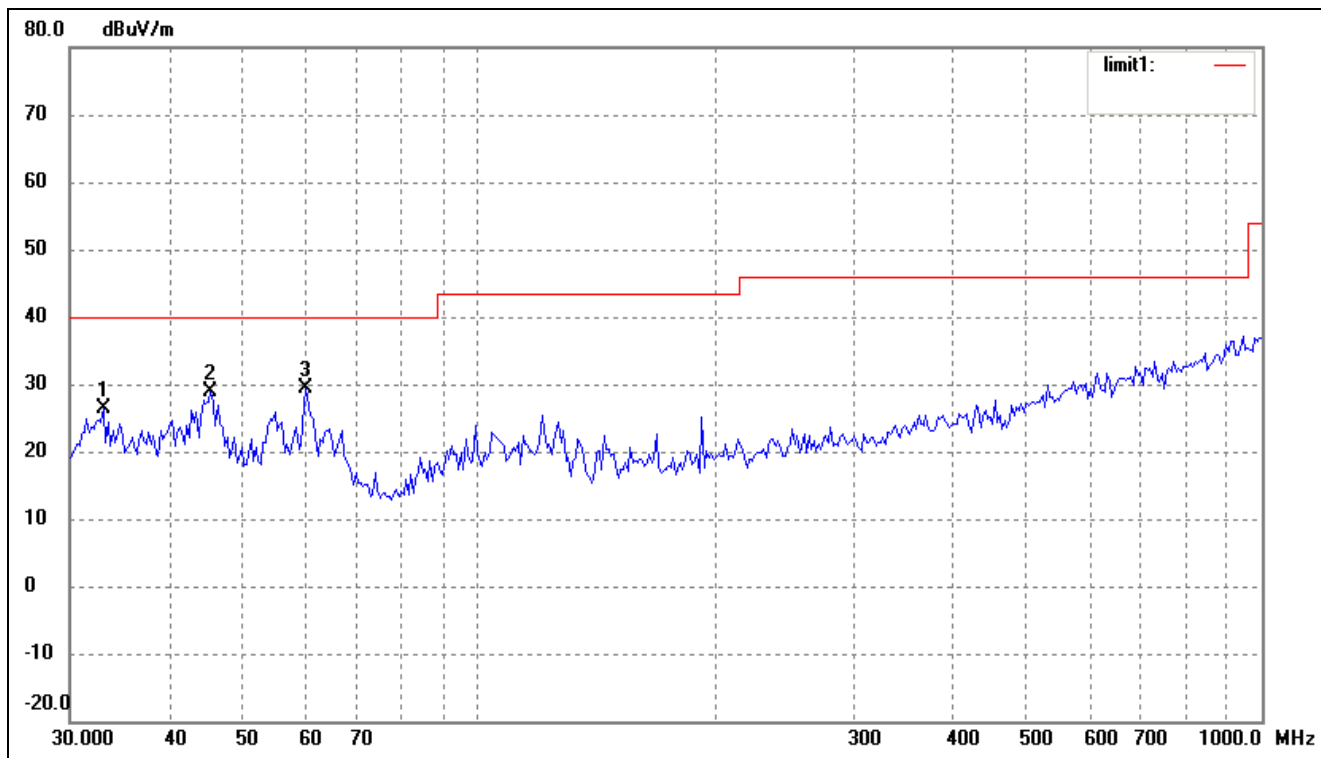
Comment:

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	55.2207	16.84	7.76	24.60	40.00	-15.40	360	200	peak
2	144.3348	25.64	4.01	29.65	43.50	-13.85	0	100	peak
3	192.4186	29.15	6.54	35.69	43.50	-7.81	223	100	peak

Vertical



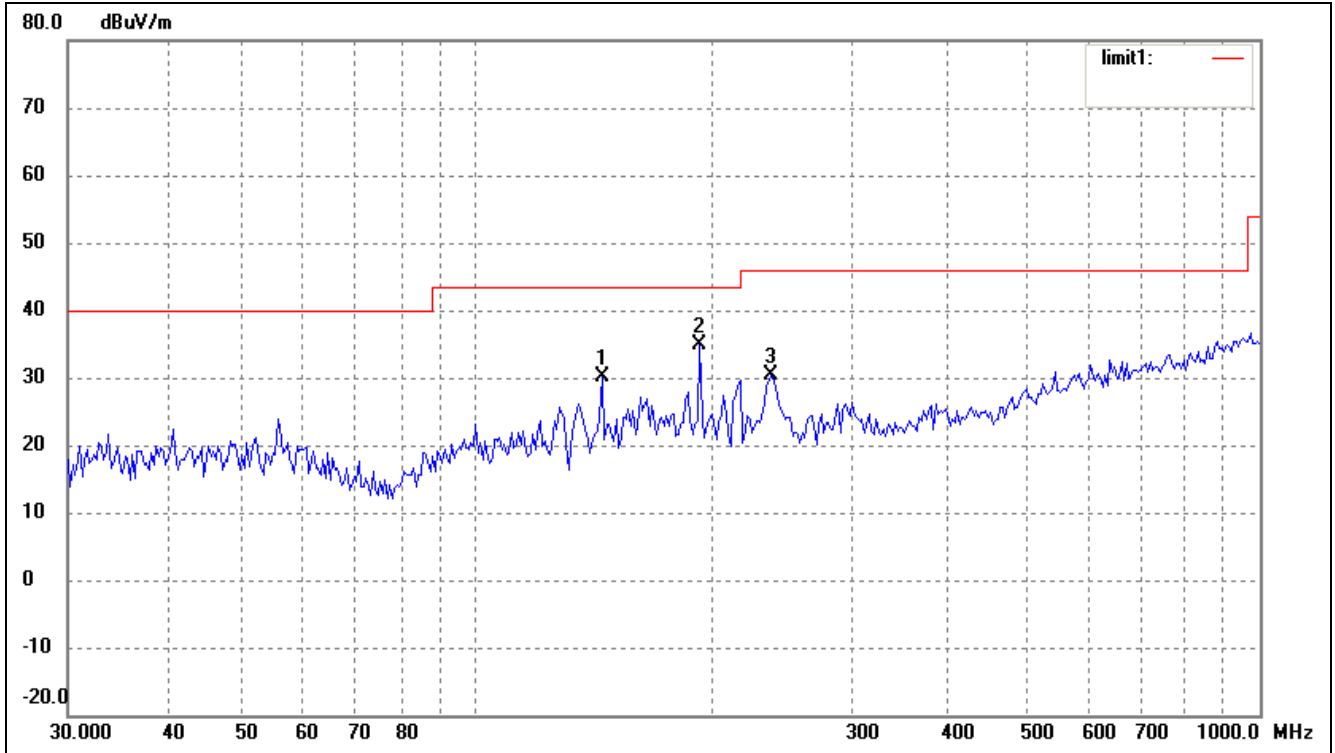
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	33.0950	19.58	6.77	26.35	40.00	-13.65	360	200	peak
2	45.3755	20.74	8.21	28.95	40.00	-11.05	0	100	peak
3	60.0691	21.78	7.50	29.28	40.00	-10.72	360	200	peak

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11b) Middle Channel (2437MHz)

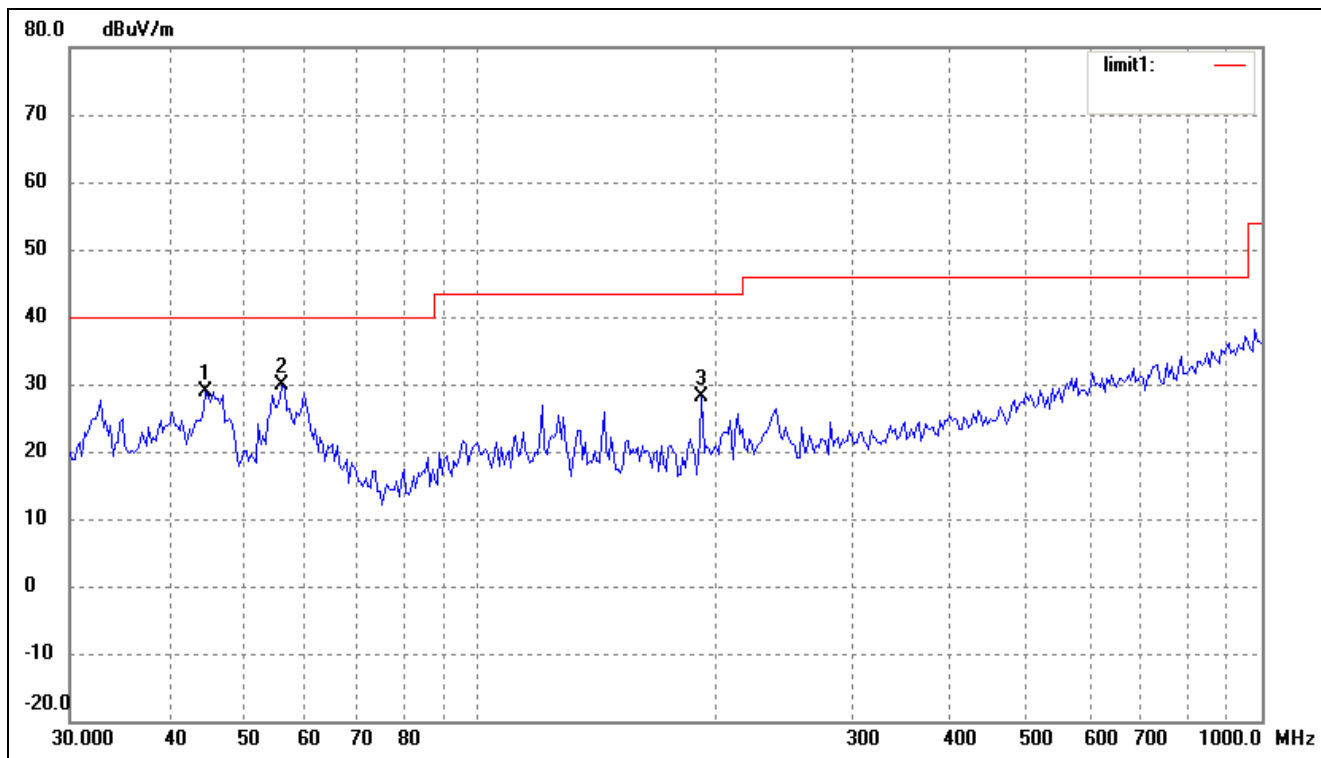
Comment:

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	144.3348	26.23	4.01	30.24	43.50	-13.26	360	100	peak
2	192.4186	28.34	6.54	34.88	43.50	-8.62	0	200	peak
3	237.4760	22.13	8.28	30.41	46.00	-15.59	206	118	peak

Vertical



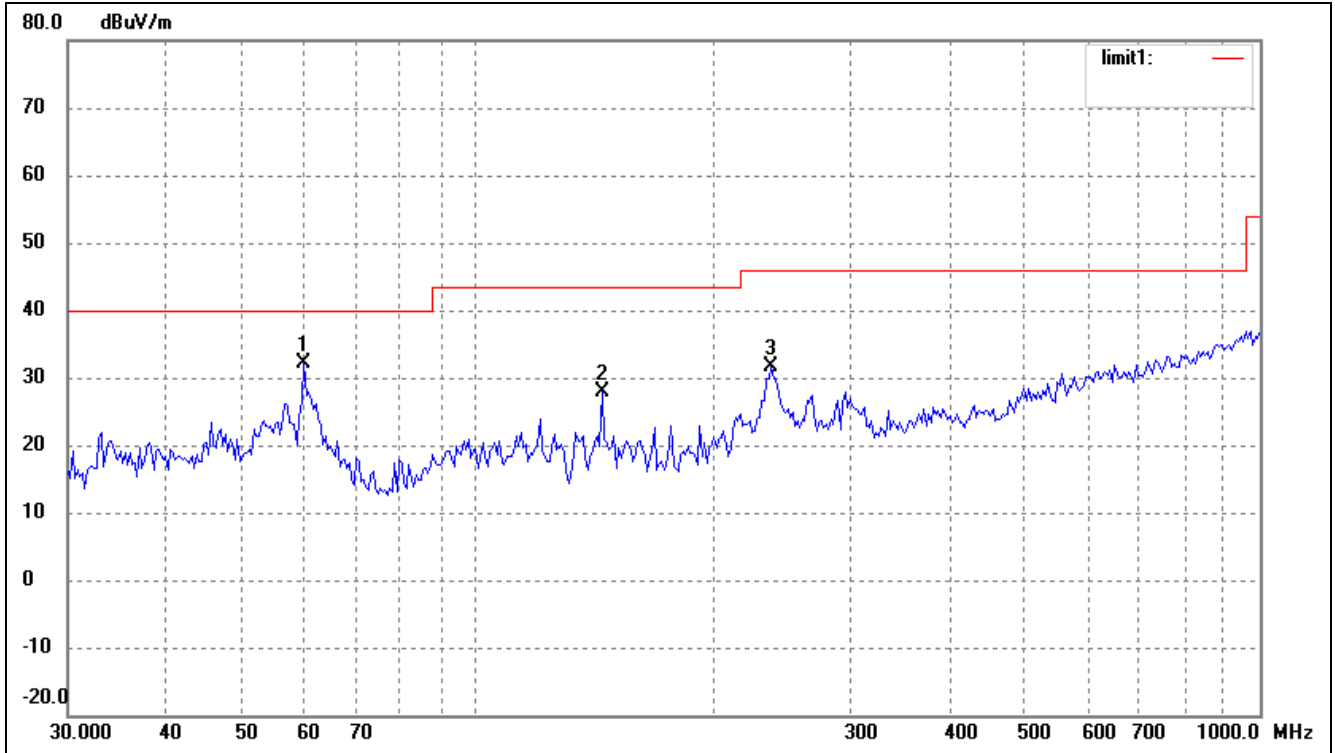
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	44.7434	20.76	8.22	28.98	40.00	-11.02	360	100	peak
2	56.0007	22.16	7.73	29.89	40.00	-10.11	360	200	peak
3	192.4186	21.60	6.54	28.14	43.50	-15.36	0	200	peak

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11b) High Channel (2462MHz)

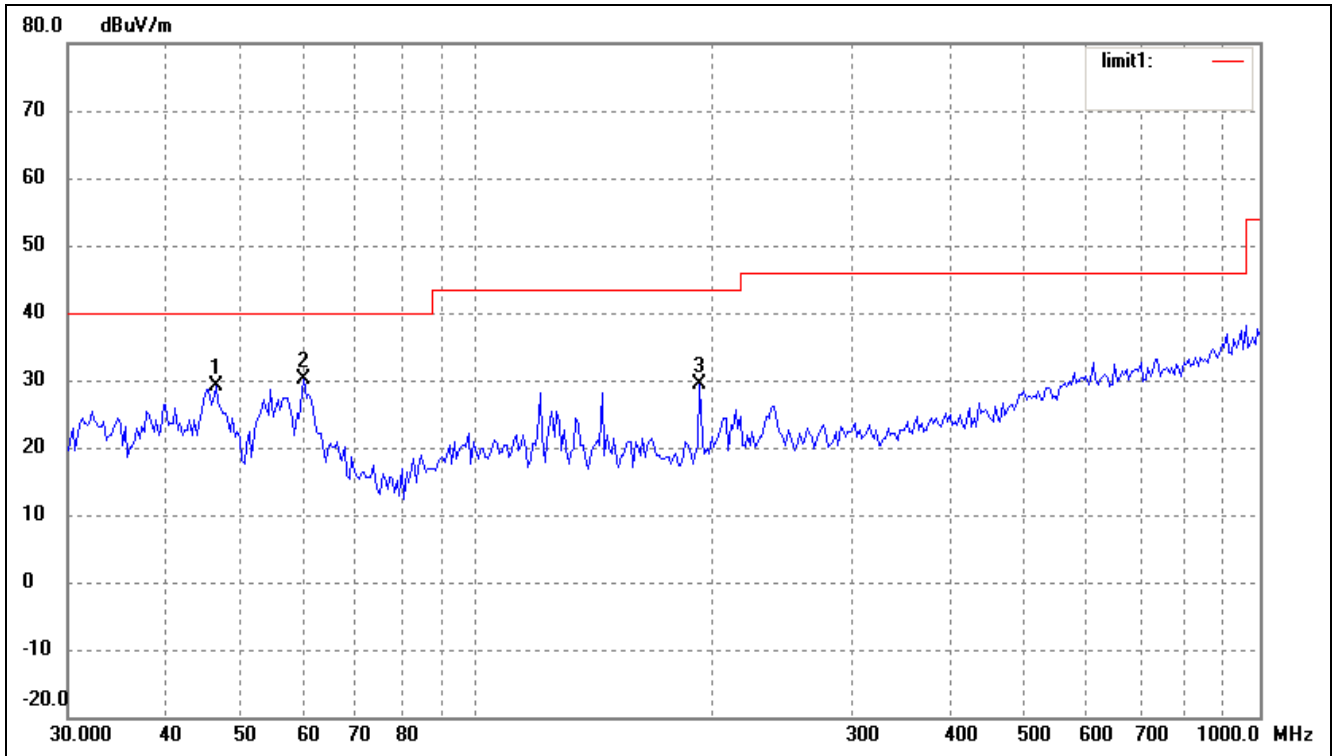
Comment:

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	60.0691	24.54	7.50	32.04	40.00	-7.96	360	200	peak
2	144.3348	23.96	4.01	27.97	43.50	-15.53	25	100	peak
3	237.4760	23.46	8.28	31.74	46.00	-14.26	231	250	peak

Vertical



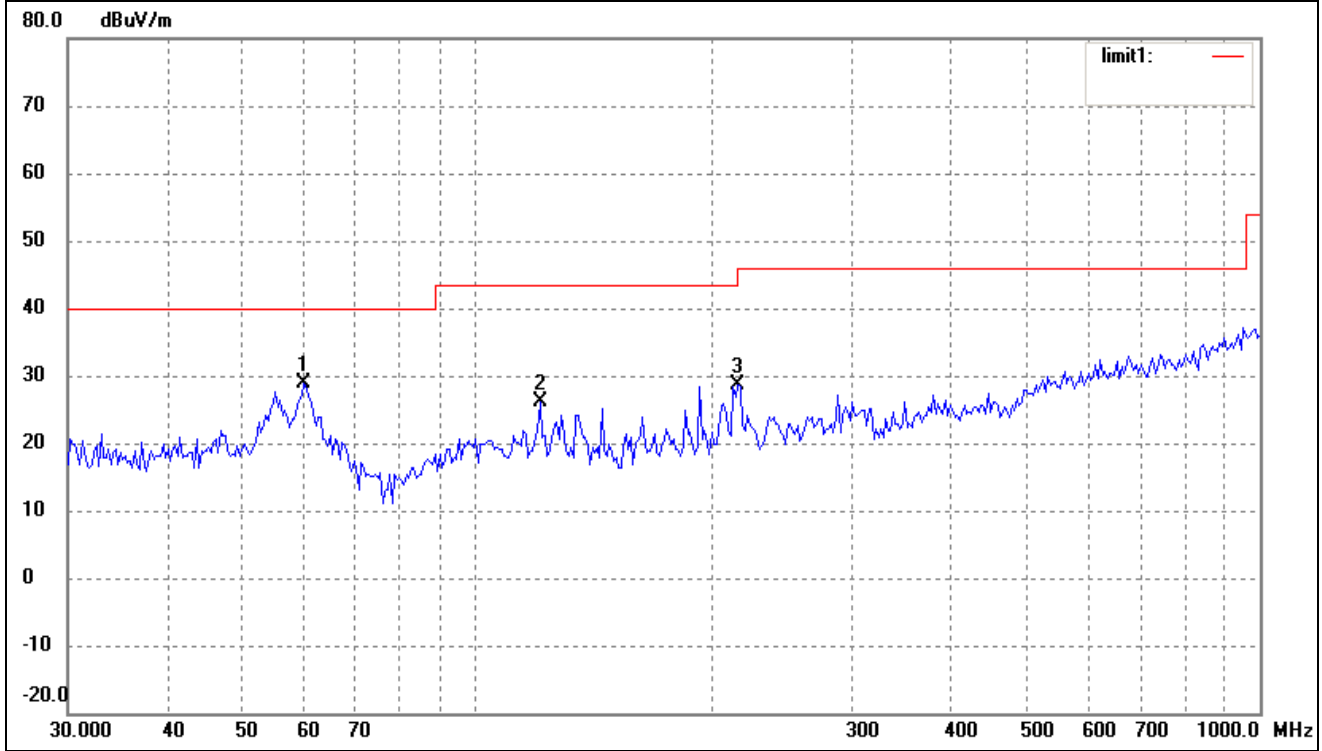
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	46.3402	20.86	8.16	29.02	40.00	-10.98	360	100	peak
2	60.0691	22.52	7.50	30.02	40.00	-9.98	360	200	peak
3	192.4186	22.81	6.54	29.35	43.50	-14.15	0	200	peak

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11g) Low Channel (2412MHz)

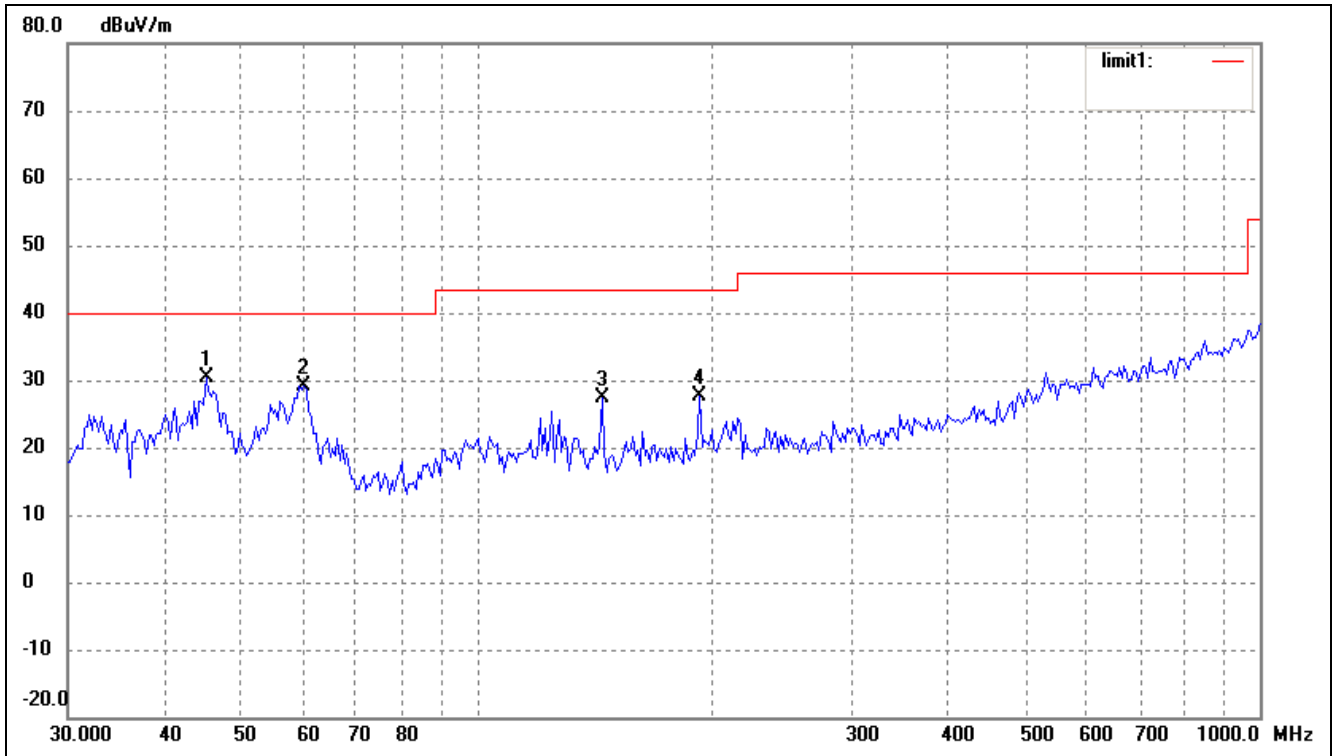
Comment:

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	60.0691	21.36	7.50	28.86	40.00	-11.14	360	200	peak
2	120.2766	20.13	5.91	26.04	43.50	-17.46	210	100	peak
3	215.2678	21.63	7.12	28.75	43.50	-14.75	360	200	peak

Vertical



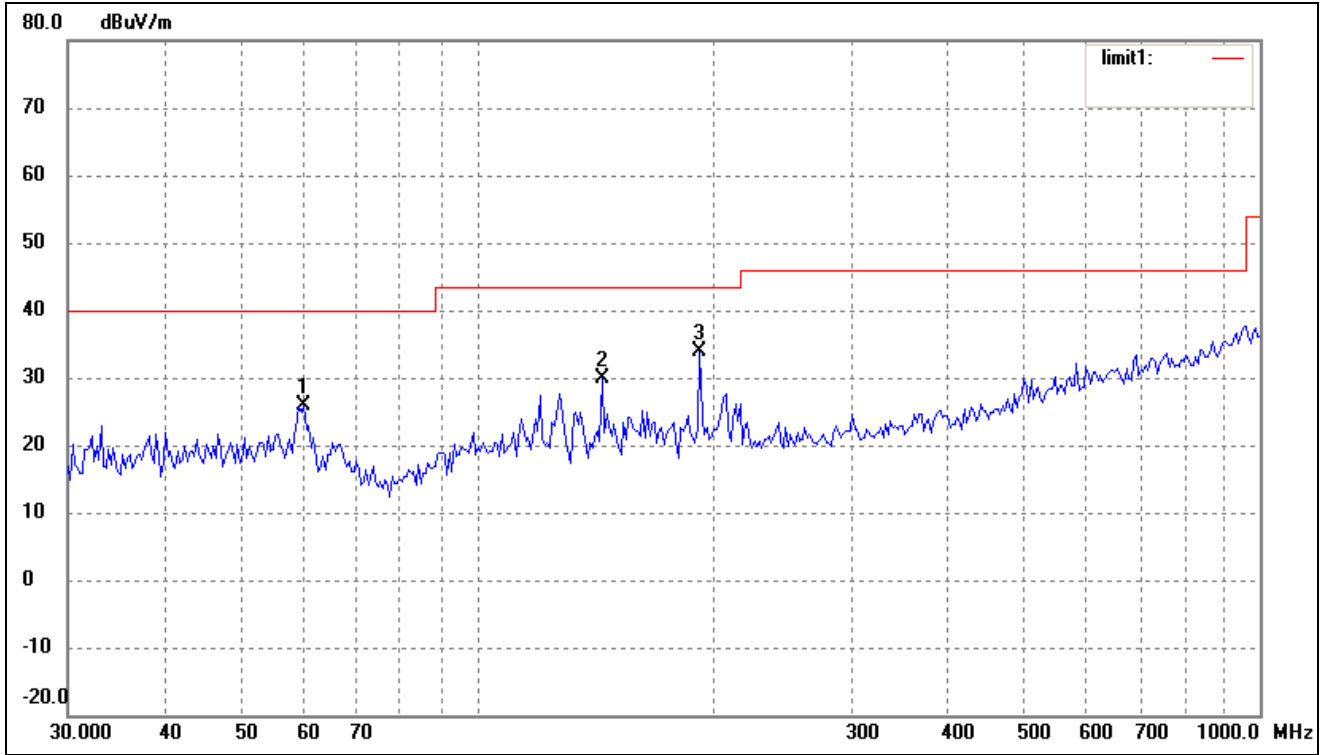
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	45.0583	22.08	8.23	30.31	40.00	-9.69	360	200	peak
2	60.0691	21.65	7.50	29.15	40.00	-10.85	0	200	peak
3	144.3348	23.28	4.01	27.29	43.50	-16.21	360	200	peak
4	192.4186	21.04	6.54	27.58	43.50	-15.92	120	200	peak

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11g) Middle Channel (2437MHz)

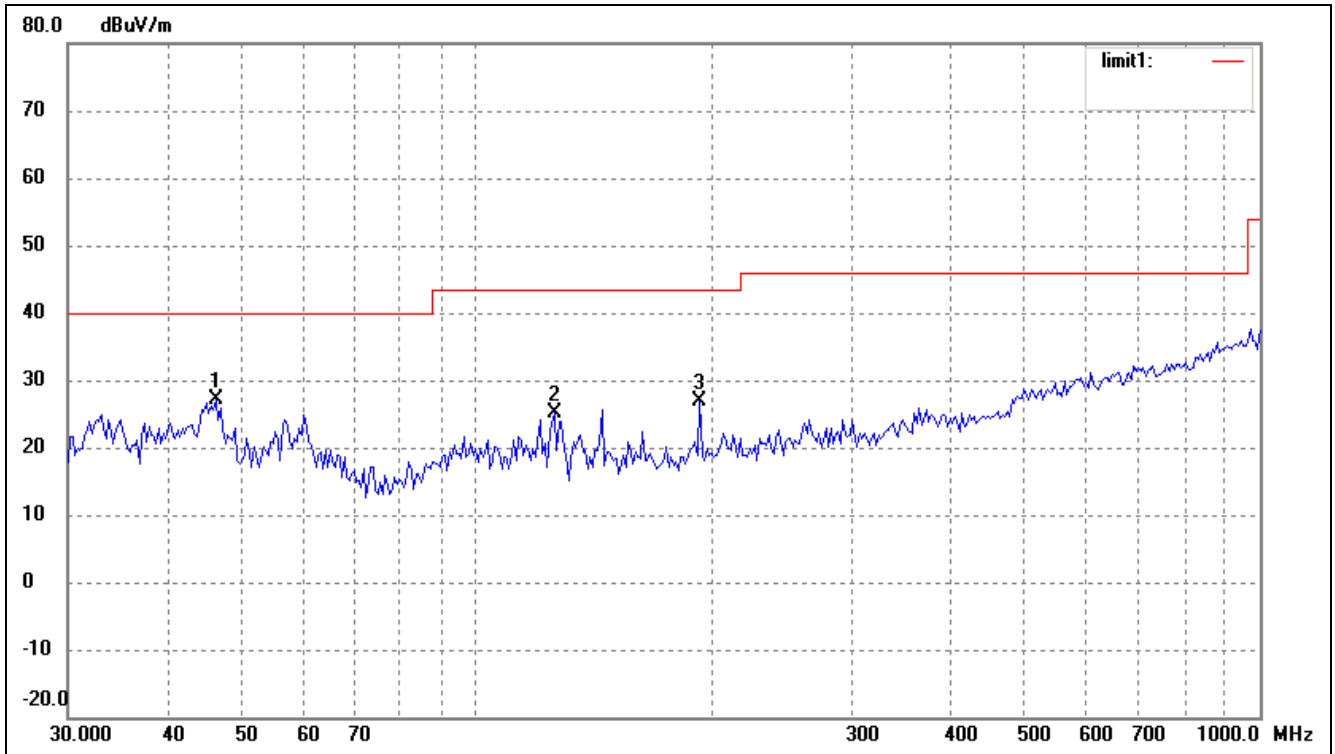
Comment:

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	60.0691	18.48	7.50	25.98	40.00	-14.02	360	100	peak
2	144.3348	25.78	4.01	29.79	43.50	-13.71	0	200	peak
3	192.4186	27.28	6.54	33.82	43.50	-9.68	360	100	peak

Vertical



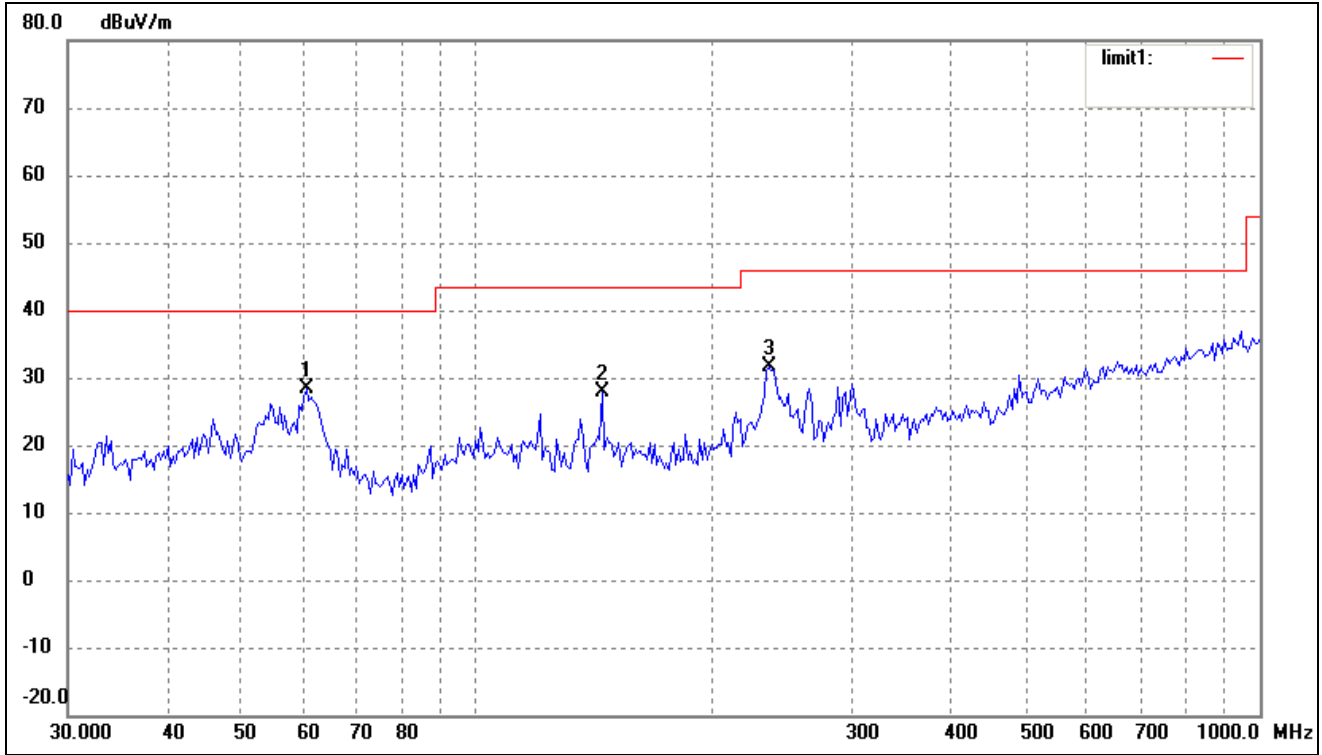
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	46.3402	19.08	8.16	27.24	40.00	-12.76	360	100	peak
2	125.4457	19.88	5.19	25.07	43.50	-18.43	0	200	peak
3	192.4186	20.23	6.54	26.77	43.50	-16.73	360	200	peak

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11g) High Channel (2462MHz)

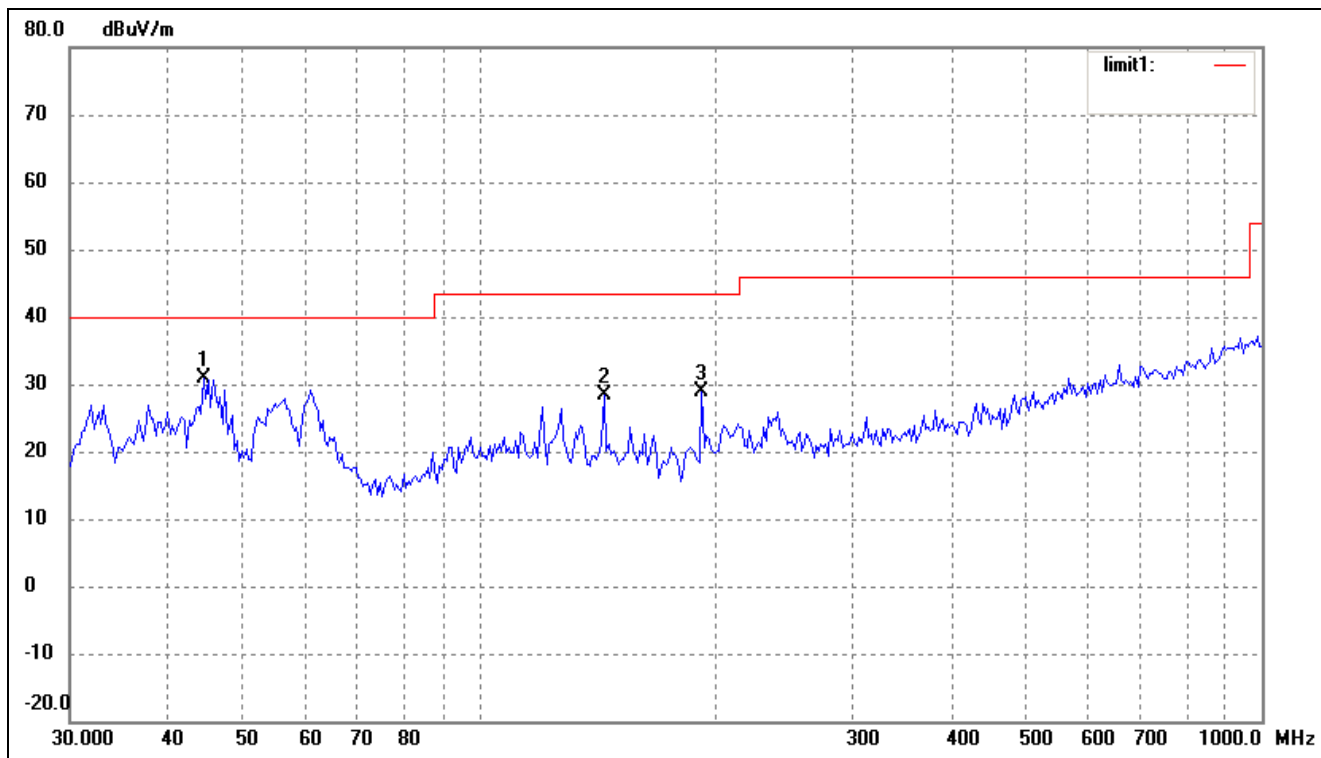
Comment:

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	60.4919	21.01	7.33	28.34	40.00	-11.66	360	100	peak
2	144.3348	23.96	4.01	27.97	43.50	-15.53	0	200	peak
3	235.8164	23.34	8.19	31.53	46.00	-14.47	360	300	peak

Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	44.4308	22.55	8.22	30.77	40.00	-9.23	360	300	peak
2	144.3348	24.47	4.01	28.48	43.50	-15.02	0	300	peak
3	192.4186	22.25	6.54	28.79	43.50	-14.71	360	100	peak

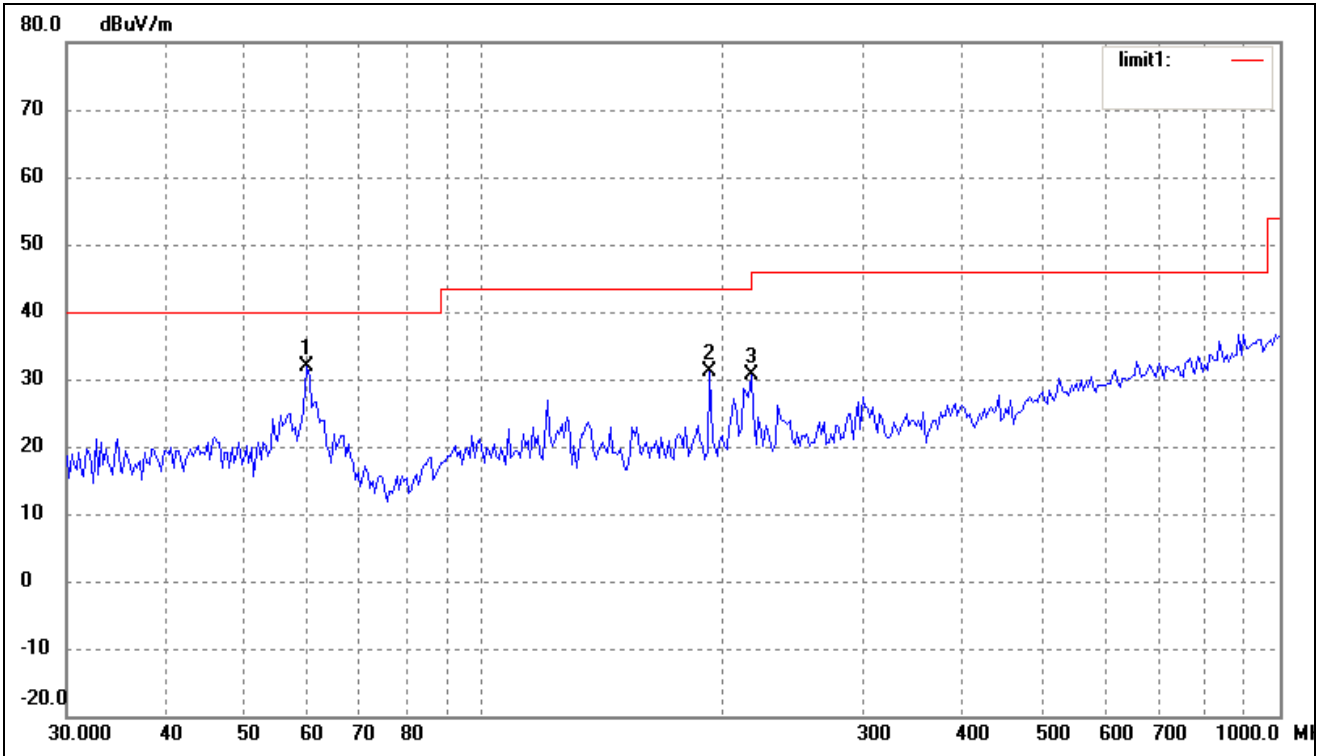
Test Result/Plots:

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11n_HT 20M) Low Channel(2412Mhz)

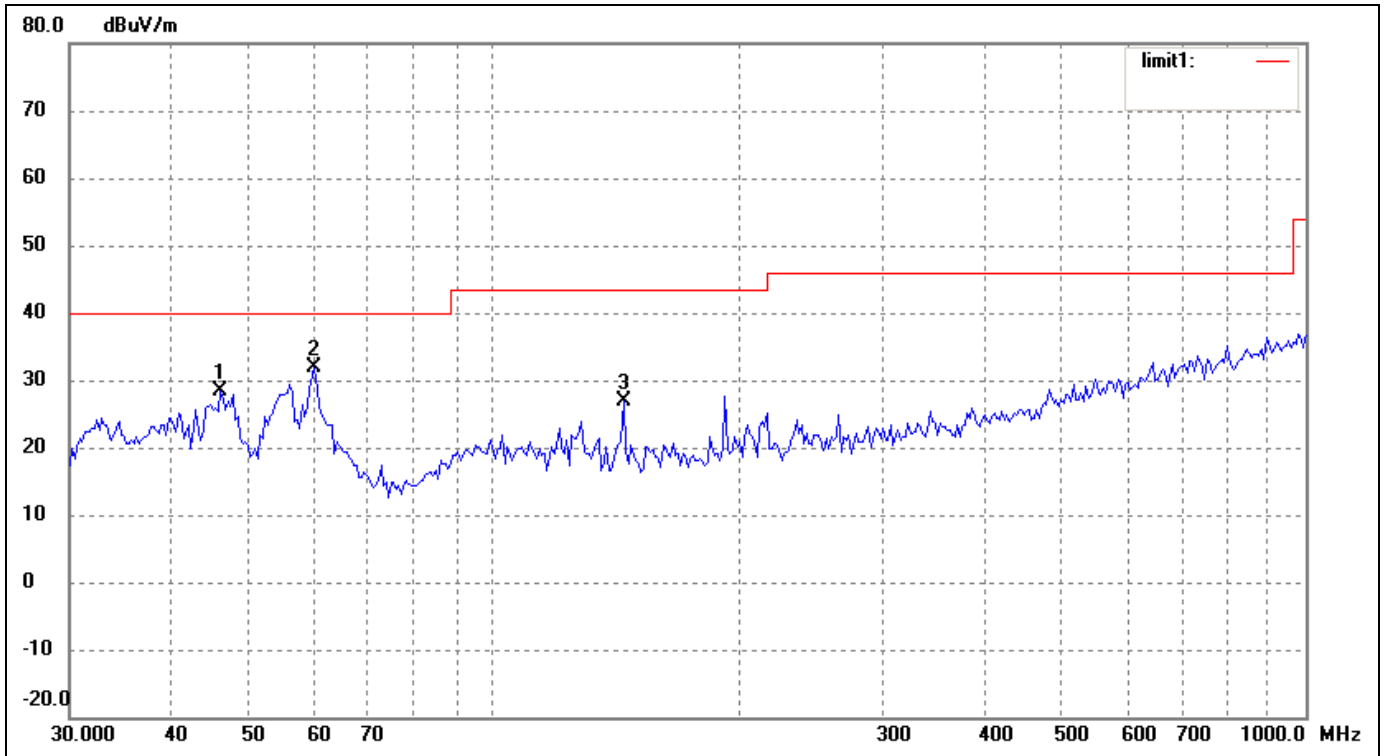
Comment:

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	60.0691	24.49	7.50	31.99	40.00	-8.01	360	100	peak
2	192.4186	24.69	6.54	31.23	43.50	-12.27	231	110	peak
3	216.7828	23.43	7.17	30.60	46.00	-15.40	0	200	peak

Vertical



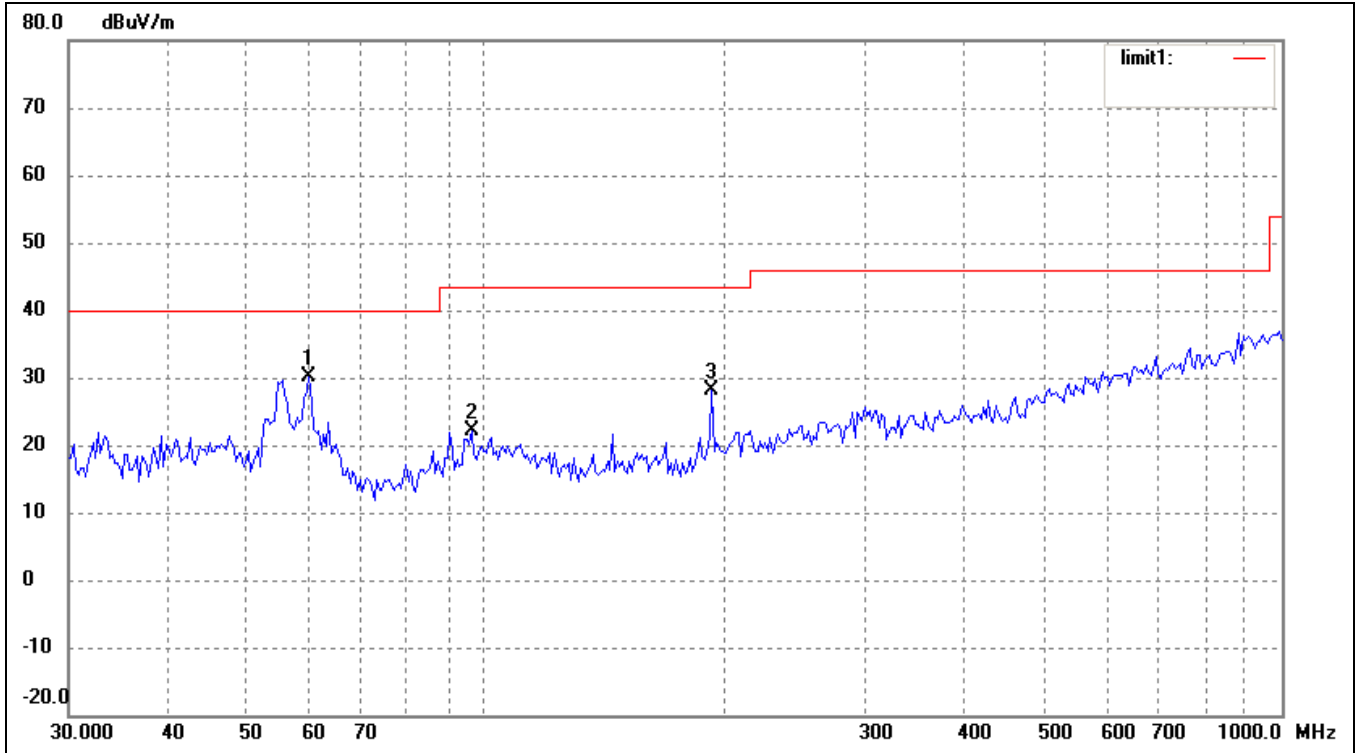
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	46.0164	20.22	8.18	28.40	40.00	-11.60	228	140	peak
2	60.0691	24.27	7.50	31.77	40.00	-8.23	360	200	peak
3	144.3348	22.80	4.01	26.81	43.50	-16.69	125	112	peak

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11n_HT 20M) Middle Channel(2437Mhz)

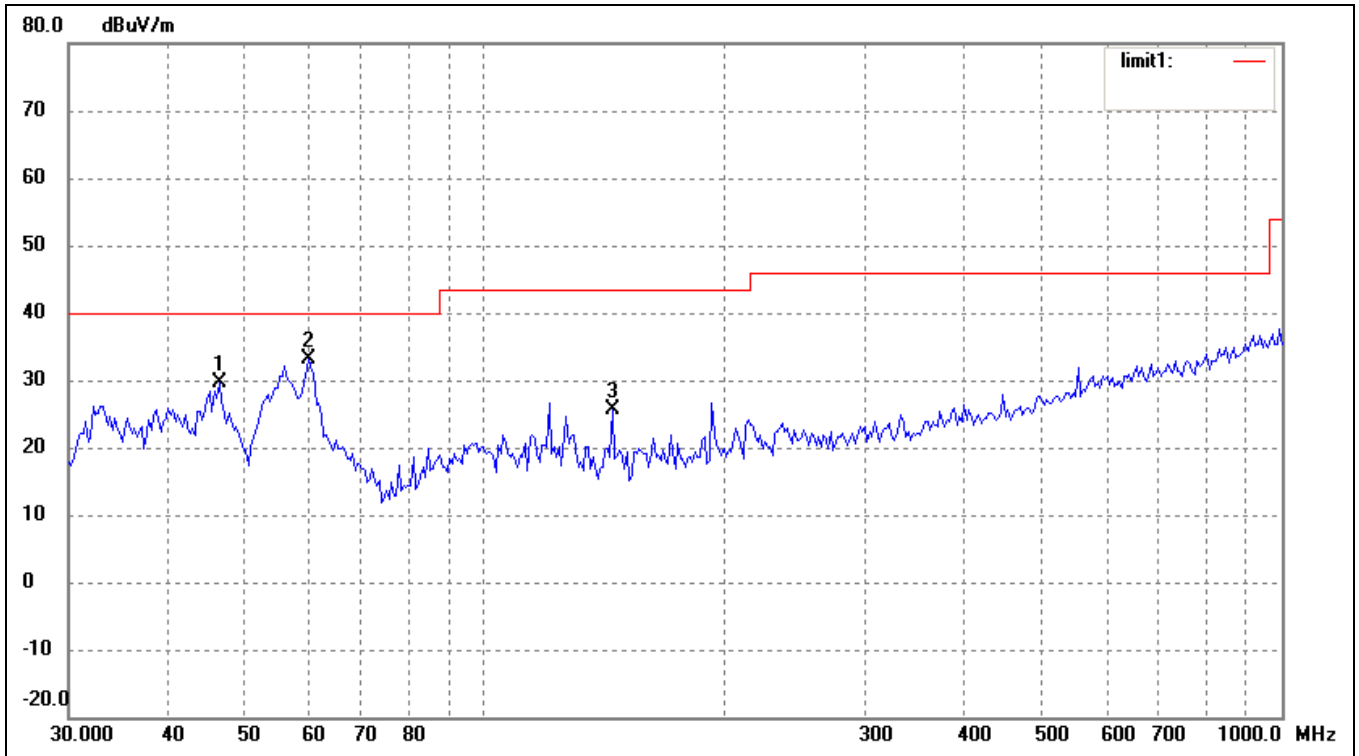
Comment:

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	60.0691	22.67	7.50	30.17	40.00	-9.83	360	200	peak
2	96.0986	14.06	8.14	22.20	43.50	-21.30	0	100	peak
3	192.4186	21.53	6.54	28.07	43.50	-15.43	223	102	peak

Vertical



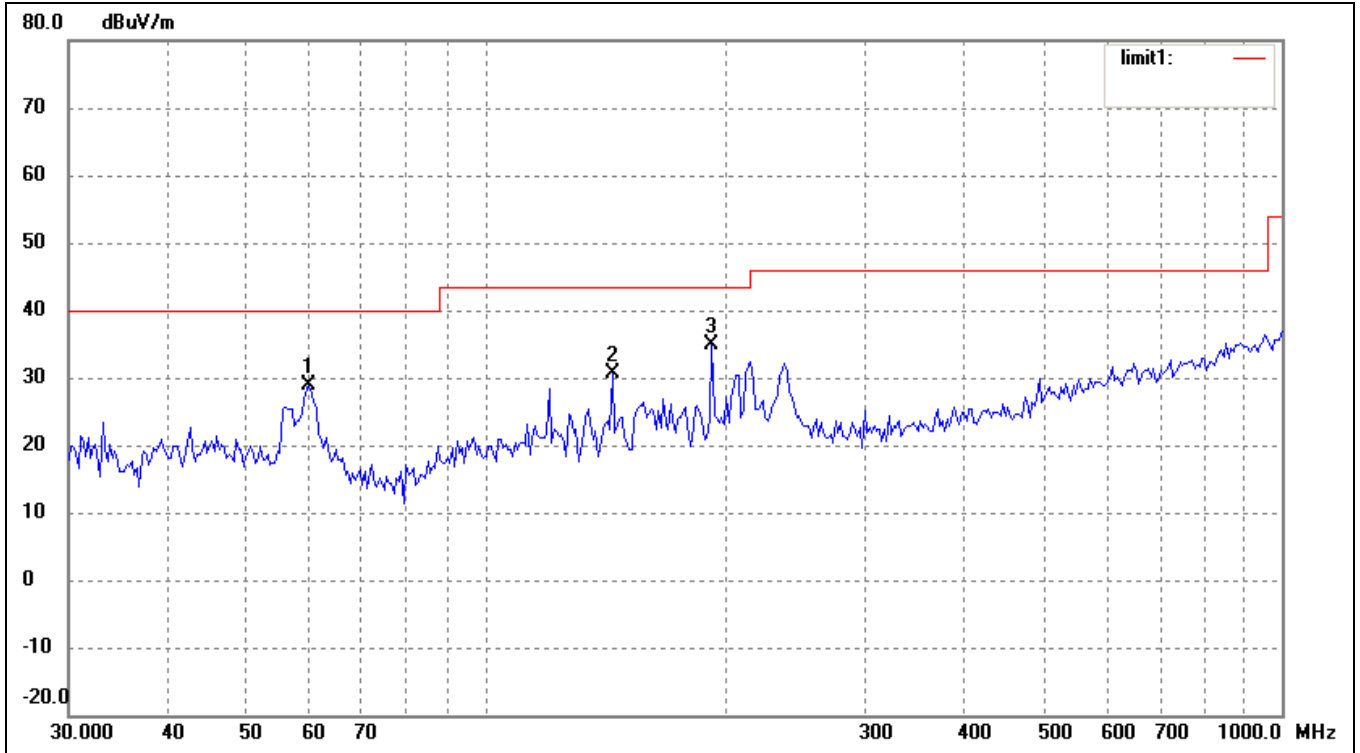
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	46.3402	21.48	8.16	29.64	40.00	-10.36	216	210	peak
2	60.0691	25.59	7.50	33.09	40.00	-6.91	360	100	peak
3	144.3348	21.64	4.01	25.65	43.50	-17.85	261	105	peak

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11n_HT 20M) High Channel(2462Mhz)

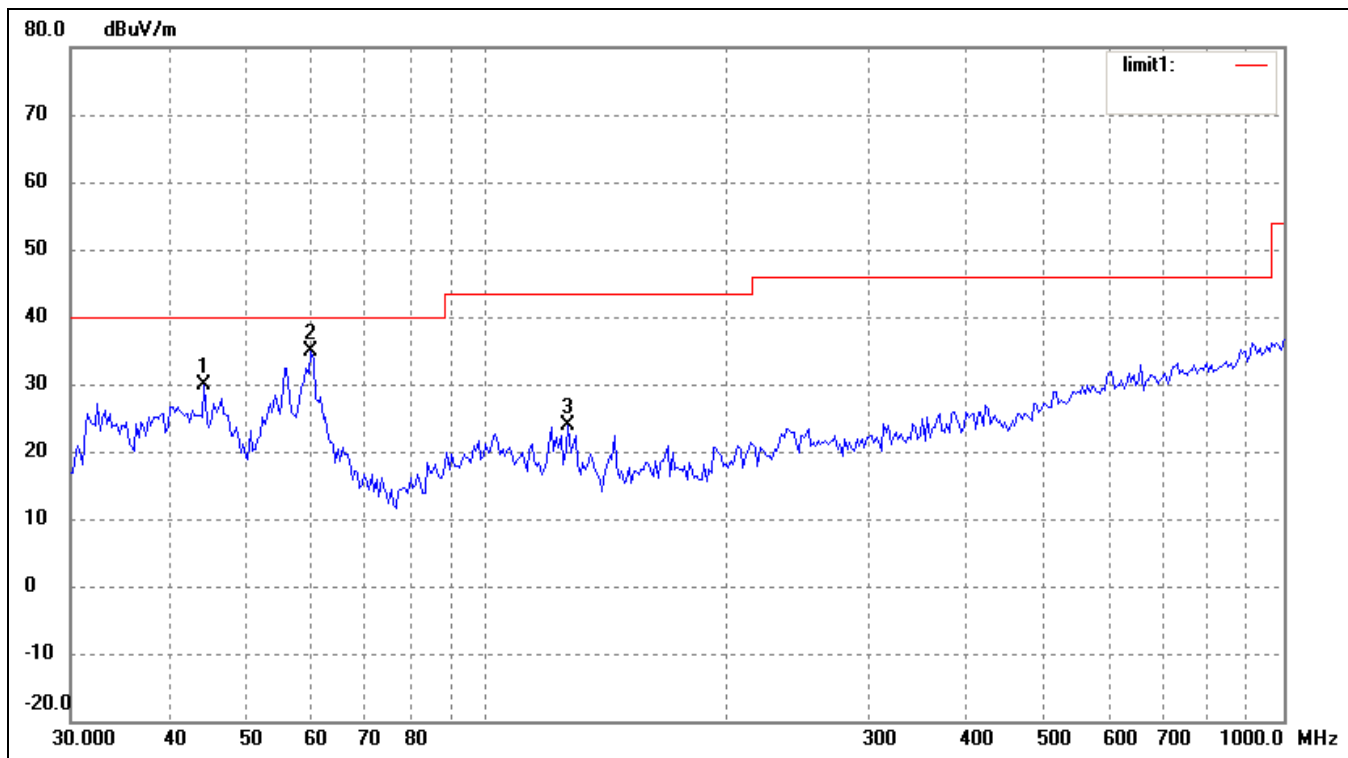
Comment:

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	60.0691	21.45	7.50	28.95	40.00	-11.05	360	200	peak
2	144.3348	26.74	4.01	30.75	43.50	-12.75	223	210	peak
3	192.4186	28.39	6.54	34.93	43.50	-8.57	230	120	peak

Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	44.1202	21.70	8.21	29.91	40.00	-10.09	235	124	peak
2	60.0691	27.34	7.50	34.84	40.00	-5.16	360	200	peak
3	126.3286	18.76	5.07	23.83	43.50	-19.67	223	203	peak

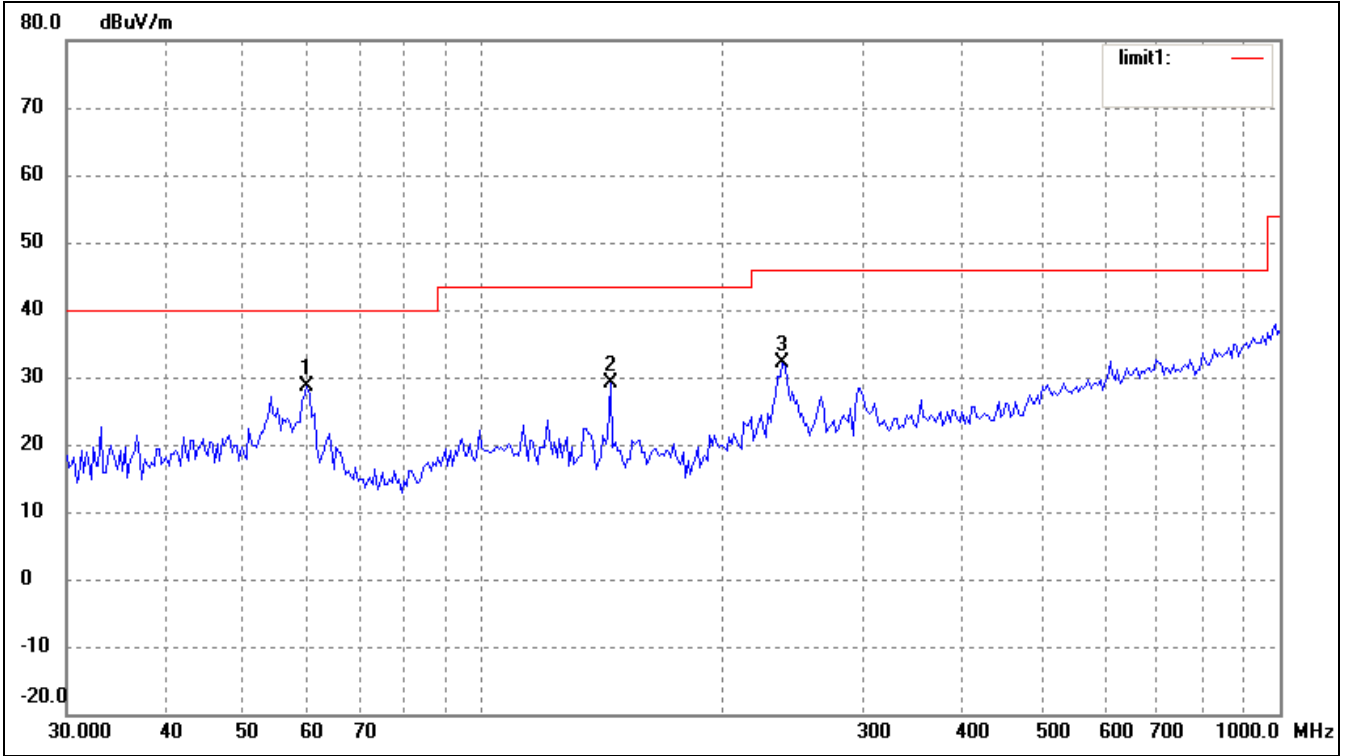
Test Result/Plots:

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11n_HT 40M) Low Channel(2422Mhz)

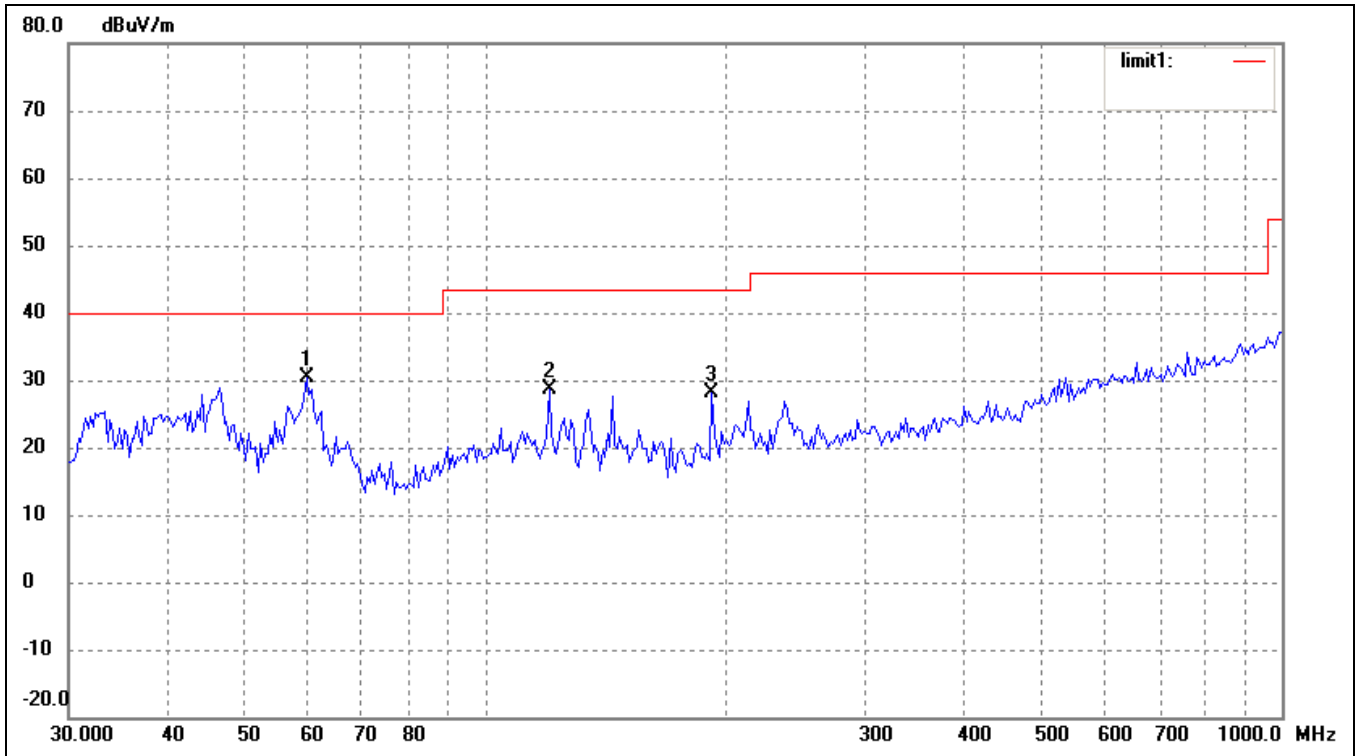
Comment:

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	60.0691	21.22	7.50	28.72	40.00	-11.28	360	100	peak
2	144.3348	25.24	4.01	29.25	43.50	-14.25	231	110	peak
3	237.4760	23.88	8.28	32.16	46.00	-13.84	0	200	peak

Vertical



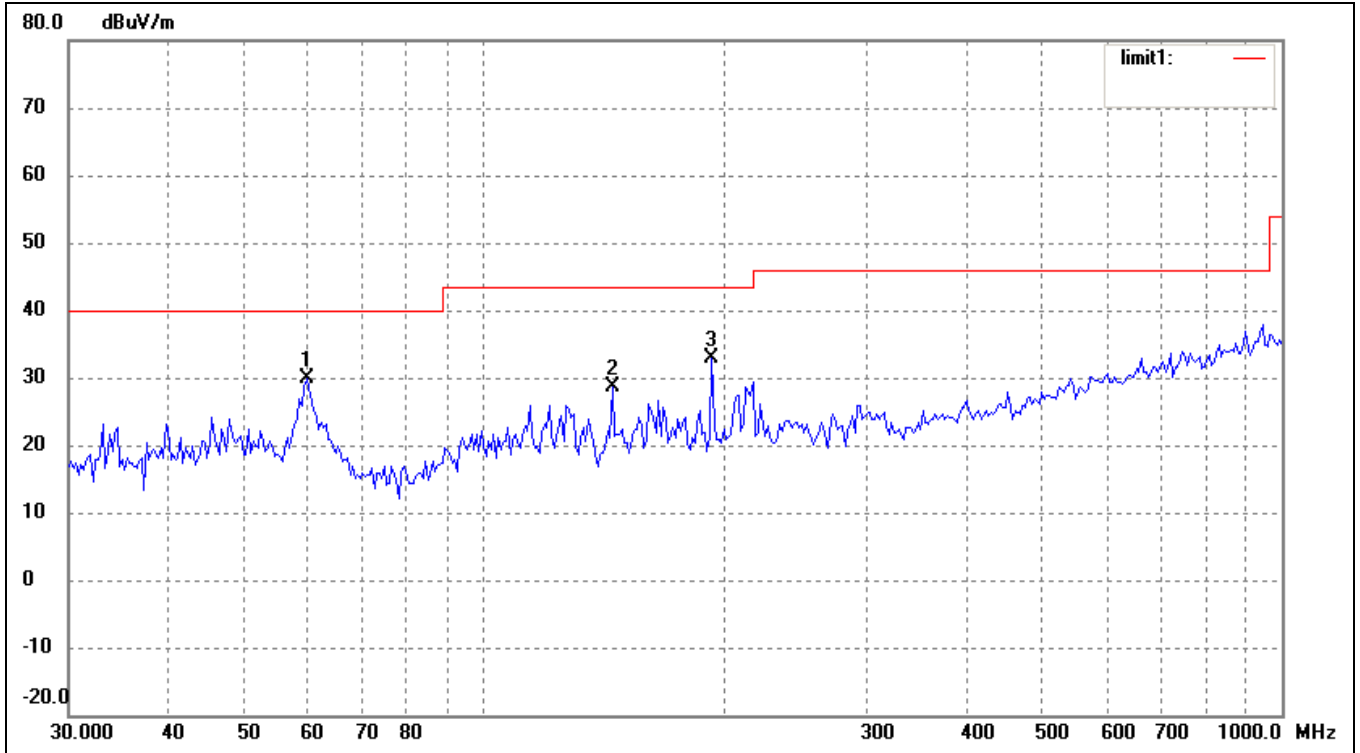
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	59.6493	22.88	7.55	30.43	40.00	-9.57	228	140	peak
2	120.2766	22.76	5.91	28.67	43.50	-14.83	360	200	peak
3	192.4186	21.63	6.54	28.17	43.50	-15.33	125	112	peak

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11n_HT 40M) Middle Channel(2437Mhz)

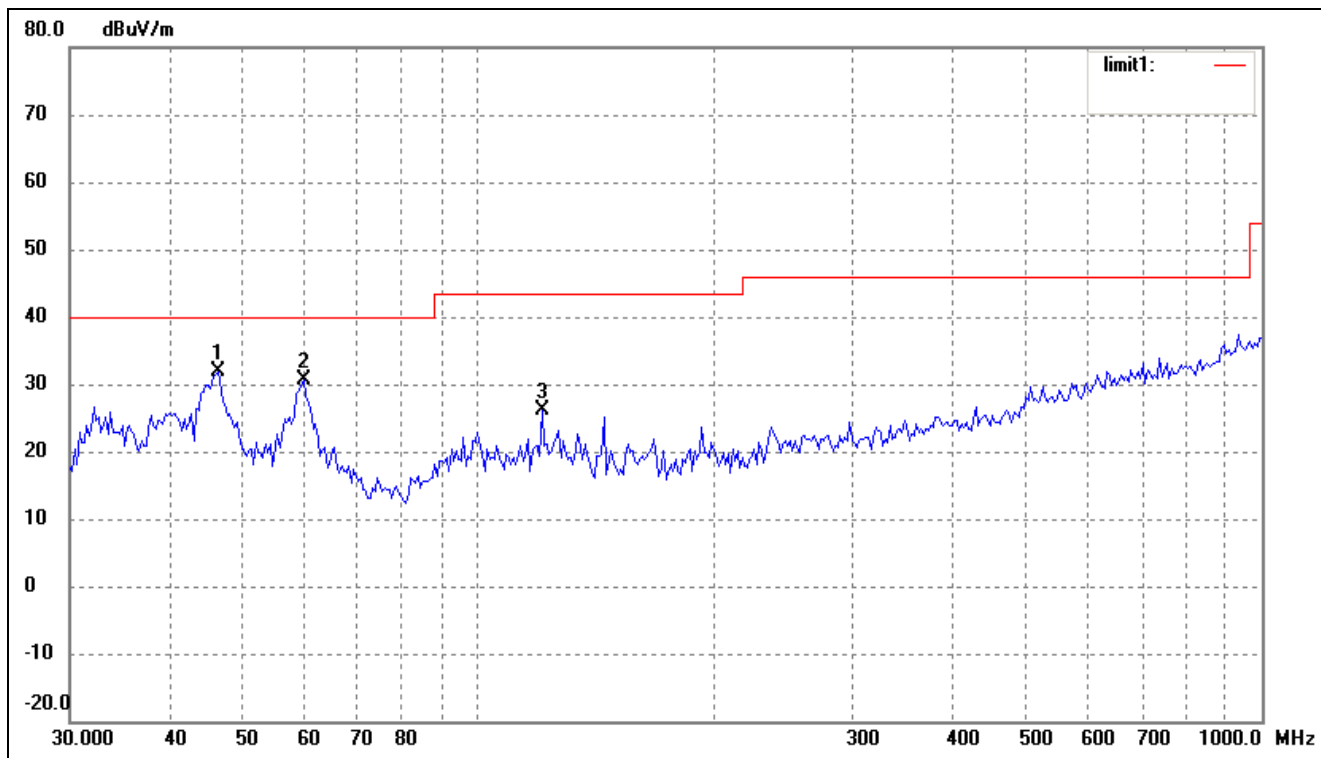
Comment:

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	59.6493	22.21	7.55	29.76	40.00	-10.24	360	200	peak
2	144.3348	24.67	4.01	28.68	43.50	-14.82	0	100	peak
3	192.4186	26.44	6.54	32.98	43.50	-10.52	223	102	peak

Vertical



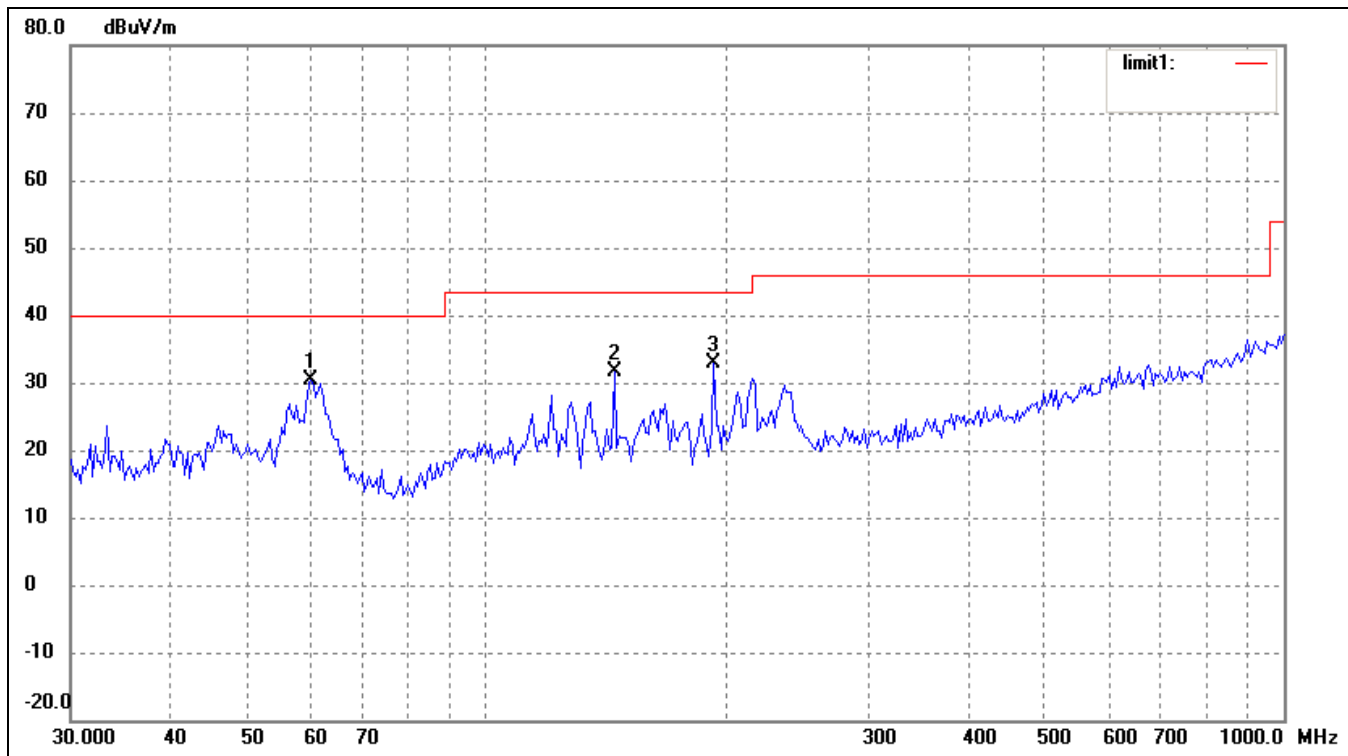
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	46.3402	23.73	8.16	31.89	40.00	-8.11	216	210	peak
2	59.6493	23.05	7.55	30.60	40.00	-9.40	360	100	peak
3	120.2766	20.34	5.91	26.25	43.50	-17.25	261	105	peak

Spurious Emission From 30 MHz to 1 GHz

Test mode: Transmitting (802.11n_HT 40M) High Channel(2452Mhz)

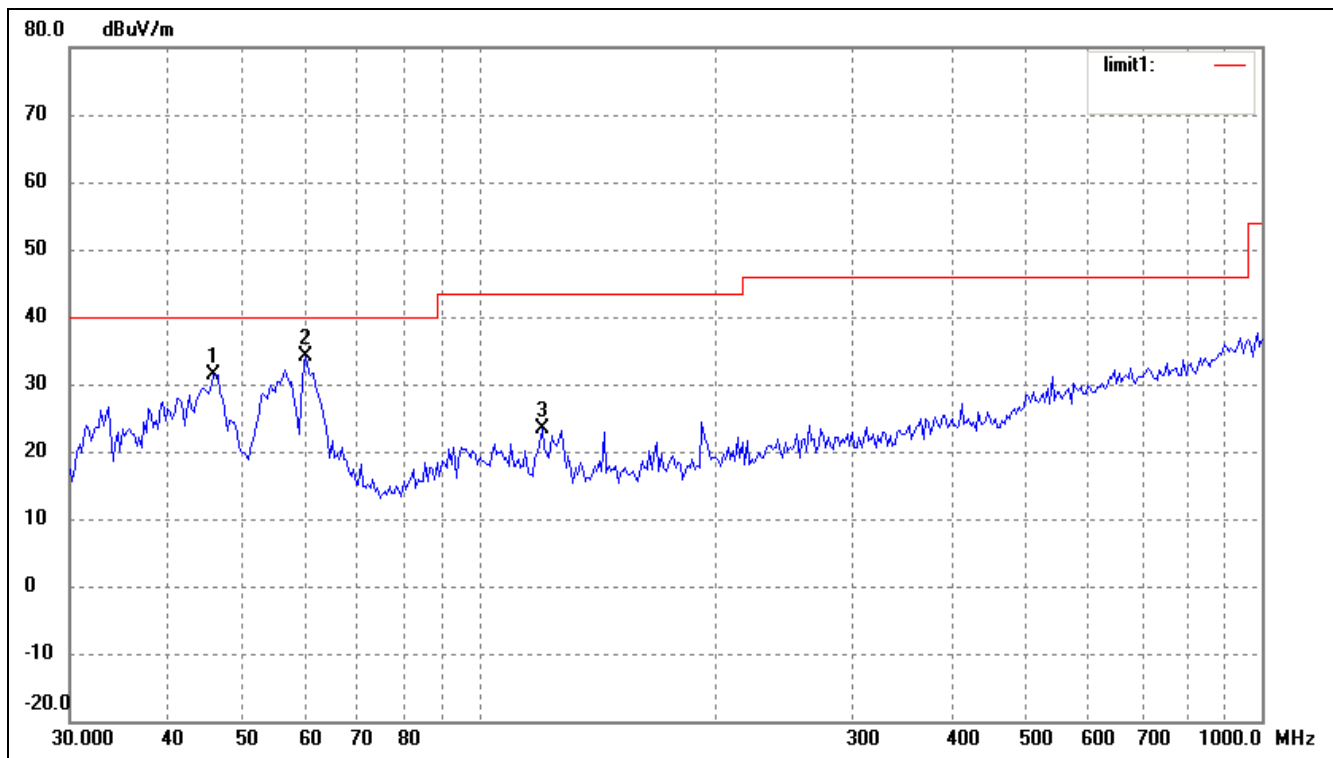
Comment:

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	60.0691	22.86	7.50	30.36	40.00	-9.64	360	200	peak
2	144.3348	27.56	4.01	31.57	43.50	-11.93	223	210	peak
3	192.4186	26.23	6.54	32.77	43.50	-10.73	240	200	peak

Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	45.6948	23.26	8.20	31.46	40.00	-8.54	235	124	peak
2	60.0691	26.66	7.50	34.16	40.00	-5.84	360	200	peak
3	120.2766	17.47	5.91	23.38	43.50	-20.12	223	203	peak

*Spurious Emission above 1GHz**Test Mode: Transmitting (802.11b)*

Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (2412MHz)										
4824.0	PK	42.78	90	V	34.1	5.2	33.0	49.08	74	-24.92
4824.0	PK	43.05	270	H	34.1	5.2	33.0	49.35	74	-24.65
7236.0	PK	37.03	180	V	37.4	6.1	33.5	47.03	74	-26.97
7236.0	PK	37.33	45	H	37.4	6.1	33.5	47.33	74	-26.67
4824.0	AV	30.00	270	V	34.1	5.2	33.0	36.30	54	-17.70
4824.0	AV	30.20	90	H	34.1	5.2	33.0	36.50	54	-17.50
7236.0	AV	25.62	60	V	37.4	6.1	33.5	35.62	54	-18.38
7236.0	AV	25.72	45	H	37.4	6.1	33.5	35.72	54	-18.28
Middle Channel (2437MHz)										
4874.0	PK	52.10	270	V	34.1	5.2	33.0	58.40	74	-15.60
4874.0	PK	47.18	45	H	34.1	5.2	33.0	53.48	74	-20.52
7311.0	PK	38.14	180	V	37.4	6.1	33.5	48.14	74	-25.86
7311.0	PK	37.73	45	H	37.4	6.1	33.5	47.73	74	-26.27
4874.0	AV	35.11	90	V	34.1	5.2	33.0	41.41	54	-12.59
4874.0	AV	31.50	270	H	34.1	5.2	33.0	37.80	54	-16.20
7311.0	AV	25.70	60	V	37.4	6.1	33.5	35.70	54	-18.30
7311.0	AV	25.57	60	H	37.4	6.1	33.5	35.57	54	-18.43
High Channel (2462MHz)										
4924.0	PK	45.53	45	V	34.1	5.2	33.0	51.83	74	-22.17
4924.0	PK	45.81	270	H	34.1	5.2	33.0	52.11	74	-21.89
7386.0	PK	38.58	45	V	37.4	6.1	33.5	48.58	74	-25.42
7386.0	PK	38.72	180	H	37.4	6.1	33.5	48.72	74	-25.28
4924.0	AV	28.73	270	V	34.1	5.2	33.0	35.03	54	-18.97
4924.0	AV	28.59	90	H	34.1	5.2	33.0	34.89	54	-19.11
7386.0	AV	25.49	45	V	37.4	6.1	33.5	35.49	54	-18.51
7386.0	AV	25.44	60	H	37.4	6.1	33.5	35.44	54	-18.56

*Spurious Emission Above 1GHz**Test Mode: Transmitting (802.11g)*

Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (2412MHz)										
4824.0	PK	50.38	270	V	34.1	5.2	33.0	56.68	74	-17.32
4824.0	PK	45.71	45	H	34.1	5.2	33.0	52.01	74	-21.99
7236.0	PK	37.82	180	V	37.4	6.1	33.5	47.82	74	-26.18
7236.0	PK	37.73	45	H	37.4	6.1	33.5	47.73	74	-26.27
4824.0	AV	37.02	90	V	34.1	5.2	33.0	43.32	54	-10.68
4824.0	AV	33.66	270	H	34.1	5.2	33.0	39.96	54	-14.04
7236.0	AV	31.38	60	V	37.4	6.1	33.5	41.38	54	-12.62
7236.0	AV	25.88	60	H	37.4	6.1	33.5	35.88	54	-18.12
Middle Channel (2437MHz)										
4874.0	PK	43.37	90	V	34.1	5.2	33.0	49.67	74	-24.33
4874.0	PK	39.32	270	H	34.1	5.2	33.0	45.62	74	-28.38
7311.0	PK	37.71	180	V	37.4	6.1	33.5	47.71	74	-26.29
7311.0	PK	37.83	45	H	37.4	6.1	33.5	47.83	74	-26.17
4874.0	AV	30.93	270	V	34.1	5.2	33.0	37.23	54	-16.77
4874.0	AV	26.64	90	H	34.1	5.2	33.0	32.94	54	-21.06
7311.0	AV	25.53	45	V	37.4	6.1	33.5	35.53	54	-18.47
7311.0	AV	25.46	60	H	37.4	6.1	33.5	35.46	54	-18.54
High Channel (2462MHz)										
4924.0	PK	42.77	45	V	34.1	5.2	33.0	49.07	74	-24.93
4924.0	PK	39.58	270	H	34.1	5.2	33.0	45.88	74	-28.12
7386.0	PK	37.63	45	V	37.4	6.1	33.5	47.63	74	-26.37
7386.0	PK	37.80	180	H	37.4	6.1	33.5	47.80	74	-26.20
4924.0	AV	31.38	270	V	34.1	5.2	33.0	37.68	54	-16.32
4924.0	AV	26.79	90	H	34.1	5.2	33.0	33.09	54	-20.91
7386.0	AV	25.15	60	V	37.4	6.1	33.5	35.15	54	-18.85
7386.0	AV	25.54	45	H	37.4	6.1	33.5	35.54	54	-18.46

Spurious Emission Above 1GHz

Test Mode: Transmitting (HT 20M)

Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (2412MHz)										
4824.0	PK	43.61	91	V	34.1	5.2	33.0	49.91	74	-24.09
4824.0	PK	43.02	152	H	34.1	5.2	33.0	49.32	74	-24.68
7236.0	PK	41.71	145	V	37.4	6.1	33.5	51.71	74	-22.29
7236.0	PK	42.55	45	H	37.4	6.1	33.5	52.55	74	-21.45
4824.0	AV	32.81	200	V	34.1	5.2	33.0	39.11	54	-14.89
4824.0	AV	41.25	120	H	34.1	5.2	33.0	47.55	54	-6.45
7236.0	AV	22.16	125	V	37.4	6.1	33.5	32.16	54	-21.84
7236.0	AV	28.52	160	H	37.4	6.1	33.5	38.52	54	-15.48
Middle Channel (2437MHz)										
4874.0	PK	42.25	145	V	34.1	5.2	33.0	48.55	74	-25.45
4874.0	PK	43.51	20	H	34.1	5.2	33.0	49.81	74	-24.19
7311.0	PK	32.19	245	V	37.4	6.1	33.5	42.19	74	-31.81
7311.0	PK	33.47	18	H	37.4	6.1	33.5	43.47	74	-30.53
4874.0	AV	32.45	272	V	34.1	5.2	33.0	38.75	54	-15.25
4874.0	AV	35.25	190	H	34.1	5.2	33.0	41.55	54	-12.45
7311.0	AV	25.66	100	V	37.4	6.1	33.5	35.66	54	-18.34
7311.0	AV	24.81	245	H	37.4	6.1	33.5	34.81	54	-19.19
High Channel (2462MHz)										
4924.0	PK	49.55	20	V	34.1	5.2	33.0	55.85	74	-18.15
4924.0	PK	50.34	12	H	34.1	5.2	33.0	56.64	74	-17.36
7386.0	PK	35.57	18	V	37.4	6.1	33.5	45.57	74	-28.43
7386.0	PK	38.47	155	H	37.4	6.1	33.5	48.47	74	-25.53
4924.0	AV	40.48	50	V	34.1	5.2	33.0	46.78	54	-7.22
4924.0	AV	42.31	27	H	34.1	5.2	33.0	48.61	54	-5.39
7386.0	AV	28.80	160	V	37.4	6.1	33.5	38.8	54	-15.2
7386.0	AV	30.72	125	H	37.4	6.1	33.5	40.72	54	-13.28

*Spurious Emission Above 1GHz**Test Mode: Transmitting (HT 40M)*

Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (2422MHz)										
4844.0	PK	48.63	200	V	34.1	5.2	33.0	54.93	74	-19.07
4844.0	PK	54.02	201	H	34.1	5.2	33.0	60.32	74	-13.68
7266.0	PK	34.74	180	V	37.4	6.1	33.5	44.74	74	-29.26
7266.0	PK	35.50	45	H	37.4	6.1	33.5	45.5	74	-28.5
4844.0	AV	34.82	243	V	34.1	5.2	33.0	41.12	54	-12.88
4844.0	AV	39.58	149	H	34.1	5.2	33.0	45.88	54	-8.12
7266.0	AV	20.13	257	V	37.4	6.1	33.5	30.13	54	-23.87
7266.0	AV	24.52	60	H	37.4	6.1	33.5	34.52	54	-19.48
Middle Channel (2437MHz)										
4874.0	PK	49.20	156	V	34.1	5.2	33.0	55.5	74	-18.5
4874.0	PK	50.47	170	H	34.1	5.2	33.0	56.77	74	-17.23
7311.0	PK	37.28	147	V	37.4	6.1	33.5	47.28	74	-26.72
7311.0	PK	37.44	158	H	37.4	6.1	33.5	47.44	74	-26.56
4874.0	AV	35.46	275	V	34.1	5.2	33.0	41.76	54	-12.24
4874.0	AV	38.45	250	H	34.1	5.2	33.0	44.75	54	-9.25
7311.0	AV	25.68	160	V	37.4	6.1	33.5	35.68	54	-18.32
7311.0	AV	27.25	145	H	37.4	6.1	33.5	37.25	54	-16.75
High Channel (2452MHz)										
4904.0	PK	52.57	27	V	34.1	5.2	33.0	58.87	74	-15.13
4904.0	PK	57.51	126	H	34.1	5.2	33.0	63.81	74	-10.19
7356.0	PK	36.35	125	V	37.4	6.1	33.5	46.35	74	-27.65
7356.0	PK	41.58	241	H	37.4	6.1	33.5	51.58	74	-22.42
4904.0	AV	34.45	190	V	34.1	5.2	33.0	40.75	54	-13.25
4904.0	AV	38.80	20	H	34.1	5.2	33.0	45.1	54	-8.9
7356.0	AV	24.12	250	V	37.4	6.1	33.5	34.12	54	-19.88
7356.0	AV	27.24	123	H	37.4	6.1	33.5	37.24	54	-16.76

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, which above 5th Harmonics are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

The measurements greater than 20dB below the limit from 9kHz to 30MHz.

9. OUT OF BAND EMISSIONS

9.1 Standard Applicable

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, provided the transmitter demonstrates compliance with the peak conducted power limits.

9.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2012-03-28	2013-03-27
EMI Test Receiver	R&S	ESVB	825471/005	2012-03-28	2013-03-27
Pre-amplifier	Agilent	8447F	3113A06717	2012-03-28	2013-03-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2012-03-28	2013-03-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2012-02-25	2013-02-24
Horn Antenna	ETS	3117	00086197	2012-02-25	2013-02-24

9.3 Test Procedure

According to the KDB 558074, the band-edge radiated test method as follows:

Set span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation (2310MHz to 2420MHz for low bandedge, 2460MHz to 2500MHz for the high bandedge)

RBW = 1MHz, VBW = 1MHz for peak value measured

RBW = 1MHz, VBW = 10Hz for average value measured

Sweep = auto; Detector function = peak/average; Trace = max hold

All the trace to stabilize, set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge. Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. Those emission must comply with the 15.209 limit for fall in the restricted bands listed in section 15.205.

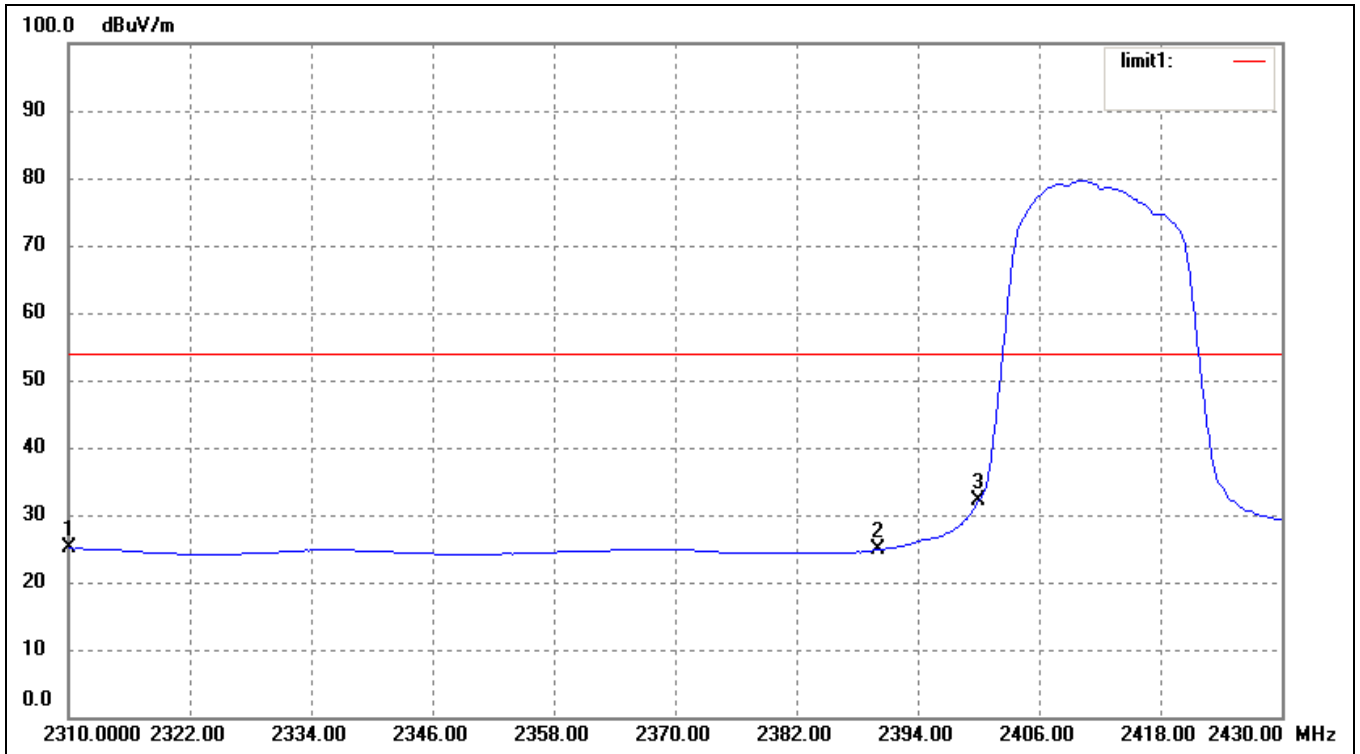
9.4 Environmental Conditions

Temperature:	21° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

9.5 Summary of Test Results/Plots

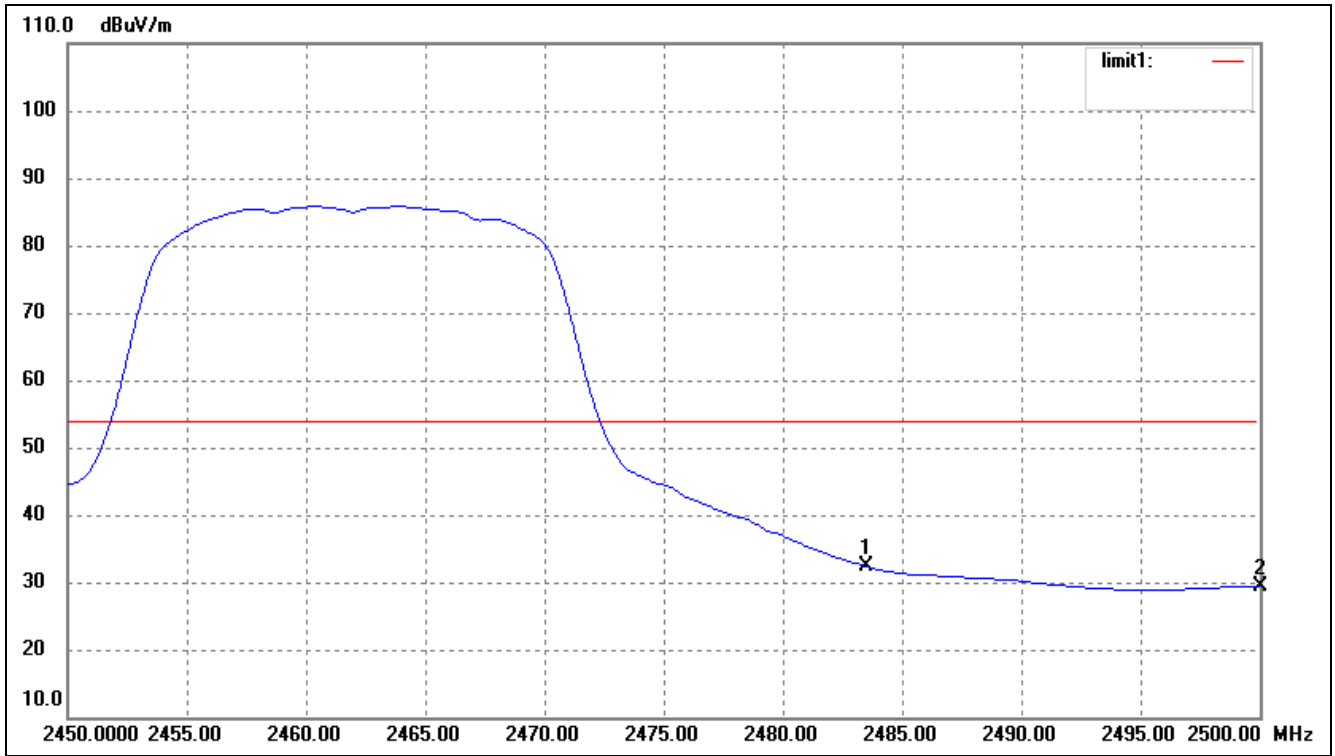
Test mode	Frequency MHz	Limit dBuV /dB	Result
802.11b	2390.00	<54dBuV	Pass
	2400.00	<54dBuV	Pass
	2483.50	<54dBuV	Pass
802.11g	2390.00	<54dBuV	Pass
	2400.00	<54dBuV	Pass
	2483.50	<54dBuV	Pass
802.11n_HT 20M	2390.00	<54dBuV	Pass
	2400.00	<54dBuV	Pass
	2483.50	<54dBuV	Pass
802.11n_HT 40M	2390.00	<54dBuV	Pass
	2400.00	<54dBuV	Pass
	2483.50	<54dBuV	Pass

For 802.11b
Lowest Bandedge



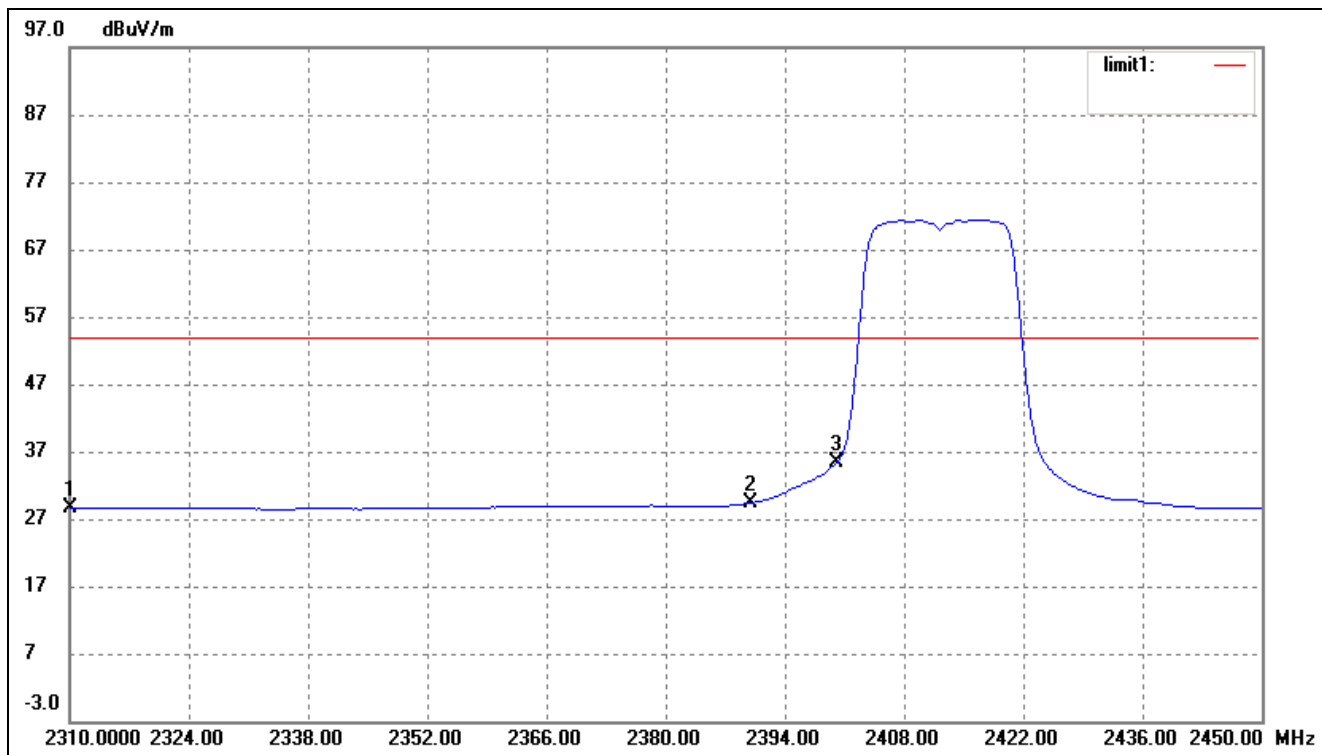
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	2310.000	36.74	-11.72	25.02	54.00	-28.98	226	100	Ave
	2310.000	46.80	-7.51	39.29	74.00	-34.71	226	100	peak
2	2390.000	36.63	-11.75	24.88	54.00	-29.12	154	100	Ave
	2390.000	48.67	-7.34	41.33	74.00	-32.67	235	100	peak
3	2400.000	43.98	-11.75	32.23	54.00	-21.77	126	100	Ave
	2400.000	54.58	-7.31	47.27	74.00	-26.73	115	100	peak

For 802.11b
Highest Bandedge



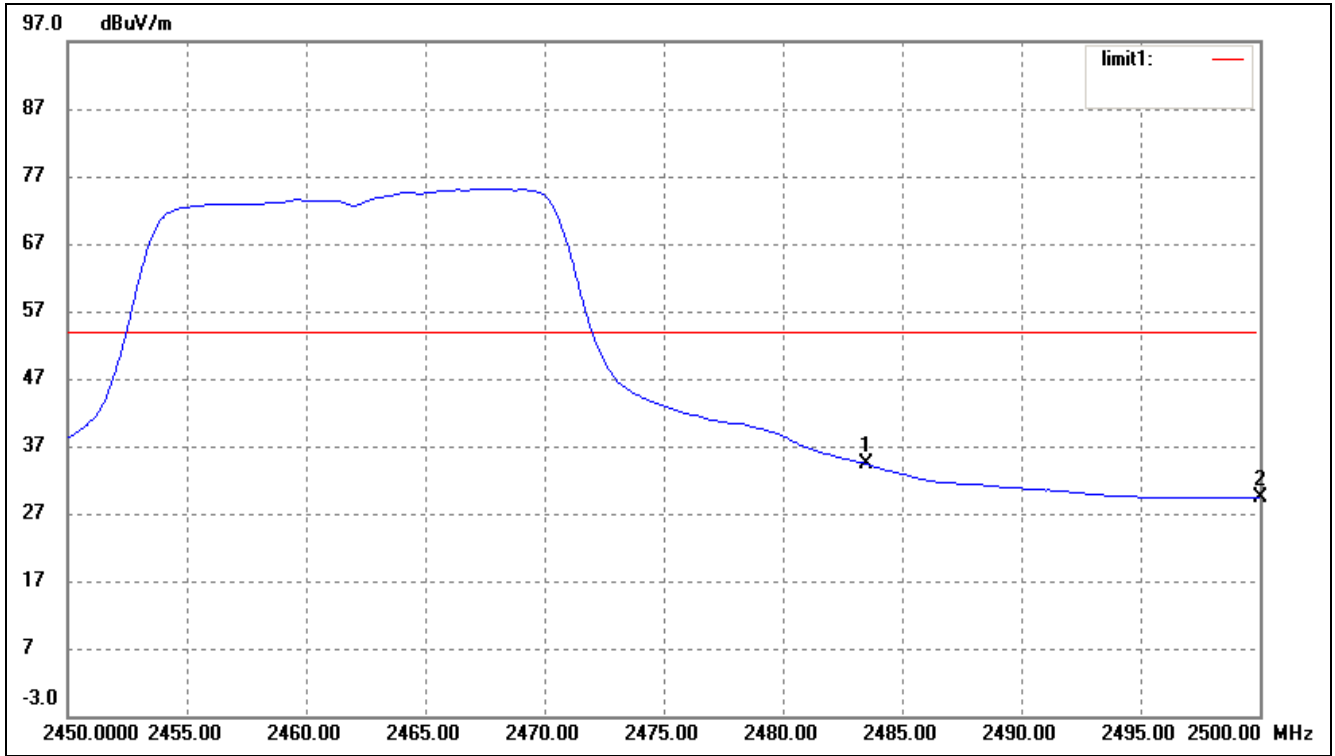
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	2483.500	44.09	-11.78	32.31	54.00	-21.69	360	100	Ave
	2483.500	49.95	-7.13	42.82	74.00	-31.18	0	100	peak
2	2500.000	41.21	-11.78	29.43	54.00	-24.57	246	100	Ave
	2500.000	47.94	-7.08	40.86	74.00	-33.14	351	100	peak

For 802.11g
Lowest Bandedge



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	2310.000	36.11	-7.51	28.60	54.00	-25.40	360	100	Ave
	2310.000	49.33	-7.51	41.82	74.00	-32.18	0	100	peak
2	2390.000	36.77	-7.34	29.43	54.00	-24.57	235	100	Ave
	2390.000	47.73	-7.34	40.39	74.00	-33.61	221	100	peak
3	2400.000	42.79	-7.31	35.48	54.00	-18.52	162	100	Ave
	2400.000	66.70	-7.31	59.39	74.00	-14.61	116	200	peak

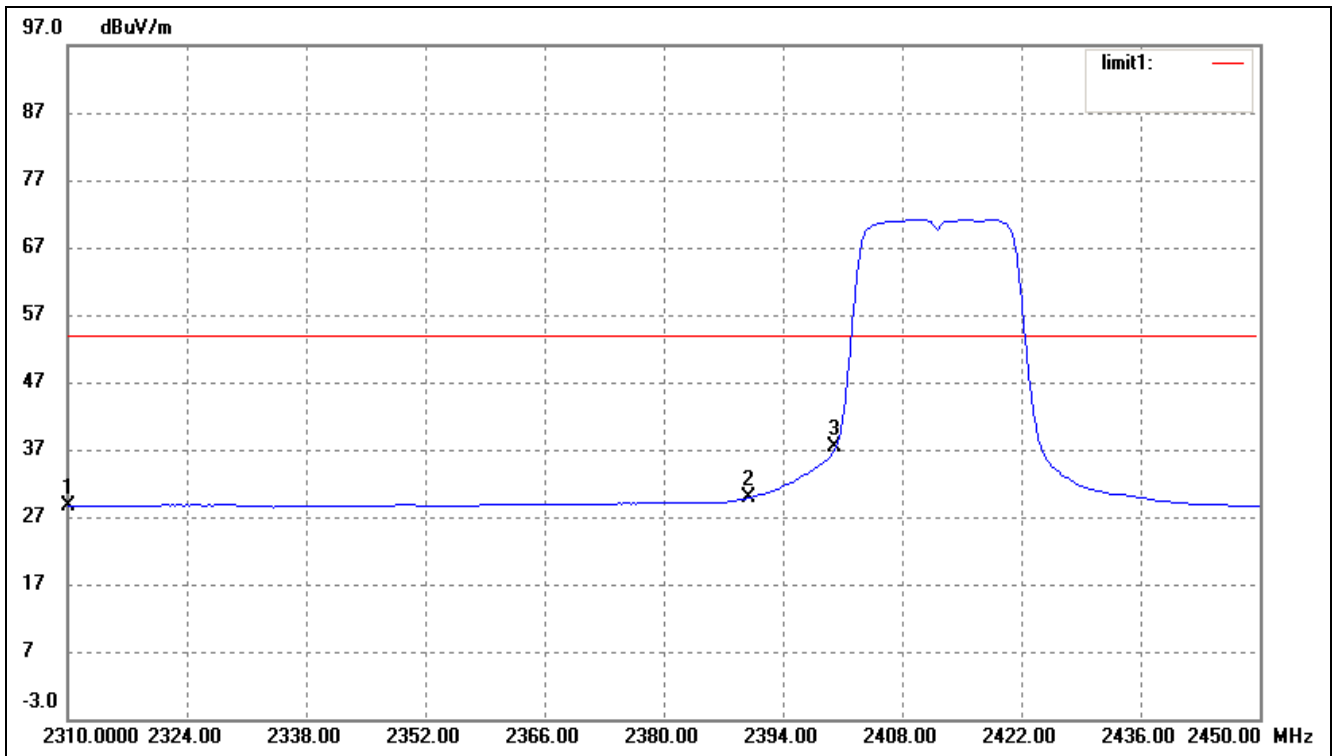
Highest Bandedge



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	2483.500	41.48	-7.13	34.35	54.00	-19.65	228	100	Ave
	2483.500	58.54	-7.13	51.41	74.00	-22.59	121	200	peak
2	2500.000	36.36	-7.08	29.28	54.00	-24.72	360	100	Ave
	2500.000	50.04	-7.08	42.96	74.00	-31.04	231	100	peak

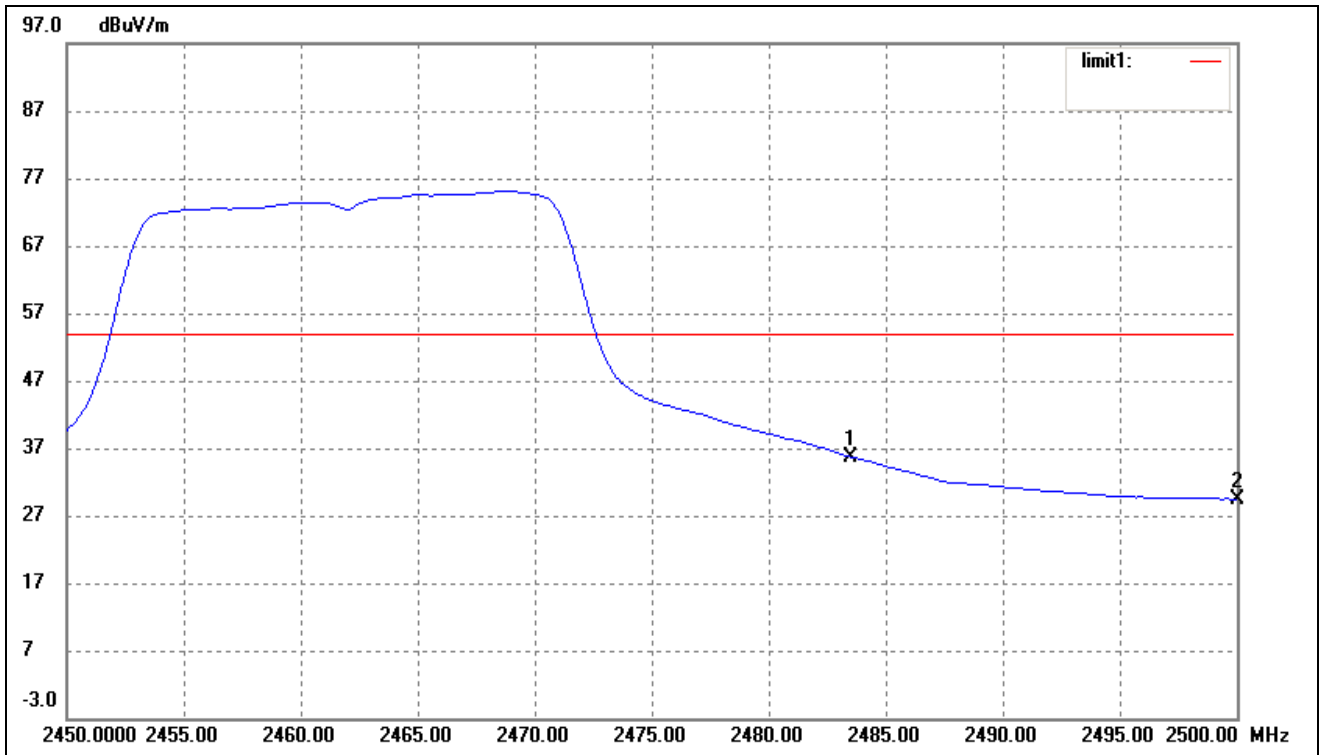
For 802.11n_HT 20M

Lowest Bandedge



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	2310.000	36.17	-7.51	28.66	54.00	-25.34	360	100	Ave
	2310.000	49.33	-7.51	41.82	74.00	-32.18	0	100	peak
2	2390.000	37.16	-7.34	29.82	54.00	-24.18	235	100	Ave
	2390.000	47.73	-7.34	40.39	54.00	-33.61	221	100	peak
3	2400.000	44.58	-7.31	37.27	54.00	-16.73	162	100	Ave
	2400.000	66.70	-7.31	59.39	74.00	-14.61	116	200	peak

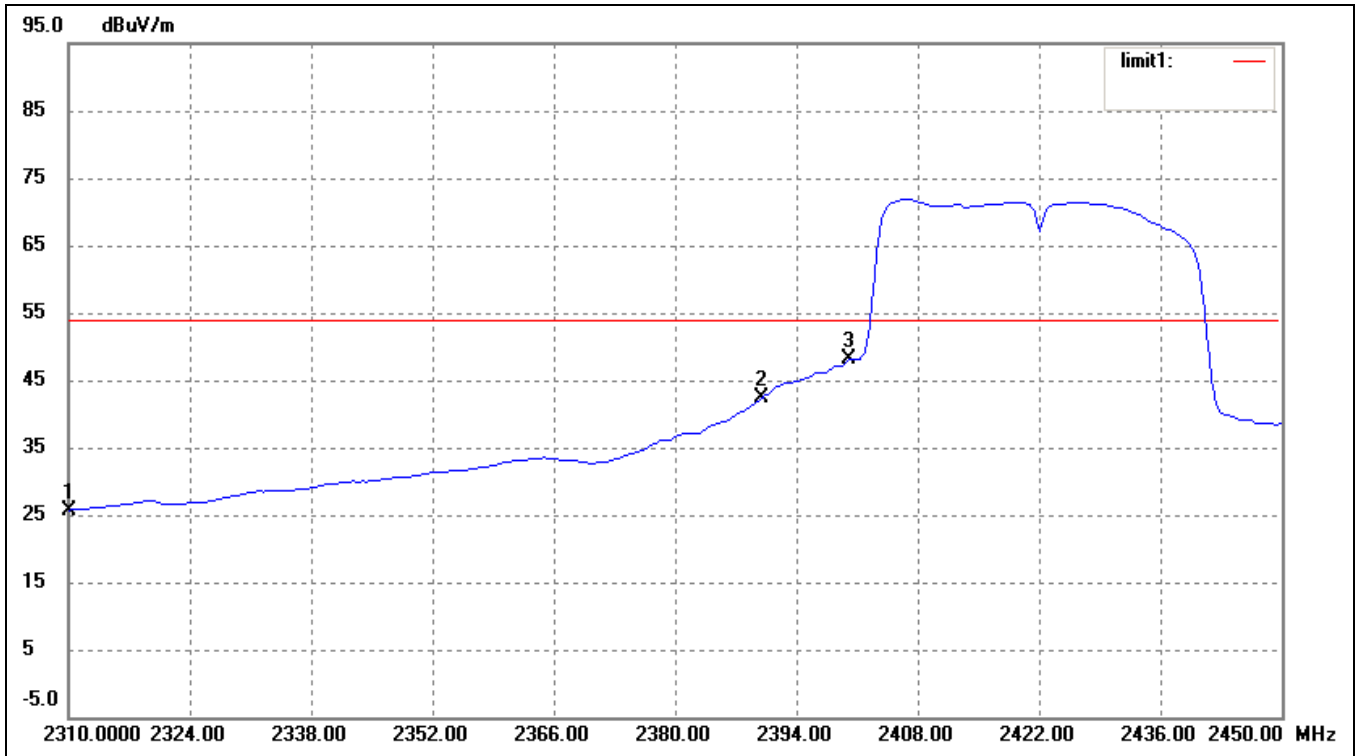
Highest Bandedge



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	2483.500	42.83	-7.13	35.70	54.00	-18.30	360	100	Ave
	2483.500	63.75	-7.13	56.62	74.00	-17.38	231	100	peak
2	2500.000	36.52	-7.08	29.44	54.00	-24.56	228	100	Ave
	2500.000	50.52	-7.08	43.44	74.00	-30.56	121	200	peak

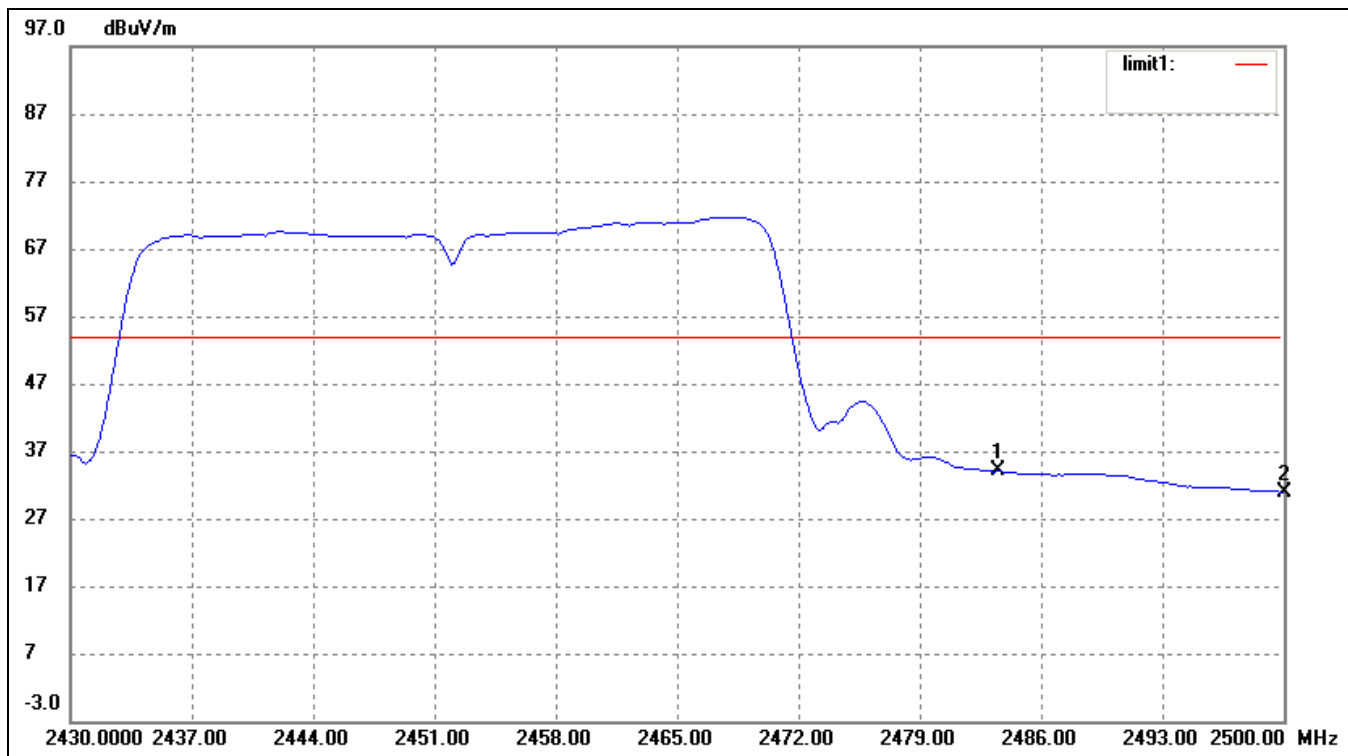
For 802.11n_HT 40M

Lowest Bandedge



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	2310.000	33.22	-7.51	25.71	54.00	-28.29	360	100	Ave
	2310.000	49.23	-7.51	41.72	74.00	-32.28	0	100	peak
2	2390.000	49.82	-7.34	42.48	54.00	-11.52	235	100	Ave
	2390.000	51.14	-7.34	43.80	74.00	-30.20	221	100	peak
3	2400.000	55.45	-7.31	48.14	54.00	-5.86	162	100	Ave
	2400.000	57.92	-7.31	50.61	74.00	-23.39	116	200	peak

Highest Bandedge



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	2483.500	41.14	-7.13	34.01	54.00	-19.99	360	100	Ave
	2483.500	55.30	-7.13	48.17	74.00	-25.83	231	100	peak
2	2500.000	37.98	-7.08	30.90	54.00	-23.10	228	100	Ave
	2500.000	51.12	-7.08	44.04	74.00	-29.96	121	200	peak

***** END OF REPORT *****