

FCC
RF
TEST REPORT

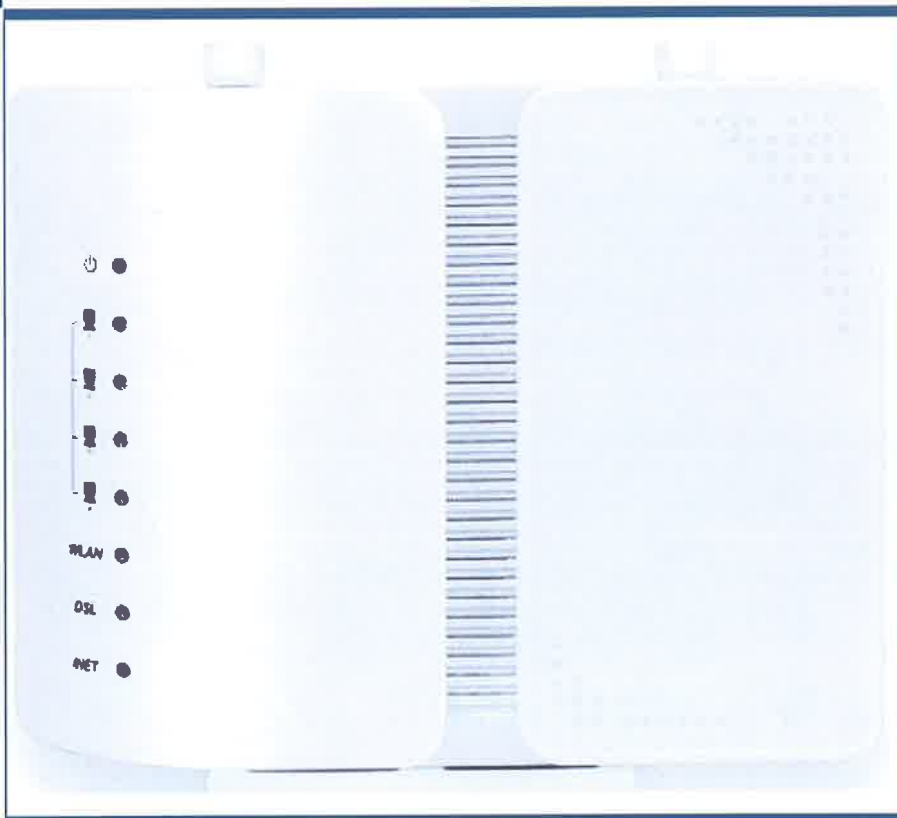
ISSUED BY
Shenzhen BALUN Technology Co., Ltd.



FOR
4 Port Wireless DSL Router

ISSUED TO
Shenzhen Kasda Digital Technology Co., LTD

B-31, Tanglang Industry Park, Xili, Nanshan District, Shenzhen, China



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Date: 2014.5.6



Report No.: BL-SZ1440016-601

EUT Type: 4 Port Wireless DSL Router

Model Name: KW5813H, KW5813, NG12AO, NG12AH

Brand Name: KASDA



Test Standard: 47 CFR Part 15 Subpart C

FCC ID: OWI-KW5813H

Test conclusion: PASS

Test Date: Apr 14, 2014 ~ May 1, 2014

Date of Issue: May 6, 2014

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Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Apr 25, 2014</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>May 1, 2014</u>	<u>The Second Issue</u>
<u>Rev. 03</u>	<u>May 5, 2014</u>	<u>The Third Issue</u>
<u>Rev. 04</u>	<u>May 6, 2014</u>	<u>The Fourth Issue</u>

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1 ADMINISTRATIVE DATA (GENERAL INFORMATION)

1.1 Identification of the Testing Laboratory

Company Name	Shenzhen BALUN Technology Co.,Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province,P. R. China
Phone Number	+86 755 6683 3402
Fax Number	+86 755 6182 4271

1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co.,Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province,P. R. China
Accreditation Certificate	The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A-1. The laboratory has been listed by US Federal Communications Commission to perform electromagnetic emission measurements. The recognition numbers of test site are 832625. The laboratory has met the requirements of the IAS Accreditation Criteria for Testing Laboratories (AC89), has demonstrated compliance with ISO/IEC Standard 17025:2005. The accreditation certificate number is TL-588. The laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L6791.
Description	All measurement facilities used to collect the measurement data are located at Block B, FL 1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China 518055

1.3 Test Environment Condition

Ambient Temperature	15 to 35°C
Ambient Relative Humidity	30 to 60%
Ambient Pressure	86 to106kPa

1.4 Announce

- (1) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- (2) The test report is invalid if there is any evidence and/or falsification.
- (3) The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
- (4) This document may not be altered or revised in any way unless done so by BALUN and all revisions are duly noted in the revisions section.
- (5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

2 PRODUCT INFORMATION

2.1 Applicant

Applicant	Shenzhen Kasda Digital Technology Co., LTD
Address	B-31,Tanglang Industry Park, Xili, Nanshan District, Shenzhen, China

2.2 Manufacturer

Manufacturer	Shenzhen Kasda Digital Technology Co., LTD
Address	B-31,Tanglang Industry Park, Xili, Nanshan District, Shenzhen, China

2.3 General Description for Equipment under Test (EUT)

EUT Type	4 Port Wireless DSL Router
Model under test	KW5813H
Series Model Name	KW5813H, KW5813, NG12AO, NG12AH
Description of Model name differentiation	The model KW5813H and NG12AO support USB function, share the identical schematics with KW5813H, so these two models named differently due to different clients. As to KW5813 and NG12AH, are not support USB function, other functions and schematics are same as model KW5813H.
Hardware Version	V1.3
Software Version	N/A
Network and Wireless connectivity	WIFI 802.11b, 802.11g and 802.11n (HT20/40)
About the Product	The EUT is the 4 Port Wireless DSL Router, it contains WIFI Module operating at 2.4GHz ISM band which supports 802.11b, 802.11g and 802.11n (HT20/40)

2.4 Technical Information

TX/ RX Operating Range		802.11b/g/n(20MHz): 2.412GHz - 2.462GHz $f_c = 2412 \text{ MHz} + (N-1)*5 \text{ MHz}$, where - f_c = "Operating Frequency" in MHz, - N = "Channel Number" with the range from 1 to 11. 802.11n(40MHz): 2.422GHz - 2.452GHz $f_c = 2412 \text{ MHz} + (N-1)*5 \text{ MHz}$, where - f_c = "Operating Frequency" in MHz, - N = "Channel Number" with the range from 3 to 9.
Modulation Type		DSSS, OFDM
Antenna Type	Antenna 0 Antenna 1	Dipole Antenna
Antenna Gain	Antenna 0 Antenna 1	3dBi

Modulation technology	Modulation Type	Transfer Rate (Mbps)	The Frequency Equal to the Transmission Rate of Modulation Signal
DSSS (802.11b)	DBPSK	1	1MHz
	DQPSK	2	
	CCK	5.5/ 11	1.375MHz
OFDM (802.11g)	BPSK	6 / 9	1MHz
	QPSK	12 / 18	
	16QAM	24 / 36	
	64QAM	48 / 54	
OFDM (802.11n-20MHz)	BPSK	6.5	1MHz
	QPSK	13/19.5	
	16QAM	26/39	
	64QAM	52/58.5/65	
OFDM (802.11n-40MHz)	BPSK	13.5	1MHz
	QPSK	27/40.5	
	16QAM	54/81/108	
	64QAM	121.5/135	

Note: Preliminary tests were performed in different data rate in above table to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate	Channel	
Maximum transmit power	11b / 11g/11n20/11n40	11/54/65/135Mbps	1/6/11	3/6/9
Maximum e.i.r.p. spectral density	11b / 11g/11n20/11n40	11/54/65/135Mbps	1/6/11	3/6/9
Frequency range	11b / 11g/11n20/11n40	11/54/65/135Mbps	1/6/11	3/6/9
Medium Access Protocol	11b / 11g/11n20/11n40	11/54/65/135Mbps	1/6/11	3/6/9
Transmitter spurious emissions	11b / 11g/11n20/11n40	11/54/65/135Mbps	1/6/11	3/6/9
Receiver spurious emissions	11b / 11g/11n20/11n40	11/54/65/135Mbps	1/6/11	3/6/9

Note: The above EUT information in section 2.3 and 2.4 was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

2.5 Ancillary Equipment

Ancillary Equipment 1	AC Adapter1	
	Brand Name	DVE
	Model No	DSA-12PFA-09 FUS 120100
	Serial No	N/A
	Rated Input	~ 100-240V, 500mA, 50/60Hz
	Rated Output	≐12V, 1000mA
Ancillary Equipment 2	AC Adapter2	
	Brand Name	DVE
	Model No	DSA-12CA-12 120100
	Serial No	(n.a. marked #1 by test site)
	Rated Input	~ 100-240V, 300mA, 50/60Hz
	Rated Output	≐12V, 1000mA
Ancillary Equipment 3	Network Cable	
Ancillary Equipment 4	Telephone Wire	
Ancillary Equipment 5	Splitter	

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15, Subpart C (12-30-13 Edition)	Miscellaneous Wireless Communications Services
2	KDB Publication 558074 D01v03r01	Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247
3	ANSI C63.4-2003/2009	American National Standard for 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
4	ANSI C63.10-2009	American National Standard for Testing Unlicensed Wireless Devices

3.2 Verdict

No.	Description	FCC Part No.	Test Result	Verdict
1	Antenna Requirement	15.203 15.247(b)	Note1	Pass
2	Output Power	15.247(b)	ANNEX A.1	Pass
3	6dB Bandwidth	15.247(a)	ANNEX A.2	Pass
4	Conducted Spurious Emission	15.247(c)	ANNEX A.3	Pass
5	Conducted Emission	15.207	ANNEX A.4	Pass
6	Radiated Spurious Emission	15.209 15.247(c)	ANNEX A.5	Pass
7	Band Edge	15.247(c)	ANNEX A.6	Pass
8	Power spectral density (PSD)	15.247(d)	ANNEX A.7	Pass

Note 1: Please refer to section 5.1

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

During the measurement, the normal environmental conditions were within the listed ranges:

Relative Humidity (%)	30 -60	
Atmospheric Pressure (kPa)	86-106	
Temperature	NT (Normal Temperature)	+20°C to +25°C
	LT (Low Temperature)	-20°C
	HT (High Temperature)	+55°C
Working Voltage of the EUT	NV (Normal Voltage)	12V
	LV (Low Voltage)	10.8V
	HV (High Voltage)	13.2V

4.2 Test Equipment List

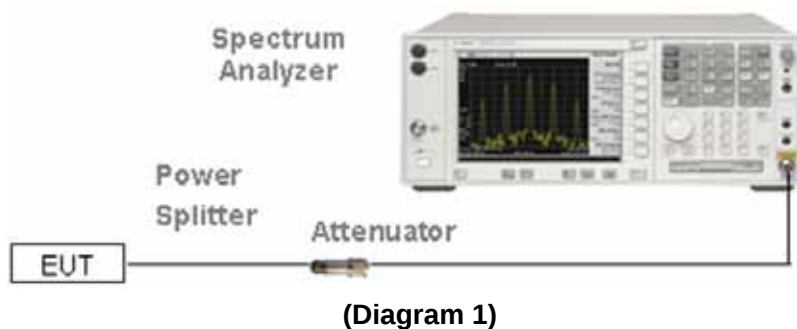
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	AGILENT	E4440A	MY45304434	2013.05.10	2014.05.09
Spectrum Analyzer	ROHDE&SCHWARZ	FSL3	103640/003	2013.05.02	2014.05.01
Power Splitter	KMW	DCPD-LDC	1305003215	2013.05.14	2014.05.13
Power Sensor	ROHDE&SCHWARZ	NRP-Z21	103971	2013.05.08	2014.05.07
Attenuator (20dB)	KMW	ZA-S1-201	110617091	--	--
Attenuator (6dB)	KMW	ZA-S1-61	1305003189	--	--
DC Power Supply	ROHDE&SCHWARZ	HMP2020	018141664	2013.07.06	2014.07.07
Temperature Chamber	ANGELANTIONI SCIENCE	NTH64-40A	1310	2013.07.06	2014.07.07
Test Antenna-Loop(9kHz-30MHz)	SCHWARZBECK	FMZB 1519	1519-037	2013.07.02	2014.07.01
Test Antenna-Bi-Log(30MHz-3G Hz)	SCHWARZBECK	VULB 9163	9163-624	2013.07.03	2014.07.02
Test Antenna-Horn(1-18GHz)	SCHWARZBECK	BBHA 9120D	9120D-1148	2013.07.02	2014.07.01
Test Antenna-Horn(15-26.5GHz)	SCHWARZBECK	BBHA 9170	9170-305	2013.07.02	2014.07.01
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	2013.10.07	2014.10.06

4.3 Test Configurations

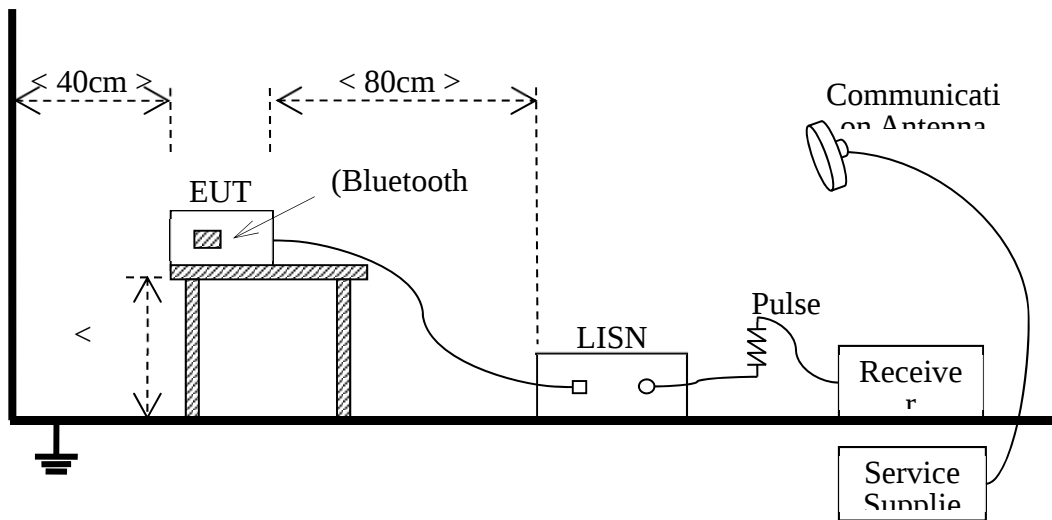
Test Configurations (TC) NO.	Description	
	Signal Description	Operating Frequency
Transmitter		
TC01	DSSS modulation, 802.11b	Ch No. 1/ 2412MHz
TC02	DSSS modulation, 802.11b	Ch No. 6/ 2437MHz
TC03	DSSS modulation, 802.11b	Ch No. 11/ 2462MHz
TC04	OFDM modulation, 802.11g	Ch No. 1/ 2412MHz
TC05	OFDM modulation, 802.11g	Ch No. 6/ 2437MHz
TC06	OFDM modulation, 802.11g	Ch No. 11/ 2462MHz
TC07	OFDM modulation, 802.11n(20MHz)	Ch No. 1/ 2412MHz
TC08	OFDM modulation, 802.11n(20MHz)	Ch No. 6/ 2437MHz
TC09	OFDM modulation, 802.11n(20MHz)	Ch No. 11/ 2462MHz
TC10	OFDM modulation, 802.11n(40MHz)	Ch No. 3/ 2422MHz
TC11	OFDM modulation, 802.11n(40MHz)	Ch No. 6/ 2437MHz
TC12	OFDM modulation, 802.11n(40MHz)	Ch No. 9/ 2452MHz

4.4 Description of Test Setup

4.4.1 For Antenna Port Test

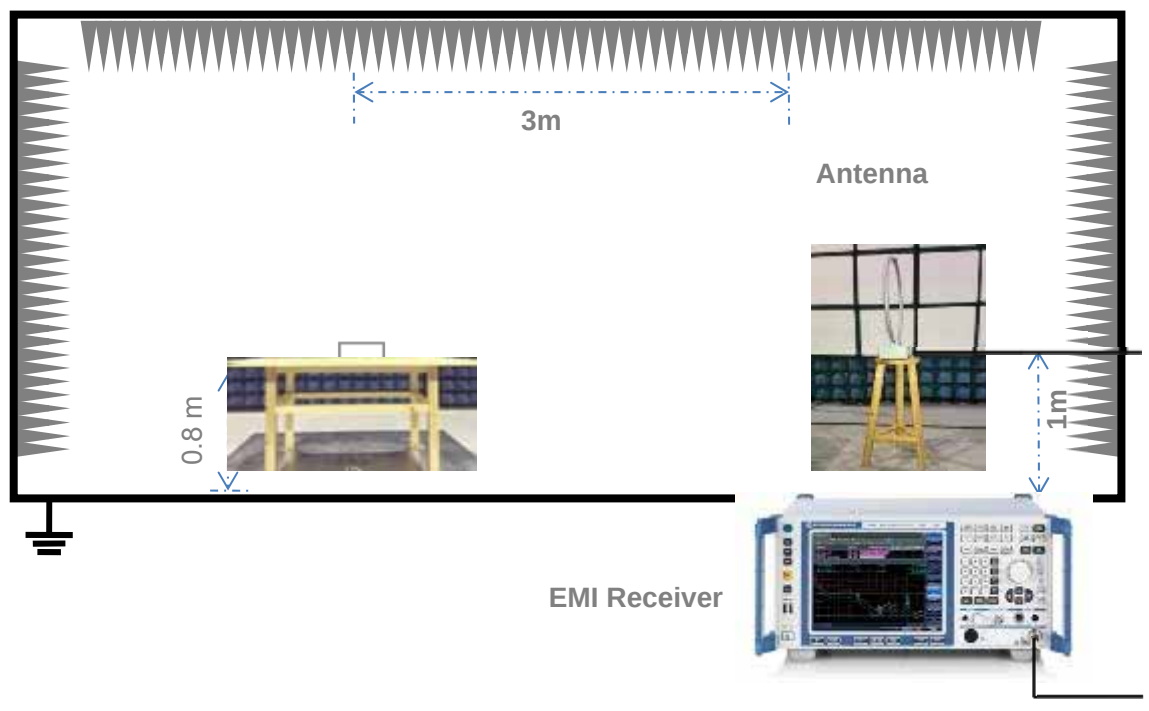


4.4.2 For AC Power Supply Port Test



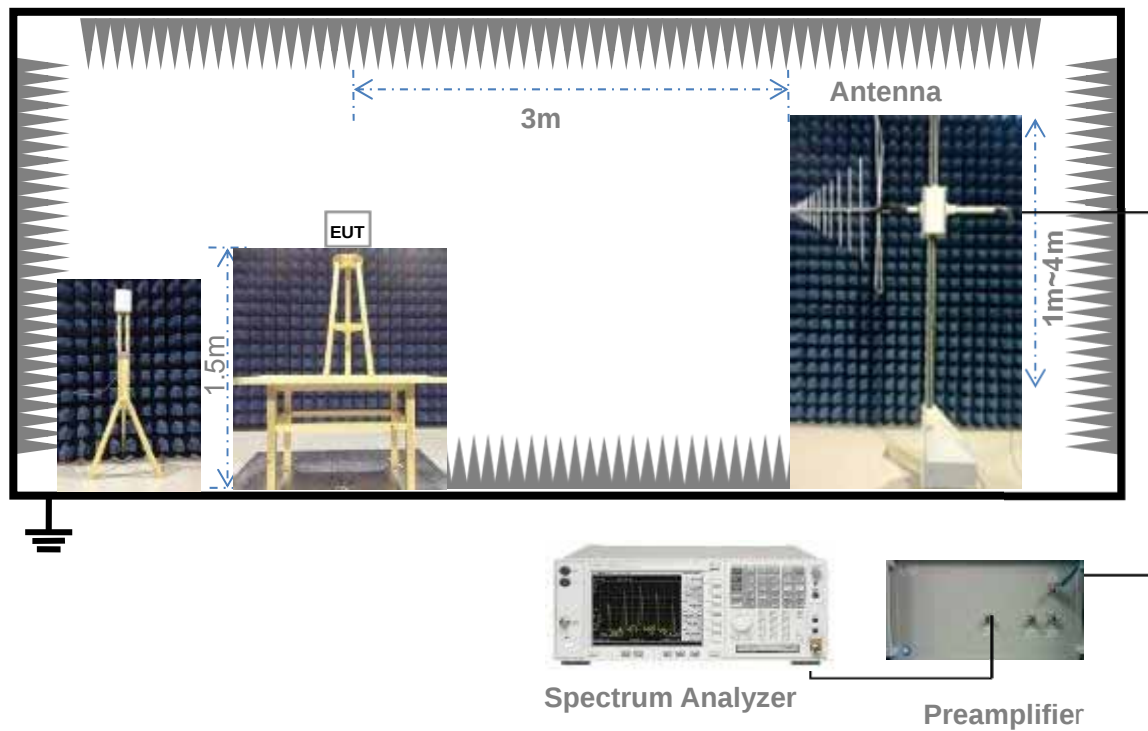
(Diagram 2)

4.4.3 For Radiated Test (Below 30MHz)



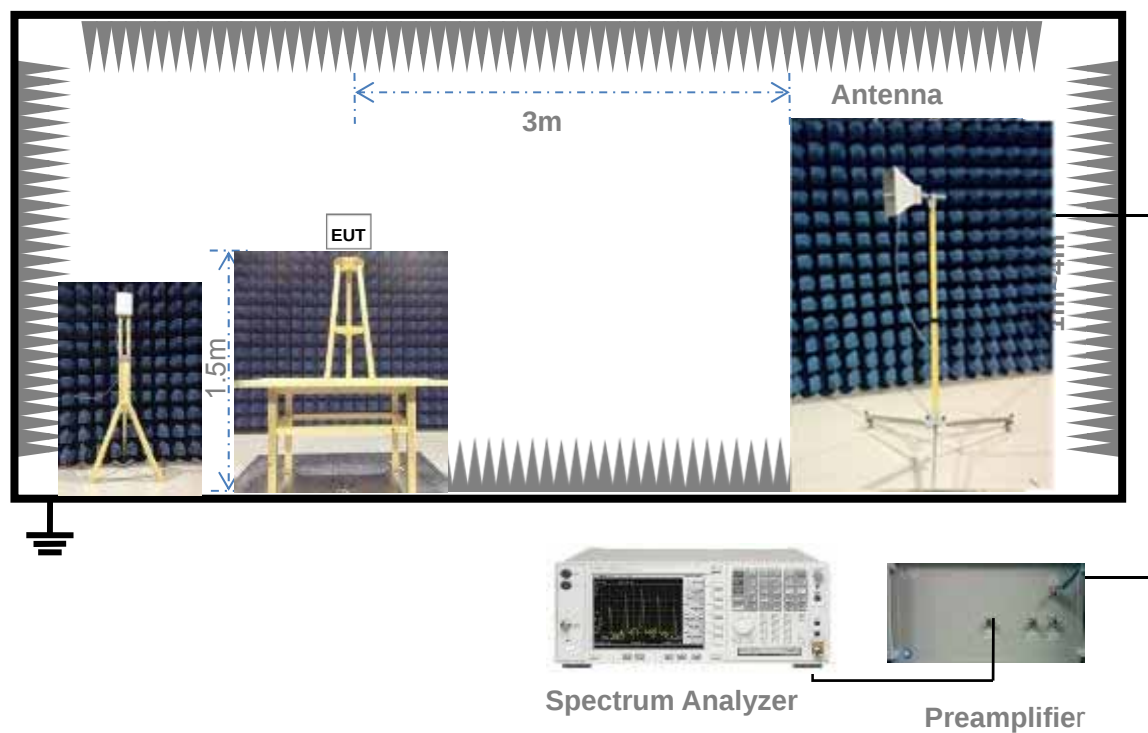
(Diagram 3)

4.4.4 For Radiated Test (30MHz-1GHz)



(Diagram 4)

4.4.5 For Radiated Test (Above 1GHz)



(Diagram 5)

4.5 Test Conditions

Test Case	Test Conditions		
	Test Env.	Test Setup ^{Note 1}	Test Configuration ^{Note 2}
Peak Output Power	NTNV	Test Setup 1	TC01~TC12
Occupied Bandwidth	NTNV	Test Setup 1	TC01~TC12
Conducted Spurious Emission	NTNV	Test Setup 1	TC01~TC12
Conducted Emission	NTNV	Test Setup 2	TC01~TC12
Radiated Spurious Emission	NTNV	Test Setup 3 Test Setup 4 Test Setup 5	TC01~TC12
Band Edge	NTNV	Test Setup 1	TC01, TC03, TC04, TC06,TC07,TC09, TC10, TC12
Power spectral density (PSD)	NTNV	Test Setup 2	TC01~TC12
Note: 1. Please refer to section 4.4 for test setup details. 2. Please refer to section 4.3 for test setup details.			

5 TEST ITEMS

5.1 Antenna Requirements

5.1.1 Standard Applicable

FCC §15.203 & 15.247(b)

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. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, § 15.213, § 15.217, § 15.219, or § 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

If directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi. 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 FCC rule.

5.1.2 Antenna Anti-Replacement Construction

The Antenna Anti-Replacement as following method:

Protected Method	Description
The antenna is RP-SMA-K, RP-SMA female. Host port is RP-SMA-J, RP-SMA male	These two antenna ports are non-standard, special, anti-SMA interface design, thus ensuring that it will not be replaced by other customer's standard antenna.

Reference Documents	Item
Photo	 

5.1.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

5.2 Output Power

5.2.1 Test Limit

FCC § 15.247(b)

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements.

5.2.2 Test Procedure

Maximum peak conducted output power

This procedure may be used when the maximum available RBW of the measurement instrument is less than the DTS bandwidth.

Set the RBW = 1 MHz

Set the VBW $\geq$ 3 RBW

Set the span $\geq$ 1.5 x DTS bandwidth.

Detector = peak.

Sweep time = auto couple.

Trace mode = max hold.

Allow trace to fully stabilize.

Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some instruments, this may require a manual override to select peak detector).

Maximum conducted (average) output power (Reporting Only)

This method applied by the transmissions exhibit a constant duty cycle during the measurement duration. Duty cycle will be considered to be constant if variations are less than $\pm$ 2 percent.

Measure the duty cycle, x, of the transmitter output signal as described in 6.0(KDB Publication 558074 D01v03r01).

Set span to at least 1.5 times the OBW.

Set RBW = 1-5% of the OBW, not to exceed 1 MHz.

Set VBW $\geq$ 3 x RBW.

Number of points in sweep $\geq$ 2 span / RBW. (This gives bin-to-bin spacing $\leq$ RBW/2, so that narrowband signals are not lost between frequency bins.)

Sweep time = auto.

Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.

Do not use sweep triggering. Allow the sweep to “free run”.

Trace average at least 100 traces in power averaging (i.e., RMS) mode; however, the number of traces to be averaged shall be increased above 100 as needed such that the average accurately represents the true average over the on and off periods of the transmitter.

Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

Add $10 \log (1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add $10 \log (1/0.25) = 6 \text{ dB}$ if the duty cycle is 25 %.

Measurements of duty cycle

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal.

Set the center frequency of the instrument to the center frequency of the transmission.

Set $\text{RBW} \geq \text{OBW}$ if possible; otherwise, set RBW to the largest available value.

Set $\text{VBW} \geq \text{RBW}$. Set detector = peak or average.

The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$ and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if $T \leq 16.7$ microseconds.)

5.3 6dB Bandwidth

5.3.1 Limit

FCC §15.247(a)

Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW. The 6 dB bandwidth must be greater than 500 kHz.

5.3.2 Test Procedure

Use the following spectrum analyzer settings:

Set RBW = 100 kHz.

Set the video bandwidth (VBW) ≥ 3 RBW.

Detector = Peak.

Trace mode = max hold.

Sweep = auto couple.

Allow the trace to stabilize.

Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

5.4 Conducted Spurious Emission

5.4.1 Limit

FCC §15.247(c)

In any 100kHz 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 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

5.4.2 Test Procedure

The DTS rules specify that in any 100 kHz bandwidth outside of the authorized frequency band, the power shall be attenuated according to the following conditions:

- a) If the maximum peak conducted output power procedure was used to demonstrate compliance as described in 9.1, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc).
- b) If maximum conducted (average) output power was used to demonstrate compliance as described in 9.2, then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 30 dBc).
- c) In either case, attenuation to levels below the 15.209 general radiated emissions limits is not required.

The following procedures shall be used to demonstrate compliance to these limits. Note that these procedures can be used in either an antenna-port conducted or radiated test set-up. Radiated tests must conform to the test site requirements and utilize maximization procedures defined herein.

Reference level measurement

Establish a reference level by using the following procedure:

Set instrument center frequency to DTS channel center frequency.

Set the span to ≥ 1.5 times the DTS bandwidth.

Set the RBW = 100 kHz.

Set the VBW $\geq 3 \times$ RBW.

Detector = peak.

Sweep time = auto couple.

Trace mode = max hold.

Allow trace to fully stabilize.

Use the peak marker function to determine the maximum PSD level.

Emission level measurement

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.

Set the RBW = 100 kHz.

Set the VBW $\geq 3 \times$ RBW.

Detector = peak.

Sweep time = auto couple.

Trace mode = max hold.

Allow trace to fully stabilize.

Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) are attenuated by at least the minimum requirements specified in 11.1 a) or 11.1 b). Report the three highest emissions relative to the limit.

5.5 Conducted Emission

5.5.1 Limit

FCC §15.207

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
0.50 - 30	60	50

5.5.2 Test Procedure

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

5.6 Radiated Spurious Emission

5.6.1 Limit

FCC §15.209&15.247(c)

Radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

Note:

1. For Above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.
2. For above 1000MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK).

5.6.2 Test Procedure

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

The power of the EUT transmitting frequency should be ignored.

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

5.7 Band Edge

5.7.1 Limit

FCC §15.209&15.247(d)

In any 100kHz 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 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

5.7.2 Test Procedure

The following procedures may be used to determine the peak or average field strength or power of an unwanted emission that is within 2 MHz of the authorized band edge. If a peak detector is utilized, use the procedure described in 13.2.1. Use the procedure described in 13.2.2 when using an average detector and the EUT can be configured to transmit continuously (i.e., duty cycle $\geq 98\%$). Use the procedure described in 13.2.3 when using an average detector and the EUT cannot be configured to transmit continuously but the duty cycle is constant (i.e., duty cycle variations are less than ± 2 percent). Use the procedure described in 13.2.4 when using an average detector for those cases where the EUT cannot be configured to transmit continuously and the duty cycle is not constant (duty cycle variations equal or exceed 2 percent).

When using a peak detector to measure unwanted emissions at or near the band edge (within 2 MHz of the authorized band), the following integration procedure can be used.

Set instrument center frequency to the frequency of the emission to be measured (must be within 2 MHz of the authorized band edge).

Set span to 2 MHz

RBW = 100 kHz.

VBW $\geq 3 \times$ RBW.

Detector = peak.

Sweep time = auto.

Trace mode = max hold.

Allow sweep to continue until the trace stabilizes (required measurement time may increase for low duty cycle applications)

Compute the power by integrating the spectrum over 1 MHz using the analyzer's band power measurement function with band limits set equal to the emission frequency (femission) ± 0.5 MHz. If the instrument does not have a band power function, then sum the amplitude levels (in power units) at 100 kHz intervals extending across the 1 MHz spectrum defined by femission ± 0.5 MHz.

5.8 Power Spectral density (PSD)

5.8.1 Limit

FCC §15.247(d)

The same method of determining the conducted output power shall be used to determine the power spectral density. If a peak output power is measured, then a peak power spectral density measurement is required. If an average output power is measured, then an average power spectral density measurement should be used.

5.8.2 Test Procedure

Set analyzer center frequency to DTS channel center frequency.

Set the span to 1.5 times the DTS bandwidth.

Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.

Set the VBW $\geq 3 \text{ RBW}$.

Detector = peak.

Sweep time = auto couple.

Trace mode = max hold.

Allow trace to fully stabilize.

Use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

ANNEX A TEST RESULT

A.1 Output Power

Duty Cycle

ANTENNA	Band	Duty Cycle(%)	T(μs)	1/T(kHz)
Ant0	802.11b	89.32	836.7	1.20
	802.11g	63.41	174.2	5.74
	802.11n HT20	60.15	151.7	6.59
	802.11n HT40	76.84	331.7	3.01
Ant1	802.11b	89.65	836.7	1.20
	802.11b	63.21	174.2	5.74
	802.11n HT20	59.33	149.1	6.71
	802.11n HT40	77.45	331.7	3.01

Peak Power Test Data

802.11b Mode:

Channel	Frequency (MHz)	Measured Output Peak Power Of Ant 0		Measured Output Peak Power Of Ant 1		Total of output power		Limit		Verdict
		dBm	mW	dBm	mW	dBm	mW	dBm	mW	
1	2412	20.36	108.64	22.08	161.44	24.31	270.08	30	1000	PASS
6	2437	20.01	100.23	21.57	143.55	23.87	243.78			PASS
11	2462	19.89	97.50	21.82	152.05	23.97	249.55			PASS

802.11g Mode:

Channel	Frequency (MHz)	Measured Output Peak Power Of Ant 0		Measured Output Peak Power Of Ant 1		Total of output power		Limit		Verdict
		dBm	mW	dBm	mW	dBm	mW	dBm	mW	
1	2412	20.24	105.68	21.56	143.22	23.96	248.90	30	1000	PASS
6	2437	19.32	85.51	21.55	142.89	23.59	228.40			PASS
11	2462	19.73	93.97	21.60	144.54	23.78	238.51			PASS

802.11n-20MHz Mode:

Channel	Frequency (MHz)	Measured Output Peak Power Of Ant 0		Measured Output Peak Power Of Ant 1		Total of output power		Limit		Verdict
		dBm	mW	dBm	mW	dBm	mW	dBm	mW	
1	2412	19.92	98.17	21.23	132.74	23.63	230.91	30	1000	PASS
6	2437	19.48	88.72	20.88	122.46	23.25	211.18			PASS
11	2462	19.63	91.83	21.31	135.21	23.56	227.04			PASS

802.11n-40MHz Mode:

Channel	Frequency (MHz)	Measured Output Peak Power Of Ant 0		Measured Output Peak Power Of Ant 1		Total of output power		Limit		Verdict
		dBm	mW	dBm	mW	dBm	mW	dBm	mW	
3	2422	19.75	94.41	21.15	130.32	23.52	224.73	30	1000	PASS
6	2437	19.84	96.38	20.75	118.85	23.33	215.23			PASS
9	2452	19.26	84.33	21.05	127.35	23.26	211.68			PASS

Average Power Test Data (Reporting Only)

802.11b Mode:

Channel	Frequency (MHz)	Duty Factor(10 log (1/x))		Measured Output Average Power Of ANT0		Measured Output Average Power Of ANT1		Total of output power		Verdict
		Ant0	Aant1	dBm	mW	dBm	mW	dBm	mW	
1	2412	0.51	0.46	19.48	88.72	21.16	130.62	24.04	253.52	PASS
6	2437	0.51	0.46	19.50	89.13	19.76	94.62	23.31	214.49	PASS
11	2462	0.51	0.46	19.24	83.95	20.24	105.68	23.40	218.80	PASS

802.11g Mode:

Channel	Frequency (MHz)	Duty Factor(10 log (1/x))		Measured Output Average Power Of ANT0		Measured Output Average Power Of ANT1		Total of output power		Verdict
		Ant0	Aant1	dBm	mW	dBm	mW	dBm	mW	
1	2412	2.01	2.01	17.52	56.49	19.17	82.60	23.44	220.96	PASS
6	2437	2.01	2.01	17.16	52.00	18.32	67.92	22.80	190.50	PASS
11	2462	2.01	2.01	17.78	59.98	19.30	85.11	23.63	230.49	PASS

802.11n-20MHz Mode:

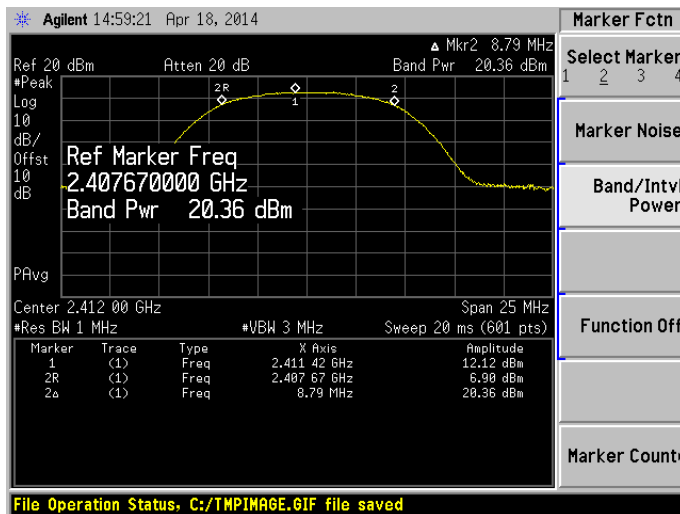
Channel	Frequency (MHz)	Duty Factor(10 log (1/x))		Measured Output Average Power Of ANT0		Measured Output Average Power Of ANT1		Total of output power		Verdict
		Ant0	Aant1	dBm	mW	dBm	mW	dBm	mW	
1	2412	2.22	2.29	17.85	60.95	18.63	72.95	23.53	225.22	PASS
6	2437	2.22	2.29	16.61	45.81	18.52	71.12	22.94	196.89	PASS
11	2462	2.22	2.29	16.67	46.45	18.24	66.68	22.80	190.43	PASS

802.11n-40MHz Mode:

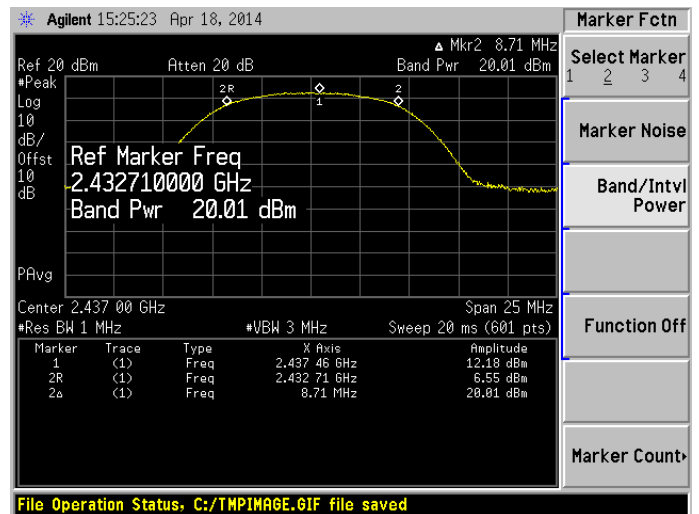
Channel	Frequency (MHz)	Duty Factor(10 log (1/x))		Measured Output Average Power Of ANT0		Measured Output Average Power Of ANT1		Total of output power		Verdict
		Ant0	Aant1	dBm	mW	dBm	mW	dBm	mW	
3	2422	1.14	1.14	14.54	28.44	16.41	43.75	19.73	93.87	PASS
6	2437	1.14	1.14	14.72	29.65	16.25	42.17	19.70	93.38	PASS
9	2452	1.14	1.14	14.80	30.20	16.25	42.17	19.74	94.09	PASS

Peak Power Test Plots(Ant 0)

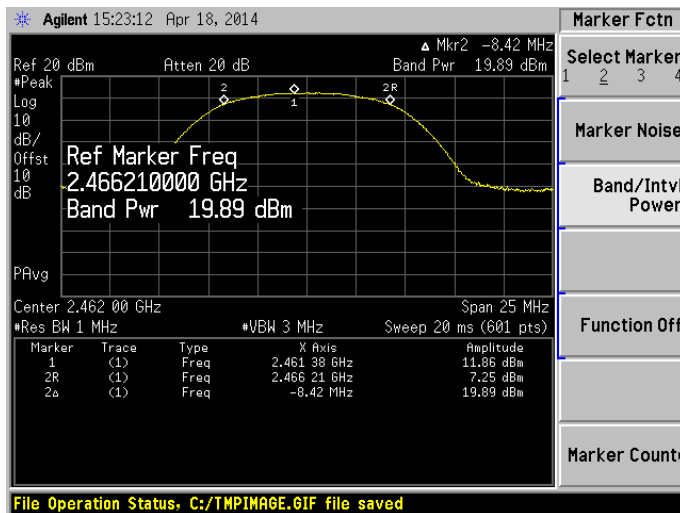
802.11b LOW CHANNEL



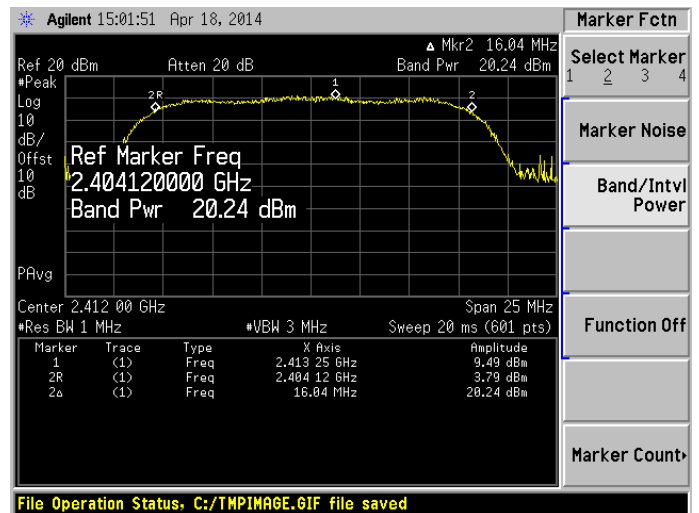
802.11b MID CHANNEL



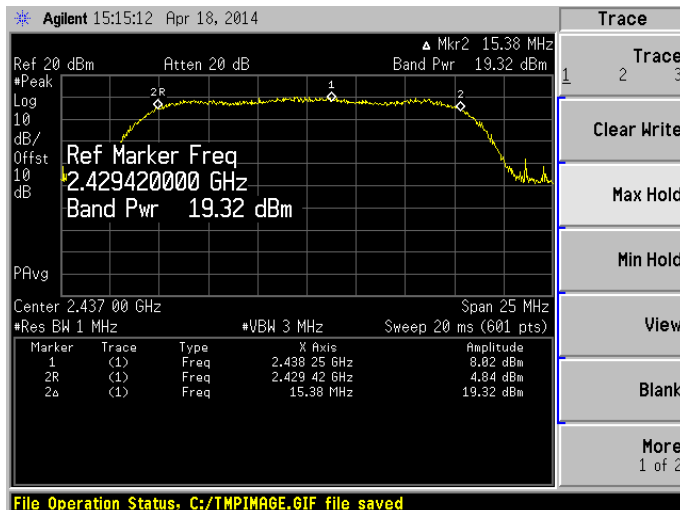
802.11b HIGH CHANNEL



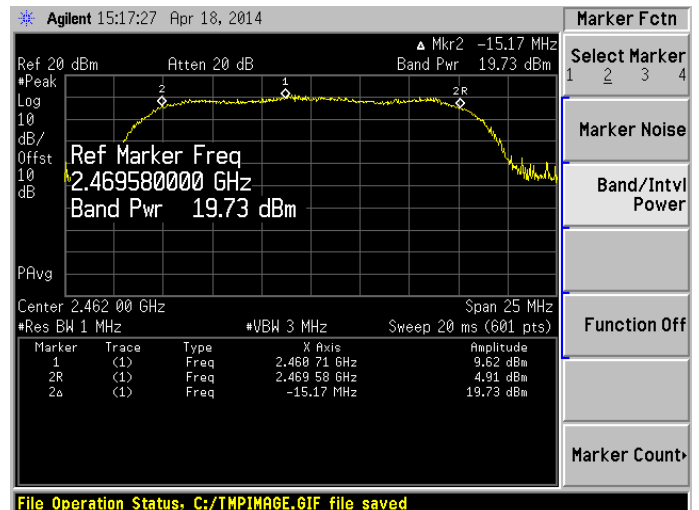
802.11g LOW CHANNEL



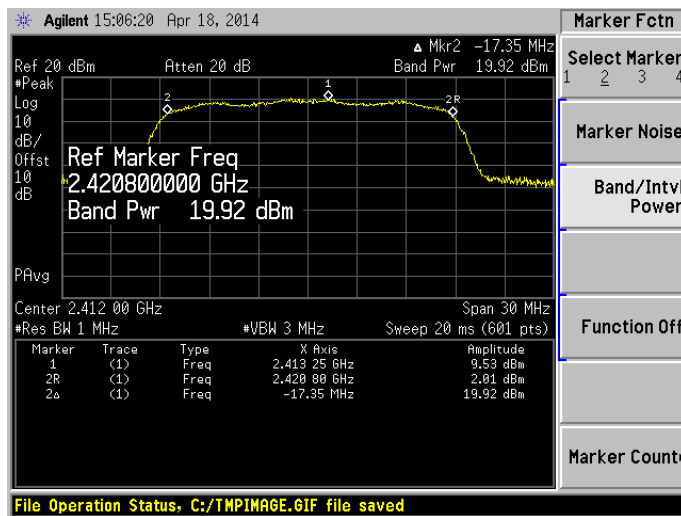
802.11g MID CHANNEL



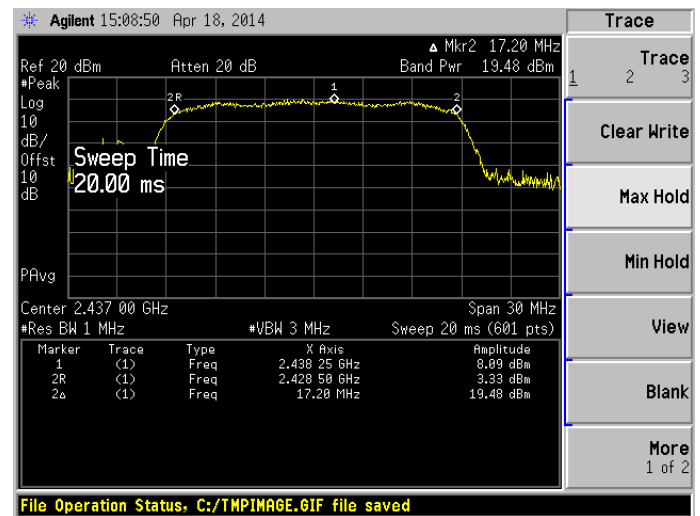
802.11g HIGH CHANNEL



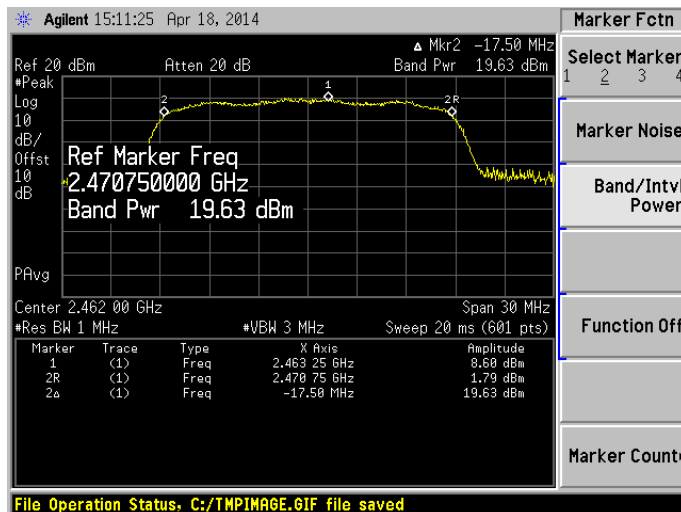
802.11n 20MHz LOW CHANNEL



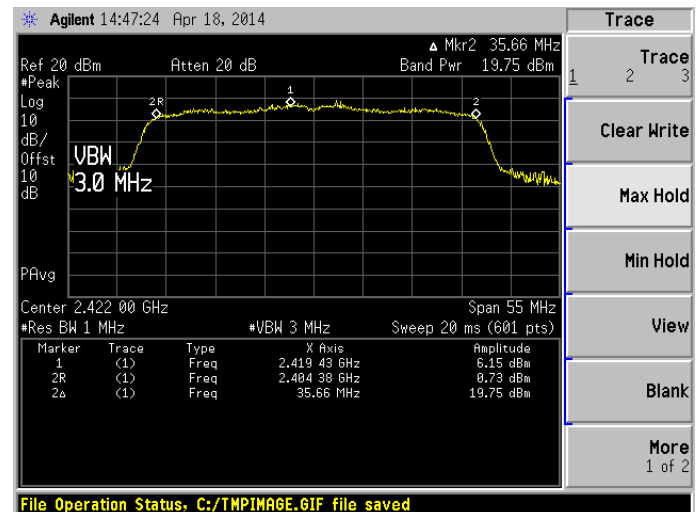
802.11 n 20MHz MID CHANNEL



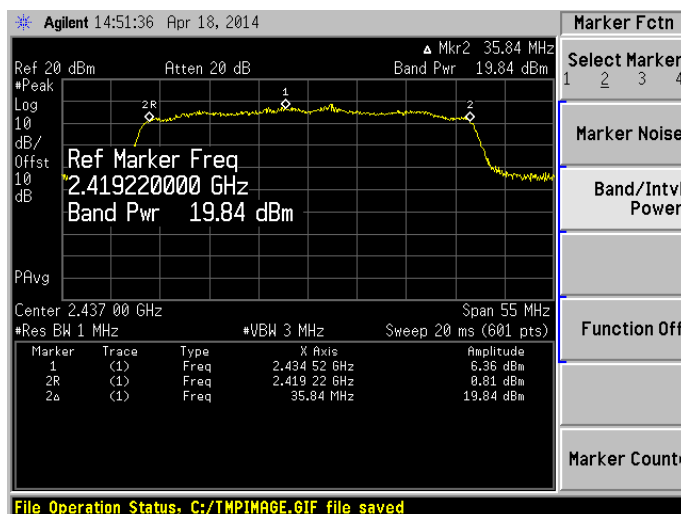
802.11 n 20MHz HIGH CHANNEL



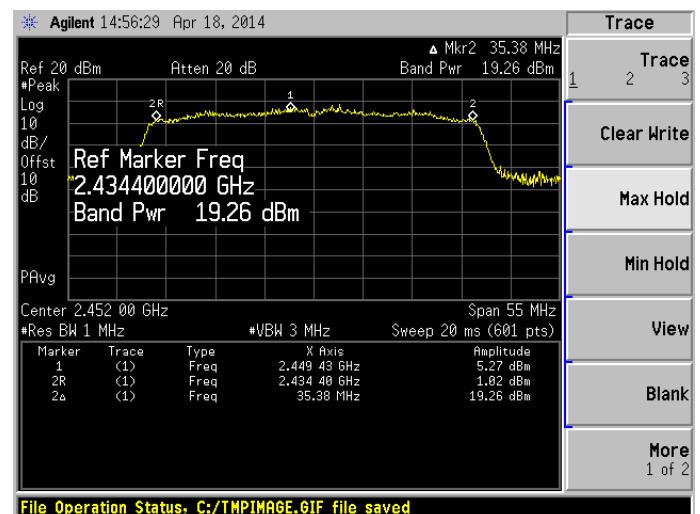
802.11 n 40MHz LOW CHANNEL



802.11 n 40MHz MID CHANNEL

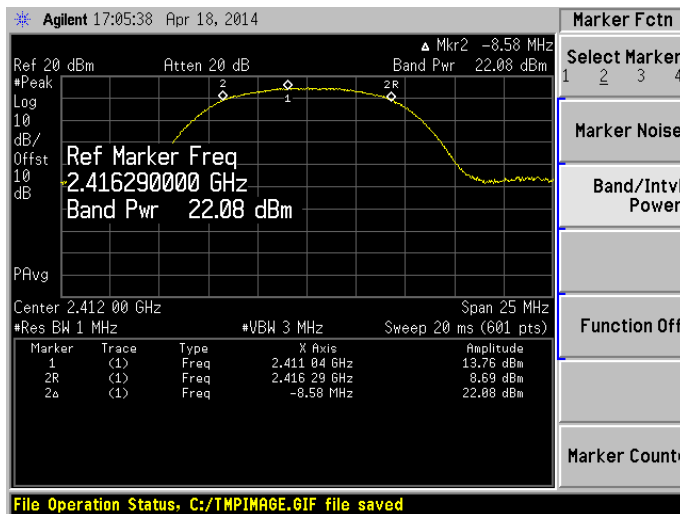


802.11 n 40MHz HIGH CHANNEL

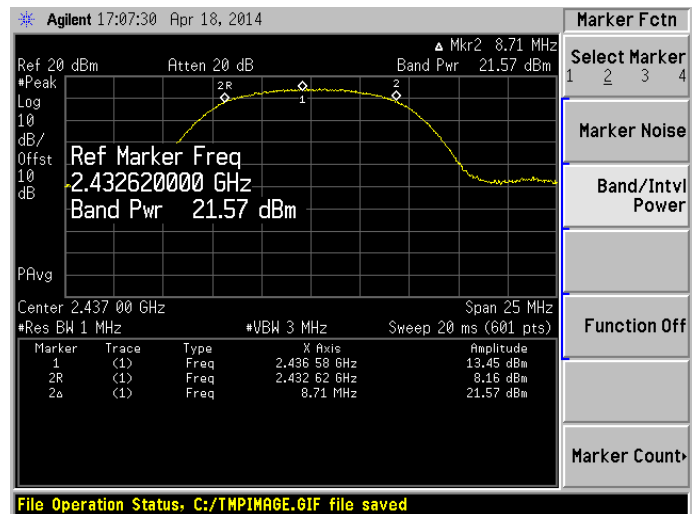


Peak Power Test Plots(Ant 1)

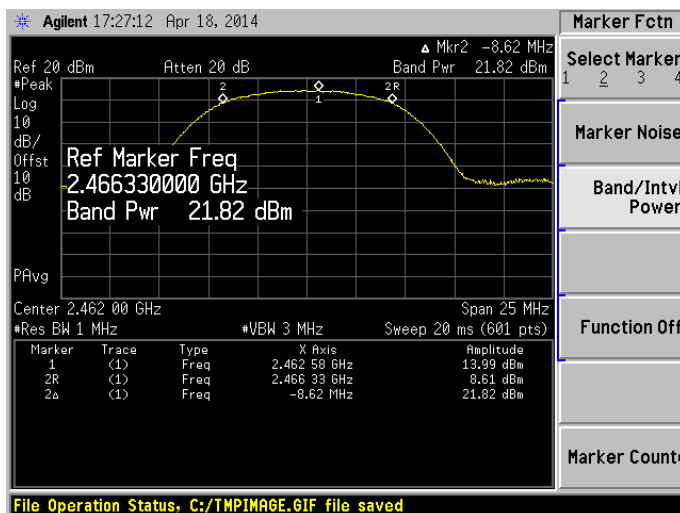
802.11b LOW CHANNEL



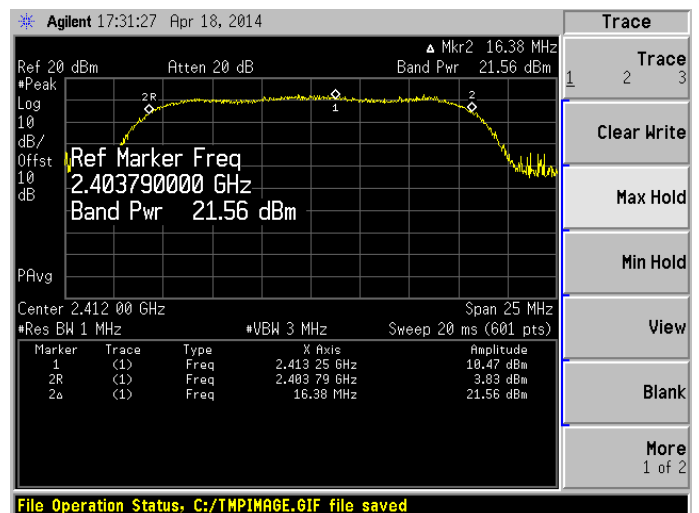
802.11b MID CHANNEL



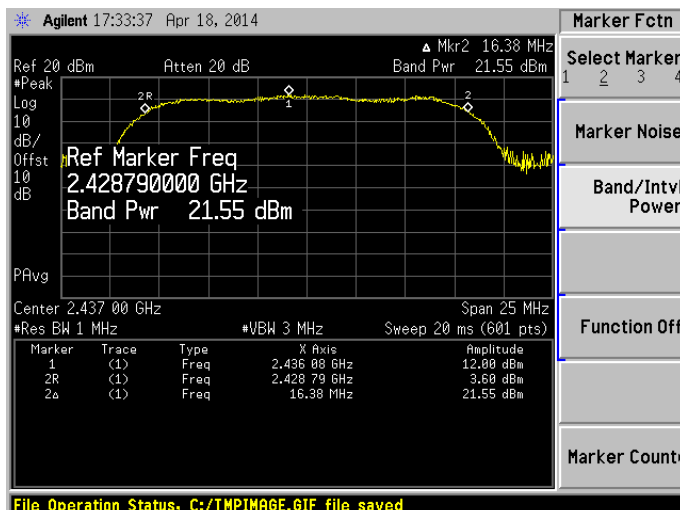
802.11b HIGH CHANNEL



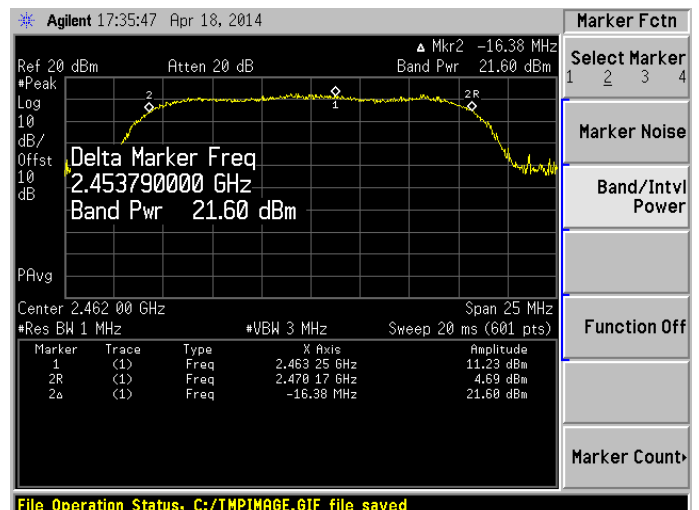
802.11g LOW CHANNEL



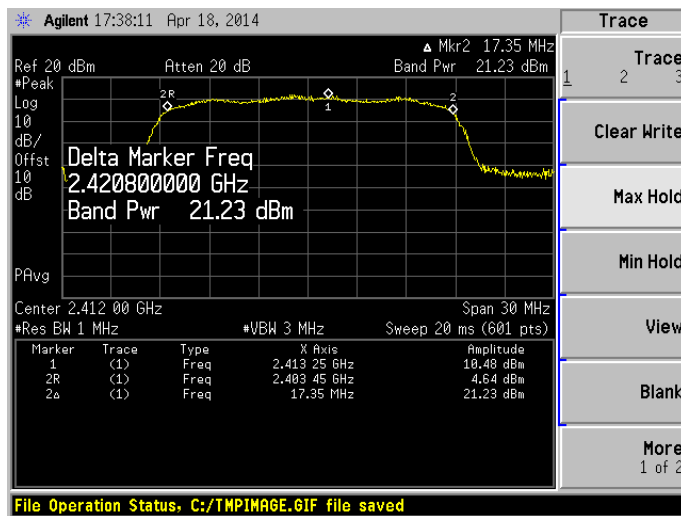
802.11g MID CHANNEL



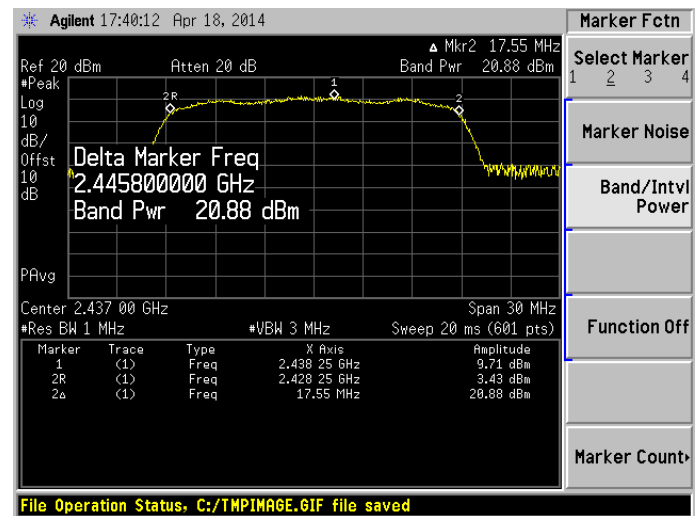
802.11g HIGH CHANNEL



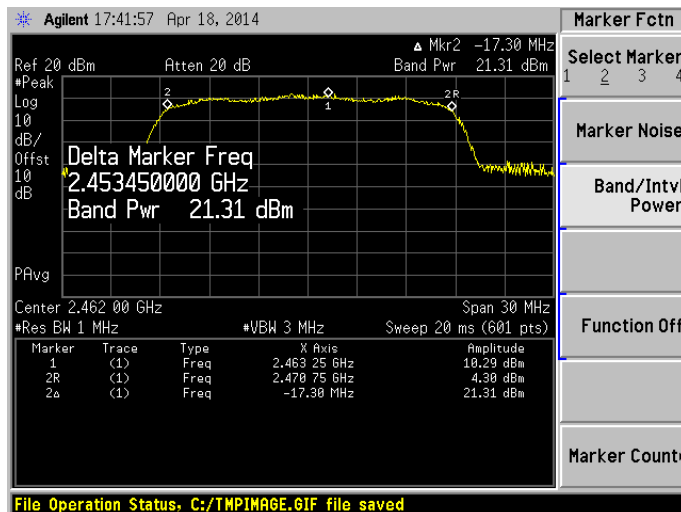
802.11n 20MHz LOW CHANNEL



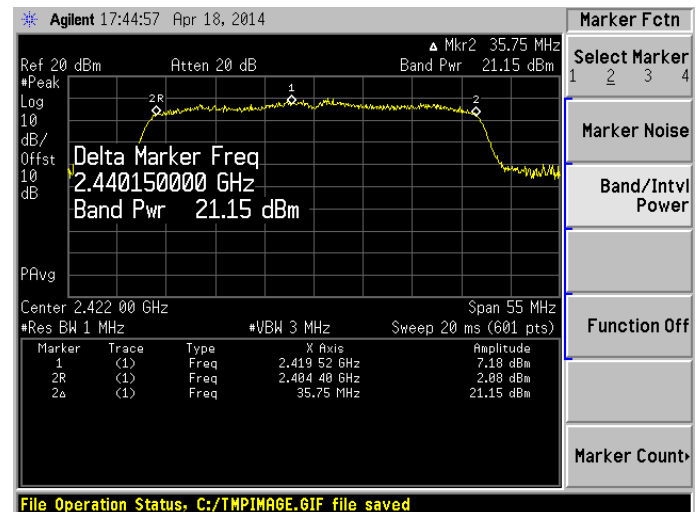
802.11 n 20MHz MID CHANNEL



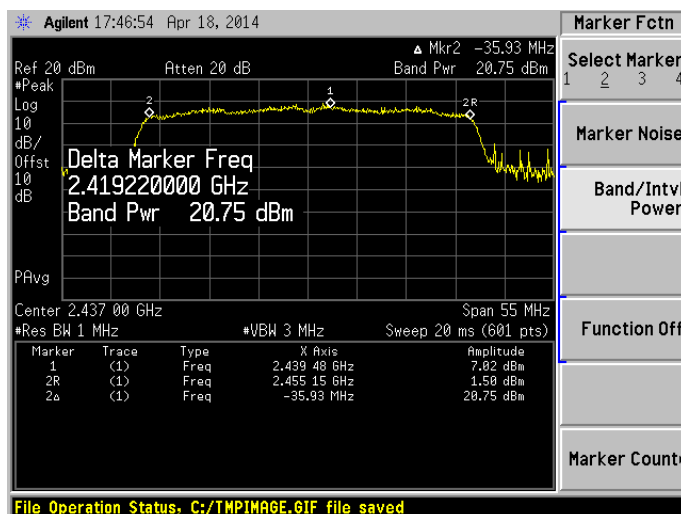
802.11 n 20MHz HIGH CHANNEL



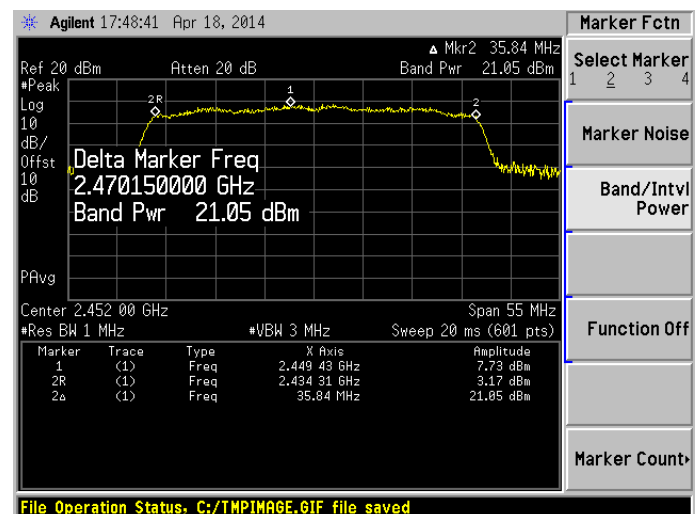
802.11 n 40MHz LOW CHANNEL



802.11 n 40MHz MID CHANNEL

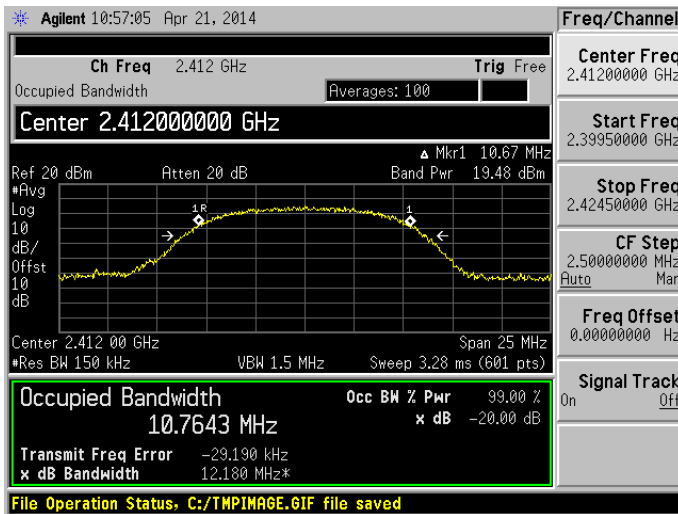


802.11 n 40MHz HIGH CHANNEL

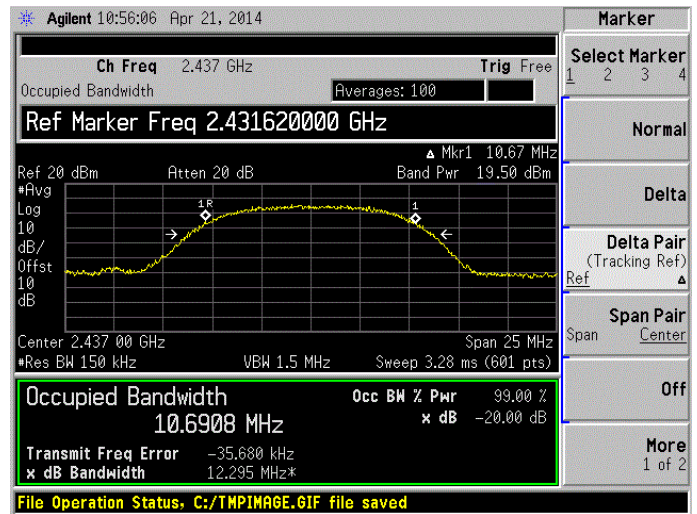


Average Power Test Plots (Ant0)

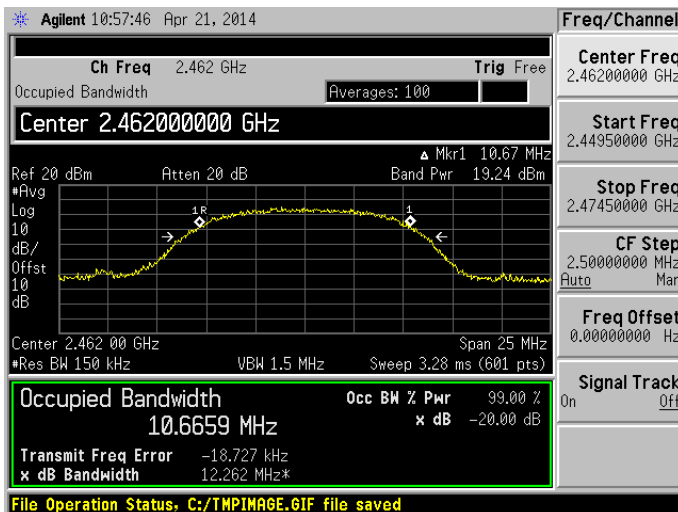
802.11b LOW CHANNEL



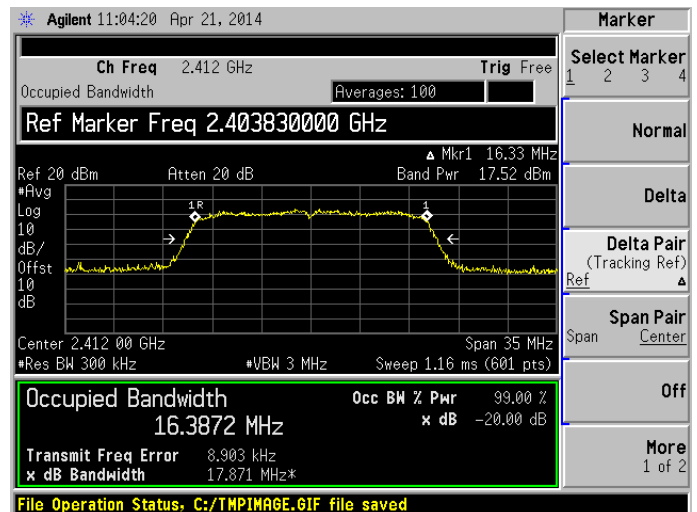
802.11b MID CHANNEL



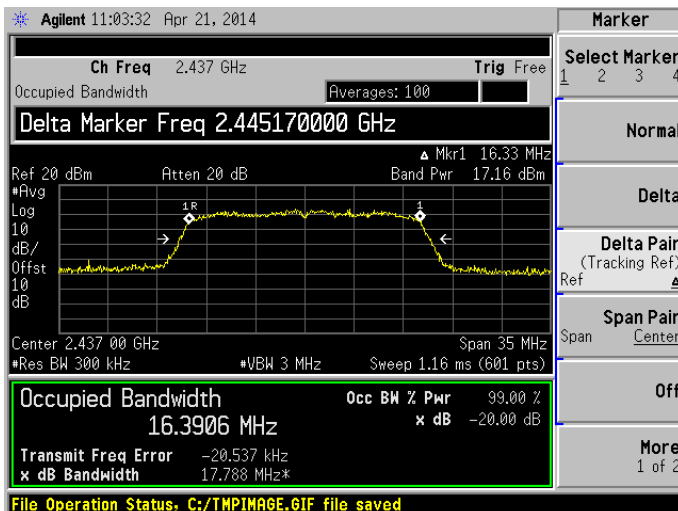
802.11b HIGH CHANNEL



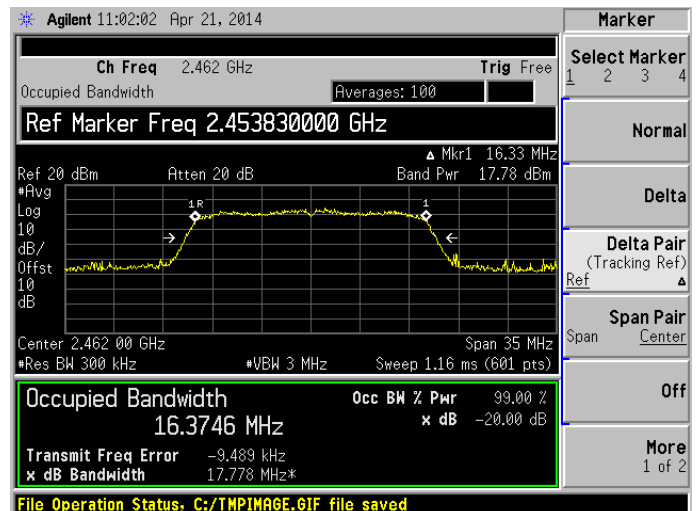
802.11g LOW CHANNEL



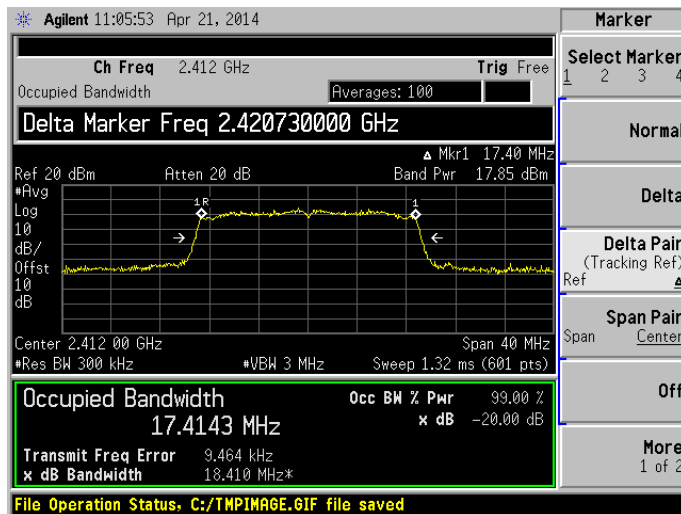
802.11g MID CHANNEL



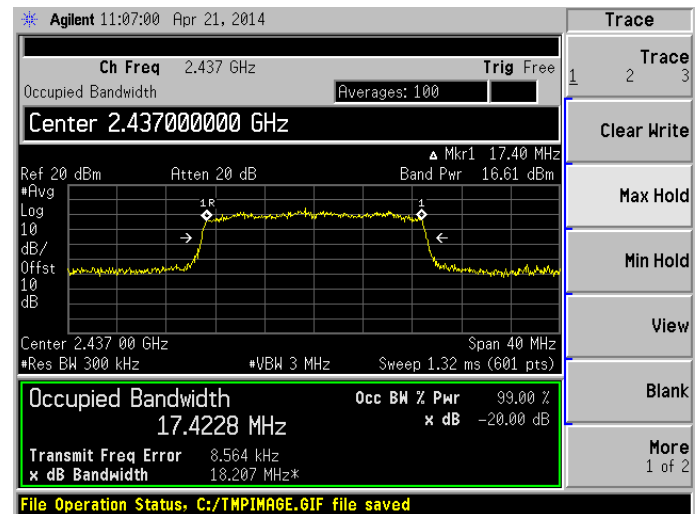
802.11g HIGH CHANNEL



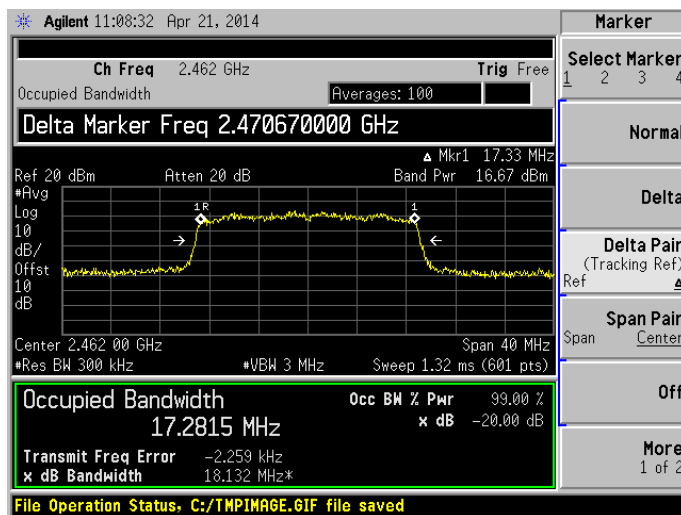
802.11n 20MHz LOW CHANNEL



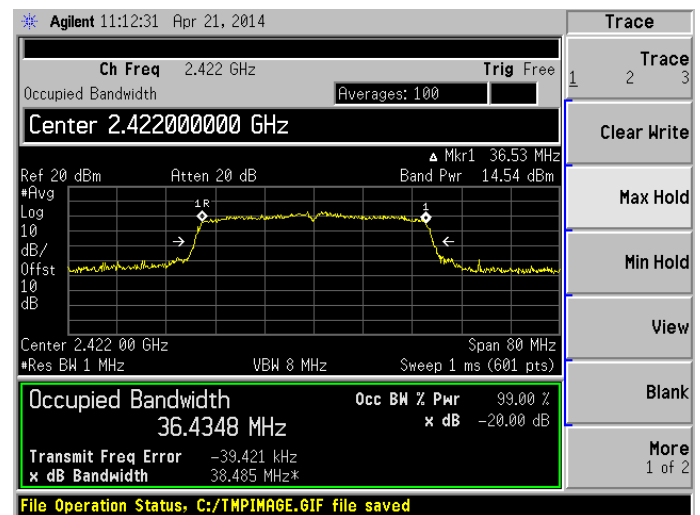
802.11 n 20MHz MID CHANNEL



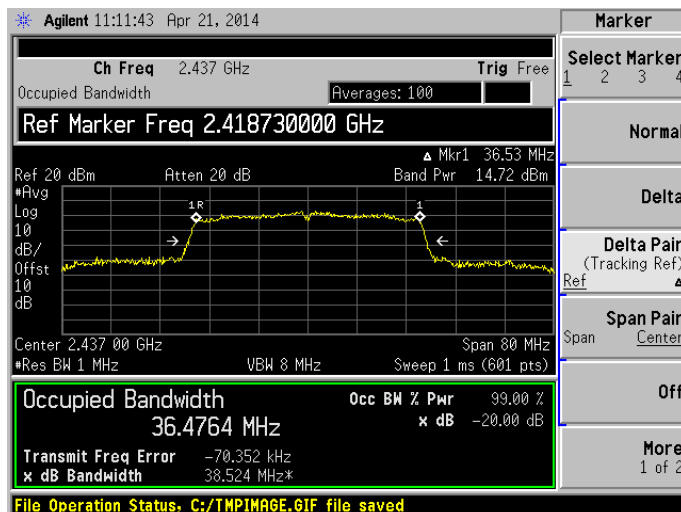
802.11 n 20MHz HIGH CHANNEL



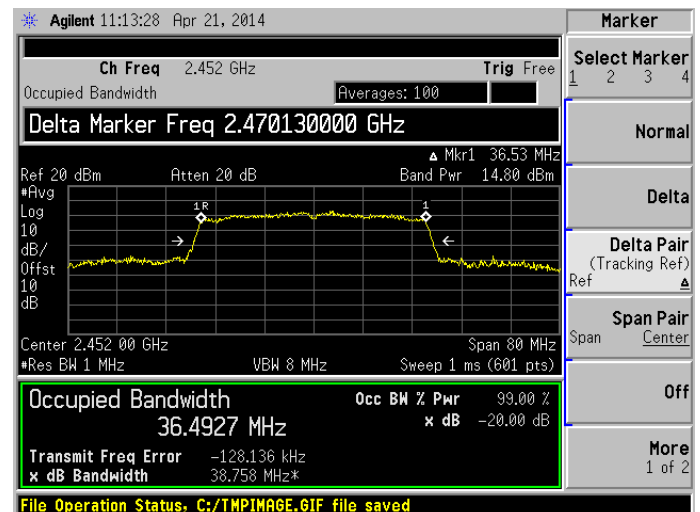
802.11 n 40MHz LOW CHANNEL



802.11 n 40MHz MID CHANNEL

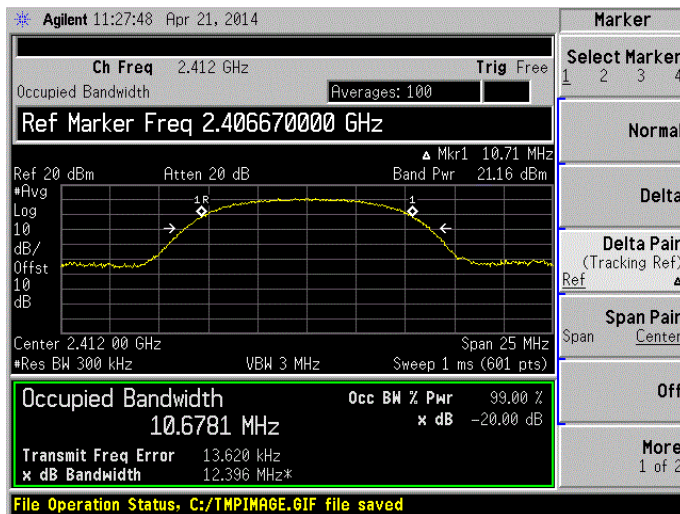


802.11 n 40MHz HIGH CHANNEL

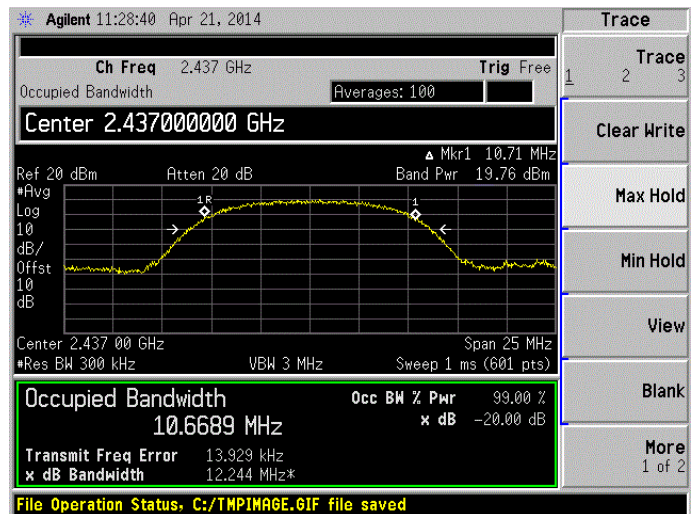


Average Power Test Plots (Ant1)

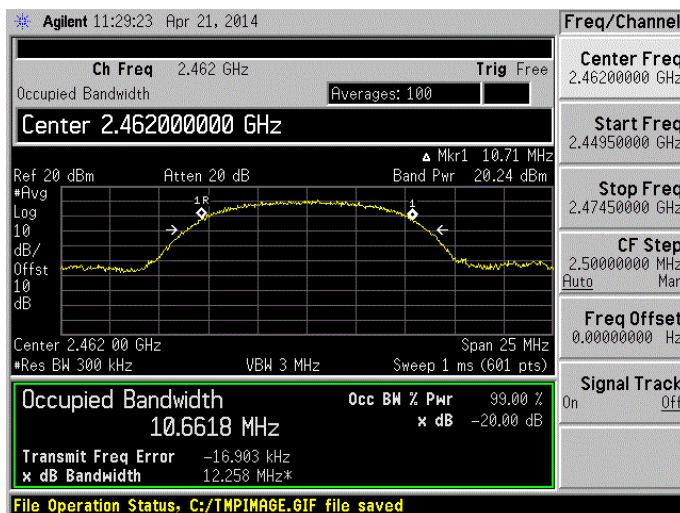
802.11b LOW CHANNEL



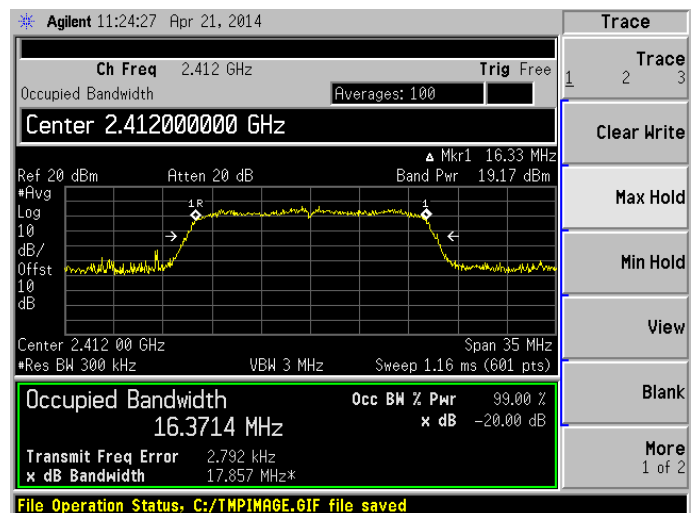
802.11b MID CHANNEL



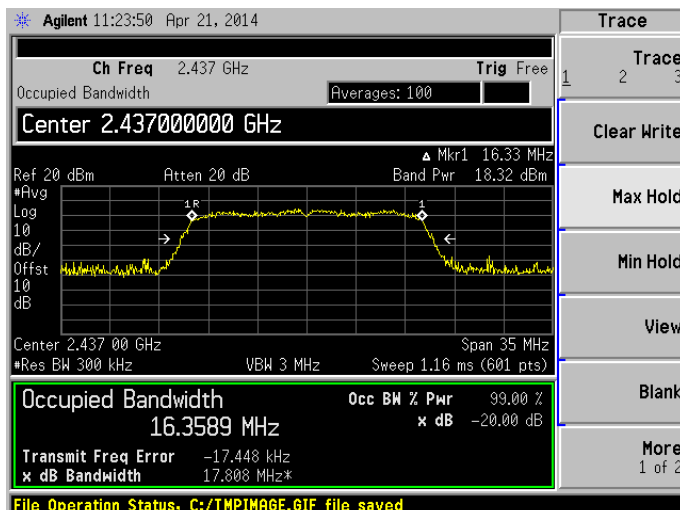
802.11b HIGH CHANNEL



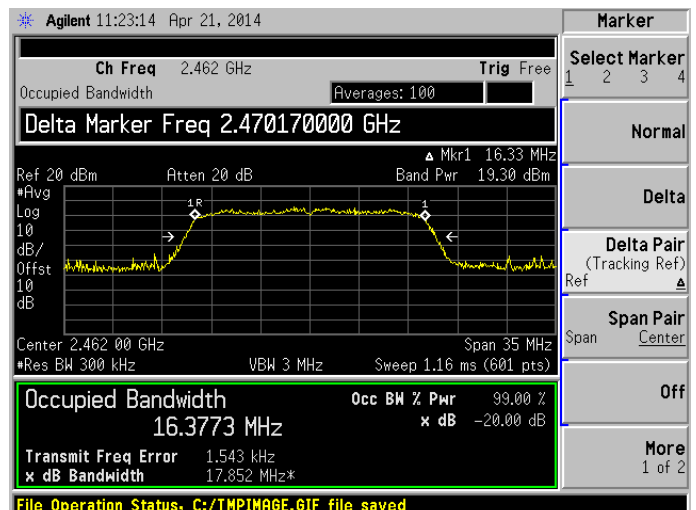
802.11g LOW CHANNEL



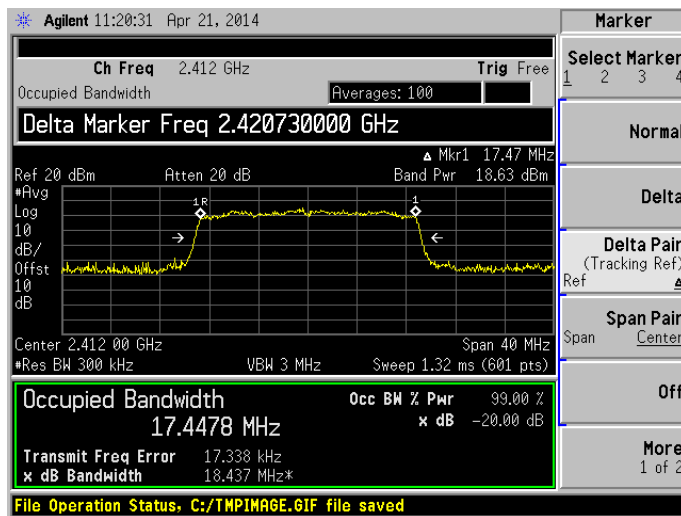
802.11g MID CHANNEL



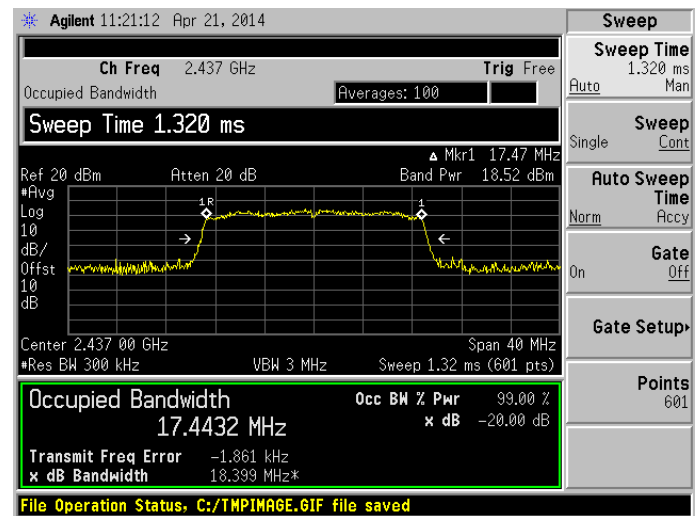
802.11g HIGH CHANNEL



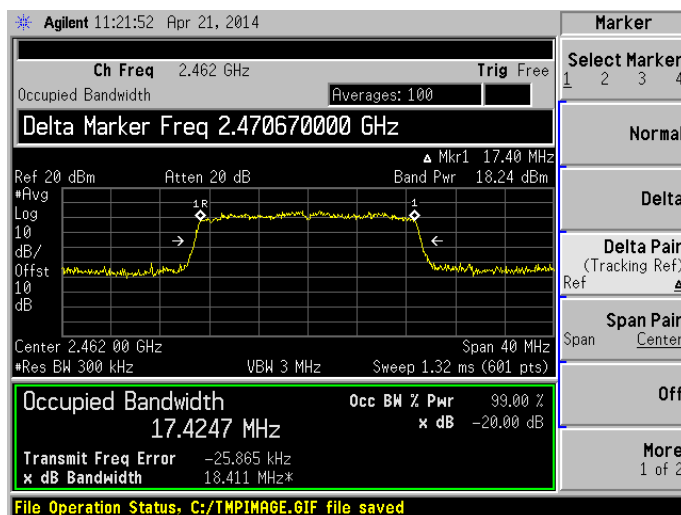
802.11n 20MHz LOW CHANNEL



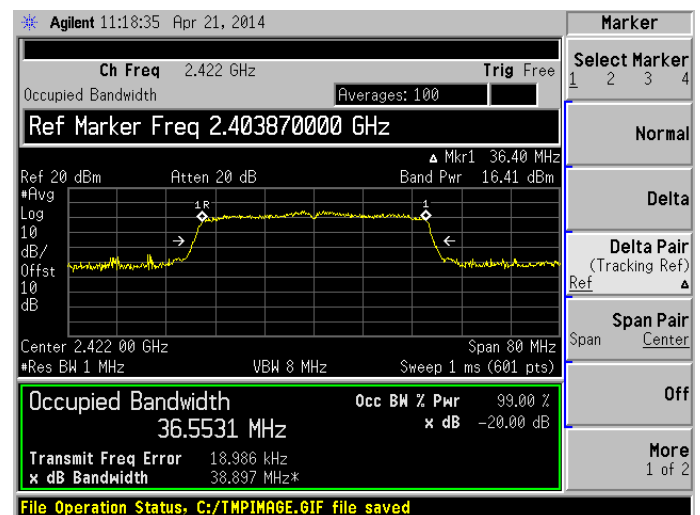
802.11 n 20MHz MID CHANNEL



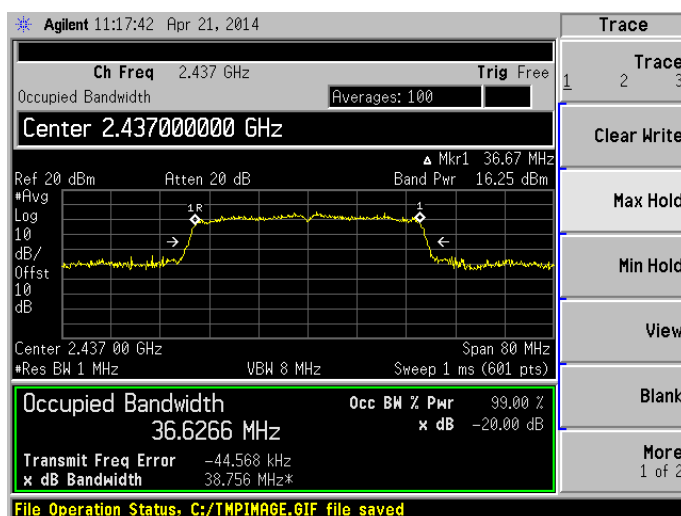
802.11 n 20MHz HIGH CHANNEL



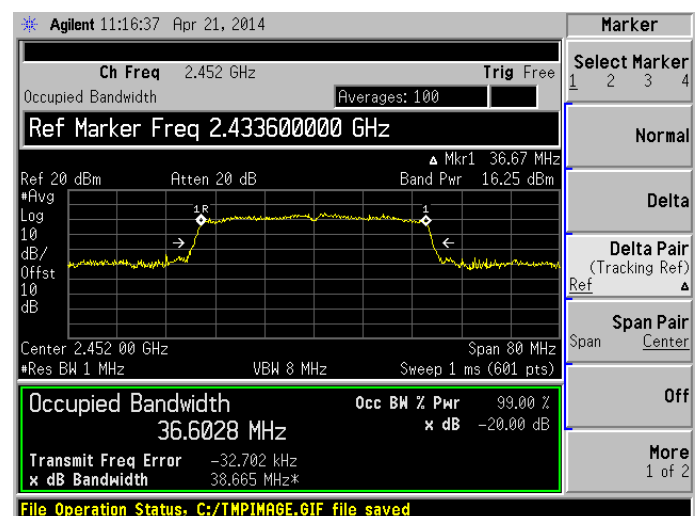
802.11 n 40MHz LOW CHANNEL



802.11 n 40MHz MID CHANNEL



802.11 n 40MHz HIGH CHANNEL



A.2 Bandwidth

Test Data (Ant 0)

802.11b Mode:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)
Low	2412	8.79	≥ 500
Middle	2437	8.71	≥ 500
High	2462	8.42	≥ 500

802.11g Mode:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)
Low	2412	16.04	≥ 500
Middle	2437	15.38	≥ 500
High	2462	15.17	≥ 500

802.11n-20MHz Mode:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)
Low	2412	17.35	≥ 500
Middle	2437	17.20	≥ 500
High	2462	17.50	≥ 500

802.11n-40MHz Mode:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)
Low	2422	35.66	≥ 500
Middle	2437	35.84	≥ 500
High	2452	35.38	≥ 500

Test Data (Ant 1)

802.11b Mode:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)
Low	2412	8.58	≥ 500
Middle	2437	8.71	≥ 500
High	2462	8.62	≥ 500

802.11g Mode:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)
Low	2412	16.38	≥ 500
Middle	2437	16.38	≥ 500
High	2462	16.38	≥ 500

802.11n-20MHz Mode:

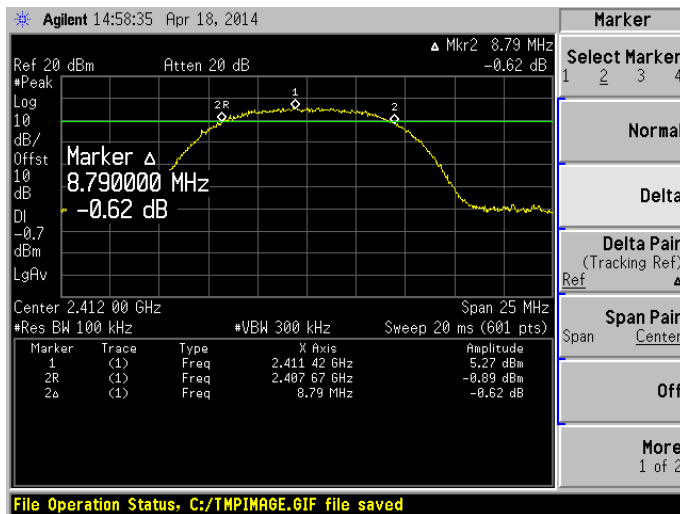
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)
Low	2412	17.35	≥ 500
Middle	2437	17.55	≥ 500
High	2462	17.30	≥ 500

802.11n-40MHz Mode:

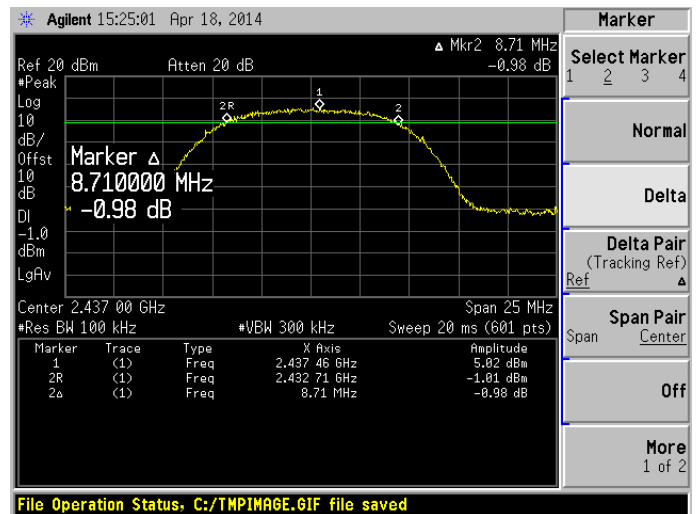
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)
Low	2422	35.75	≥ 500
Middle	2437	35.93	≥ 500
High	2452	35.84	≥ 500

Test plots (Ant 0)

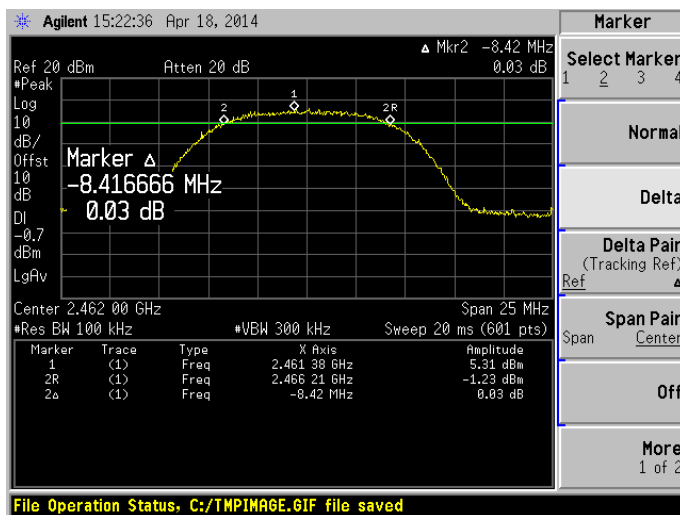
802.11b LOW CHANNEL



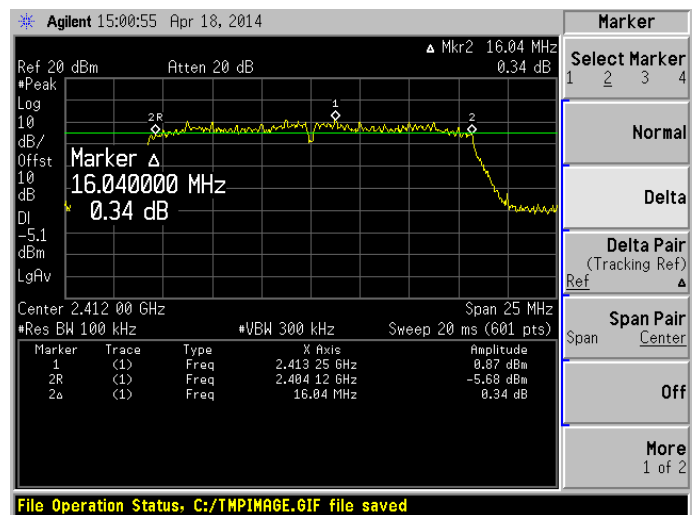
802.11b MID CHANNEL



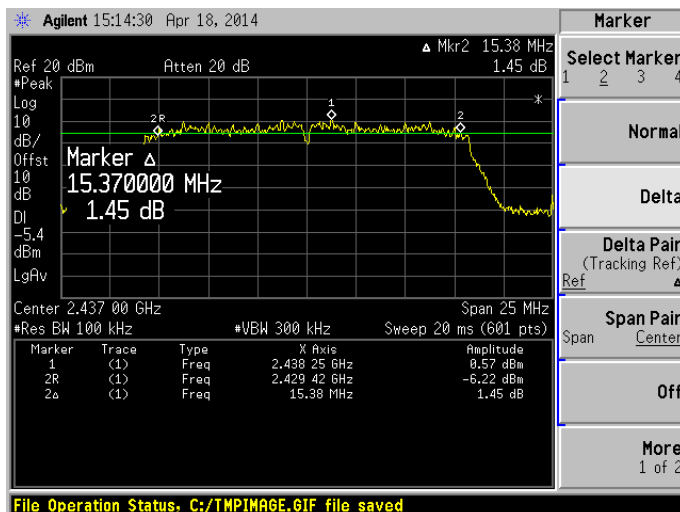
802.11b HIGH CHANNEL



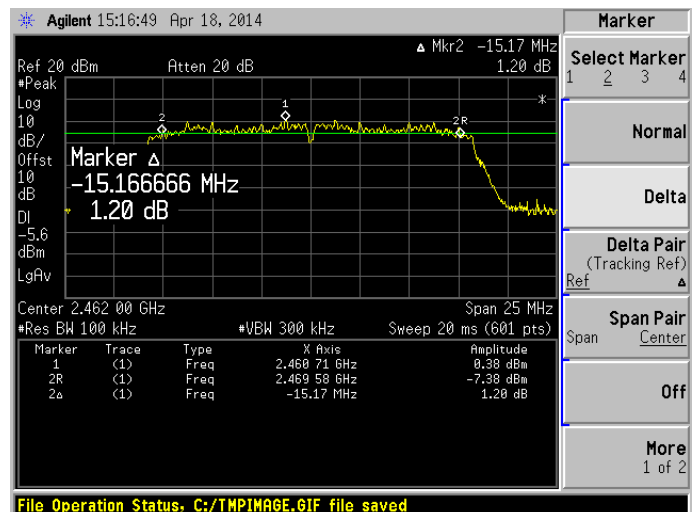
802.11g LOW CHANNEL



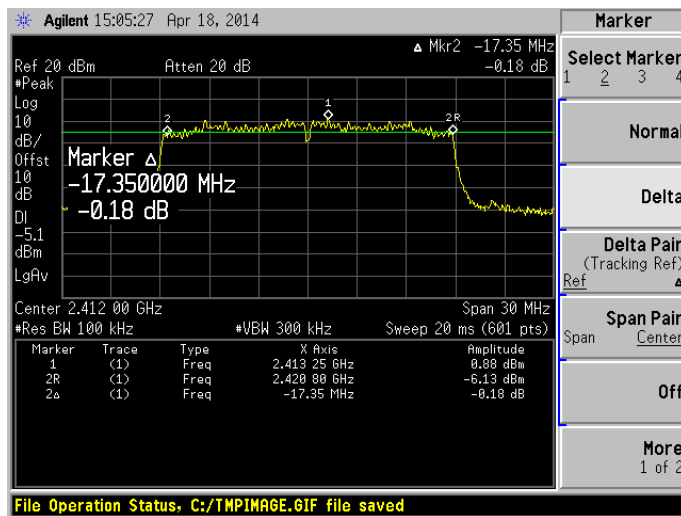
802.11g MID CHANNEL



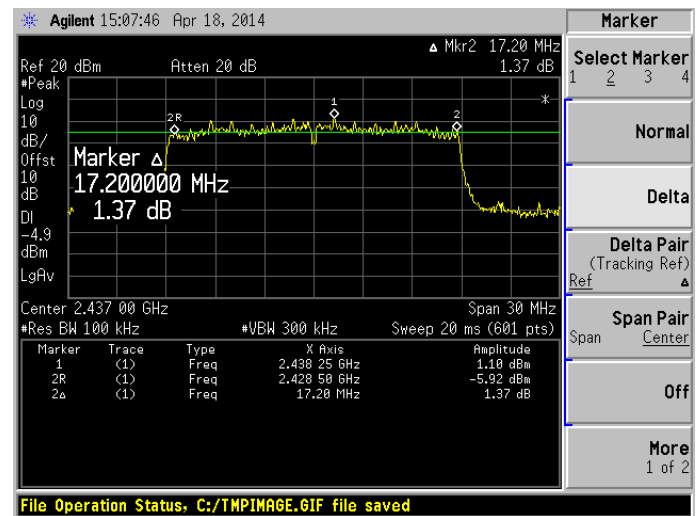
802.11g HIGH CHANNEL



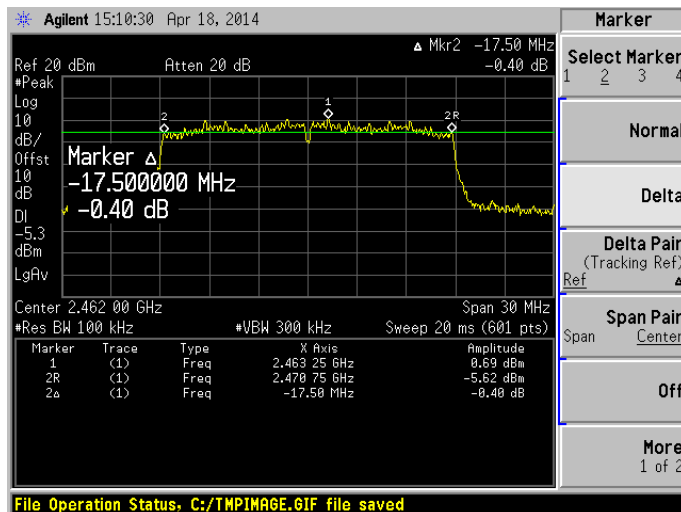
802.11n-20MHz LOW CHANNEL



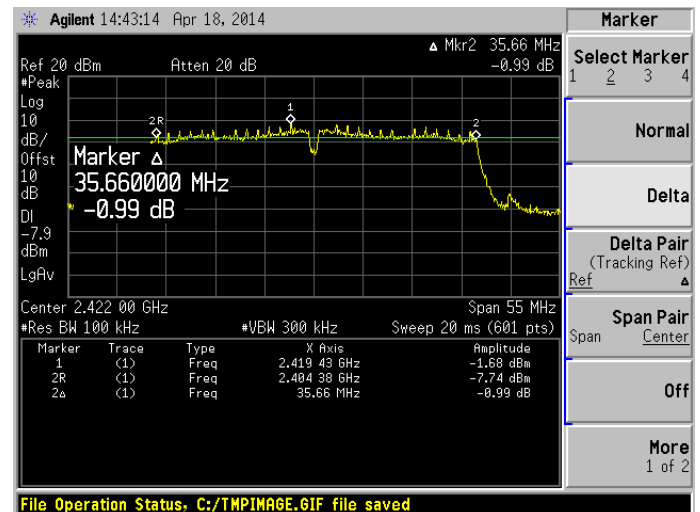
802.11 n-20MHz MID CHANNEL



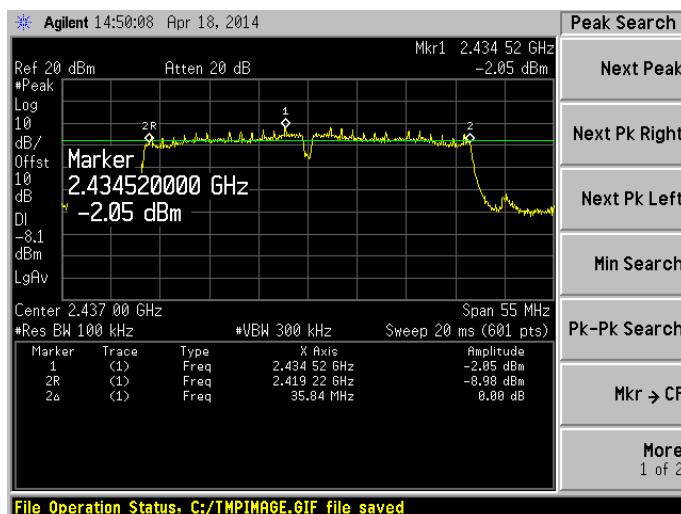
802.11n-20MHz HIGH CHANNEL



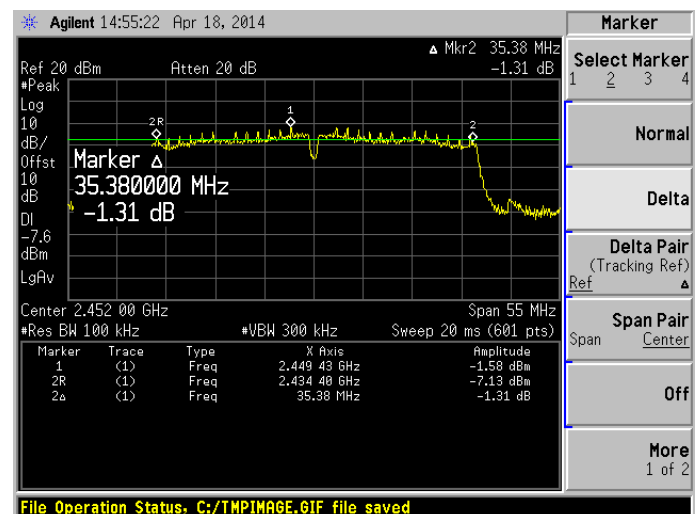
802.11n-40MHz LOW CHANNEL



802.11n-40MHz MID CHANNEL

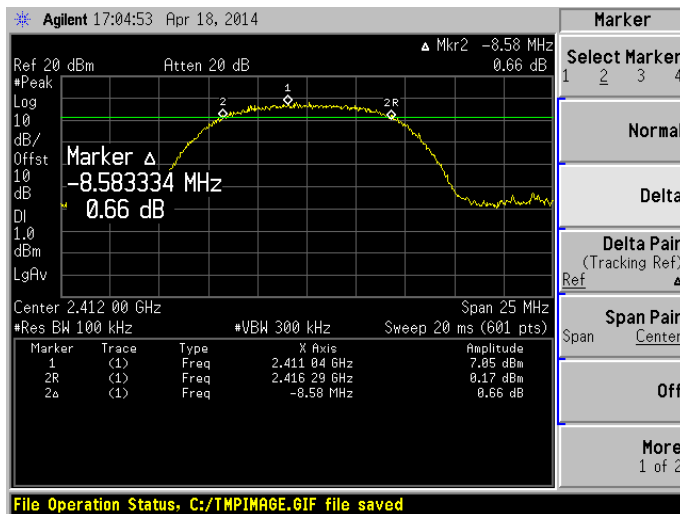


802.11n-40MHz HIGH CHANNEL

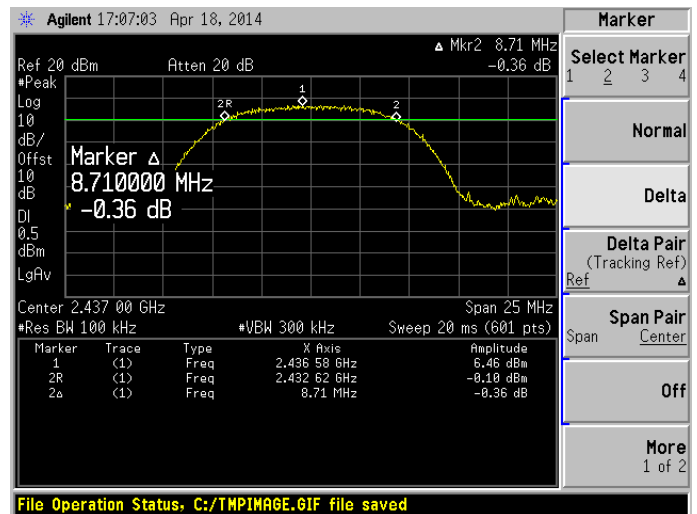


Test plots (Ant 1)

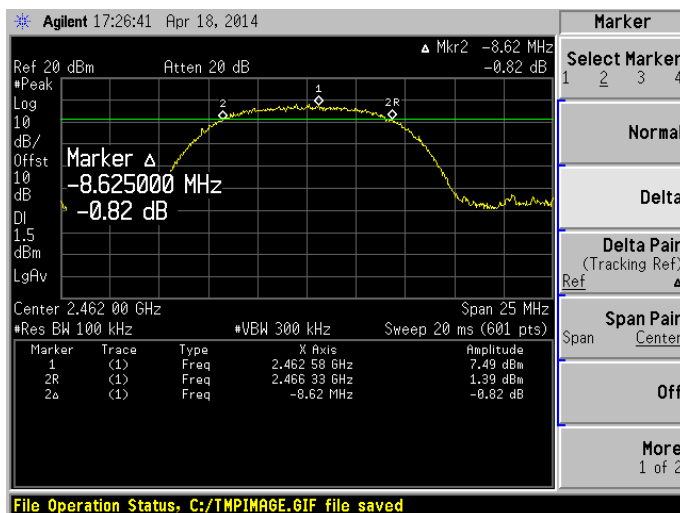
802.11b LOW CHANNEL



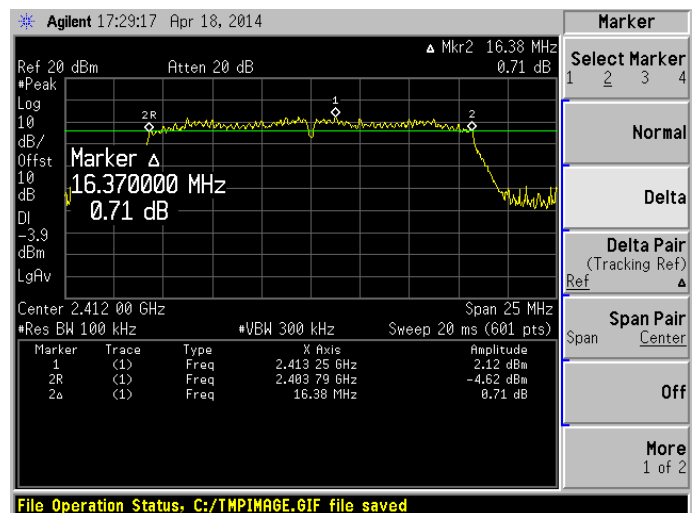
802.11b MID CHANNEL



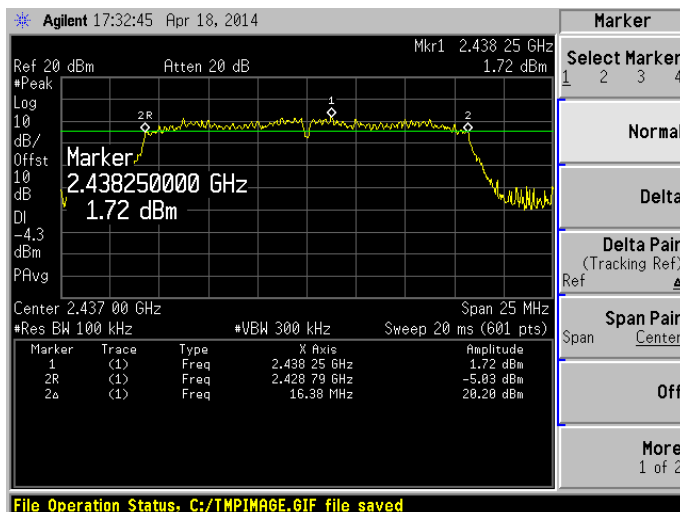
802.11b HIGH CHANNEL



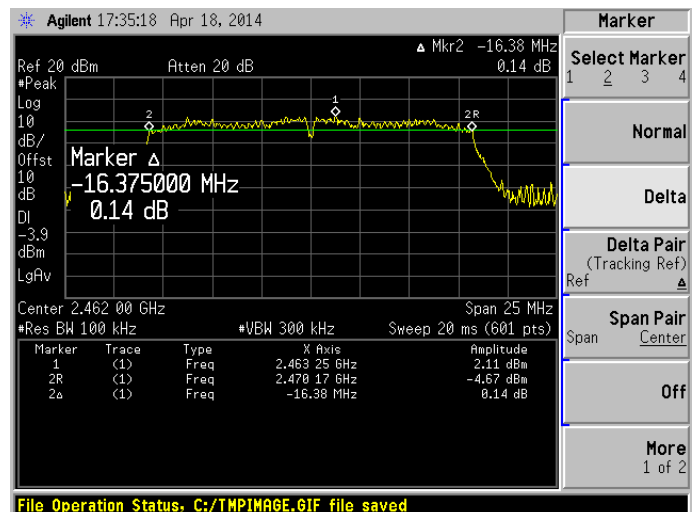
802.11g LOW CHANNEL



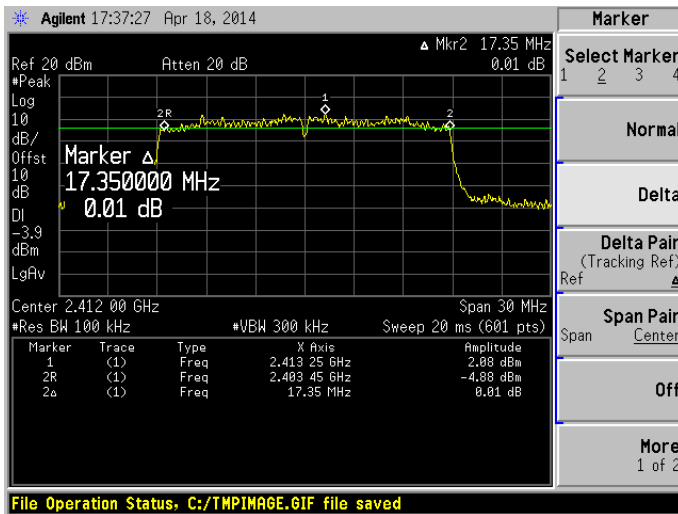
802.11g MID CHANNEL



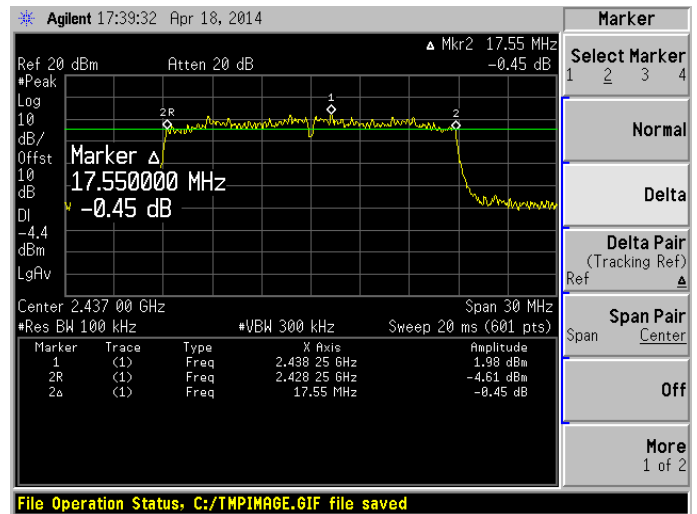
802.11g HIGH CHANNEL



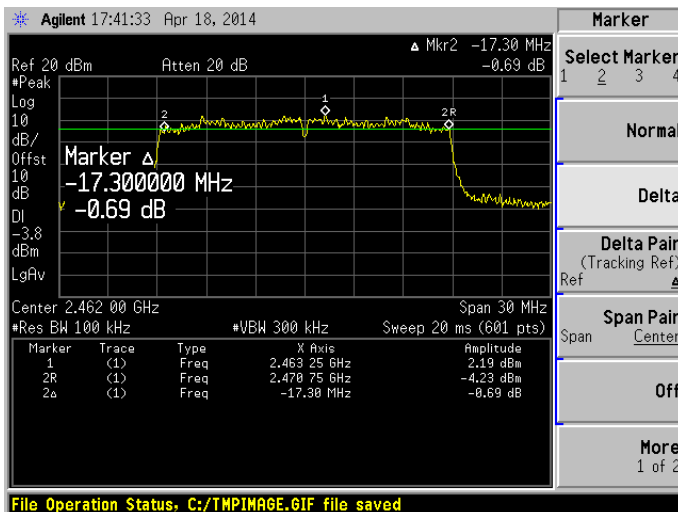
802.11n-20MHz LOW CHANNEL



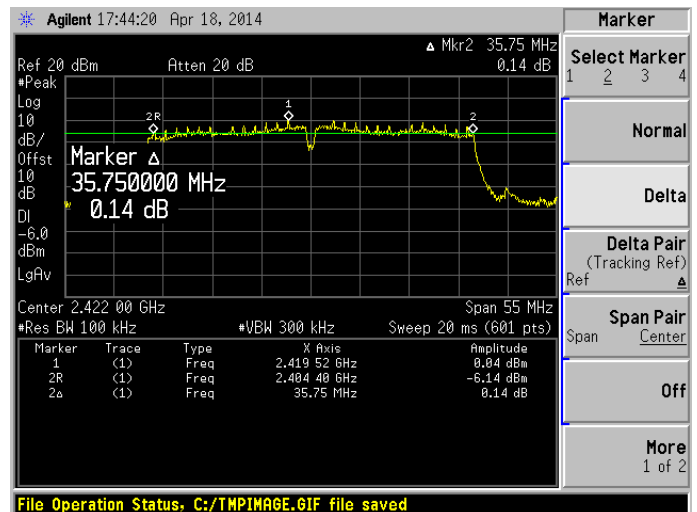
802.11 n-20MHz MID CHANNEL



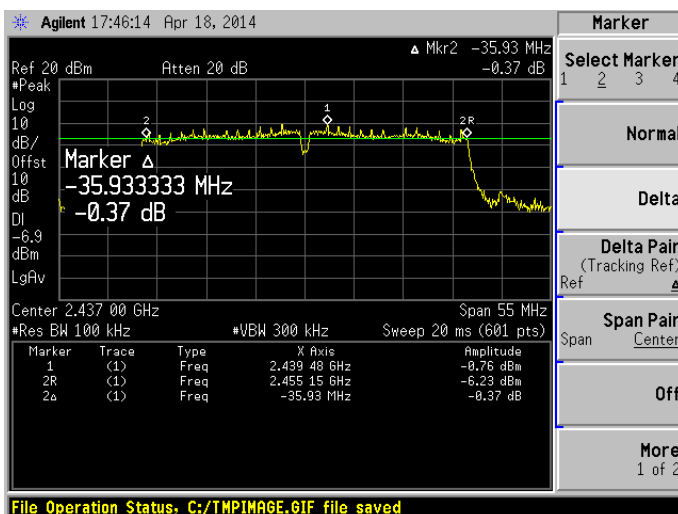
802.11n-20MHz HIGH CHANNEL



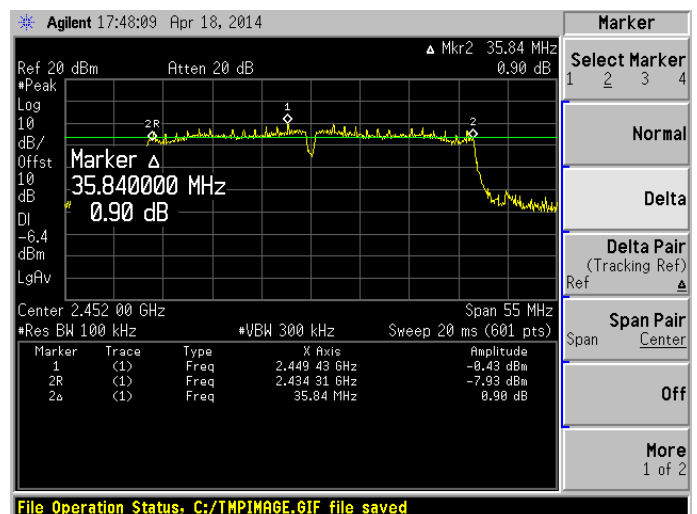
802.11n-40MHz LOW CHANNEL



802.11n-40MHz MID CHANNEL



802.11n-40MHz HIGH CHANNEL



A.3 Conducted Spurious Emissions

Test Data (Ant 0)

802.11b Mode:

Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated 20 dBc Limit	
1	2412	-43.95	5.83	-14.2	PASS
6	2437	-45.94	5.89	-14.1	PASS
11	2462	-45.95	6.34	-13.7	PASS

802.11g Mode:

Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated 20 dBc Limit	
1	2412	-43.95	1.60	-18.4	PASS
6	2437	-46.16	1.06	-18.9	PASS
11	2462	-46.40	1.12	-18.9	PASS

802.11n-20MHz Mode:

Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated 20 dBc Limit	
0	2412	-44.45	1.52	-18.5	PASS
39	2437	-45.98	1.08	-18.9	PASS
78	2462	-46.48	1.18	-18.8	PASS

802.11n-40MHz Mode:

Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated 20 dBc Limit	
3	2422	-45.96	-1.7	-21.7	PASS
6	2437	-46.81	-2.02	-22.0	PASS
9	2452	-47.51	-1.14	-21.1	PASS

Test Data (Ant 1)

802.11b Mode:

Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated 20 dBc Limit	
1	2412	-51.42	8.03	-12.0	PASS
6	2437	-51.71	6.57	-13.4	PASS
11	2462	-48.41	6.84	-13.2	PASS

802.11g Mode:

Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated 20 dBc Limit	
1	2412	-51.81	2.66	-17.3	PASS
6	2437	-53.02	2.35	-17.6	PASS
11	2462	-51.41	2.57	-17.4	PASS

802.11n-20MHz Mode:

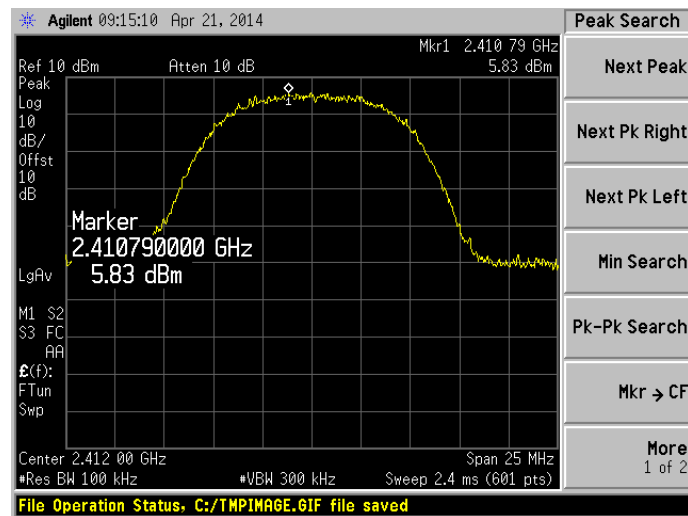
Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated 20 dBc Limit	
0	2412	-51.87	2.60	-17.3	PASS
39	2437	-53.57	2.07	-17.8	PASS
78	2462	-51.14	2.73	-17.2	PASS

802.11n-40MHz Mode:

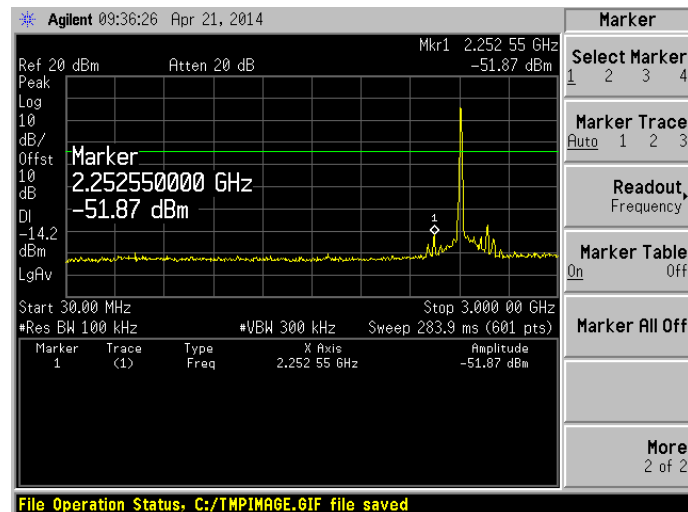
Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated 20 dBc Limit	
3	2422	-56.76	-0.29	-20.3	PASS
6	2437	-55.69	-0.23	-20.2	PASS
9	2452	-54.89	-0.06	-20.1	PASS

Test Plots (Ant 0)

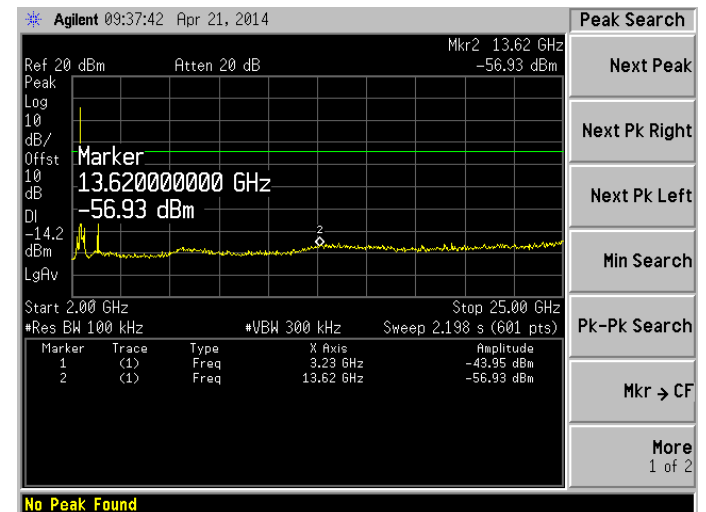
802.11b LOW CHANNEL CARRIER LEVEL



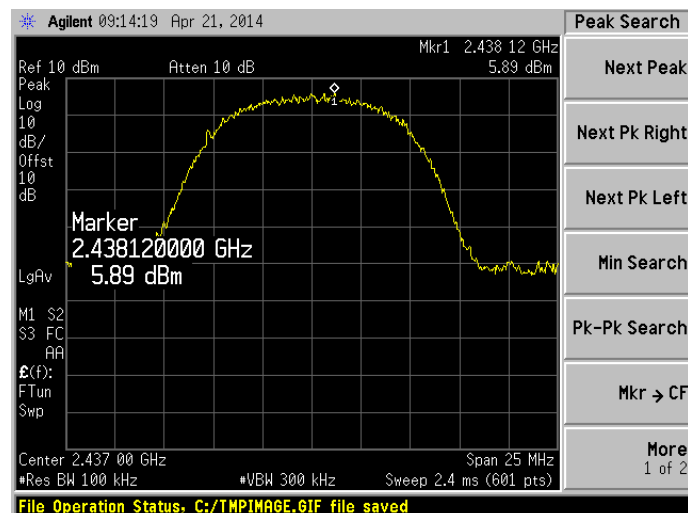
802.11b LOW CHANNEL, SPURIOUS 30MHz~3GHz



802.11b LOW CHANNEL, SPURIOUS 2GHz~25GHz

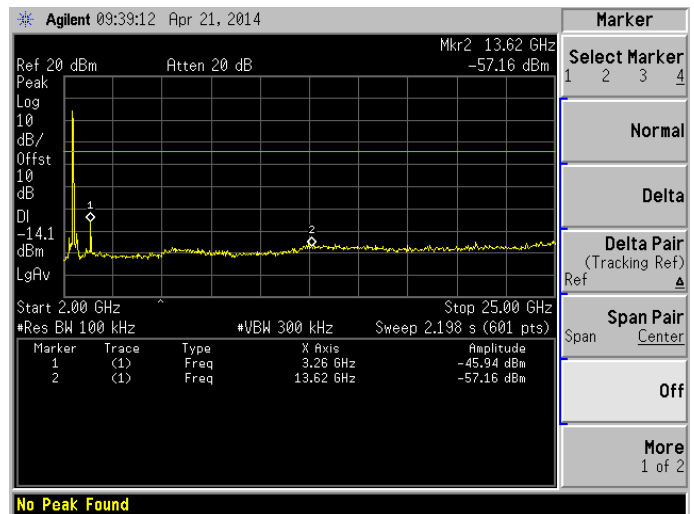
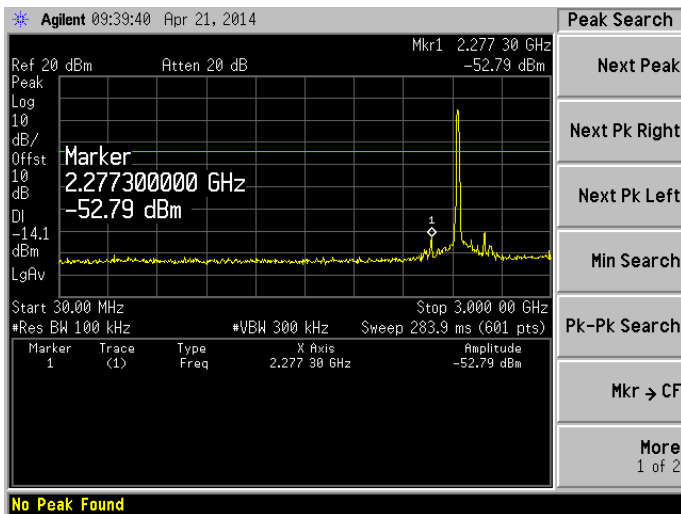


802.11b MID CHANNEL CARRIER LEVEL

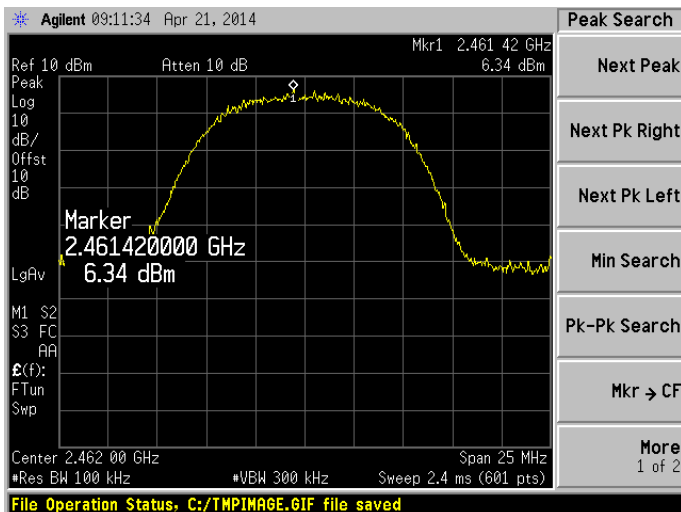


802.11b MID CHANNEL, SPURIOUS 30MHz~3GHz

802.11b MID CHANNEL, SPURIOUS 2GHz~25GHz

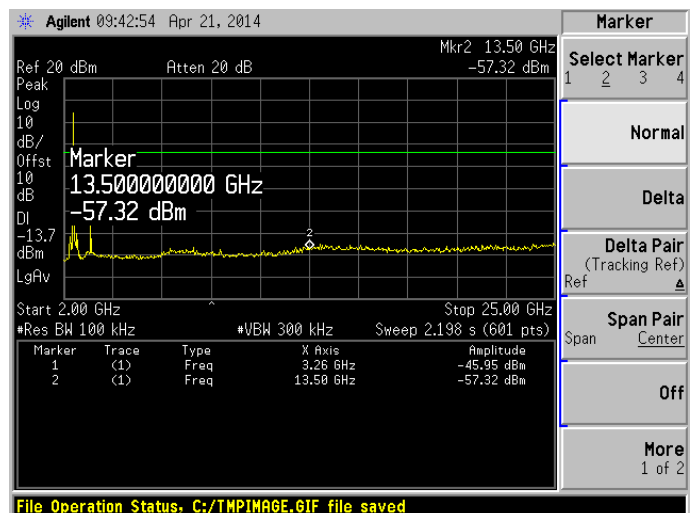
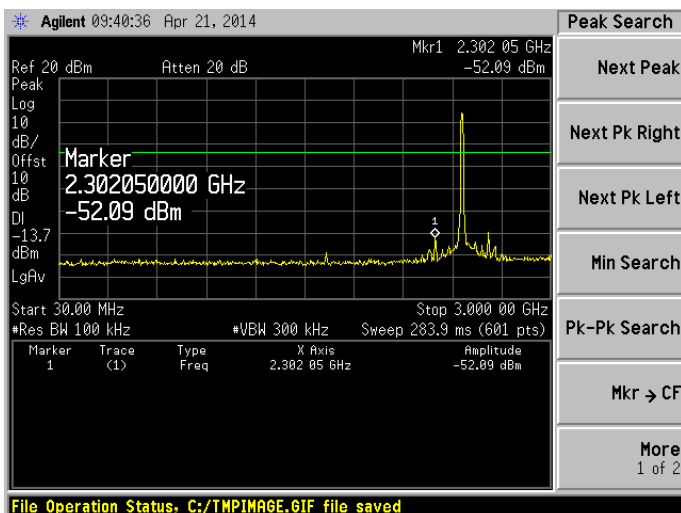


802.11b HIGH CHANNEL CARRIER LEVEL

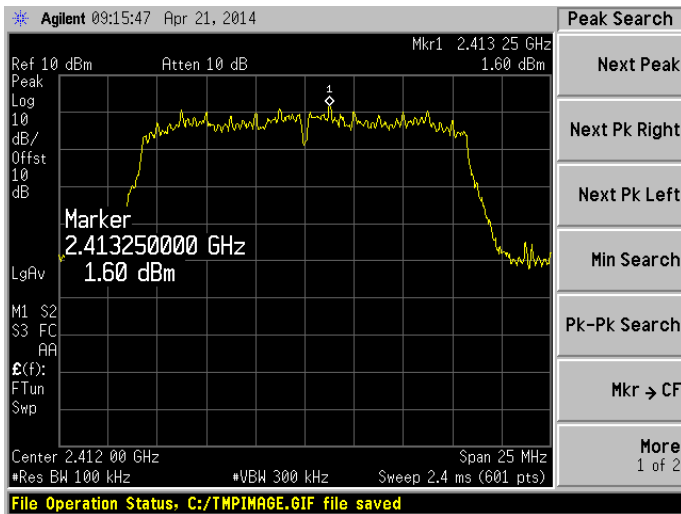


802.11b HIGH CHANNEL, SPURIOUS 30MHz~3GHz

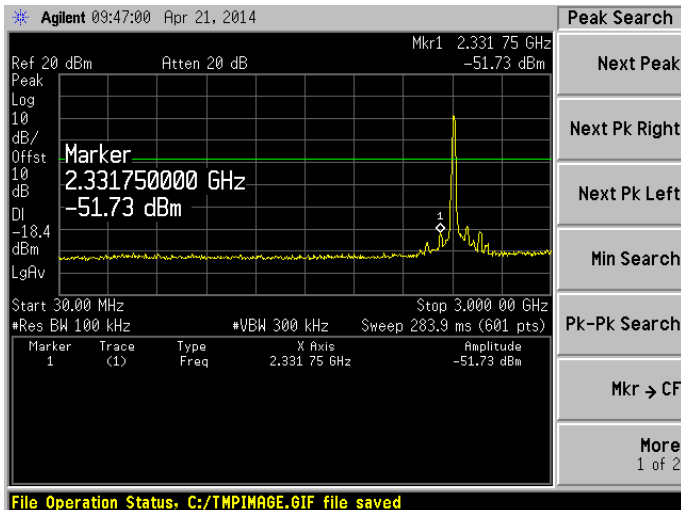
802.11b HIGH CHANNEL, SPURIOUS 2GHz~25GHz



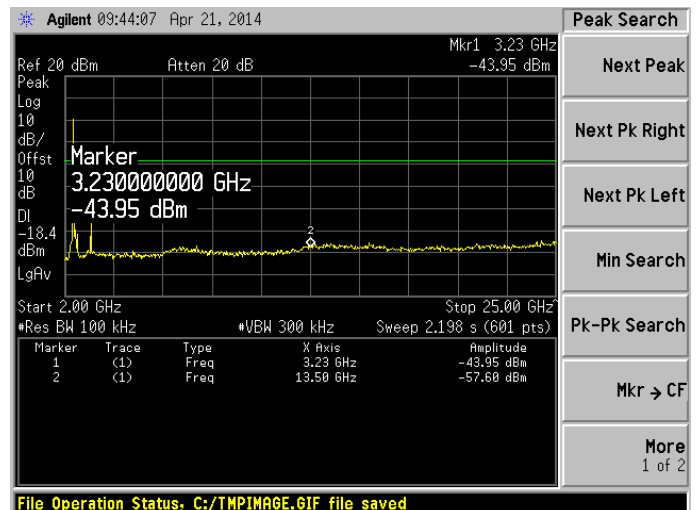
802.11g LOW CHANNEL CARRIER LEVEL



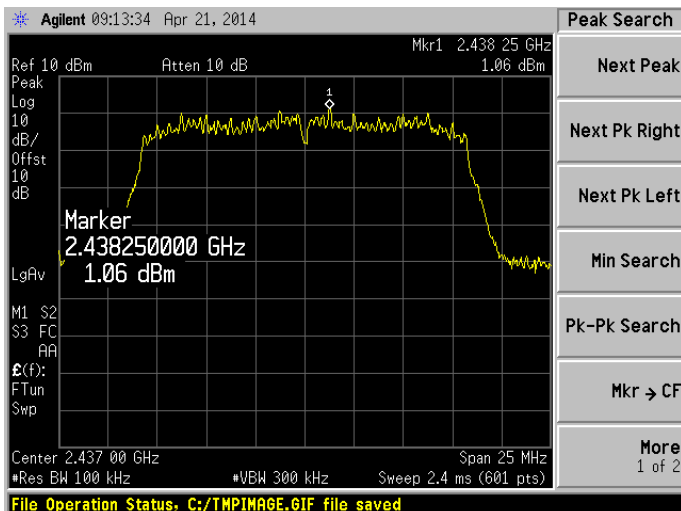
802.11g LOW CHANNEL, SPURIOUS 30MHz~3GHz



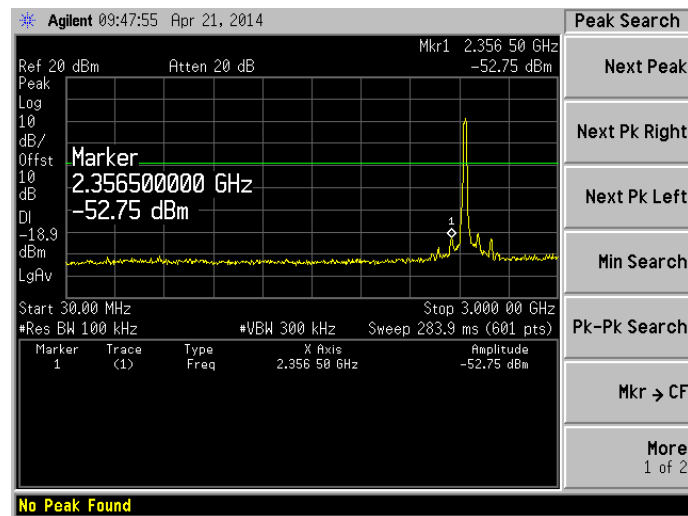
802.11g LOW CHANNEL, SPURIOUS 2GHz~25GHz



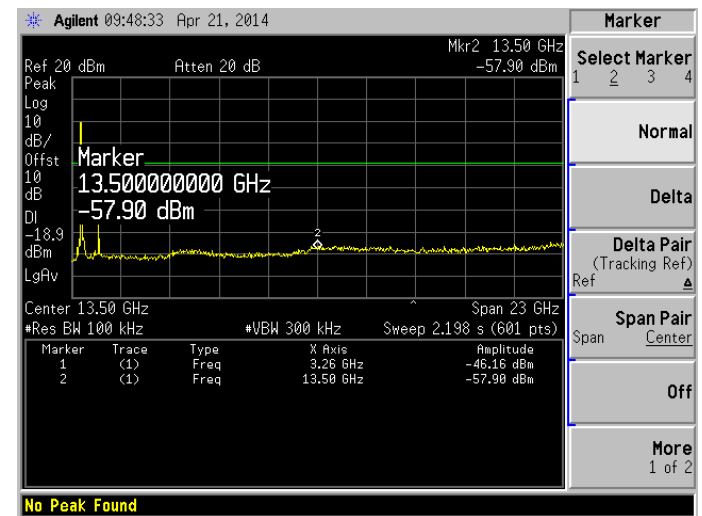
802.11g MID CHANNEL CARRIER LEVEL



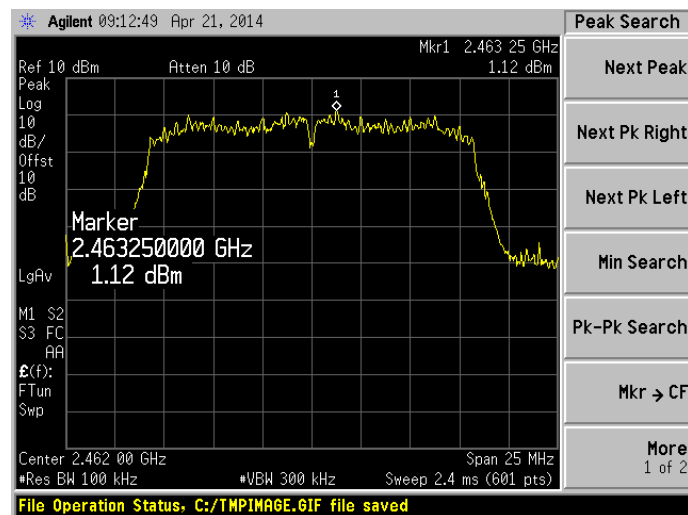
802.11g MID CHANNEL, SPURIOUS 30MHz~3GHz



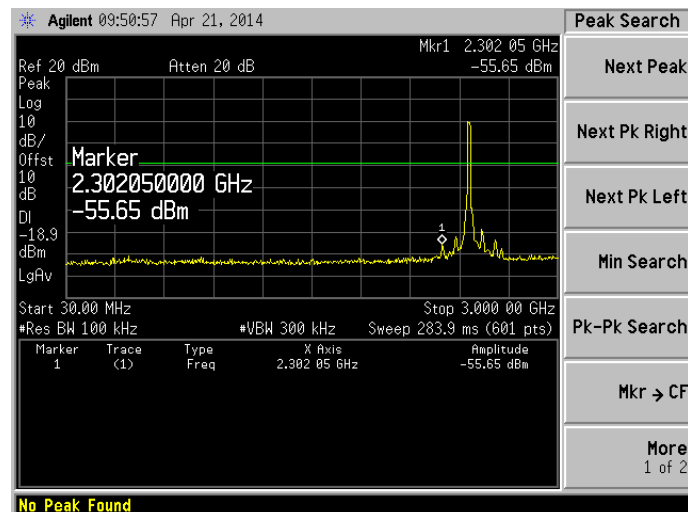
802.11g MID CHANNEL, SPURIOUS 2GHz~25GHz



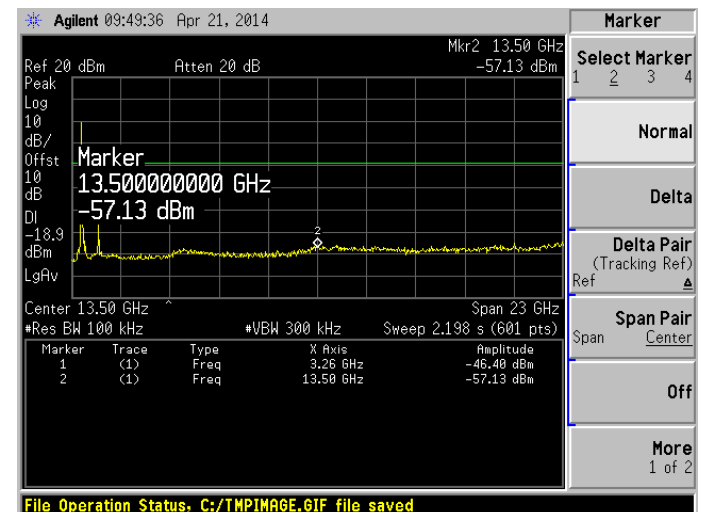
802.11g HIGH CHANNEL CARRIER LEVEL



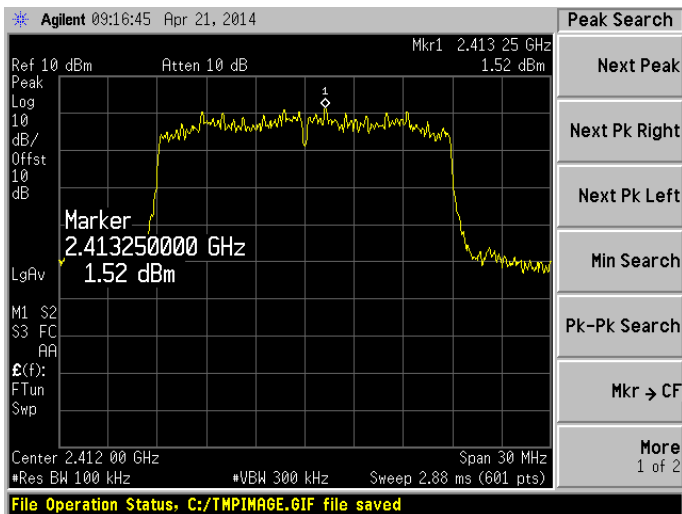
802.11g HIGH CHANNEL, SPURIOUS 30MHz~3GHz



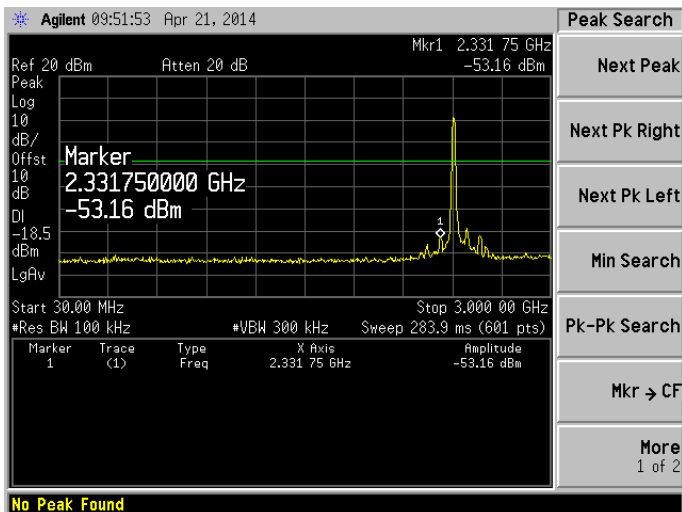
802.11g HIGH CHANNEL, SPURIOUS 2GHz~25GHz



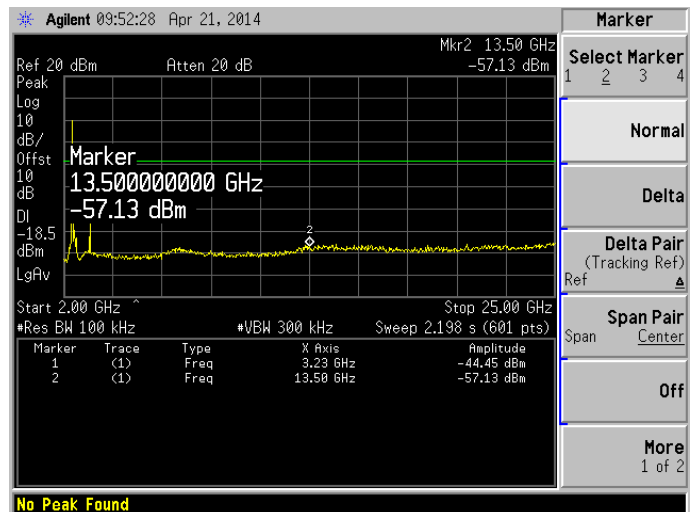
802.11n 20MHz LOW CHANNEL CARRIER LEVEL



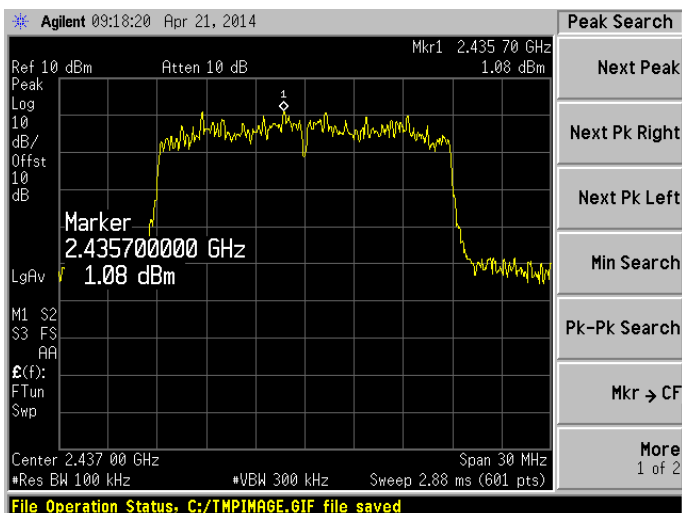
802.11 n 20MHz LOW CHANNEL, SPURIOUS 30MHz~3GHz

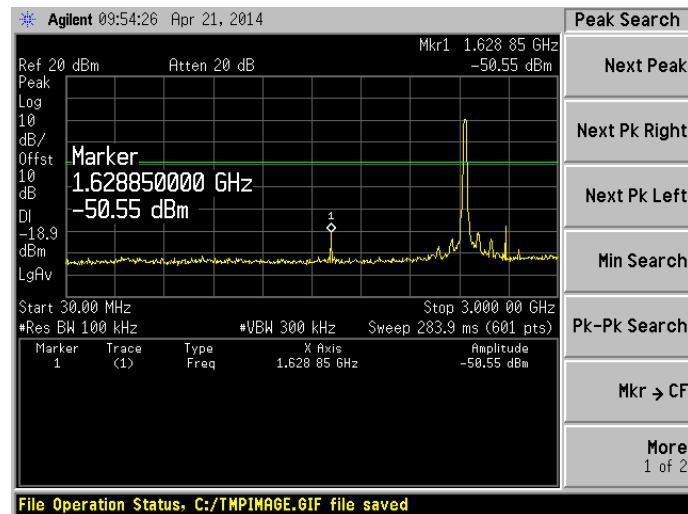
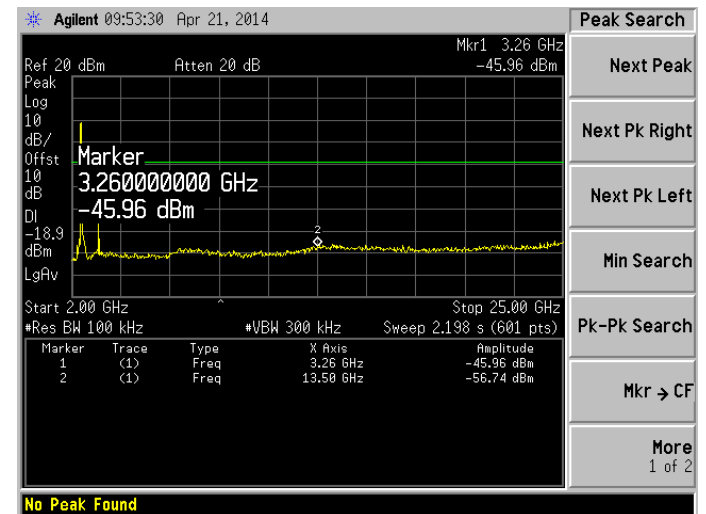


802.11 n 20MHz LOW CHANNEL, SPURIOUS 2GHz~25GHz

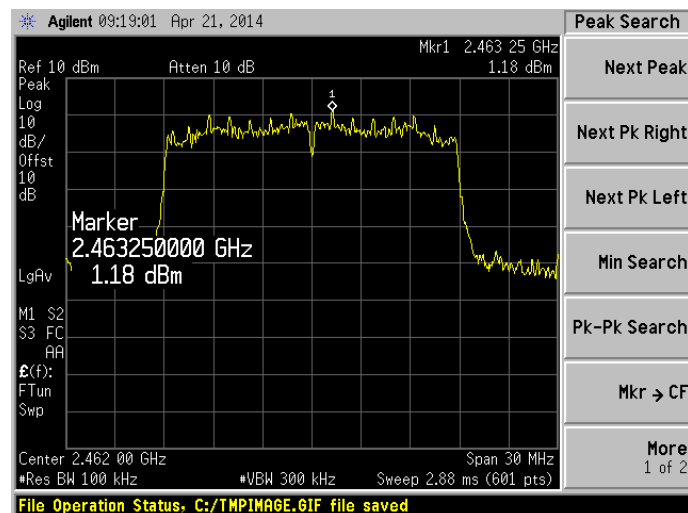
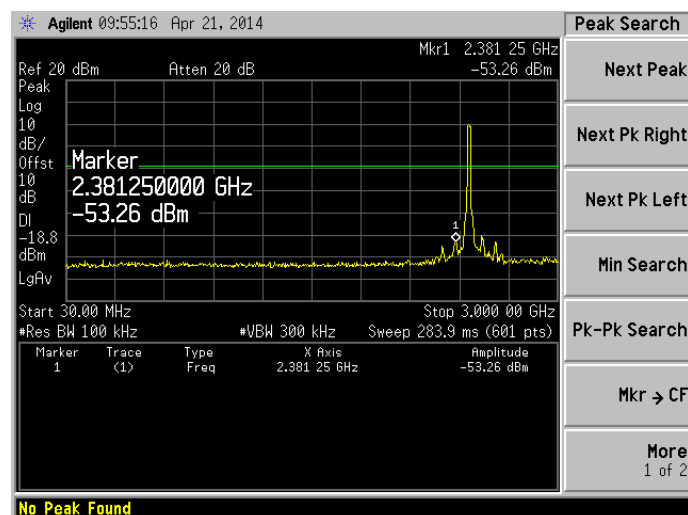
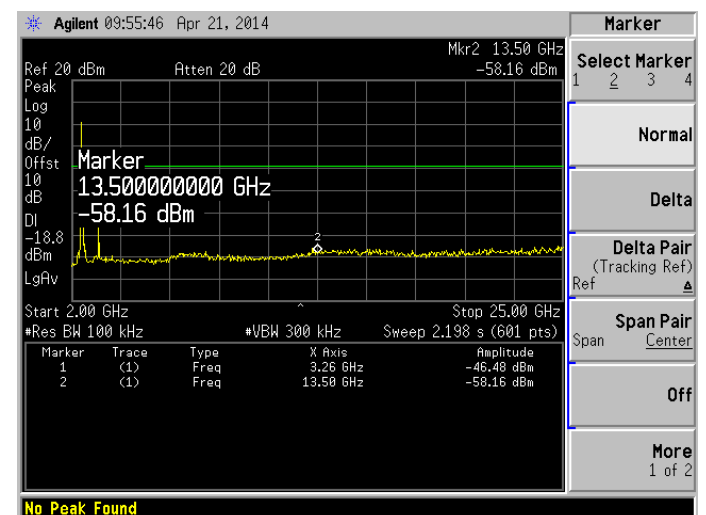


802.11 n 20MHz MID CHANNEL CARRIER LEVEL

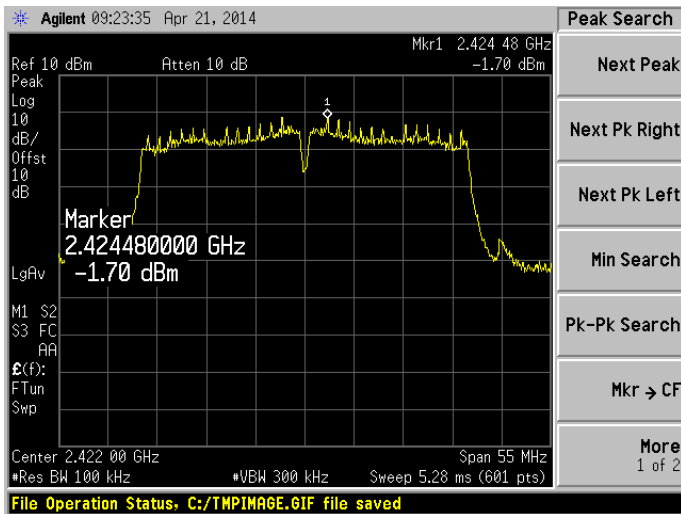


802.11 n 20MHz MID CHANNEL, SPURIOUS
30MHz~3GHz

802.11 n 20MHz MID CHANNEL, SPURIOUS
2GHz~25GHz


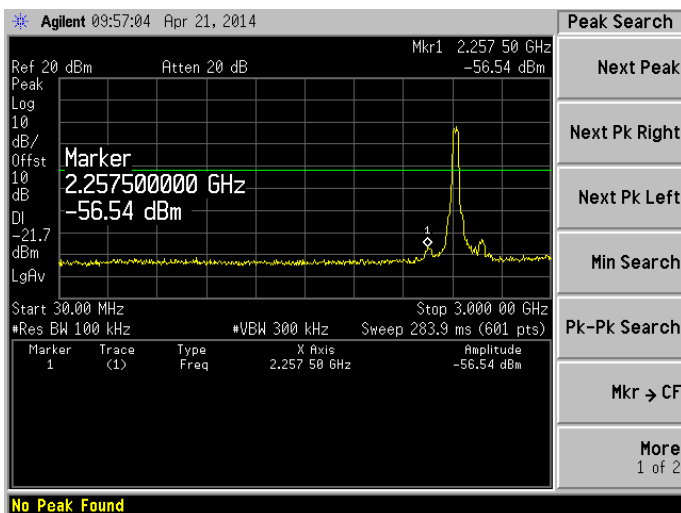
802.11 n 20MHz HIGH CHANNEL CARRIER LEVEL


802.11 n 20MHz HIGH CHANNEL, SPURIOUS
30MHz~3GHz

802.11 n 20MHz HIGH CHANNEL, SPURIOUS
2GHz~25GHz


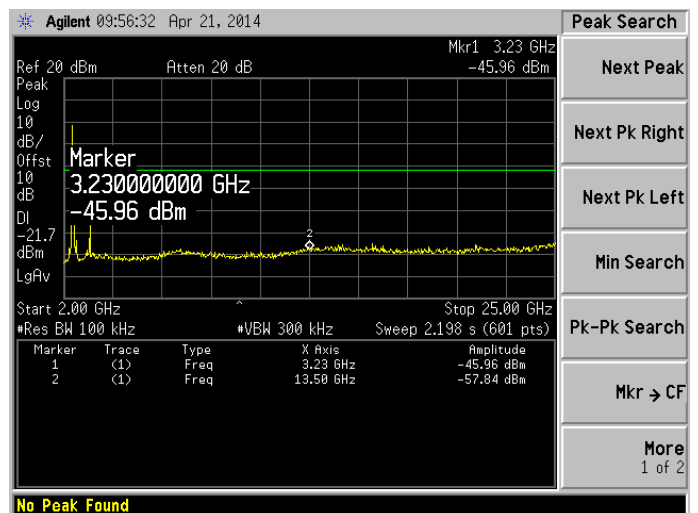
802.11n 40MHz LOW CHANNEL CARRIER LEVEL



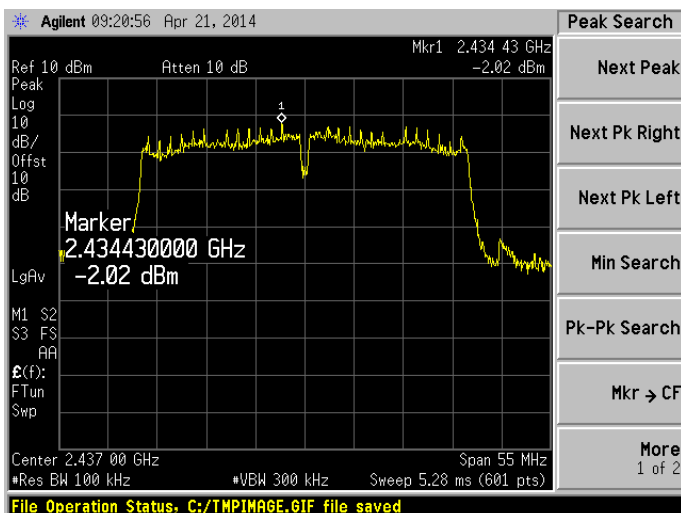
802.11 n 40MHz LOW CHANNEL, SPURIOUS 30MHz~3GHz

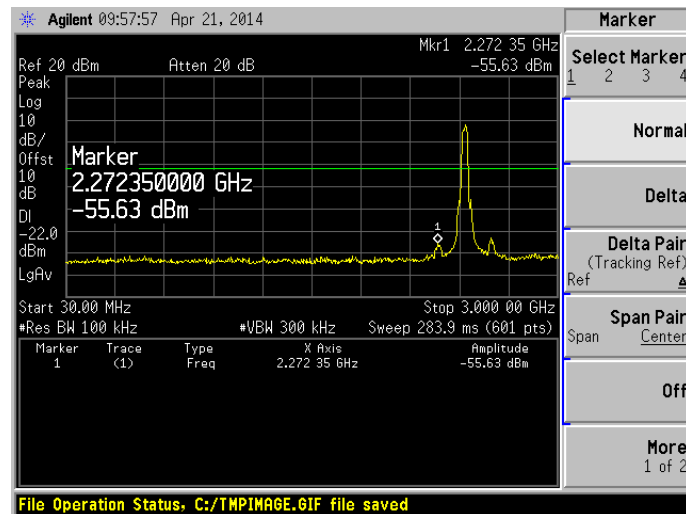
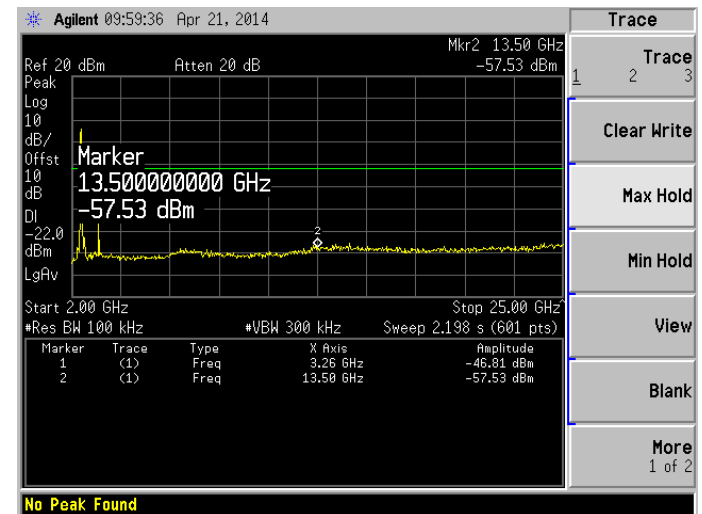


802.11 n 40MHz LOW CHANNEL, SPURIOUS 2GHz~25GHz

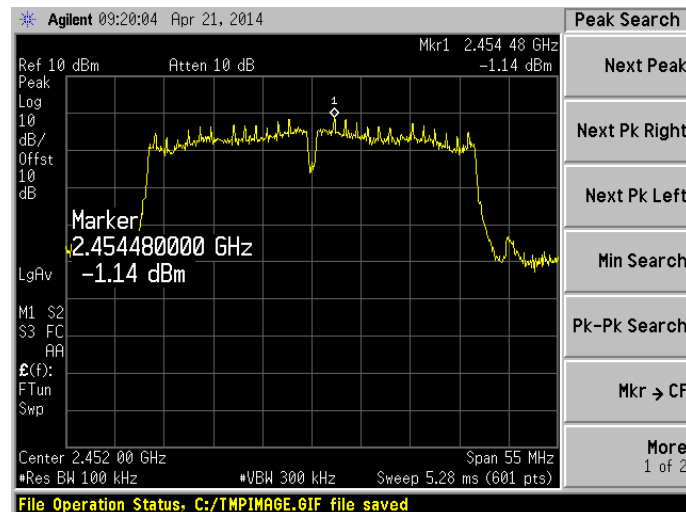
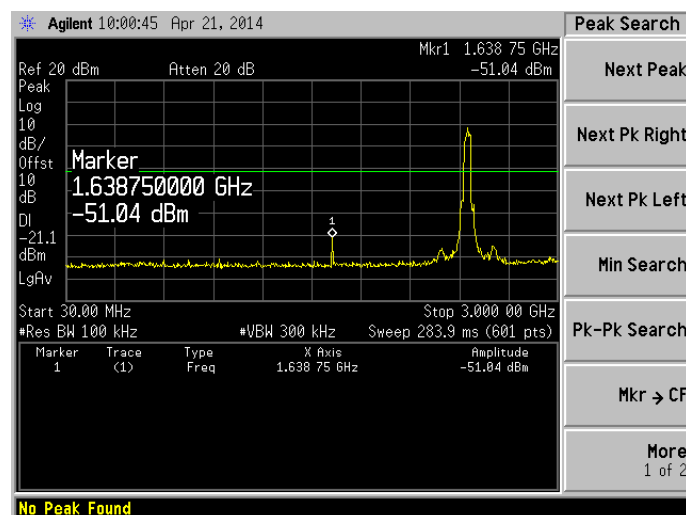
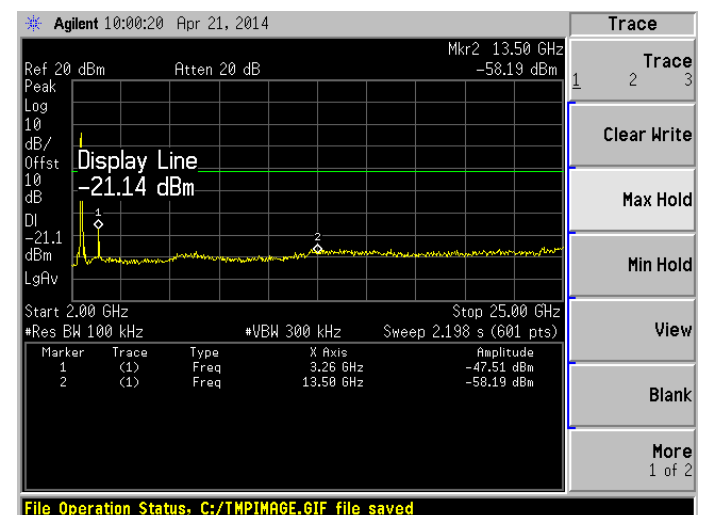


802.11 n 40MHz MID CHANNEL CARRIER LEVEL



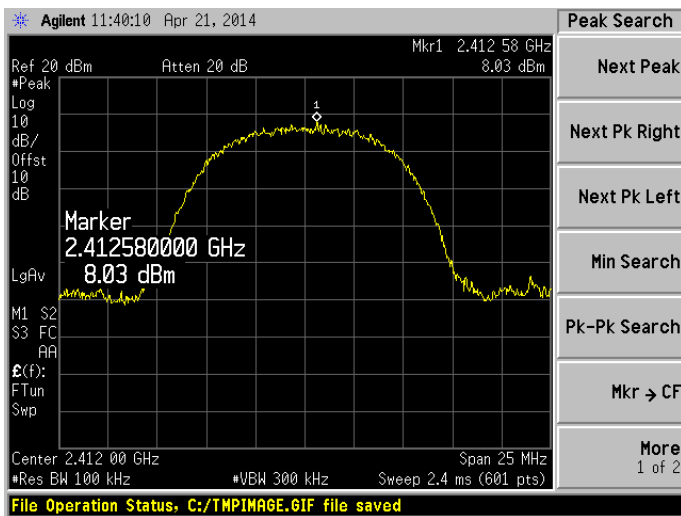
802.11 n 40MHz MID CHANNEL, SPURIOUS
30MHz~3GHz

802.11 n 40MHz MID CHANNEL, SPURIOUS
2GHz~25GHz


802.11 n 40MHz HIGH CHANNEL CARRIER LEVEL

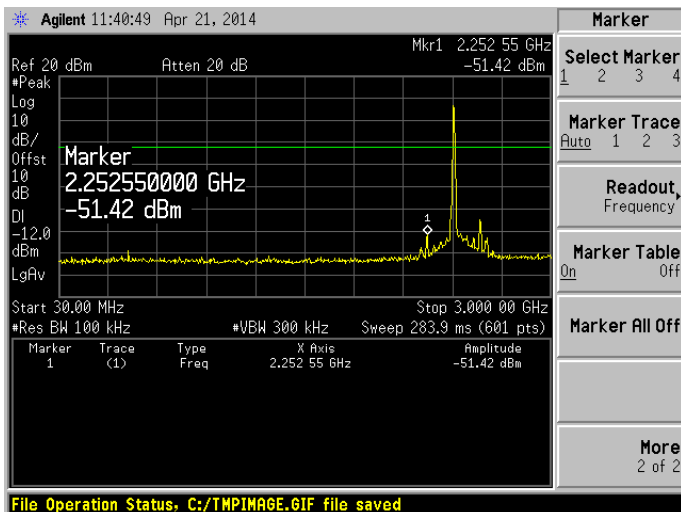

802.11 n 40MHz HIGH CHANNEL, SPURIOUS
30MHz~3GHz

802.11 n 40MHz HIGH CHANNEL, SPURIOUS
2GHz~25GHz


Test Plots (Ant 1)

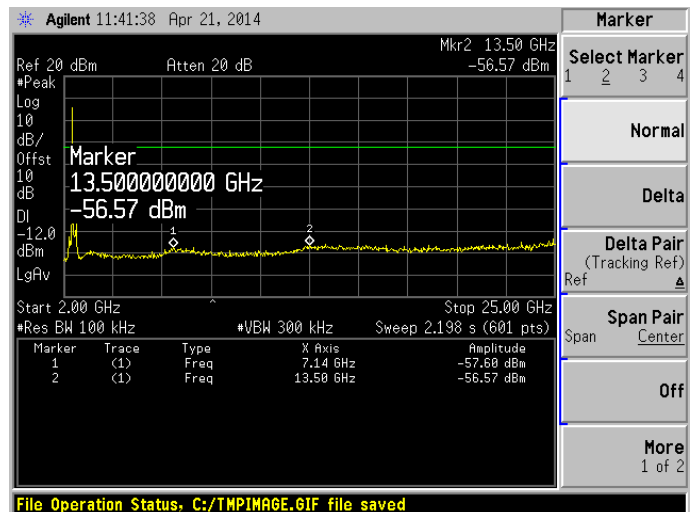
802.11b LOW CHANNEL CARRIER LEVEL



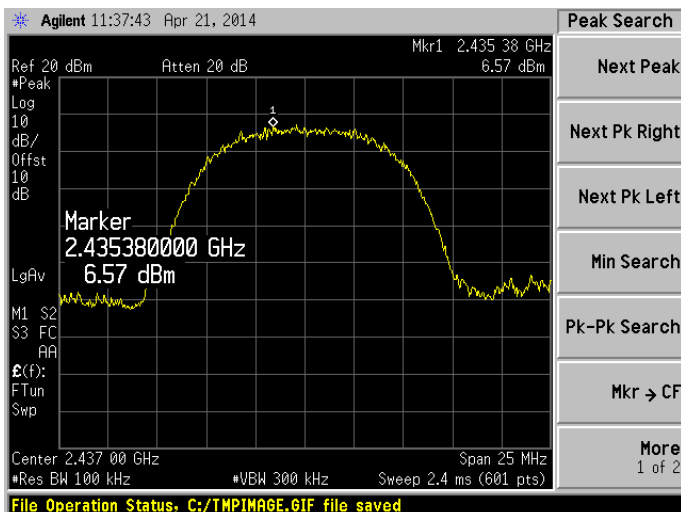
802.11b LOW CHANNEL, SPURIOUS 30MHz~3GHz



802.11b LOW CHANNEL, SPURIOUS 2GHz~25GHz

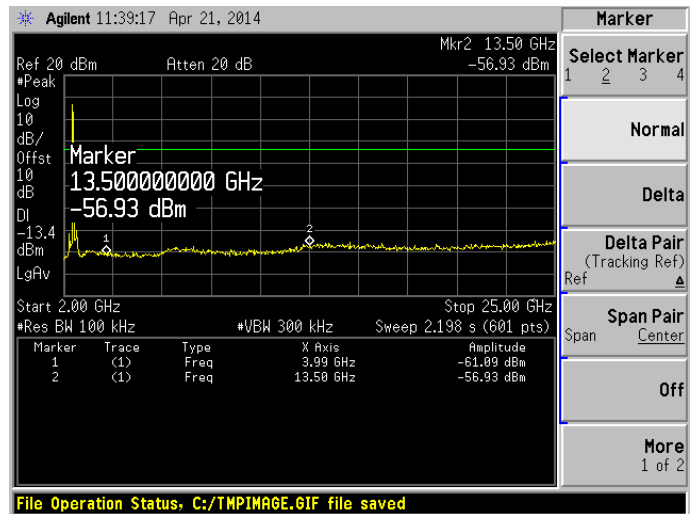
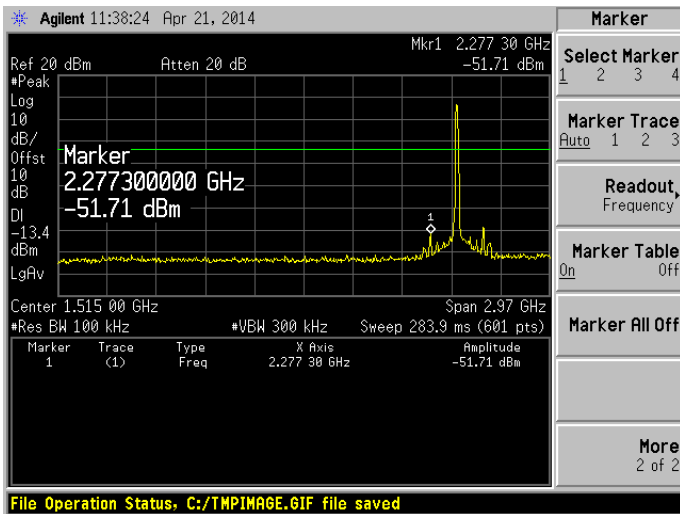


802.11b MID CHANNEL CARRIER LEVEL

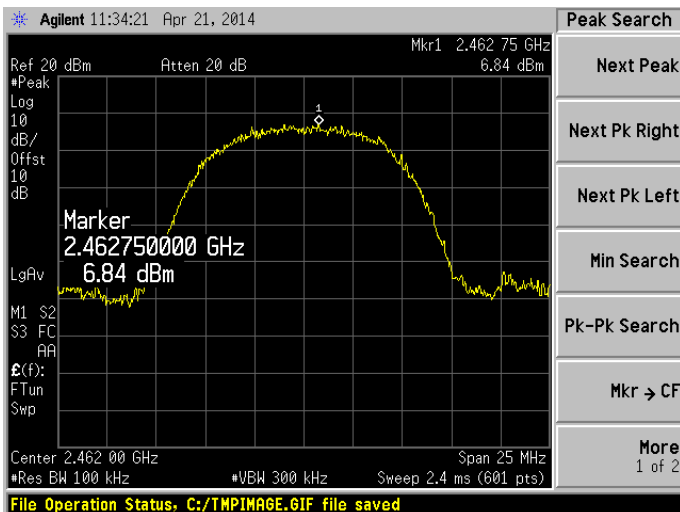


802.11b MID CHANNEL, SPURIOUS 30MHz~3GHz

802.11b MID CHANNEL, SPURIOUS 2GHz~25GHz

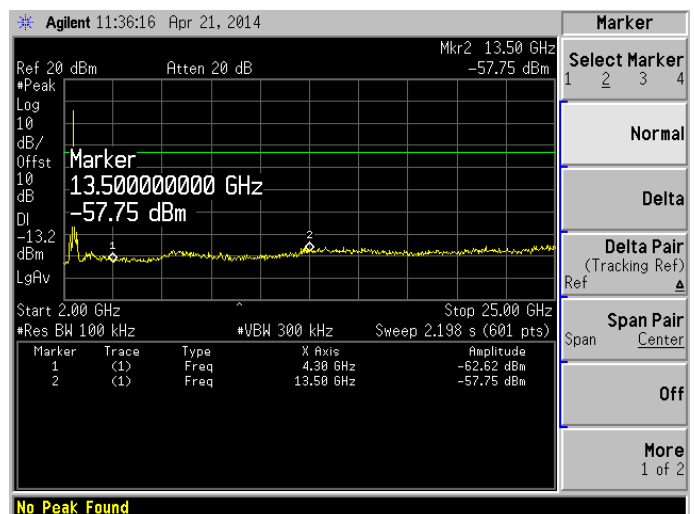
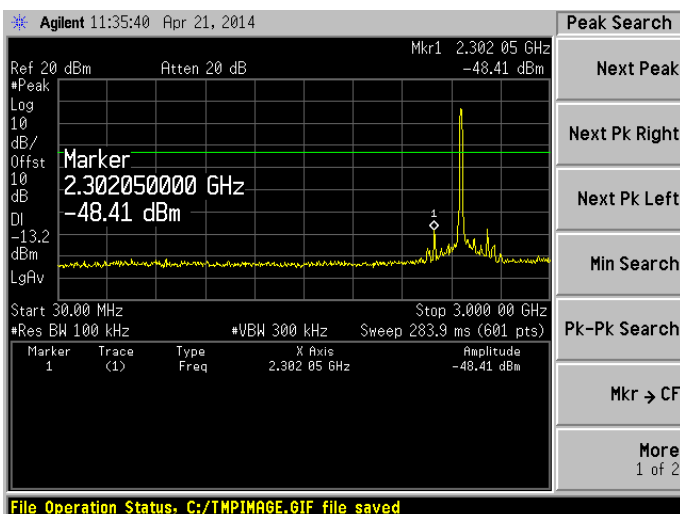


802.11b HIGH CHANNEL CARRIER LEVEL

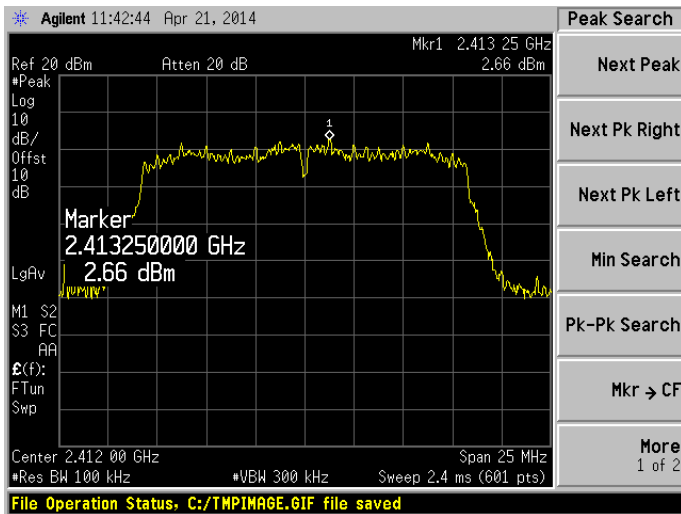


802.11b HIGH CHANNEL, SPURIOUS 30MHz~3GHz

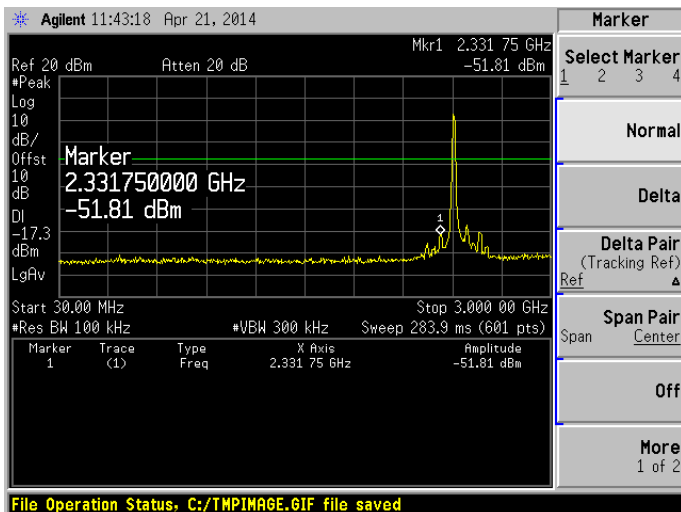
802.11b HIGH CHANNEL, SPURIOUS 2GHz~25GHz



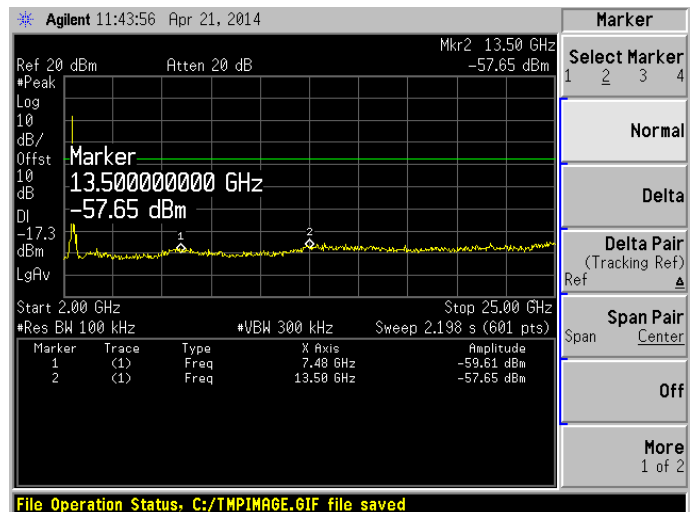
802.11g LOW CHANNEL CARRIER LEVEL



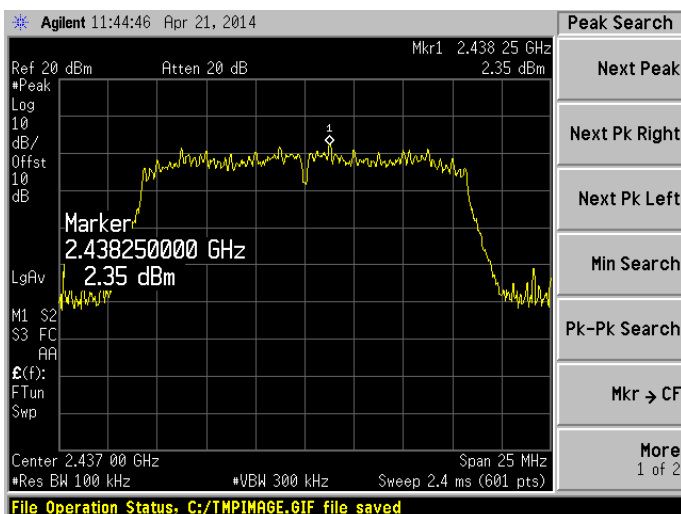
802.11g LOW CHANNEL, SPURIOUS 30MHz~3GHz



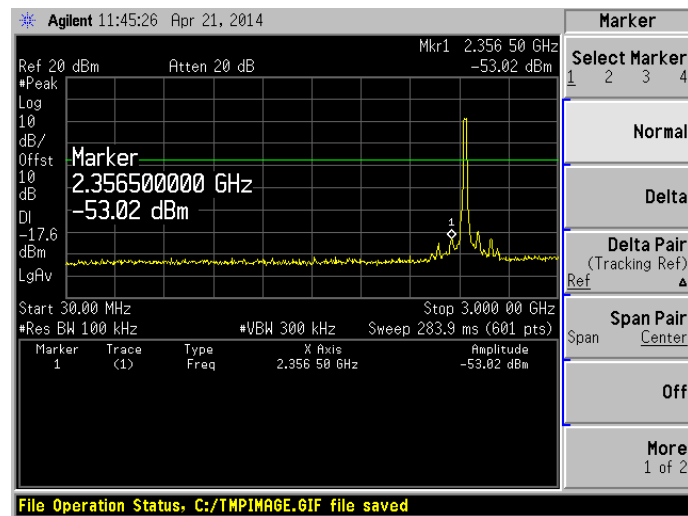
802.11g LOW CHANNEL, SPURIOUS 2GHz~25GHz



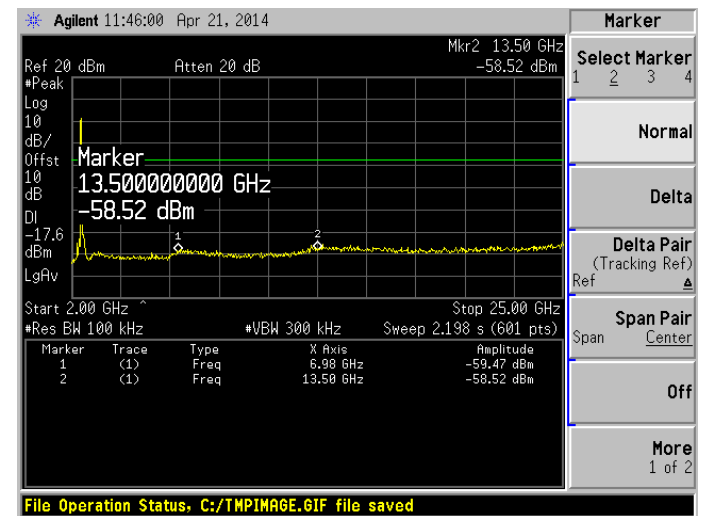
802.11g MID CHANNEL CARRIER LEVEL



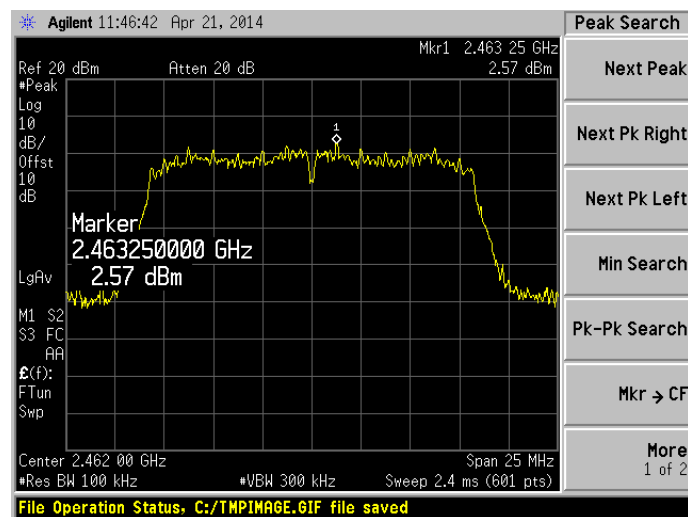
802.11g MID CHANNEL, SPURIOUS 30MHz~3GHz



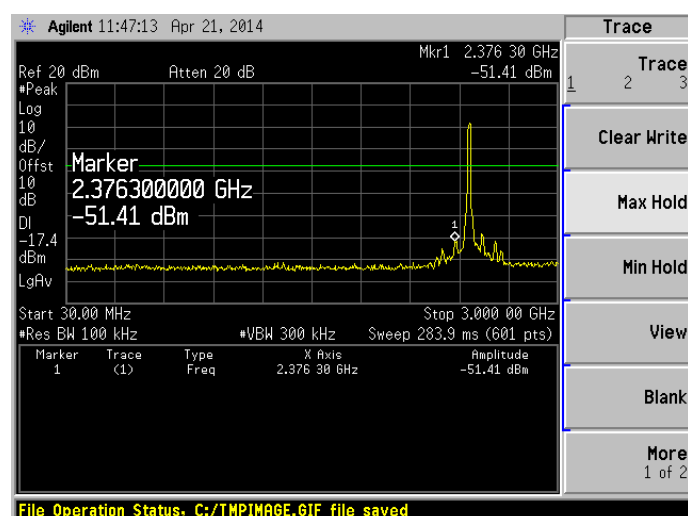
802.11g MID CHANNEL, SPURIOUS 2GHz~25GHz



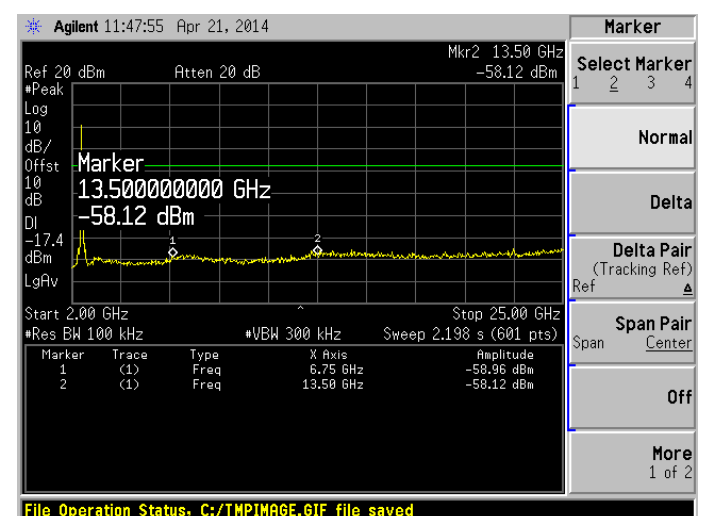
802.11g HIGH CHANNEL CARRIER LEVEL



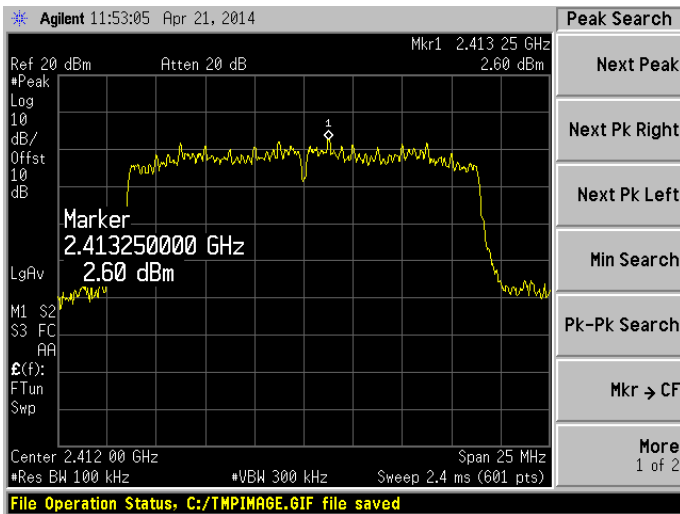
802.11g HIGH CHANNEL, SPURIOUS 30MHz~3GHz



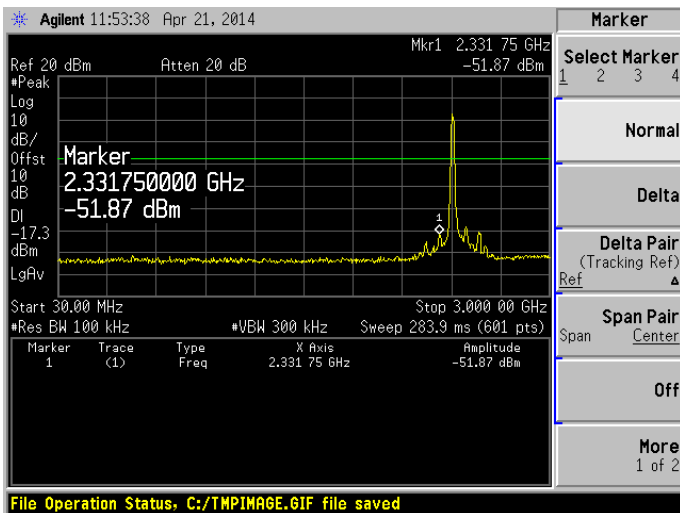
802.11g HIGH CHANNEL, SPURIOUS 2GHz~25GHz



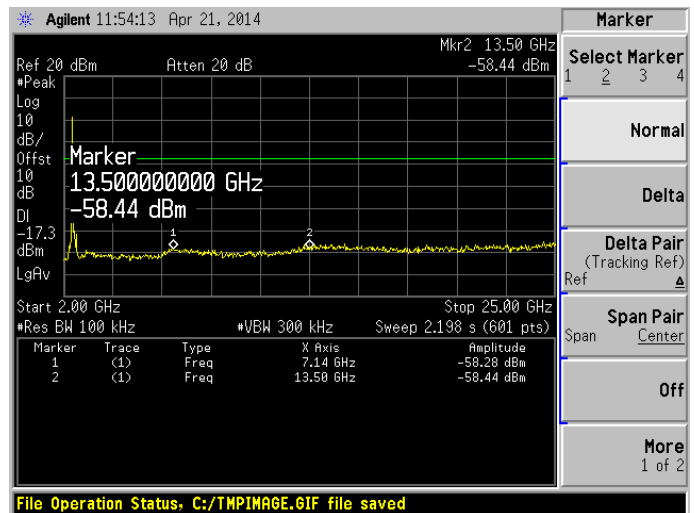
802.11n 20MHz LOW CHANNEL CARRIER LEVEL



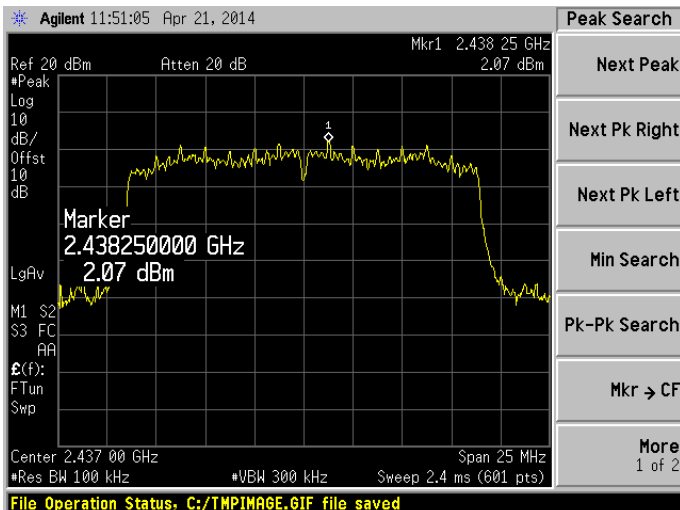
802.11 n 20MHz LOW CHANNEL, SPURIOUS 30MHz~3GHz

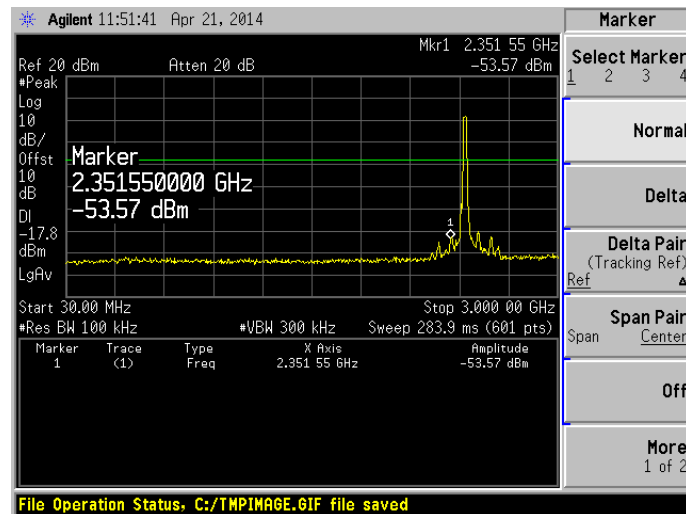
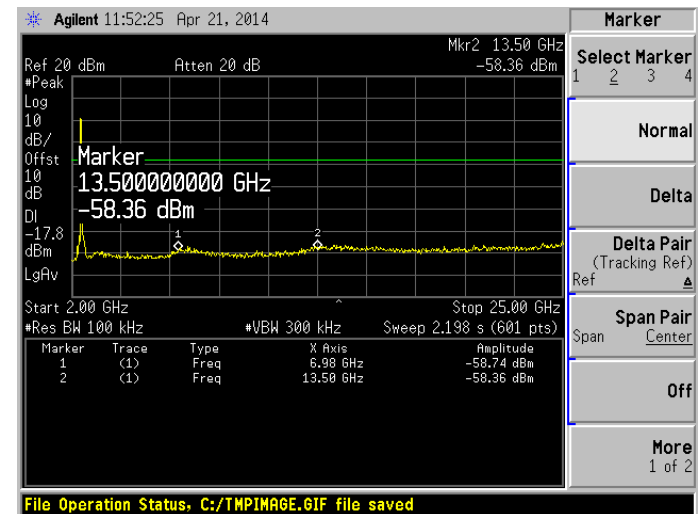


802.11 n 20MHz LOW CHANNEL, SPURIOUS 2GHz~25GHz

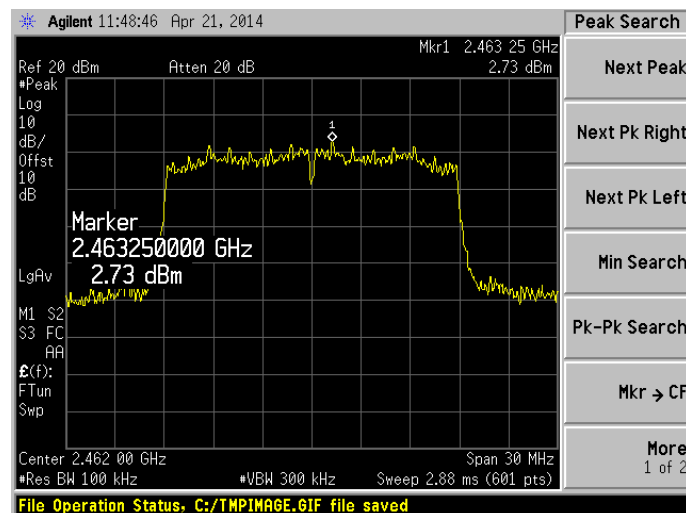
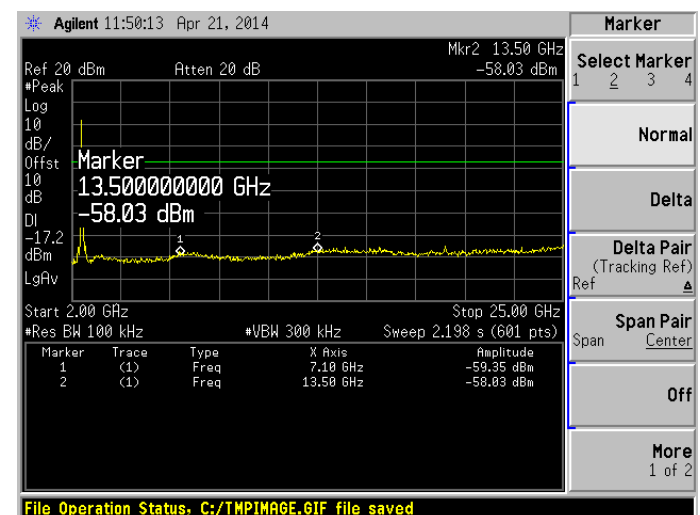
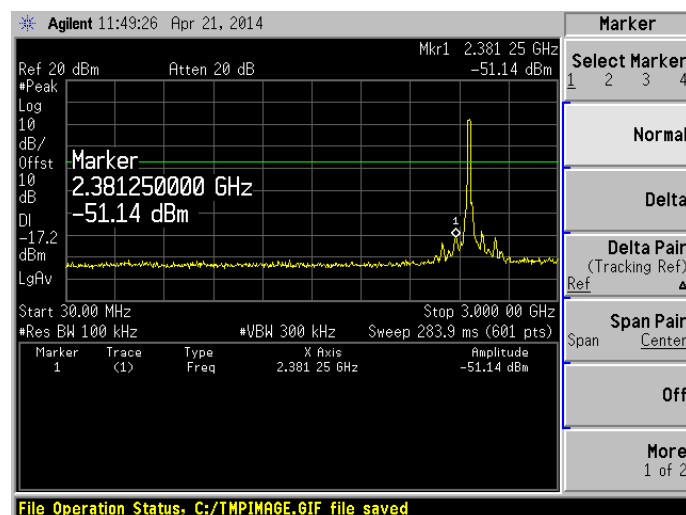


802.11 n 20MHz MID CHANNEL CARRIER LEVEL

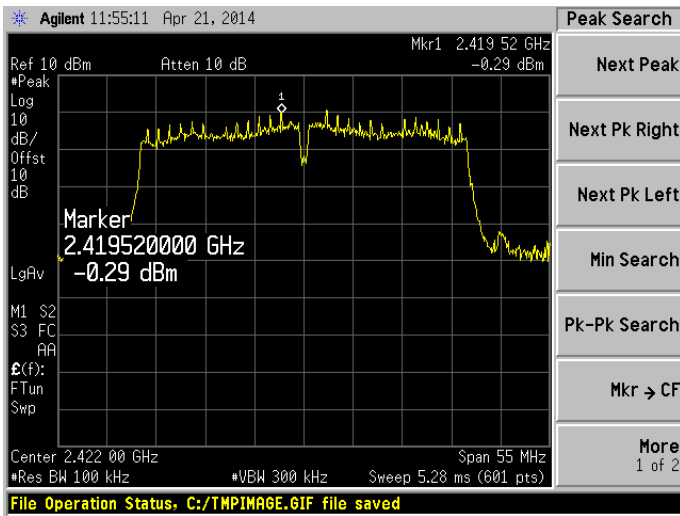


802.11 n 20MHz MID CHANNEL, SPURIOUS
30MHz~3GHz

802.11 n 20MHz MID CHANNEL, SPURIOUS
2GHz~25GHz


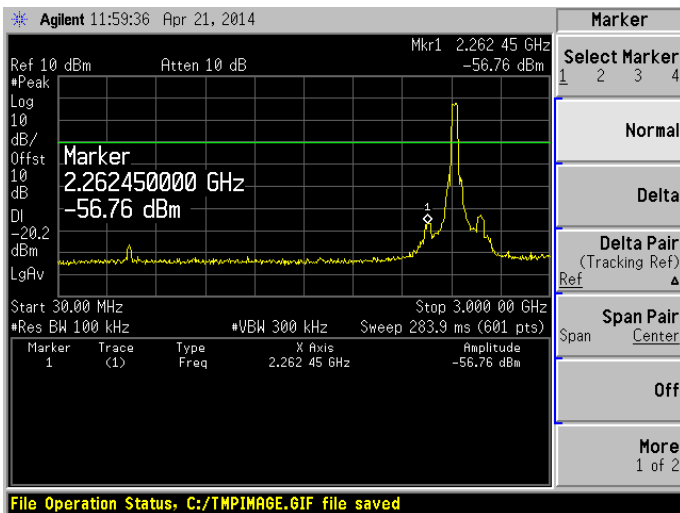
802.11 n 20MHz HIGH CHANNEL CARRIER LEVEL


802.11 n 20MHz HIGH CHANNEL, SPURIOUS
2GHz~25GHz

802.11 n 20MHz HIGH CHANNEL, SPURIOUS
30MHz~3GHz


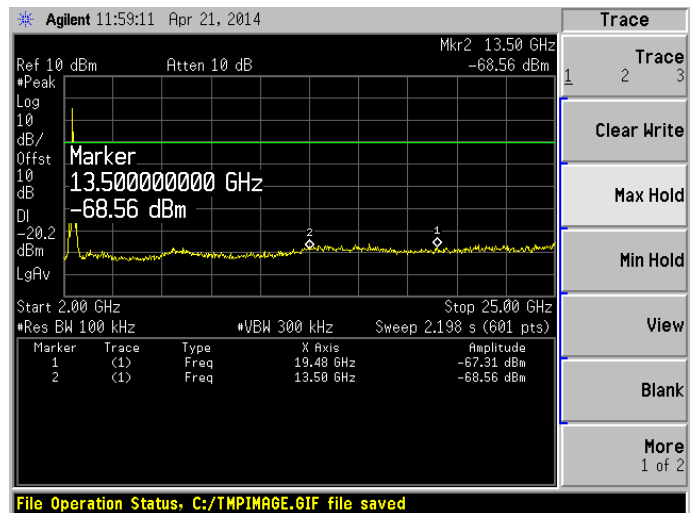
802.11n 40MHz LOW CHANNEL CARRIER LEVEL



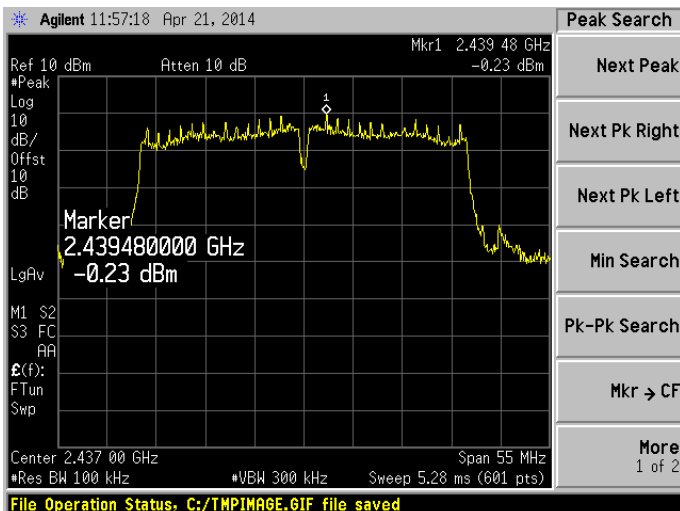
802.11 n 40MHz LOW CHANNEL, SPURIOUS 30MHz~3GHz

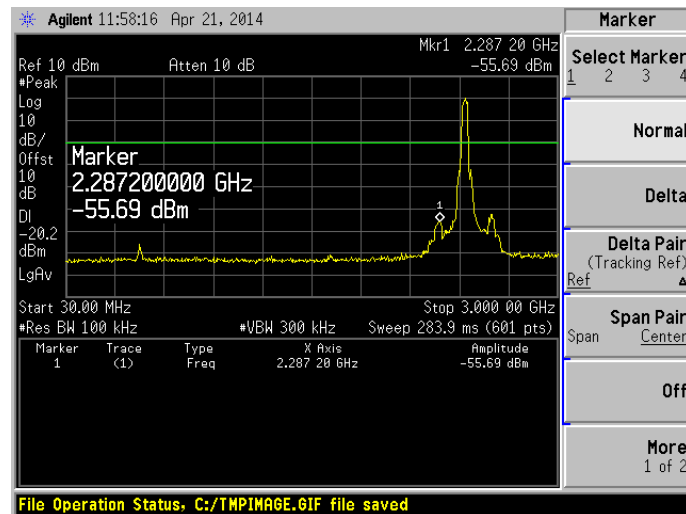
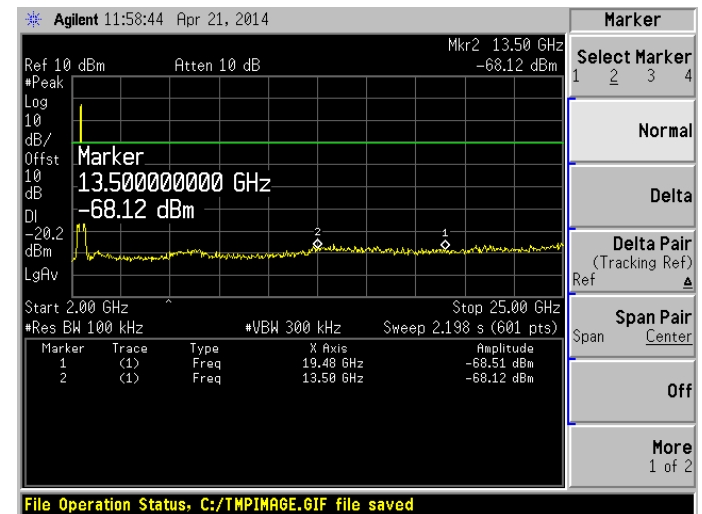


802.11 n 40MHz LOW CHANNEL, SPURIOUS 2GHz~25GHz

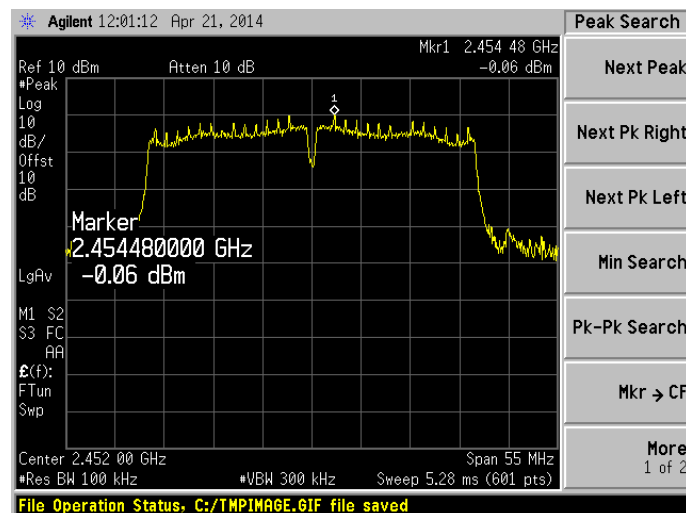
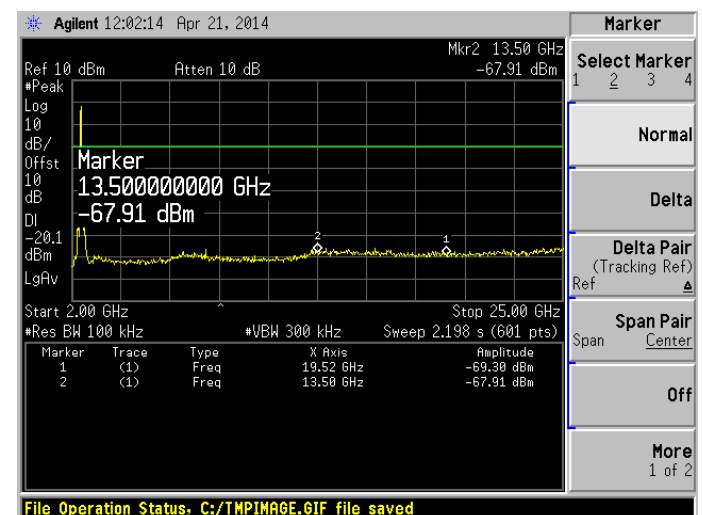
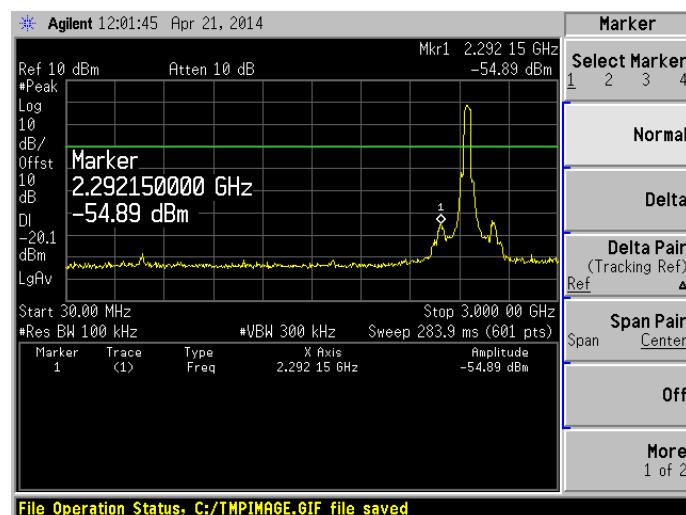


802.11 n 40MHz MID CHANNEL CARRIER LEVEL



802.11 n 40MHz MID CHANNEL, SPURIOUS
30MHz~3GHz

802.11 n 40MHz MID CHANNEL, SPURIOUS
2GHz~25GHz


802.11 n 40MHz HIGH CHANNEL CARRIER LEVEL


802.11 n 40MHz HIGH CHANNEL, SPURIOUS
2GHz~25GHz

802.11 n 40MHz HIGH CHANNEL, SPURIOUS
30MHz~3GHz


A.4 Conducted Emissions

Test Data (The Adapter DSA-12PFA-09 FUS 120100)

No.	Fre. (MHz)	Measurement Level (dBuV)	Limit (dBuV)	Margin (dB)	Phase	Detector	Verdict
1	0.186	56.1	64.97	-8.87	L	QP	PASS
2	0.186	43.15	54.97	-11.82	L	AV	PASS
3	0.230	56.2	63.71	-7.51	L	QP	PASS
4	0.230	44.81	53.71	-8.90	L	AV	PASS
5	1.066	34	46.00	-12.00	L	AV	PASS
6	1.094	34.09	46.00	-11.91	L	AV	PASS
7	1.186	47.24	56.00	-8.76	L	QP	PASS
8	1.514	47.72	56.00	-8.28	L	QP	PASS
9	5.130	41.21	60.00	-18.79	L	QP	PASS
10	5.654	29.86	50.00	-20.14	L	AV	PASS
11	9.154	36.68	60.00	-23.32	L	QP	PASS
12	23.130	29.99	50.00	-20.01	L	AV	PASS
No.	Fre. (MHz)	Measurement Level (dBuV)	Limit (dBuV)	Margin (dB)	Phase	Detector	Verdict
1	0.186	51.33	64.97	-13.64	N	QP	PASS
2	0.226	54.43	63.83	-9.40	N	QP	PASS
3	0.226	45.15	53.83	-8.68	N	AV	PASS
4	0.258	40.9	52.91	-12.01	N	AV	PASS
5	1.106	32.55	46.00	-13.45	N	AV	PASS
6	1.298	31.34	46.00	-14.66	N	AV	PASS
7	1.314	41.93	56.00	-14.07	N	QP	PASS
8	1.378	42.46	56.00	-13.54	N	QP	PASS
9	5.186	29.08	50.00	-20.92	N	AV	PASS
10	5.242	36.91	60.00	-23.09	N	QP	PASS
11	8.482	30.7	60.00	-29.30	N	QP	PASS
12	23.130	29.42	50.00	-20.58	N	AV	PASS

Test Data (The Adapter DSA-12CA-12 120100)

No.	Fre. (MHz)	Measurement Level (dBuV)	Limit (dBuV)	Margin (dB)	Phase	Detector	Verdict
1	0.150	40.81	66.00	-25.19	L	QP	PASS
2	0.318	37.03	51.20	-14.17	L	AV	PASS
3	0.342	46.24	60.51	-14.27	L	QP	PASS
4	0.342	45.51	50.51	-5.00	L	AV	PASS
5	0.930	32.94	46.00	-13.06	L	AV	PASS
6	3.078	33.37	46.00	-12.63	L	AV	PASS
7	4.758	41.05	56.00	-14.95	L	QP	PASS
8	4.902	40.58	56.00	-15.42	L	QP	PASS
9	5.318	40.55	60.00	-19.45	L	QP	PASS
10	6.522	32.14	50.00	-17.86	L	AV	PASS
11	6.546	41.16	60.00	-18.84	L	QP	PASS
12	23.130	31.82	50.00	-18.18	L	AV	PASS
No.	Fre. (MHz)	Measurement Level (dBuV)	Limit (dBuV)	Margin (dB)	Phase	Detector	Verdict
1	0.186	36.09	54.97	-18.88	N	AV	PASS
2	0.194	41.25	64.74	-23.49	N	QP	PASS
3	0.334	46.63	60.74	-14.11	N	QP	PASS
4	0.338	45.81	50.63	-4.82	N	AV	PASS
5	0.914	30.95	46.00	-15.05	N	AV	PASS
6	1.434	31.39	46.00	-14.61	N	AV	PASS
7	4.766	39.5	56.00	-16.50	N	QP	PASS
8	4.842	39.33	56.00	-16.67	N	QP	PASS
9	5.274	38.79	60.00	-21.21	N	QP	PASS
10	5.946	30.66	50.00	-19.34	N	AV	PASS
11	6.090	30.94	50.00	-19.06	N	AV	PASS
12	6.126	39.53	60.00	-20.47	N	QP	PASS

Test Plots (The Adapter DSA-12PFA-09 FUS 120100)

PHASE L

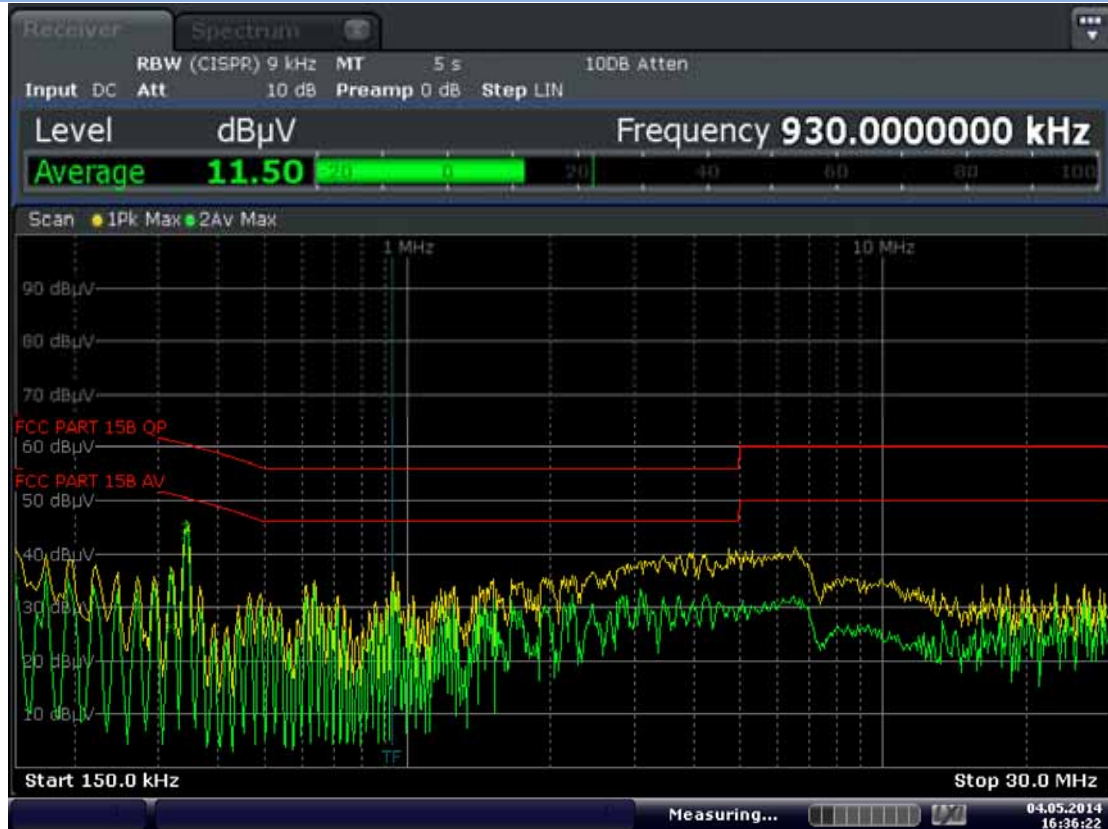


PHASE N



Test Plots (The Adapter DSA-12CA-12 120100)

PHASE L



PHASE N

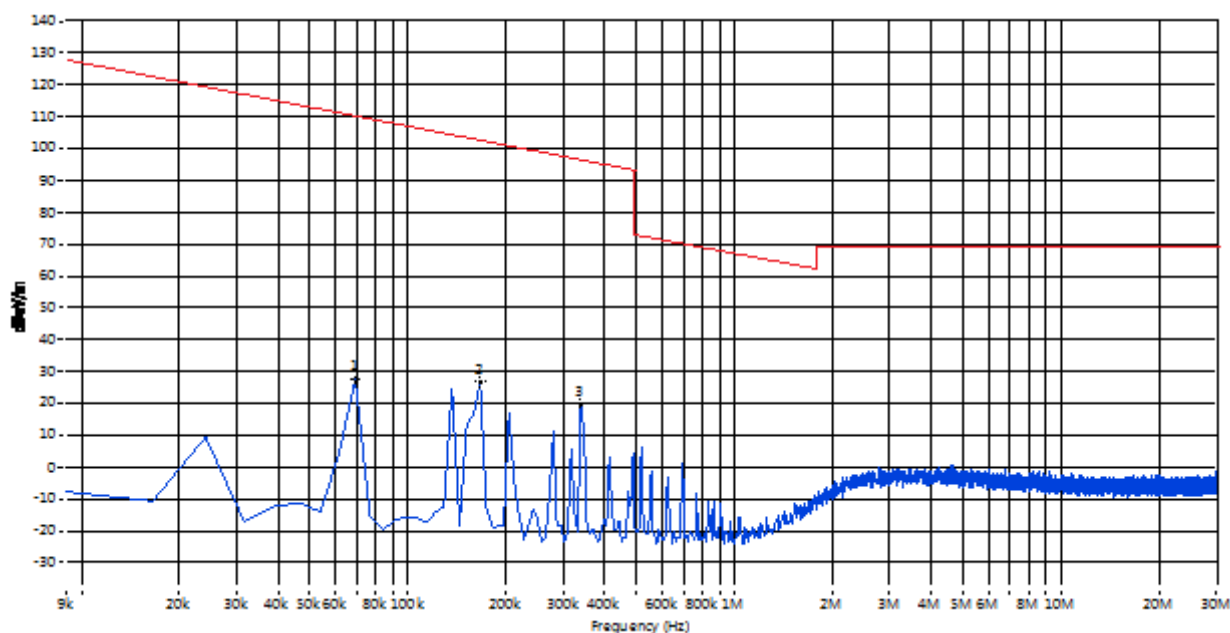


A.5 Radiated Emission

Note: The marked spikes near 2400MHz with circle should be ignored because they are Fundamental signal.

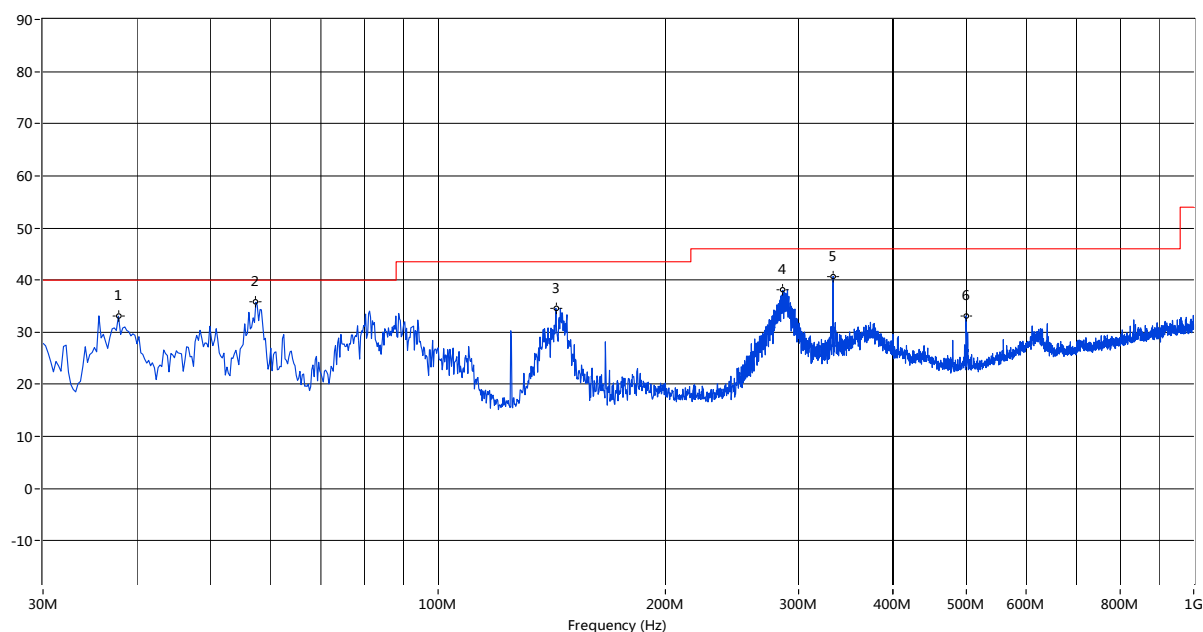
Test Data and Plots (Ant 0)

802.11b LOW CHANNEL Below 30MHz



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	27.50	--	--	--	110.8	--	0.0	Pass
0.166	26.65	--	--	--	103.2	--	0.0	Pass

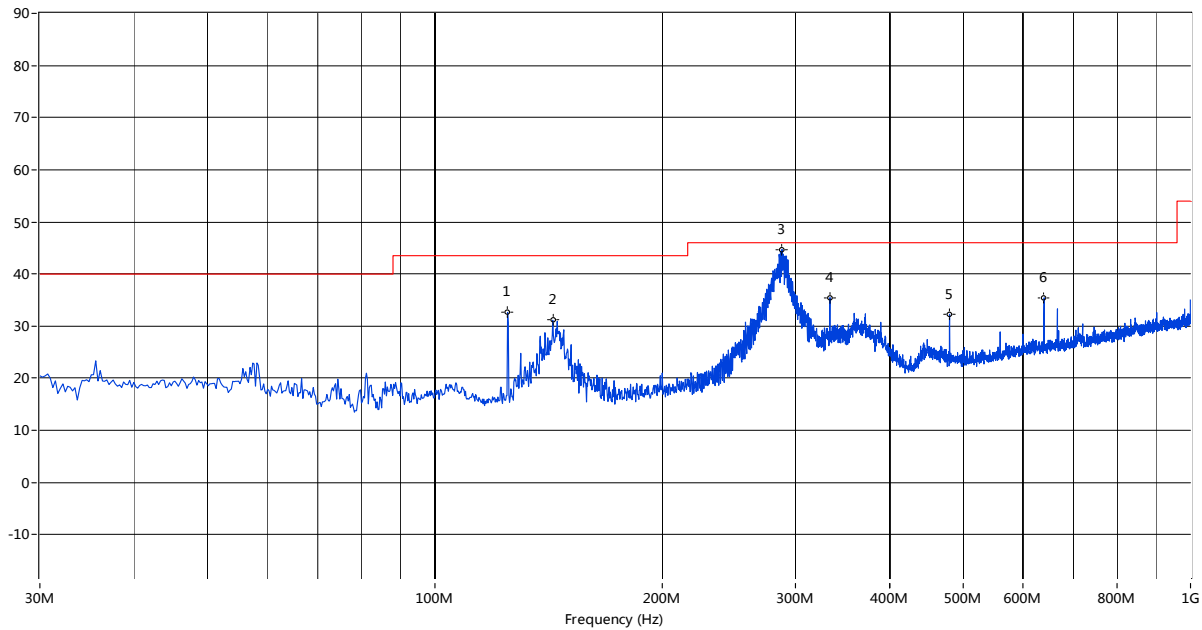
802.11b LOW CHANNEL 30MHz to 1GHz, ANT V



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
37.758	33.06	--	--	--	40.0	--	358.8	Vertical	Pass
57.396	35.76	--	--	--	40.0	--	29.7	Vertical	Pass
143.219	34.59	--	--	--	43.5	--	358.2	Vertical	Pass
286.016	38.05	--	--	--	46.0	--	340.1	Vertical	Pass

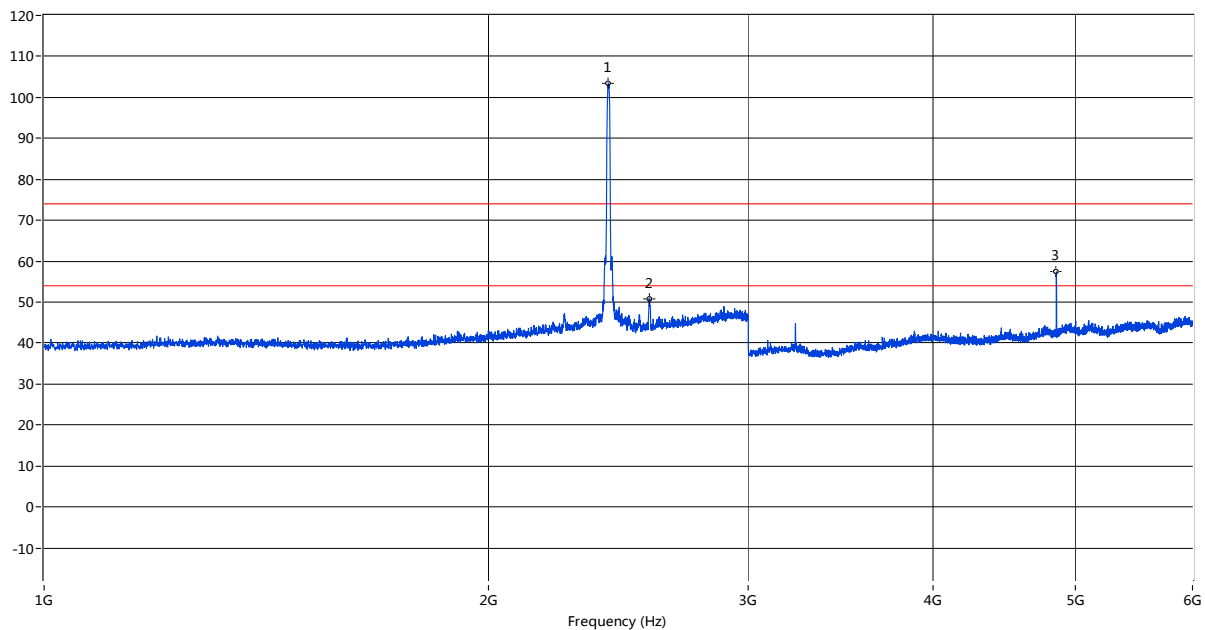
333.292 40.71 -- -- -- 46.0 -- 359.5 Vertical Pass

802.11b LOW CHANNEL 30MHz to 1GHz, ANT H



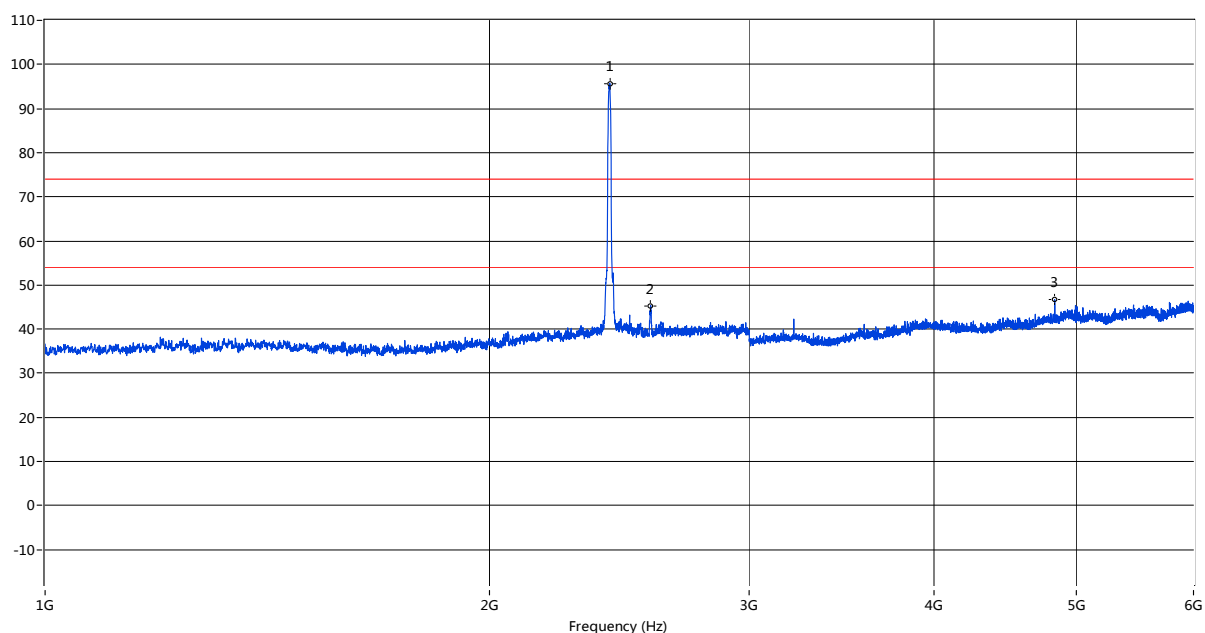
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	32.60	--	--	--	43.5	--	360.0	Horizontal	Pass
143.219	31.16	--	--	--	43.5	--	343.1	Horizontal	Pass
287.956	44.70	42.33	--	--	46.0	--	261.0	Horizontal	Pass
333.292	35.46	--	--	--	46.0	--	101.2	Horizontal	Pass

802.11b LOW CHANNEL 1GHz to 6GHz, ANT V



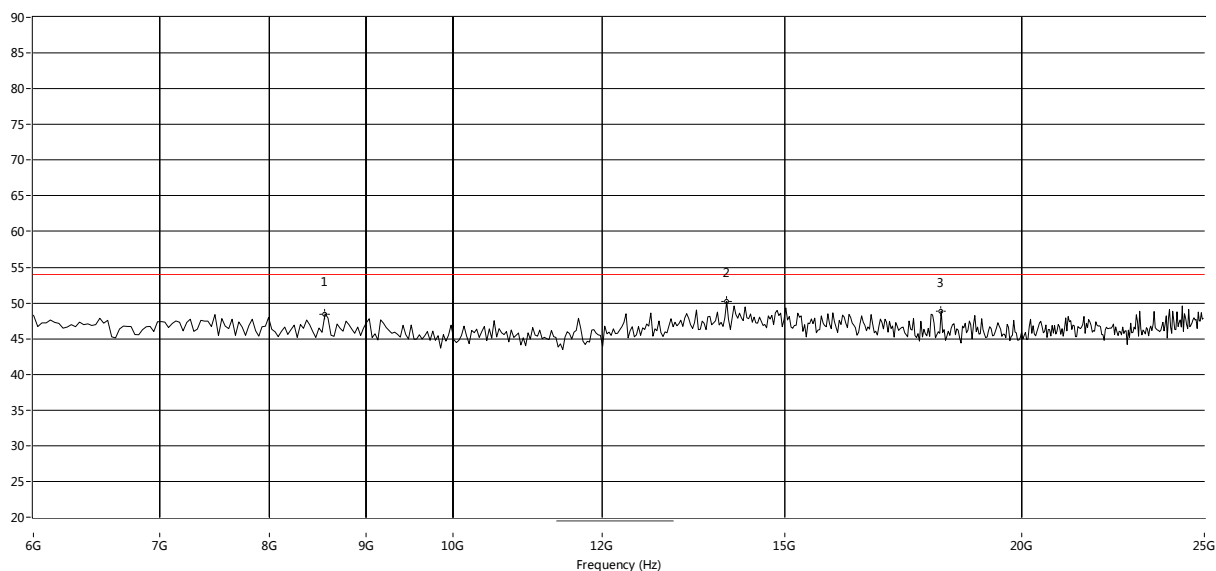
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2411.647	103.49	--	--	74.0	--	54.0	61.4	Vertical	N/A
2570.607	50.89	--	--	74.0	--	54.0	79.9	Vertical	Pass
4824.528	58.45	--	47.25	74.0	--	54.0	344.7	Vertical	Pass

802.11b LOW CHANNEL 1GHz to 6GHz, ANT H



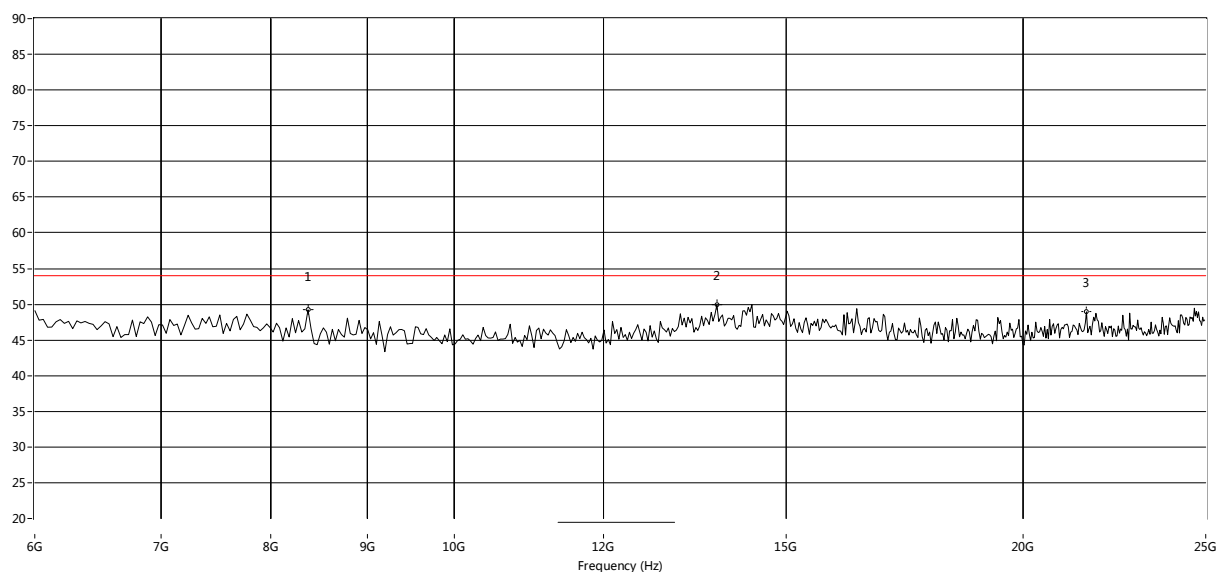
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2413.647	95.72	--	--	74.0	--	54.0	356.0	Horizontal	N/A
2572.107	45.36	--	--	74.0	--	54.0	354.8	Horizontal	Pass
4831.792	46.69	--	--	74.0	--	54.0	196.0	Horizontal	Pass

802.11b LOW CHANNEL 6GHz to 25GHz, ANT V



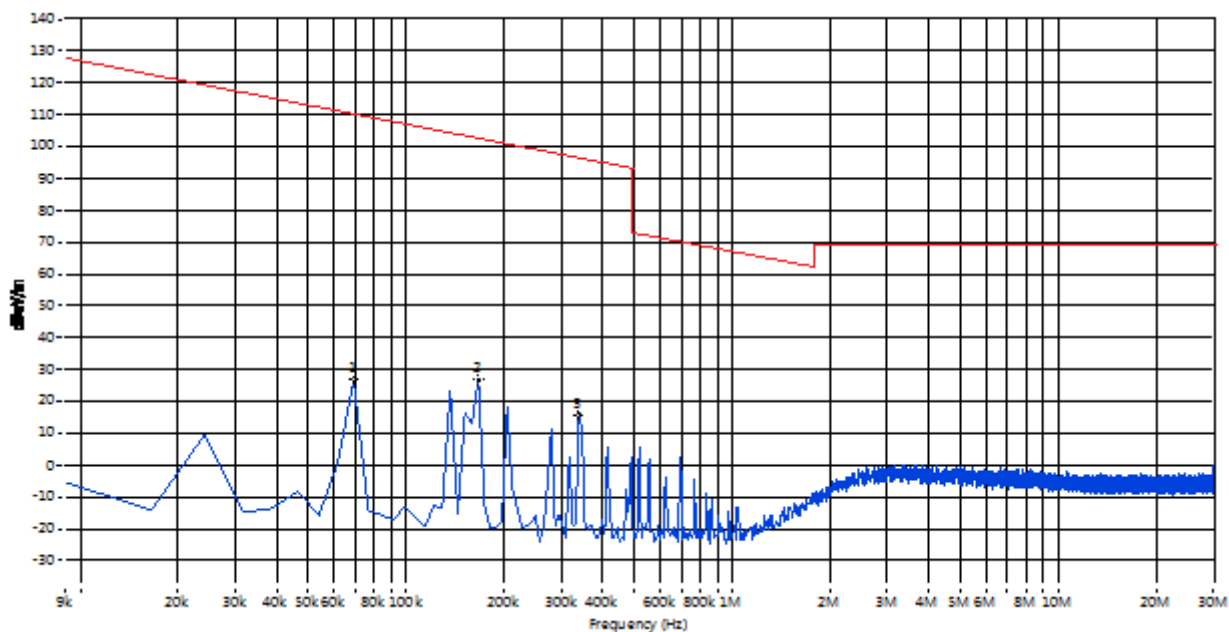
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
8560.732	48.48	54.0	5.5	0.0	Vertical	PASS
13966.722	50.23	54.0	3.8	0.0	Vertical	PASS
18139.767	48.88	54.0	5.1	0.0	Vertical	PASS

802.11b LOW CHANNEL 6GHz to 25GHz, ANT H



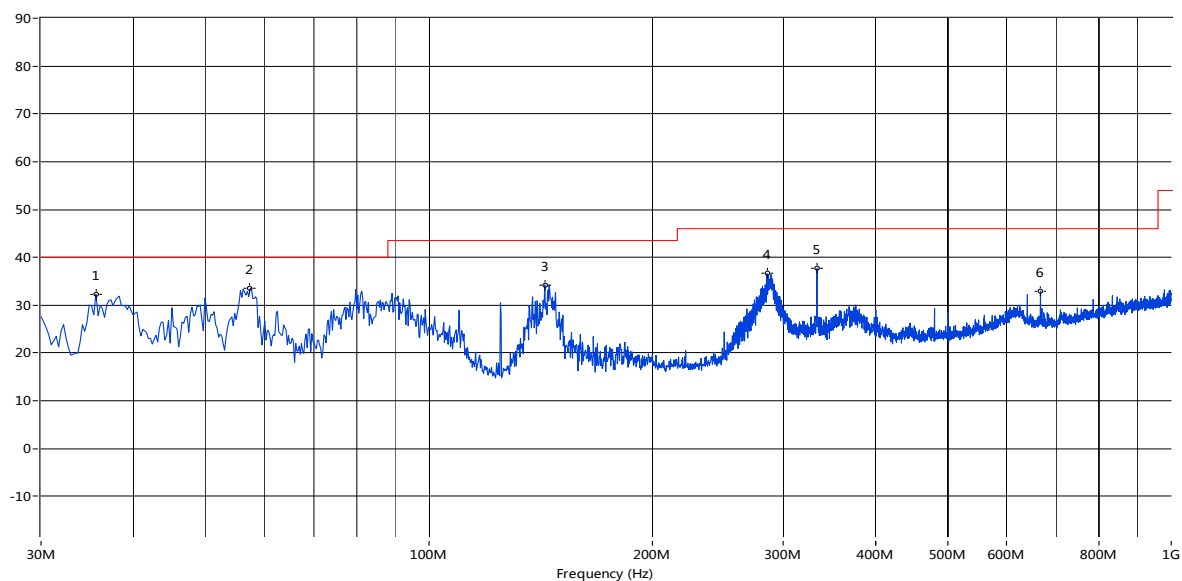
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
8371.048	49.22	54.0	4.8	0.0	Horizontal	PASS
13777.038	49.92	54.0	4.1	0.0	Horizontal	PASS
22139.767	45.87	54.0	8.1	0.0	Horizontal	PASS

802.11b MID CHANNEL Below 30MHz



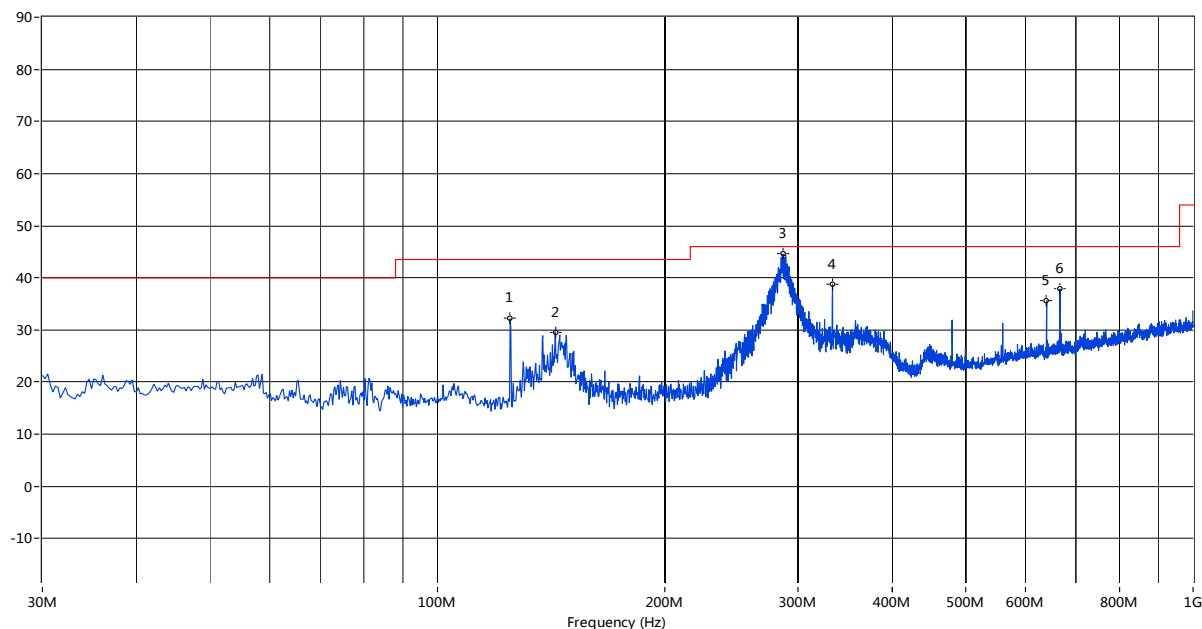
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	26.48	--	--	--	110.8	--	0.0	PASS
0.166	26.80	--	--	--	103.2	--	0.0	PASS
0.339	15.71	--	--	--	97.0	--	0.0	PASS

802.11b MID CHANNEL 30MHz to 1GHz, ANT V



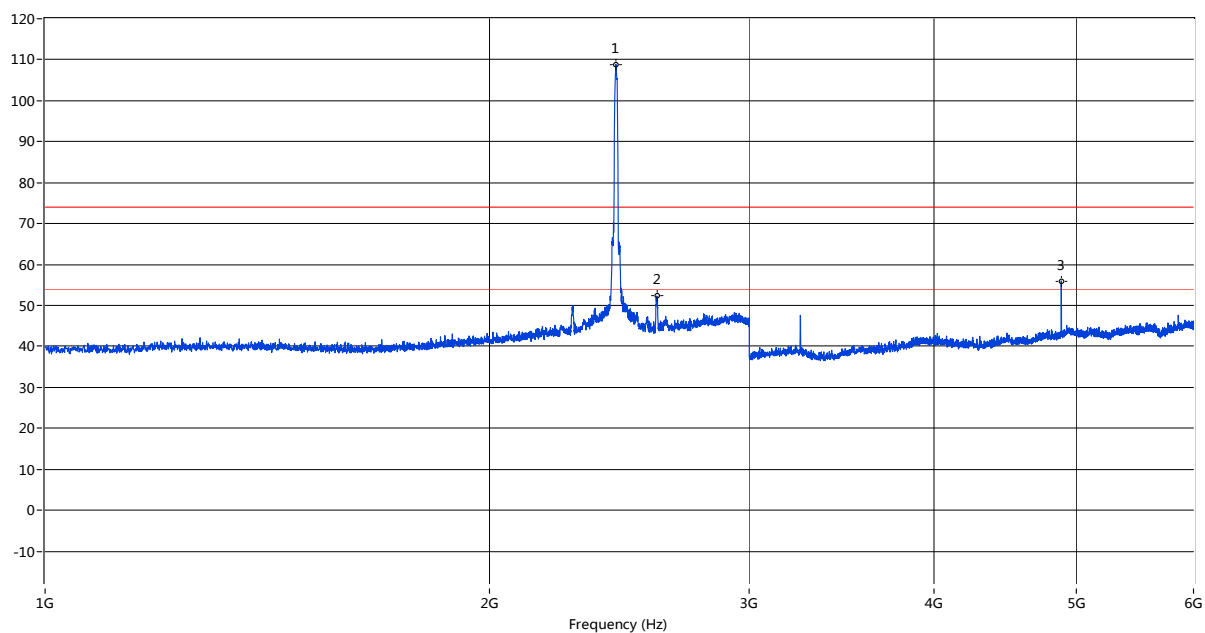
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
35.576	32.26	--	--	--	40.0	--	245.4	Vertical	PASS
57.396	33.46	--	--	--	40.0	--	44.0	Vertical	PASS
143.219	34.22	--	--	--	43.5	--	-0.9	Vertical	PASS
285.289	36.60	--	--	--	46.0	--	336.9	Vertical	PASS
333.292	37.65	--	--	--	46.0	--	0.0	Vertical	PASS

802.11b MID CHANNEL 30MHz to 1GHz, ANT H



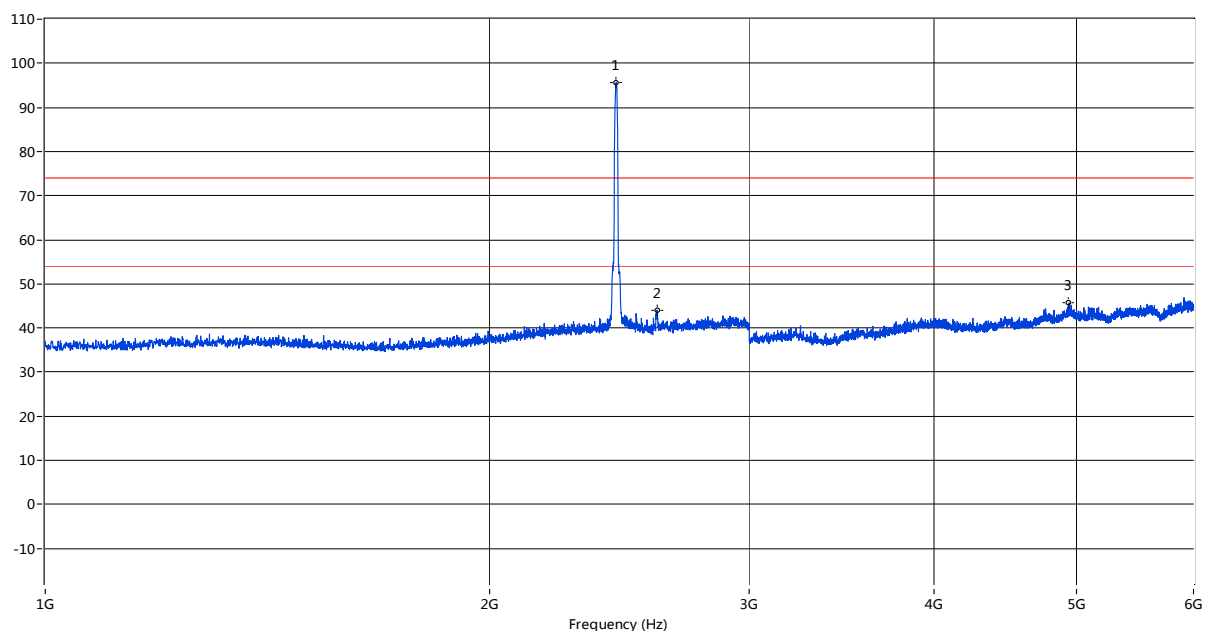
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	32.17	--	--	--	43.5	--	-0.0	Horizontal	PASS
143.219	29.65	--	--	--	43.5	--	-0.6	Horizontal	PASS
286.501	44.60	42.41	--	--	46.0	--	61.5	Horizontal	PASS
333.292	38.78	--	--	--	46.0	--	277.7	Horizontal	PASS
639.978	35.58	--	--	--	46.0	--	-0.0	Horizontal	PASS

802.11b MID CHANNEL 1GHz to 6GHz, ANT V



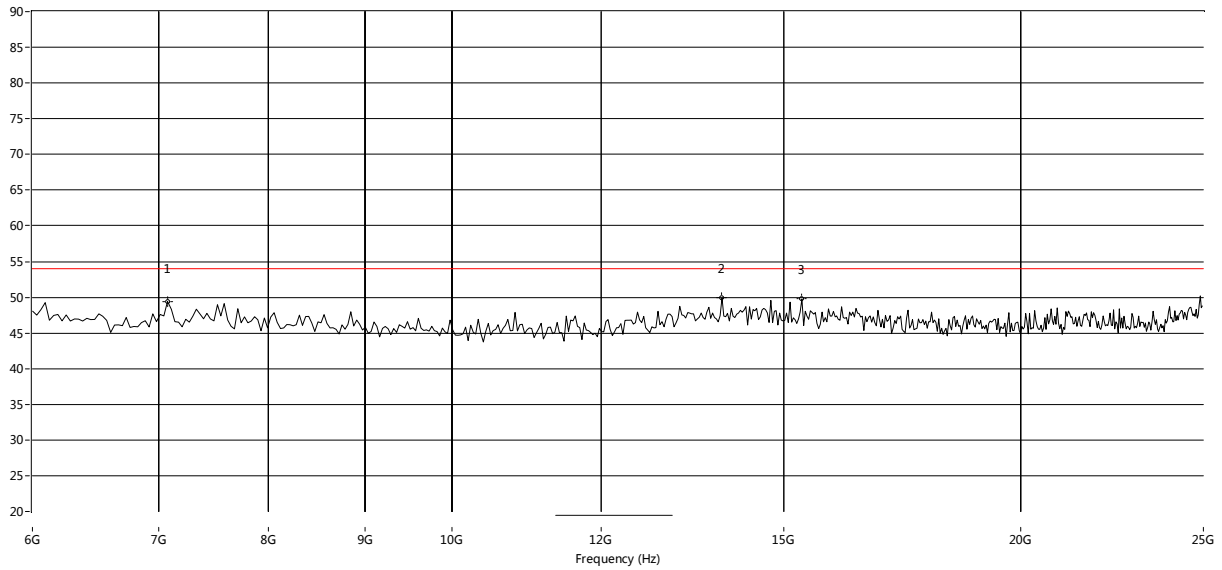
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2436.641	108.85	--	--	74.0	--	54.0	133.5	Vertical	N/A
2597.101	52.33	--	--	74.0	--	54.0	268.7	Vertical	PASS
4880.029	55.98	--	46.76	74.0	--	54.0	-0.0	Vertical	PASS

802.11b MID CHANNEL 1GHz to 6GHz, ANT H



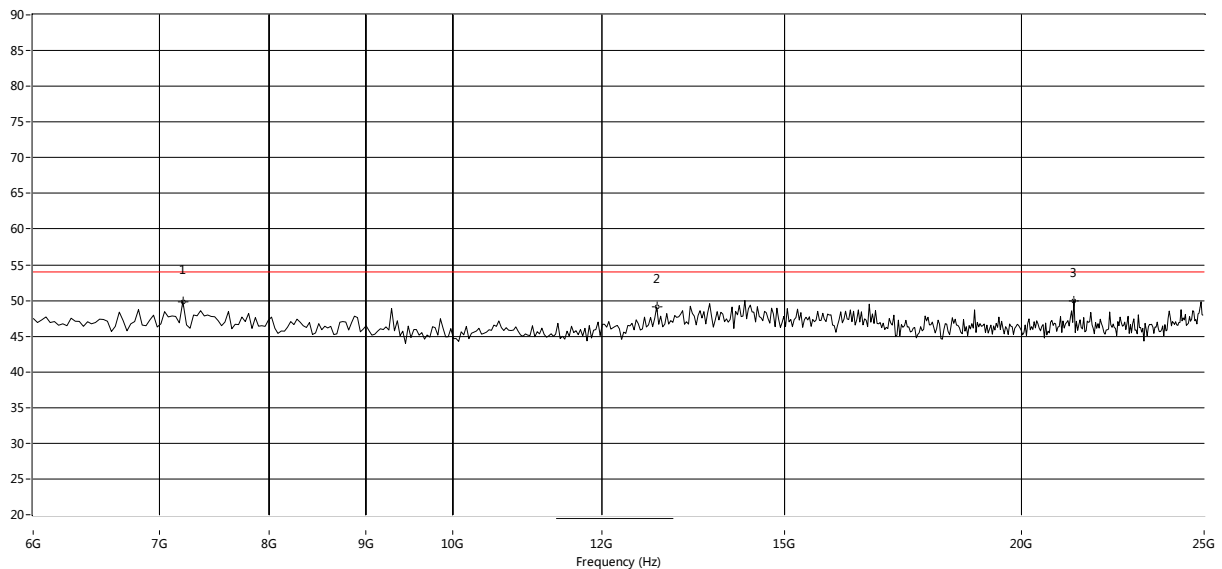
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2437.141	95.60	--	--	74.0	--	54.0	359.4	Horizontal	N/A
2597.101	44.04	--	--	74.0	--	54.0	355.5	Horizontal	PASS
4939.765	45.73	--	--	74.0	--	54.0	192.7	Horizontal	PASS

802.11b MID CHANNEL 6GHz to 25GHz, ANT V



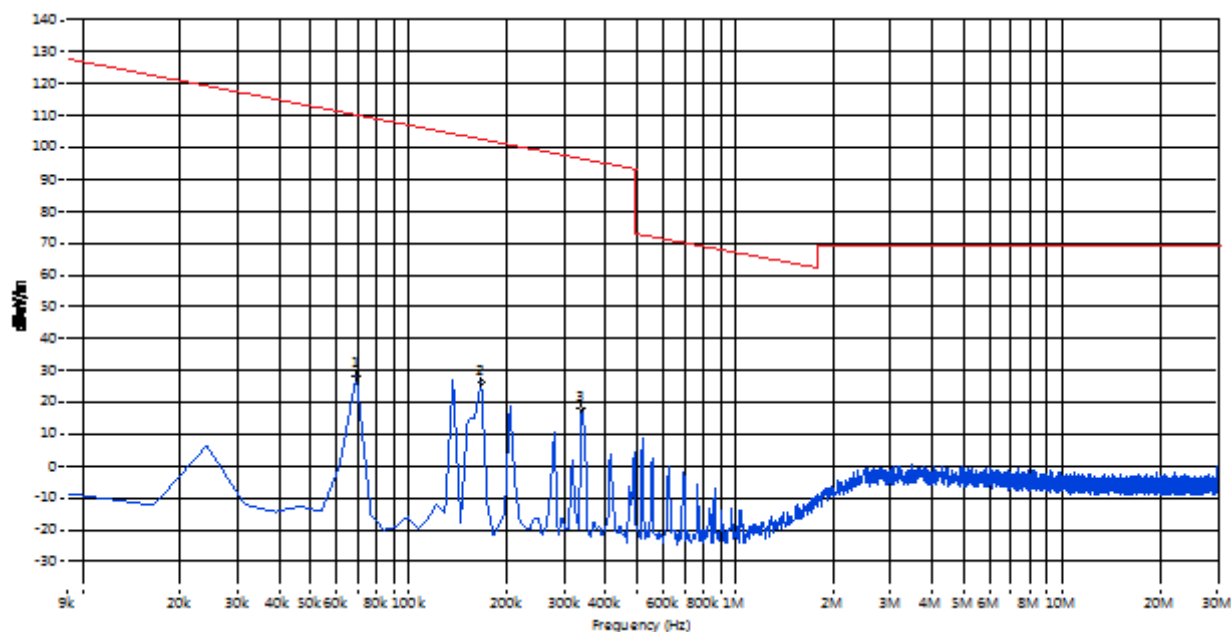
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7074.875	49.41	54.0	4.6	0.0	Vertical	PASS
13903.494	49.91	54.0	4.1	0.0	Vertical	PASS
15532.779	47.25	54.0	7.7	0.0	Vertical	PASS

802.11b MID CHANNEL 6GHz to 25GHz, ANT H



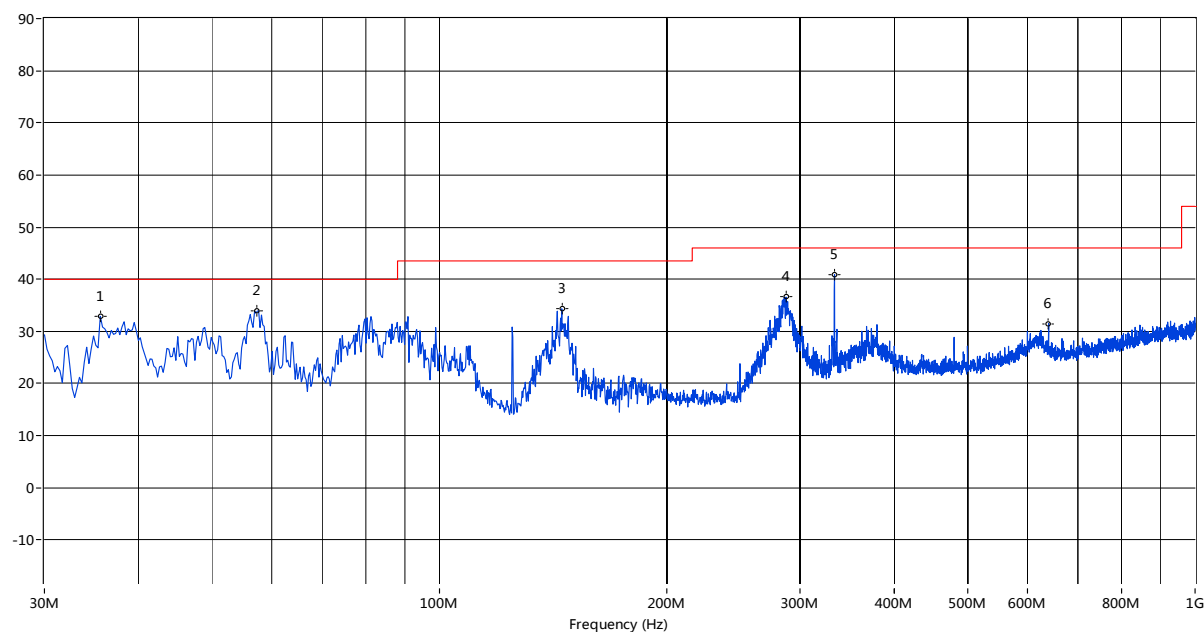
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7201.331	49.87	54.0	4.1	0.0	Horizontal	PASS
12828.619	49.10	54.0	4.9	0.0	Horizontal	PASS
21617.304	45.60	54.0	8.4	0.0	Horizontal	PASS

802.11b HIGH CHANNEL Below 30MHz



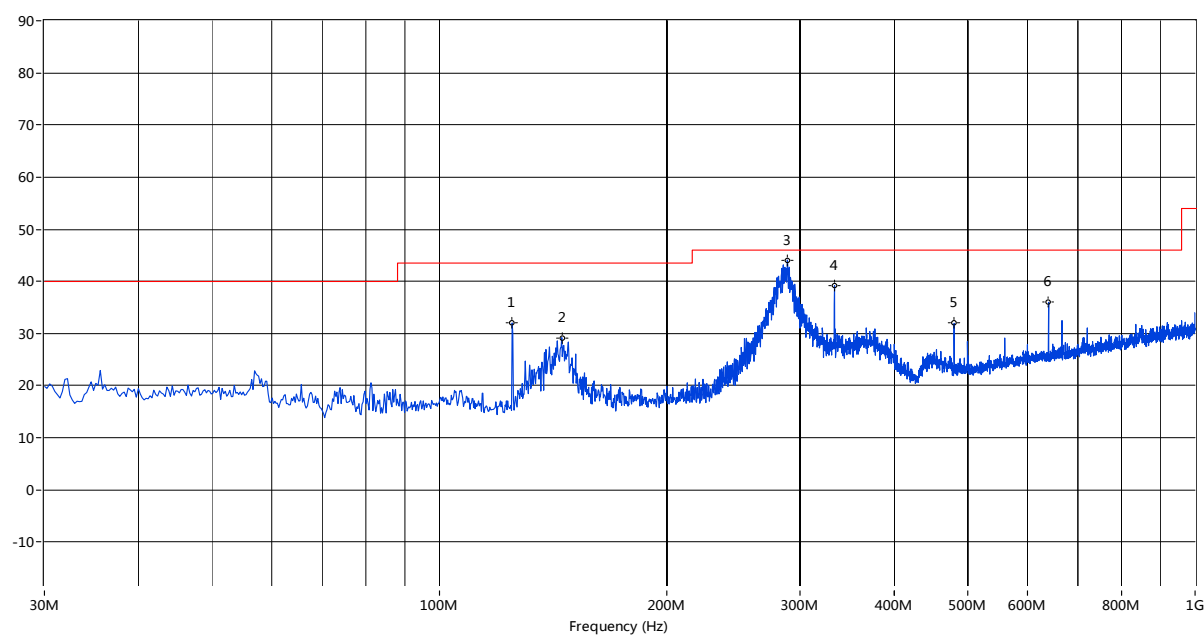
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	28.18	--	--	--	110.8	--	0.0	PASS
0.166	26.44	--	--	--	103.2	--	0.0	PASS
0.339	17.88	--	--	--	97.0	--	0.0	PASS

802.11b HIGH CHANNEL 30MHz to 1GHz, ANT V



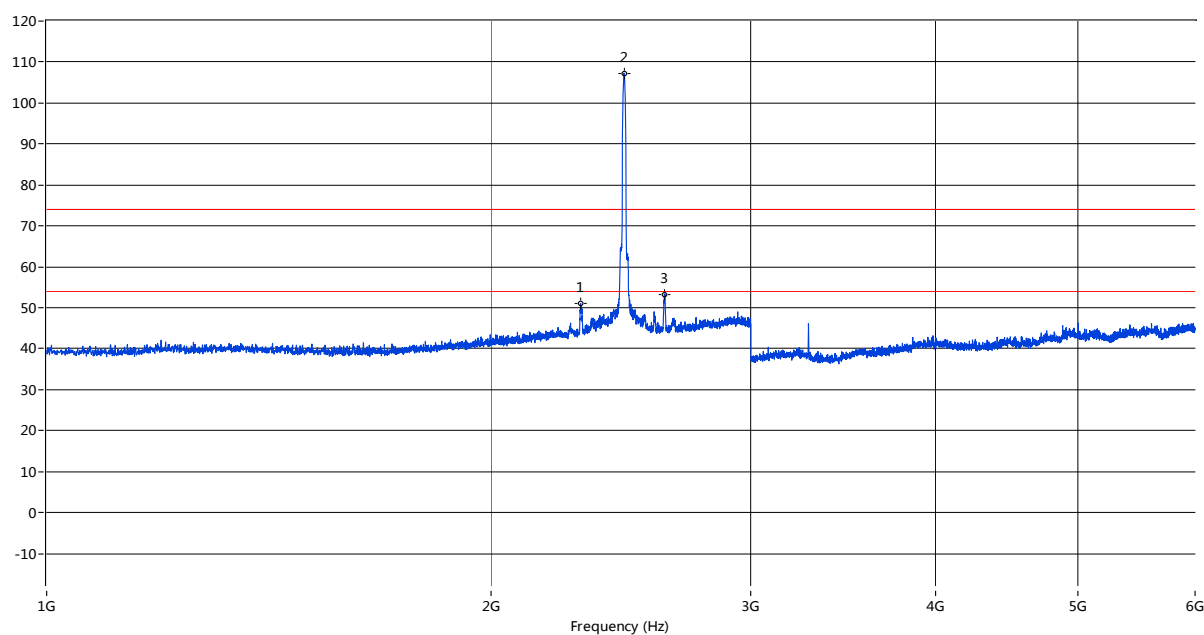
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
35.576	32.90	--	--	--	40.0	--	244.2	Vertical	PASS
57.396	33.88	--	--	--	40.0	--	360.9	Vertical	PASS
145.159	34.32	--	--	--	43.5	--	341.6	Vertical	PASS
287.471	36.58	--	--	--	46.0	--	348.1	Vertical	PASS
333.292	40.92	--	--	--	46.0	--	358.9	Vertical	PASS
639.978	31.52	--	--	--	46.0	--	144.6	Vertical	PASS

802.11b HIGH CHANNEL 30MHz to 1GHz, ANT H



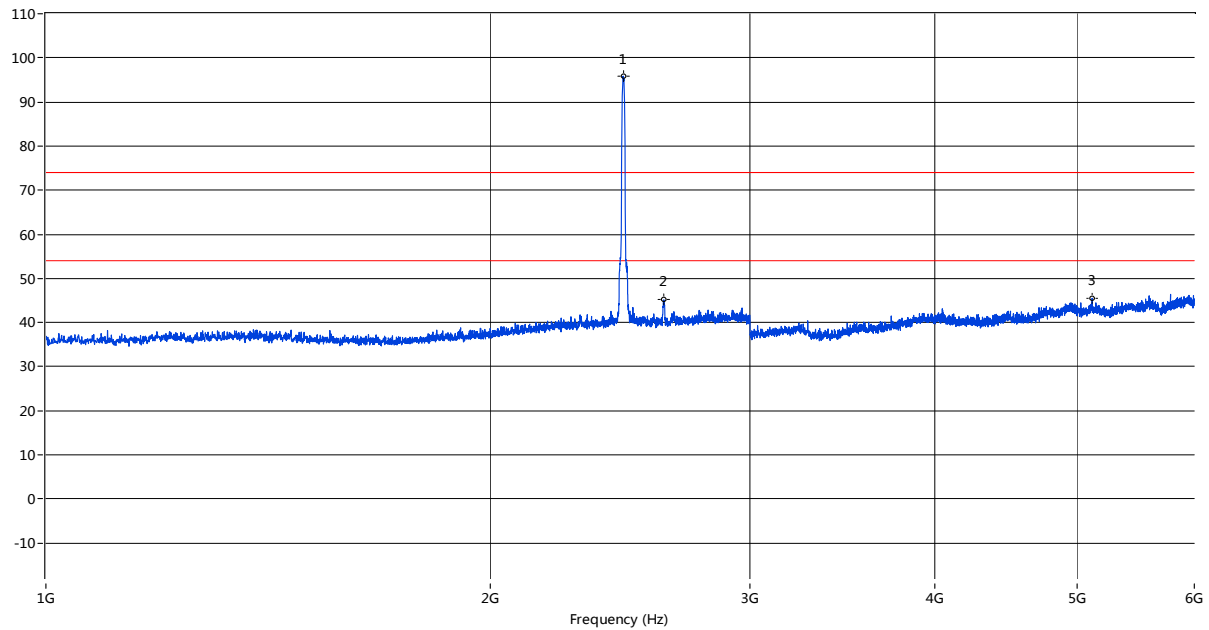
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	32.02	--	--	--	43.5	--	-0.0	Horizontal	PASS
145.159	29.20	--	--	--	43.5	--	0.2	Horizontal	PASS
288.683	44.10	42.23	--	--	46.0	--	63.3	Horizontal	PASS
333.292	39.23	--	--	--	46.0	--	115.6	Horizontal	PASS
479.968	31.96	--	--	--	46.0	--	-0.0	Horizontal	PASS
639.978	35.99	--	--	--	46.0	--	-0.0	Horizontal	PASS

802.11b HIGH CHANNEL 1GHz to 6GHz, ANT V



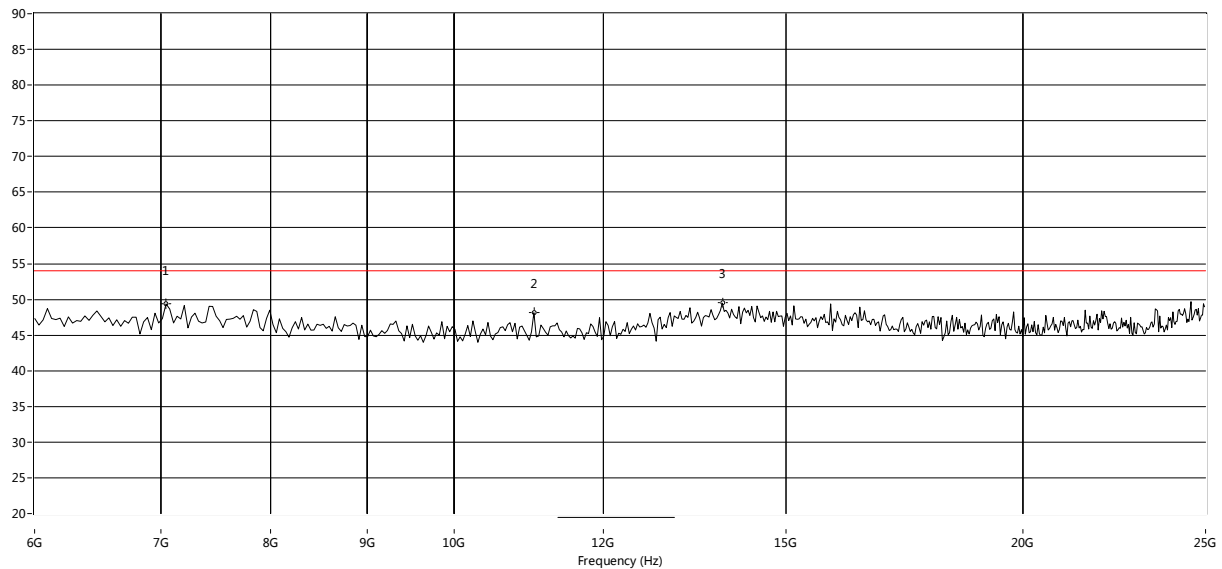
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2300.675	51.07	--	--	74.0	--	54.0	339.8	Vertical	PASS
2461.635	107.30	--	--	74.0	--	54.0	136.0	Vertical	N/A
2470.632	53.28	--	--	74.0	--	54.0	128.6	Vertical	PASS

802.11b HIGH CHANNEL 1GHz to 6GHz, ANT H



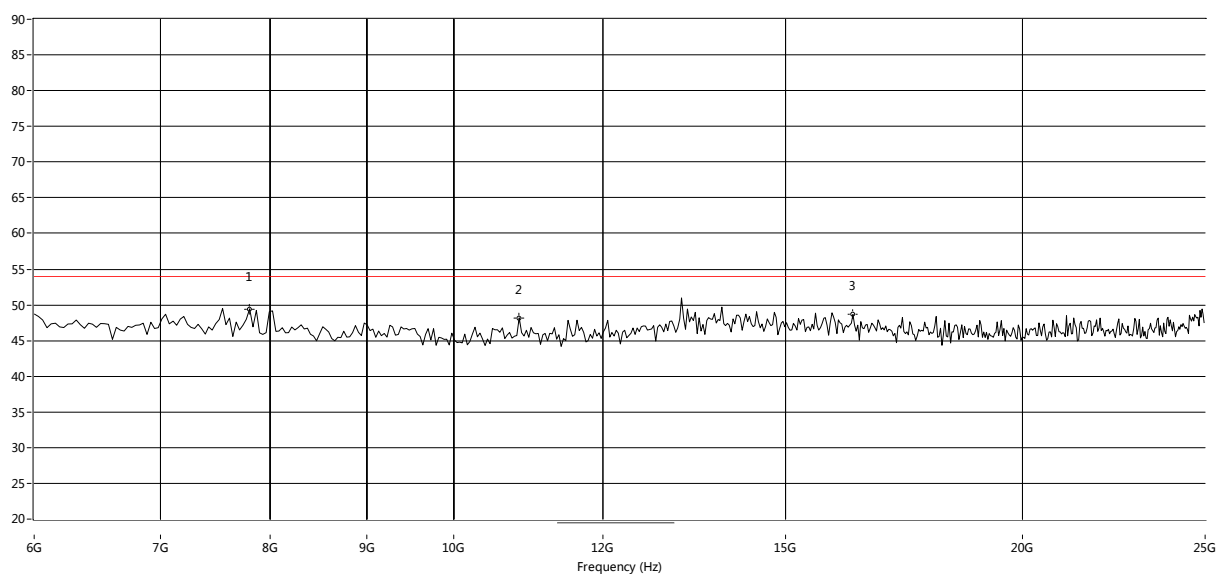
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2460.635	95.76	--	--	74.0	--	54.0	360.4	Horizontal	N/A
2622.594	45.15	--	--	74.0	--	54.0	317.0	Horizontal	PASS
5049.738	43.15	--	--	74.0	--	54.0	91.6	Horizontal	PASS

802.11b HIGH CHANNEL 6GHz to 25GHz, ANT V



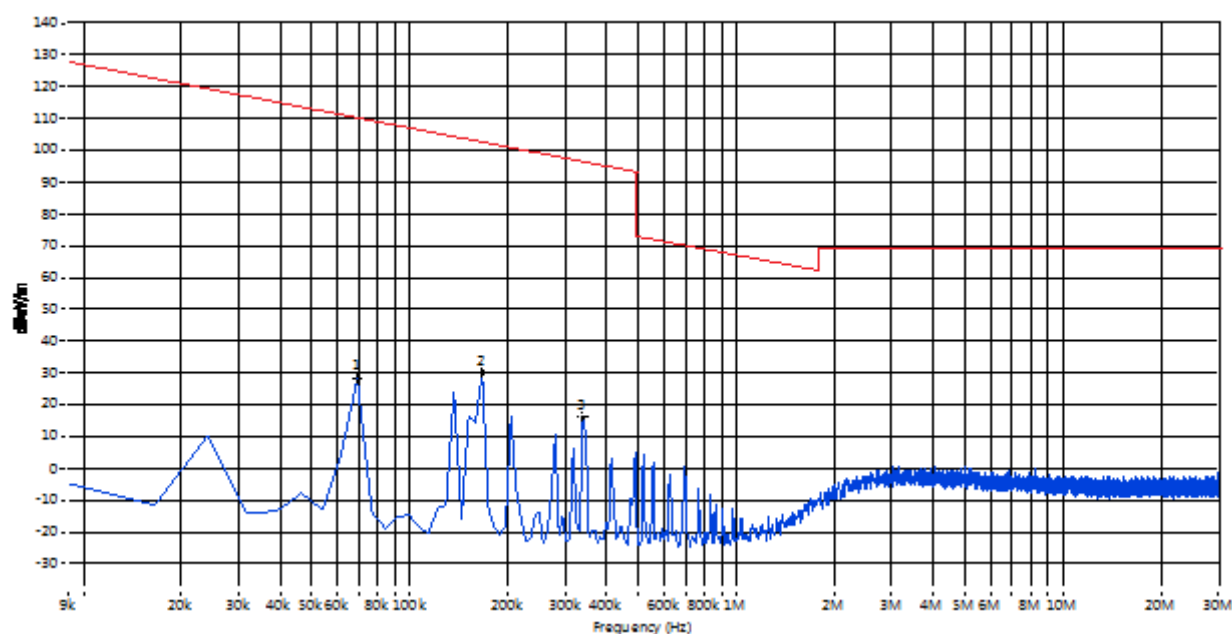
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7043.261	49.34	54.0	4.7	0.0	Vertical	PASS
11026.622	48.13	54.0	5.9	0.0	Vertical	PASS
14156.406	48.97	54.0	5.0	0.0	Vertical	PASS

802.11b HIGH CHANNEL 6GHz to 25GHz, ANT H



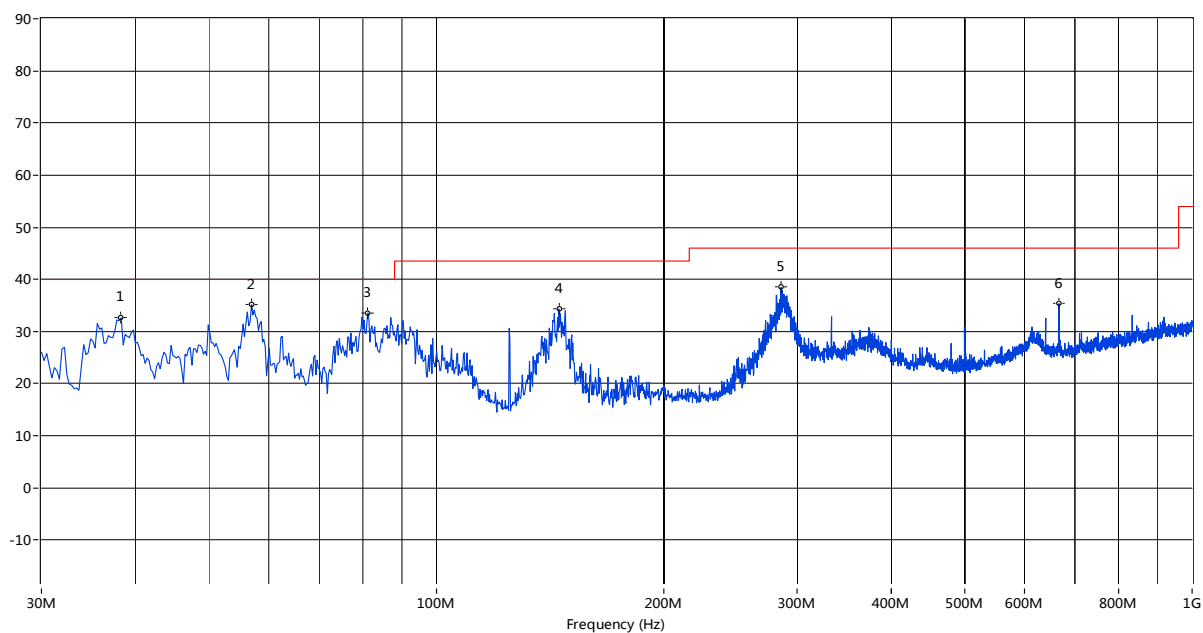
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7801.997	49.45	54.0	4.5	0.0	Horizontal	PASS
10995.008	46.83	54.0	7.2	0.0	Horizontal	PASS
15871.880	49.70	54.0	4.3	0.0	Horizontal	PASS

802.11g LOW CHANNEL Below 30MHz



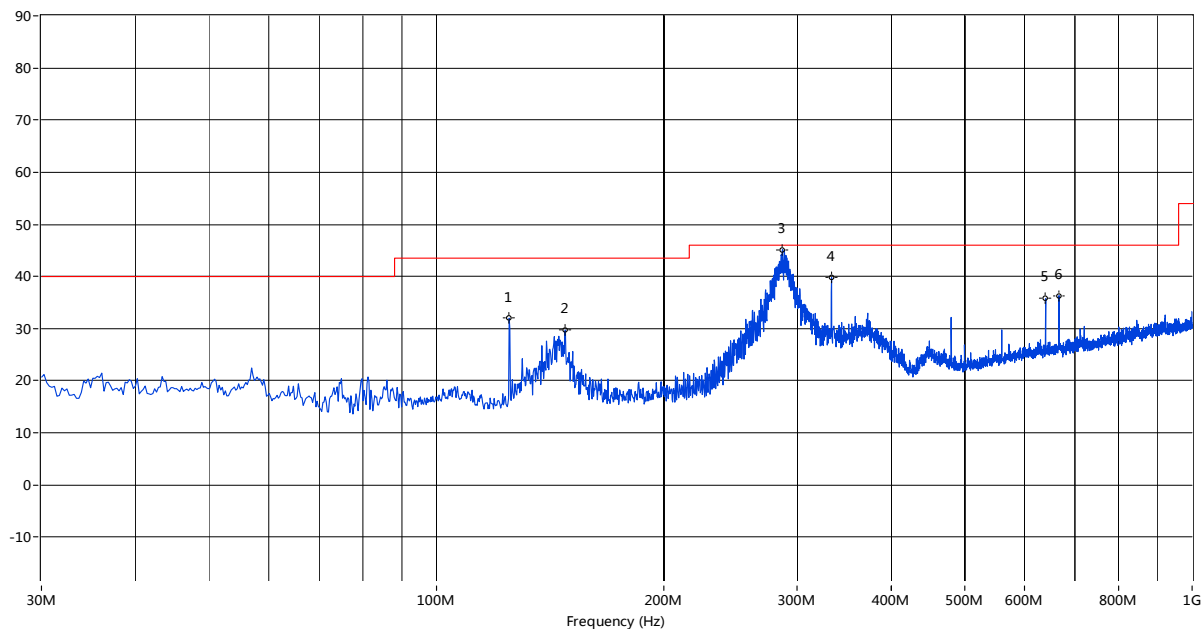
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	28.18	--	--	--	110.8	--	0.0	PASS
0.166	29.91	--	--	--	103.2	--	0.0	PASS
0.339	16.03	--	--	--	97.0	--	0.0	PASS

802.11g LOW CHANNEL 30MHz to 1GHz, ANT V



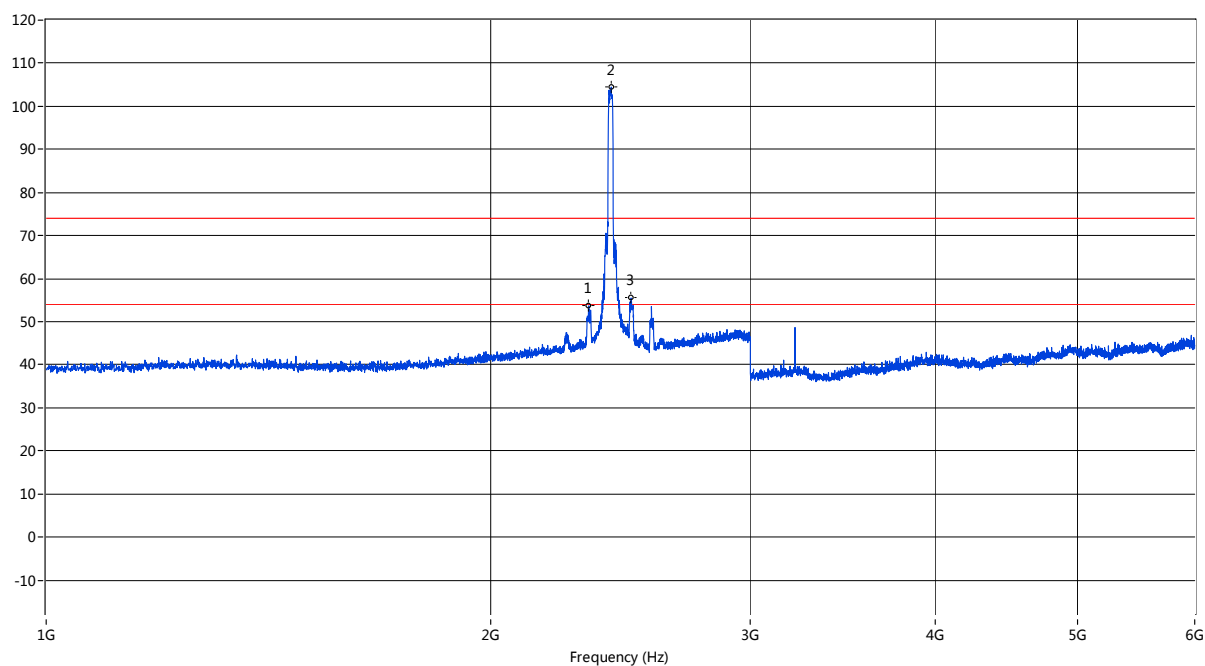
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
38.243	32.62	--	--	--	40.0	--	173.3	Vertical	PASS
56.911	35.12	--	--	--	40.0	--	361.0	Vertical	PASS
81.155	33.57	--	--	--	40.0	--	361.0	Vertical	PASS
145.159	34.32	--	--	--	43.5	--	361.0	Vertical	PASS
285.774	38.48	--	--	--	46.0	--	338.4	Vertical	PASS

802.11g LOW CHANNEL 30MHz to 1GHz, ANT H



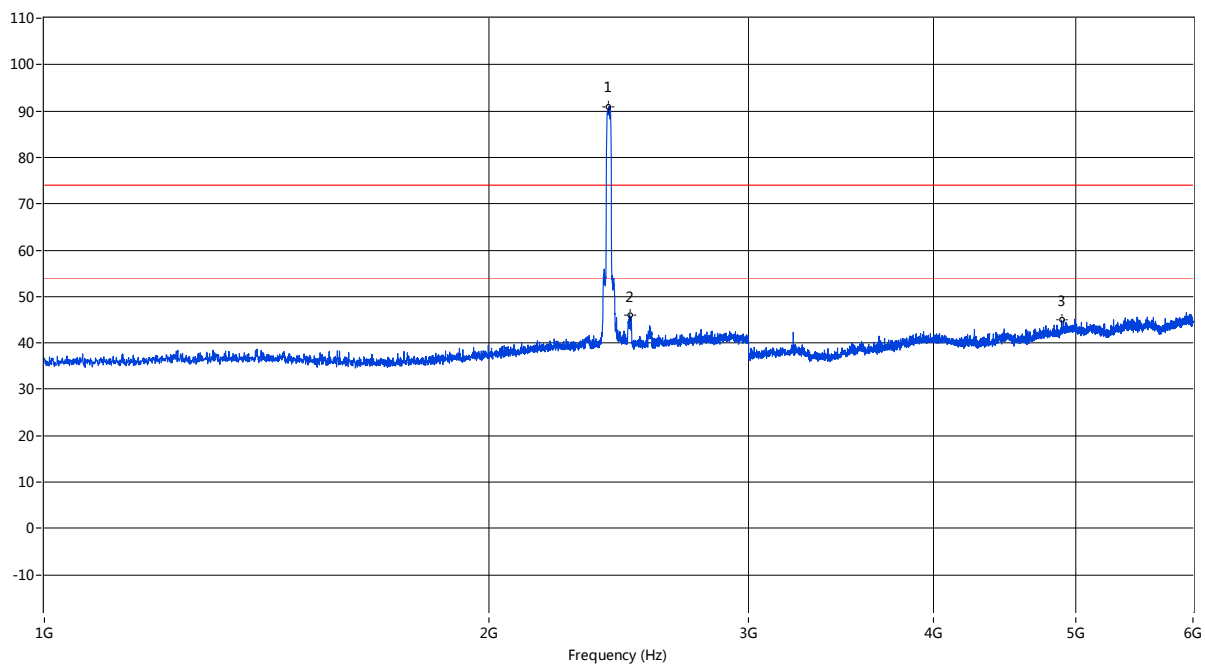
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	31.99	--	--	--	43.5	--	-1.0	Horizontal	PASS
148.068	29.73	--	--	--	43.5	--	-1.0	Horizontal	PASS
286.986	46.42	42.76	35.71	--	46.0	--	79.6	Horizontal	PASS
333.292	39.78	--	--	--	46.0	--	267.3	Horizontal	PASS
639.978	35.74	--	--	--	46.0	--	6.2	Horizontal	PASS

802.11g LOW CHANNEL 1GHz to 6GHz, ANT V



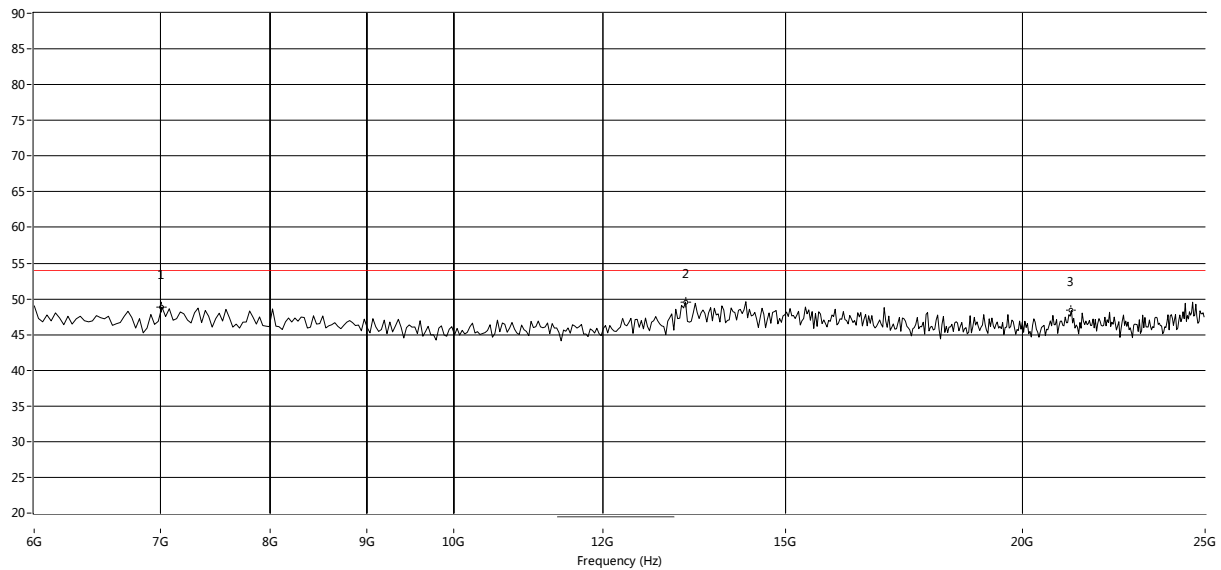
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2331.167	53.70	--	--	74.0	--	54.0	148.8	Vertical	PASS
2414.146	104.44	--	--	74.0	--	54.0	151.0	Vertical	N/A
2490.627	55.49	--	45.92	74.0	--	54.0	236.1	Vertical	PASS

802.11g LOW CHANNEL 1GHz to 6GHz, ANT H



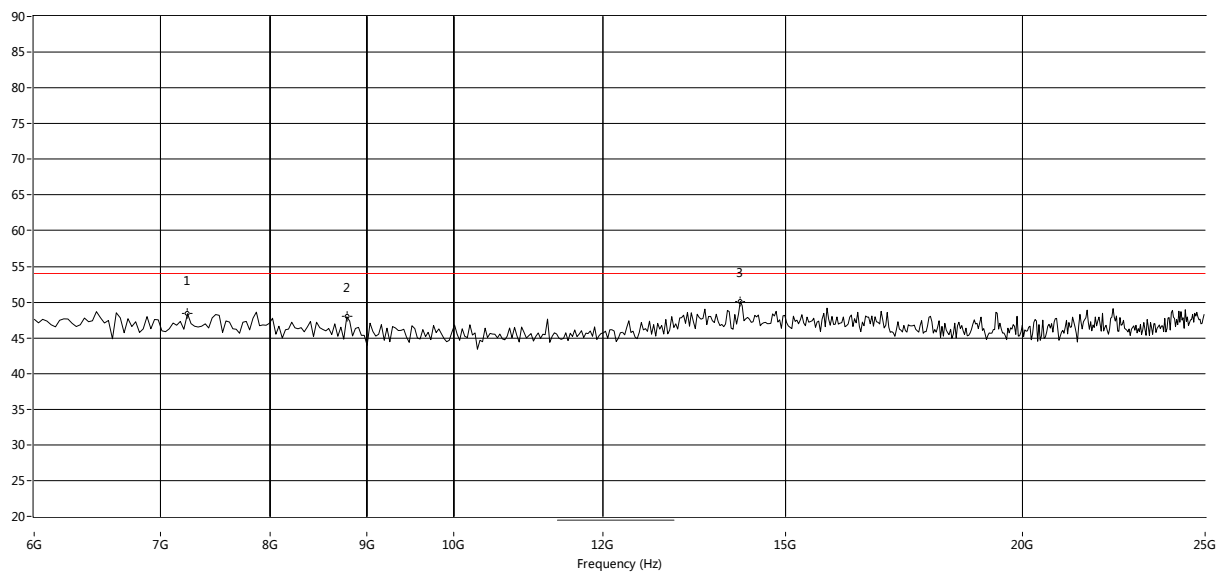
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2410.647	90.89	--	--	74.0	--	54.0	360.0	Horizontal	N/A
2491.627	46.11	--	--	74.0	--	54.0	355.5	Horizontal	PASS
4888.028	44.93	--	--	74.0	--	54.0	171.3	Horizontal	PASS

802.11g LOW CHANNEL 6GHz to 25GHz, ANT V



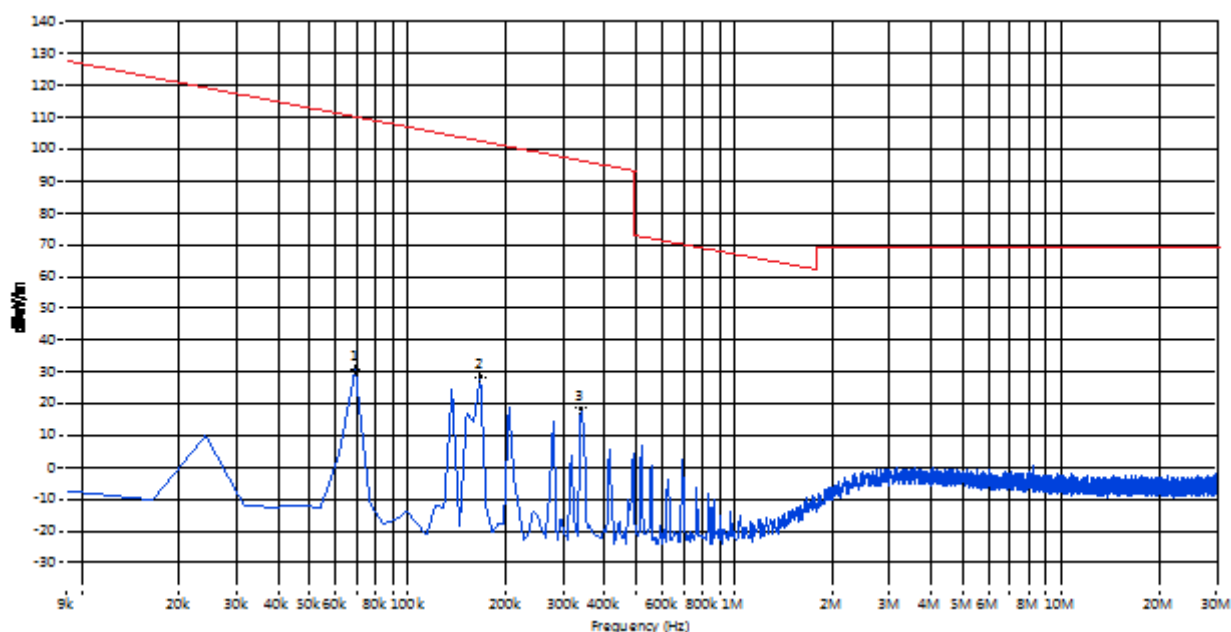
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7011.647	48.87	54.0	5.1	0.0	Vertical	PASS
13205.324	45.22	54.0	8.8	0.0	Vertical	PASS
21826.123	47.23	54.0	6.8	0.0	Vertical	PASS

802.11g LOW CHANNEL 6GHz to 25GHz, ANT H



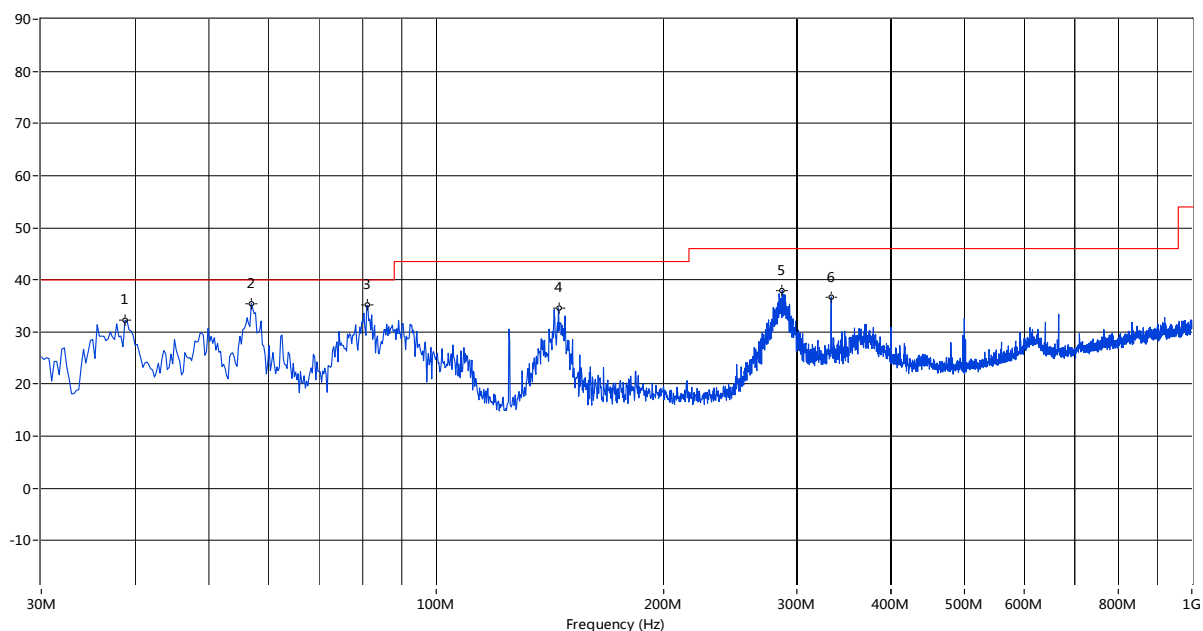
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7232.945	48.37	54.0	5.6	0.0	Horizontal	PASS
8782.030	47.94	54.0	6.1	0.0	Horizontal	PASS
14037.937	46.53	54.0	7.5	0.0	Horizontal	PASS

802.11g MID CHANNEL Below 30MHz



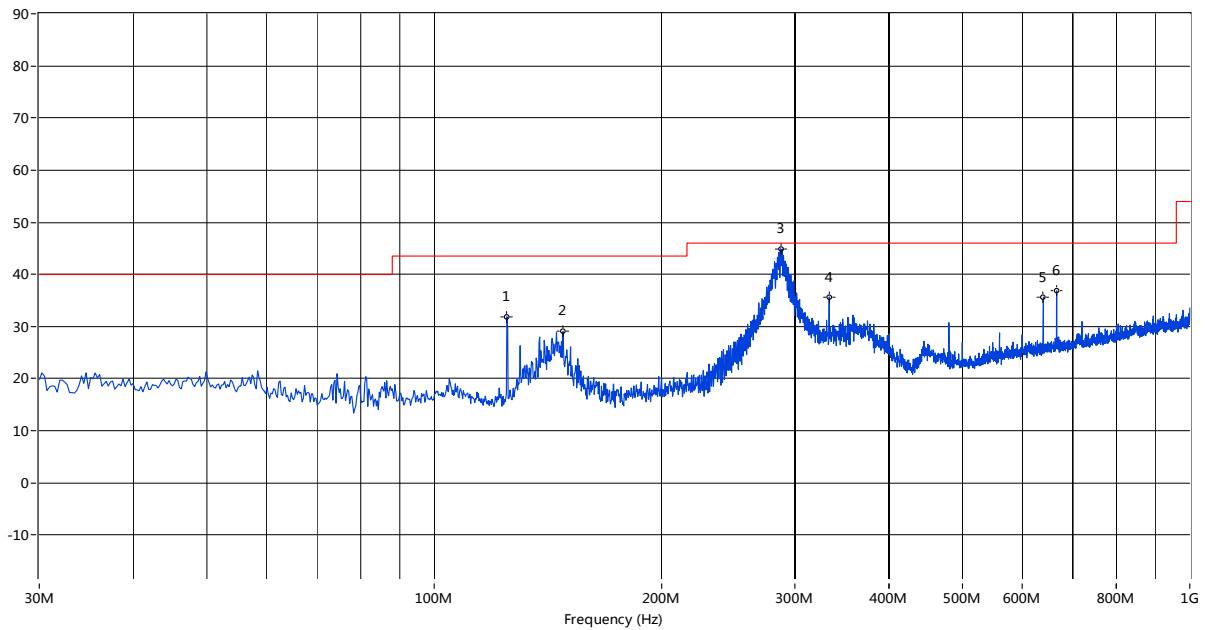
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	30.70	--	--	--	110.8	--	0.0	PASS
0.166	28.40	--	--	--	103.2	--	0.0	PASS
0.339	18.54	--	--	--	97.0	--	0.0	PASS

802.11g MID CHANNEL 30MHz to 1GHz, ANT V



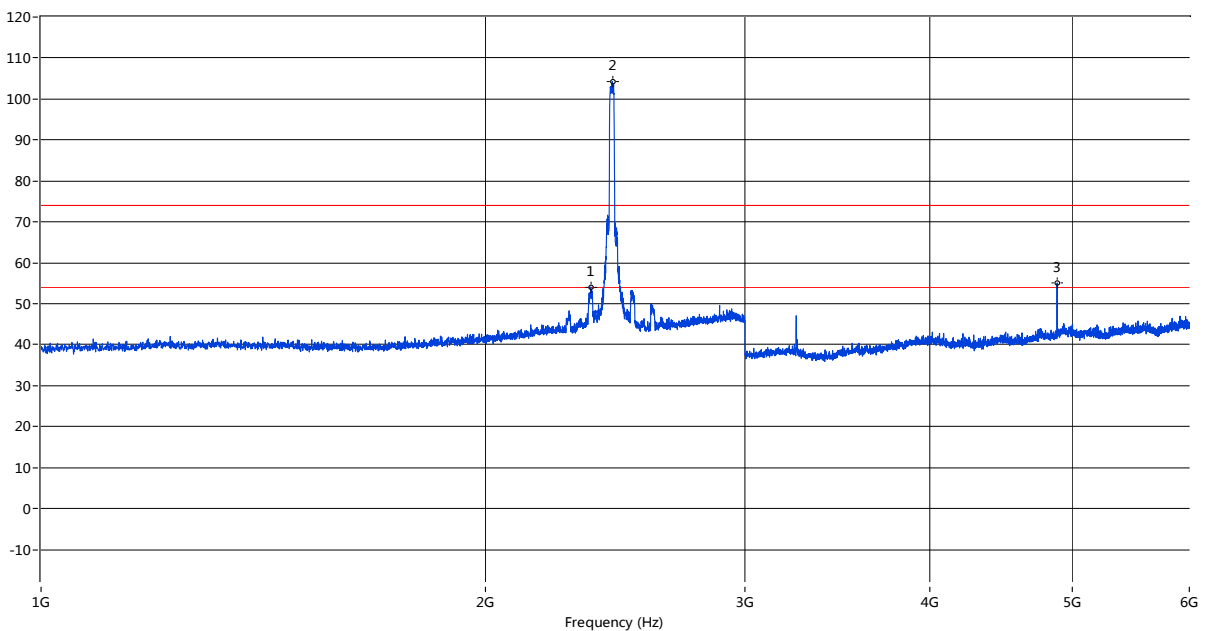
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
38.728	32.28	--	--	--	40.0	--	56.5	Vertical	PASS
56.911	35.49	--	--	--	40.0	--	39.3	Vertical	PASS
81.155	35.11	--	--	--	40.0	--	360.0	Vertical	PASS
145.159	34.62	--	--	--	43.5	--	358.8	Vertical	PASS
286.986	38.03	--	--	--	46.0	--	360.0	Vertical	PASS
333.292	36.71	--	--	--	46.0	--	360.0	Vertical	PASS

802.11g MID CHANNEL 30MHz to 1GHz, ANT H



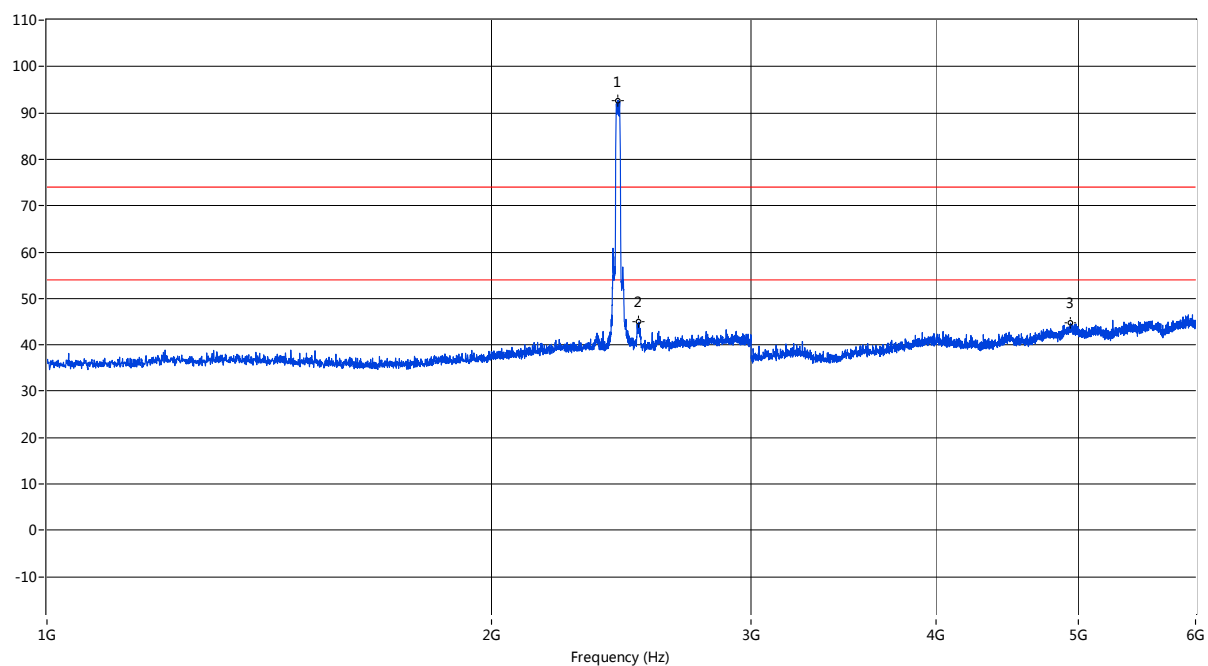
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	31.87	--	--	--	43.5	--	360.0	Horizontal	PASS
148.068	29.07	--	--	--	43.5	--	0.7	Horizontal	PASS
287.228	44.94	42.36	--	--	46.0	--	72.4	Horizontal	PASS
333.292	35.67	--	--	--	46.0	--	109.6	Horizontal	PASS
639.978	35.65	--	--	--	46.0	--	360.0	Horizontal	PASS
666.646	36.87	--	--	--	46.0	--	360.0	Horizontal	PASS

802.11g MID CHANNEL 1GHz to 6GHz, ANT V



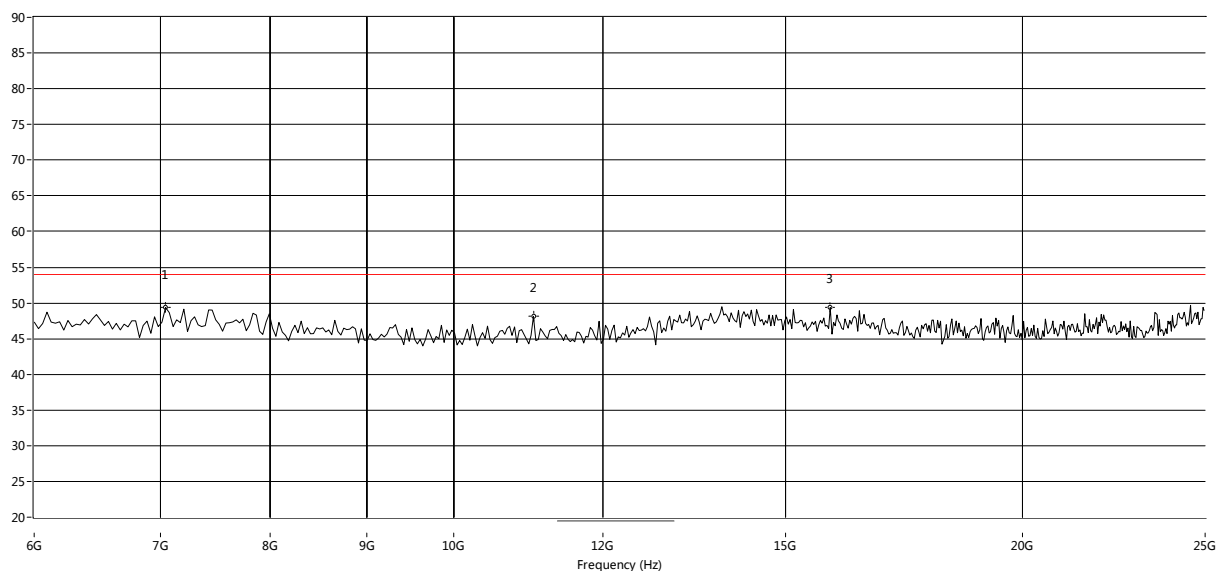
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2357.661	54.12	--	45.24	74.0	--	54.0	339.5	Vertical	PASS
2438.640	104.22	--	--	74.0	--	54.0	139.1	Vertical	N/A
4882.029	55.07	--	45.88	74.0	--	54.0	29.3	Vertical	PASS

802.11g MID CHANNEL 1GHz to 6GHz, ANT H



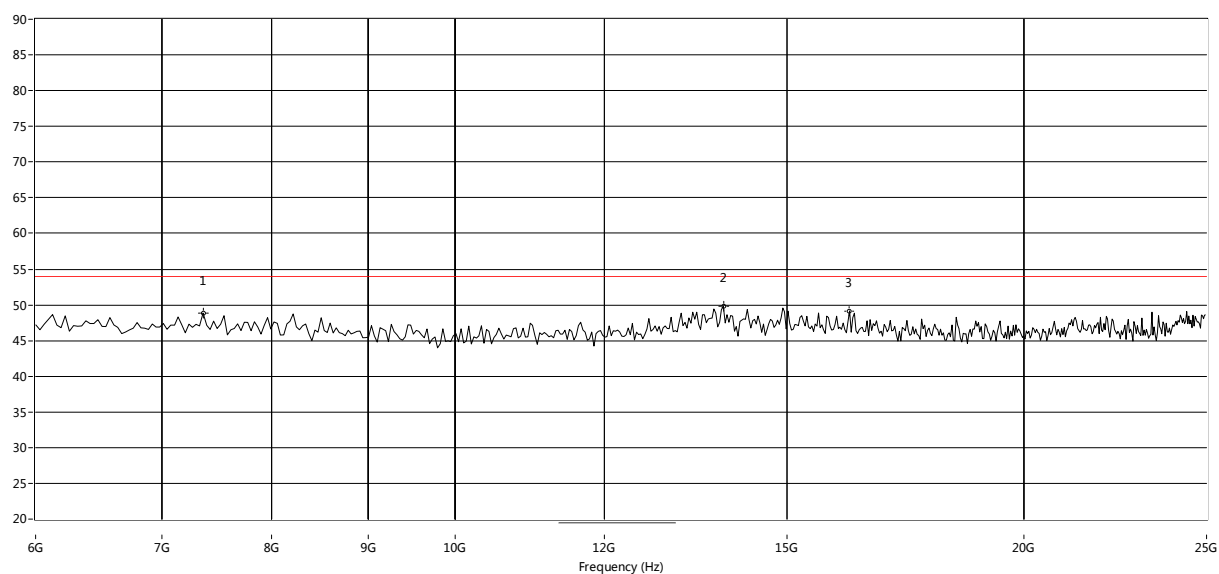
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2435.641	92.57	--	--	74.0	--	54.0	354.9	Horizontal	N/A
2518.120	44.91	--	--	74.0	--	54.0	359.3	Horizontal	PASS
4936.766	44.71	--	--	74.0	--	54.0	2.8	Horizontal	PASS

802.11g MID CHANNEL 6GHz to 25GHz, ANT V



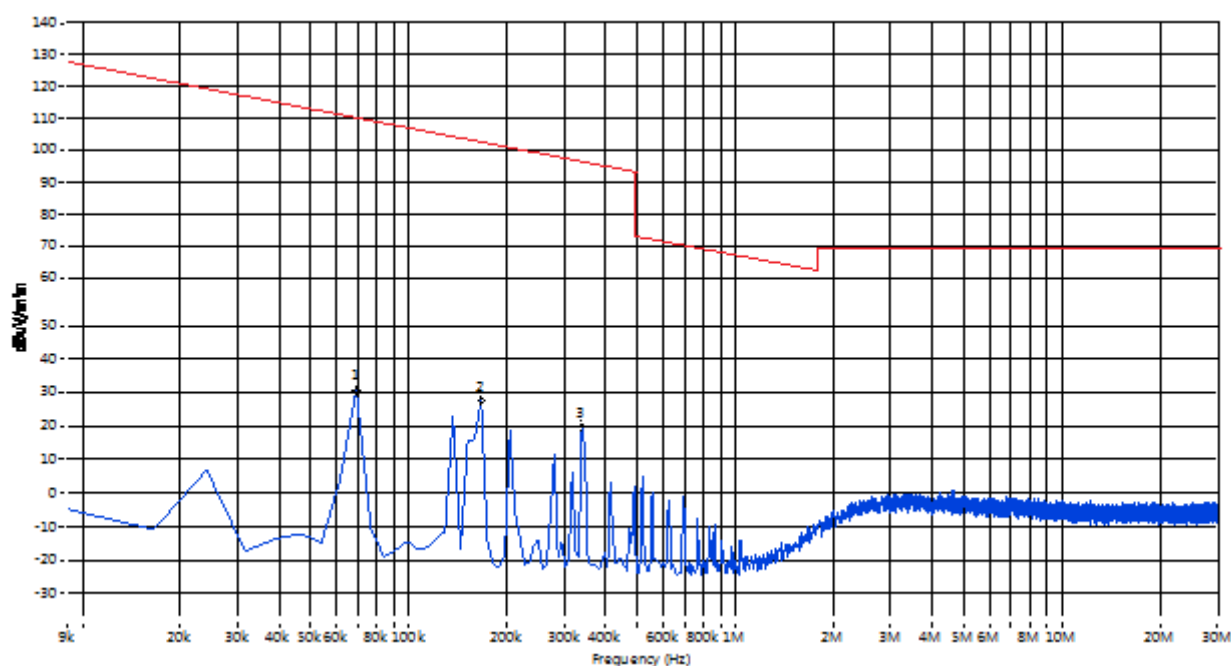
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7043.261	49.34	54.0	4.7	0.0	Vertical	PASS
11026.622	48.13	54.0	5.9	0.0	Vertical	PASS
15831.947	49.36	54.0	4.6	0.0	Vertical	PASS

802.11g MID CHANNEL 6GHz to 25GHz, ANT H



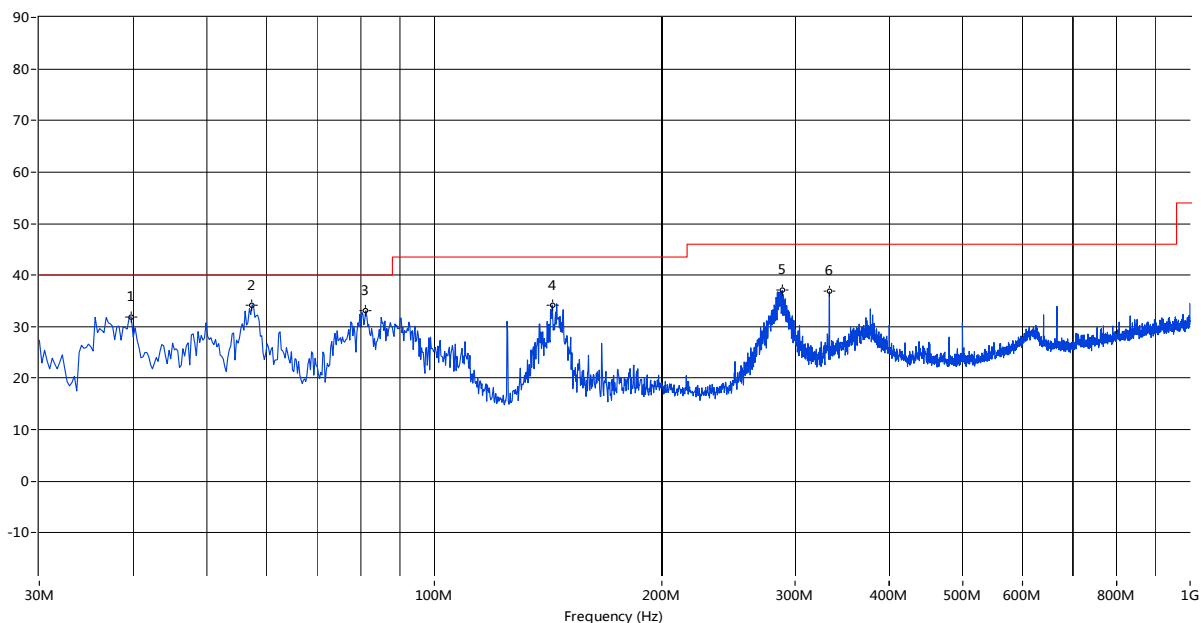
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7359.401	48.85	54.0	5.1	0.0	Horizontal	PASS
13858.902	47.56	54.0	6.4	0.0	Horizontal	PASS
16688.020	47.84	54.0	6.2	0.0	Horizontal	PASS

802.11g HIGH CHANNEL Below 30MHz



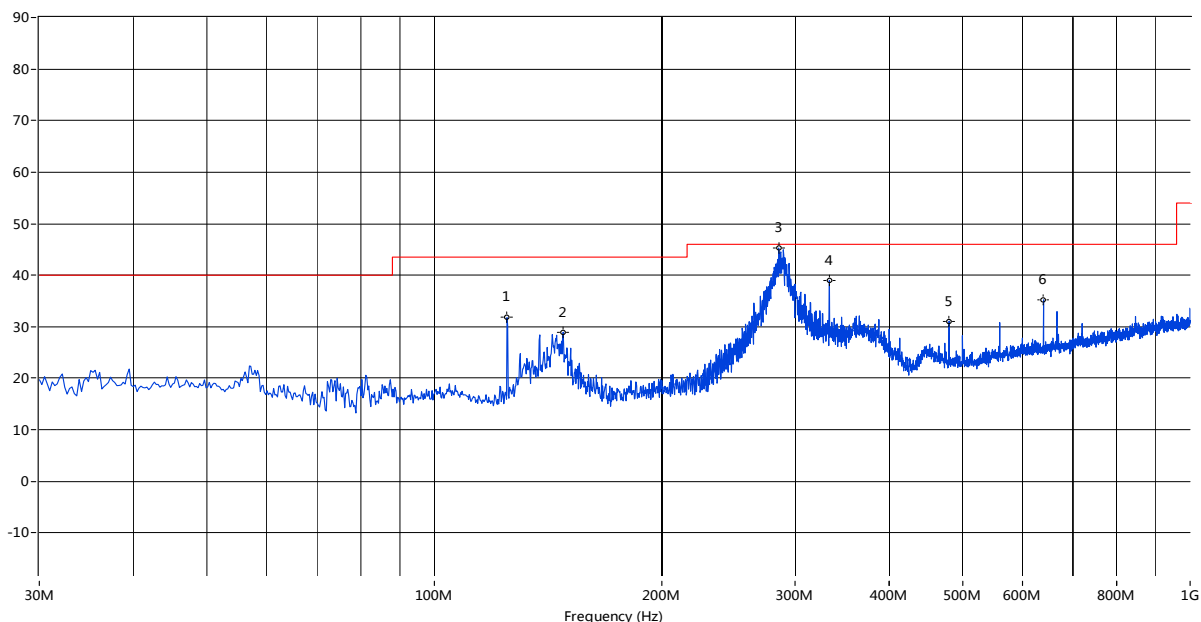
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	30.84	--	--	--	110.8	--	0.0	PASS
0.166	27.62	--	--	--	103.2	--	0.0	PASS
0.339	20.08	--	--	--	97.0	--	0.0	PASS

802.11g HIGH CHANNEL 30MHz to 1GHz, ANT V



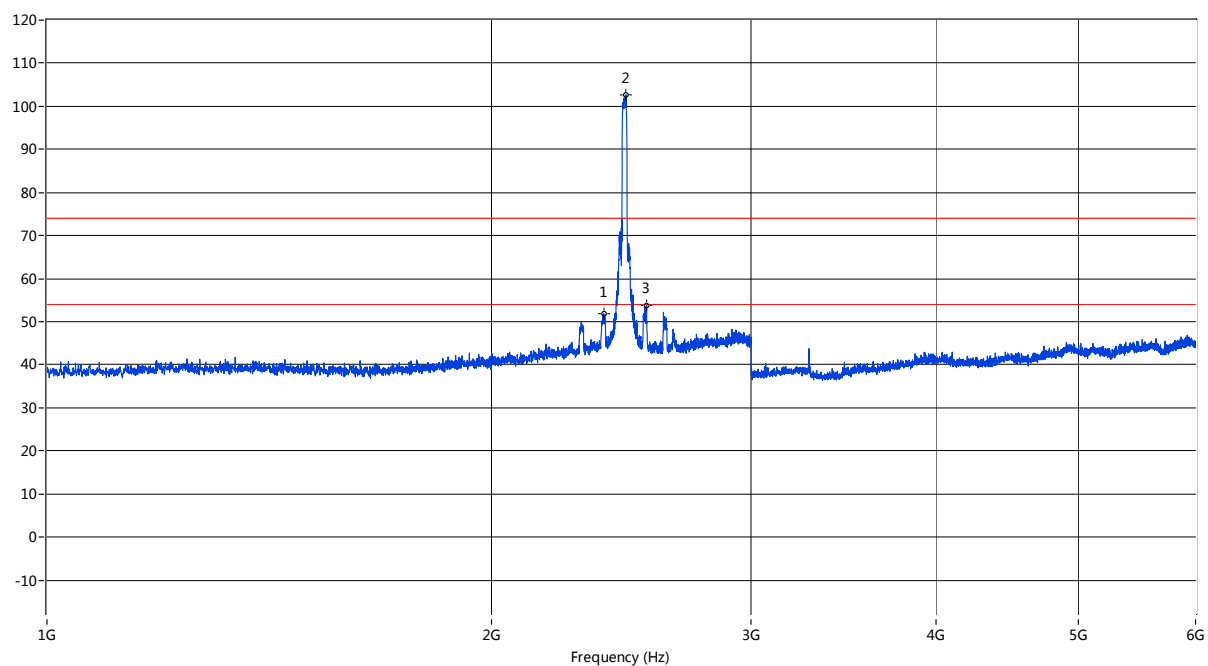
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
39.698	31.91	--	--	--	40.0	--	241.9	Vertical	PASS
57.396	34.25	--	--	--	40.0	--	22.1	Vertical	PASS
81.155	33.06	--	--	--	40.0	--	360.0	Vertical	PASS
143.219	34.20	--	--	--	43.5	--	0.4	Vertical	PASS
288.683	37.03	--	--	--	46.0	--	334.8	Vertical	PASS

802.11g HIGH CHANNEL 30MHz to 1GHz, ANT H



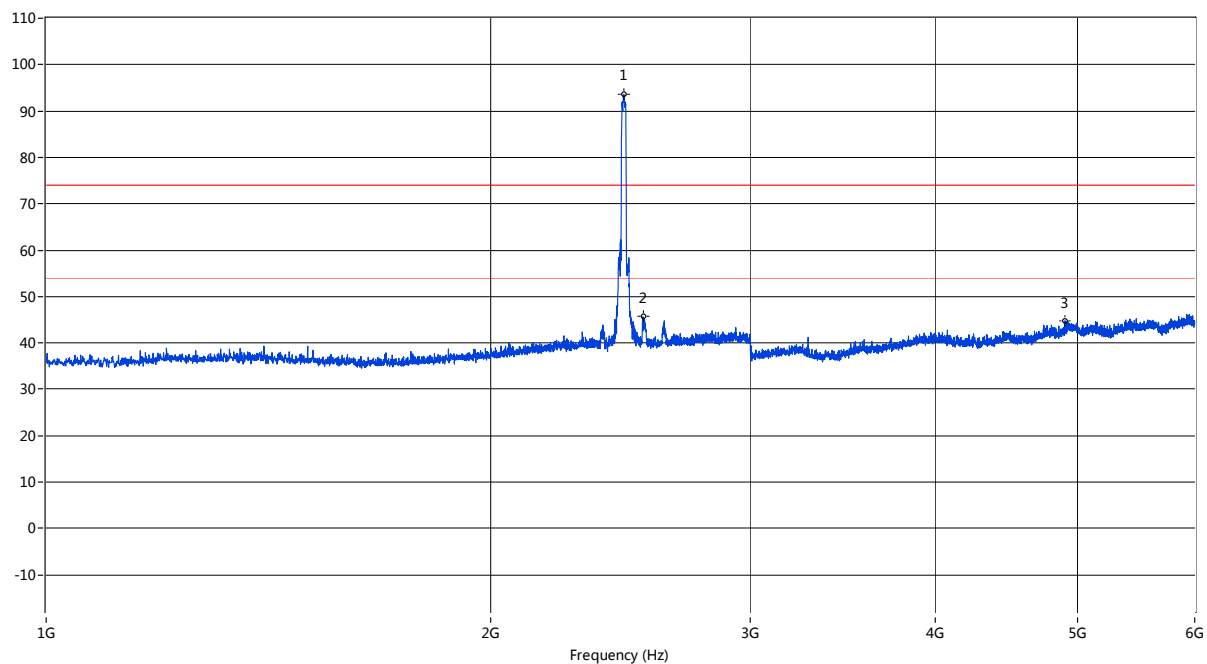
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	31.77	--	--	--	43.5	--	360.0	Horizontal	PASS
148.068	28.93	--	--	--	43.5	--	4.4	Horizontal	PASS
285.531	45.26	42.82	--	--	46.0	--	49.6	Horizontal	PASS
333.292	39.00	--	--	--	46.0	--	156.1	Horizontal	PASS
479.968	31.08	--	--	--	46.0	--	360.0	Horizontal	PASS

802.11g HIGH CHANNEL 1GHz to 6GHz, ANT V



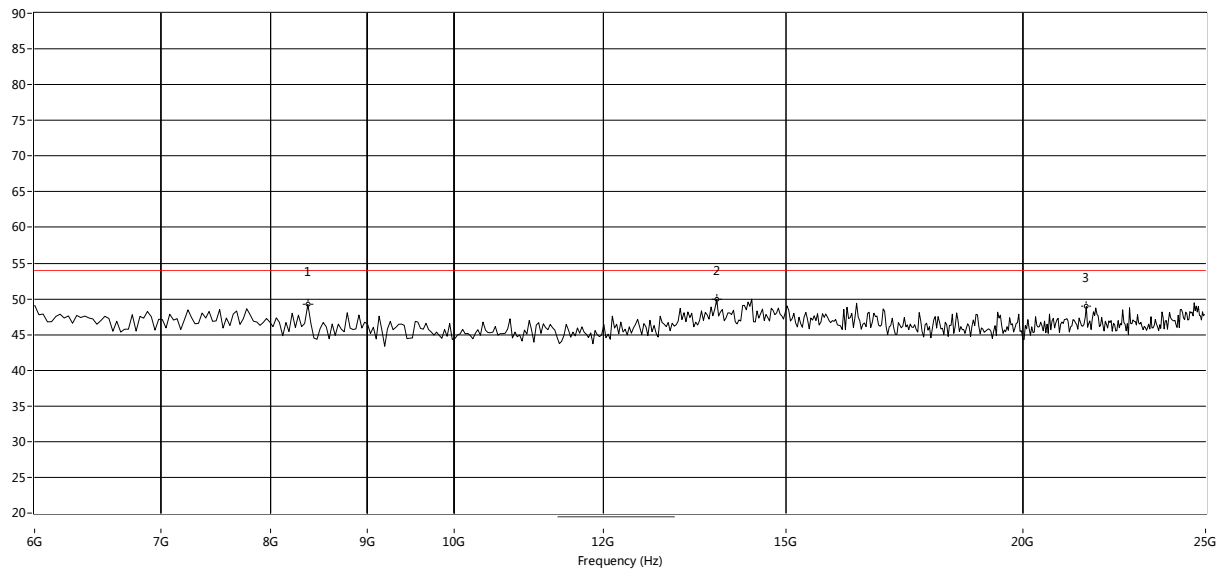
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2383.154	51.85	--	--	74.0	--	54.0	30.0	Vertical	PASS
2467.633	102.70	--	--	74.0	--	54.0	25.4	Vertical	N/A
2548.113	53.81	--	51.33	74.0	--	54.0	25.4	Vertical	PASS

802.11g HIGH CHANNEL 1GHz to 6GHz, ANT H



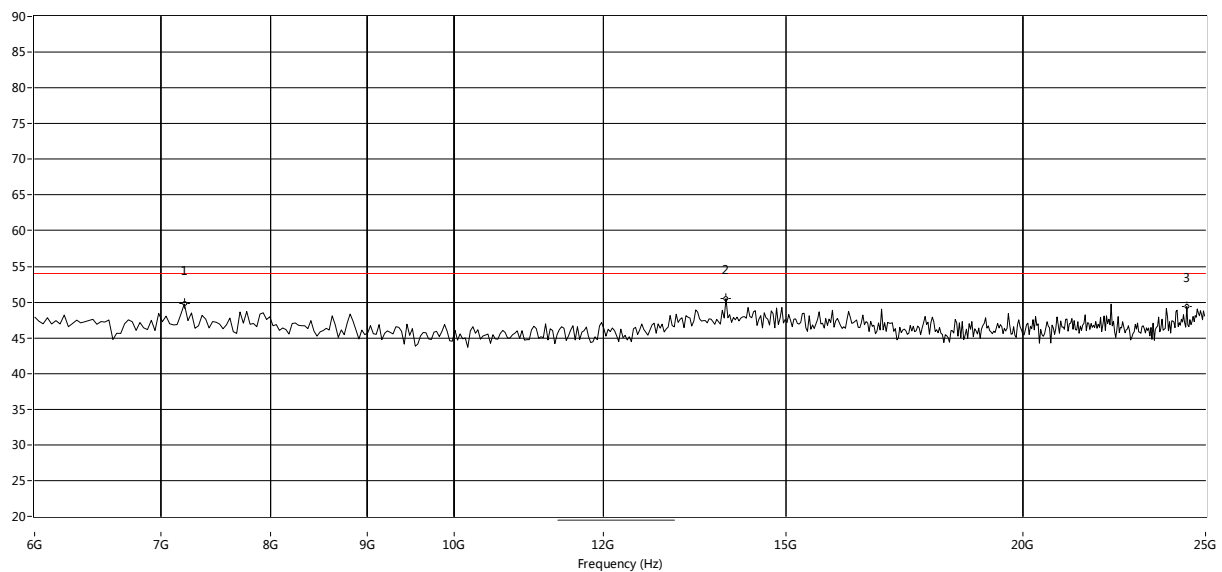
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2462.634	93.58	--	--	74.0	--	54.0	359.6	Horizontal	N/A
2537.116	45.65	--	--	74.0	--	54.0	226.1	Horizontal	PASS
4933.517	42.17	--	--	74.0	--	54.0	242.4	Horizontal	PASS

802.11g HIGH CHANNEL 6GHz to 25GHz, ANT V



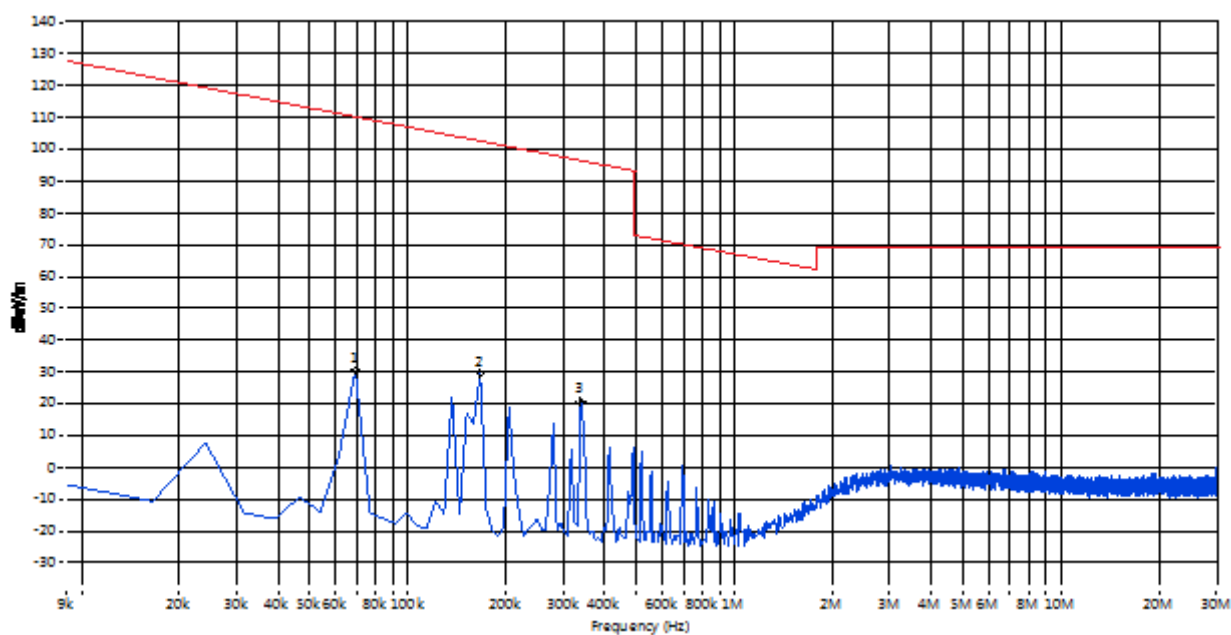
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
8371.048	49.22	54.0	4.8	0.0	Vertical	PASS
13777.038	49.92	54.0	4.1	0.0	Vertical	PASS
21637.770	49.39	54.0	4.6	0.0	Vertical	PASS

802.11g HIGH CHANNEL 6GHz to 25GHz, ANT H



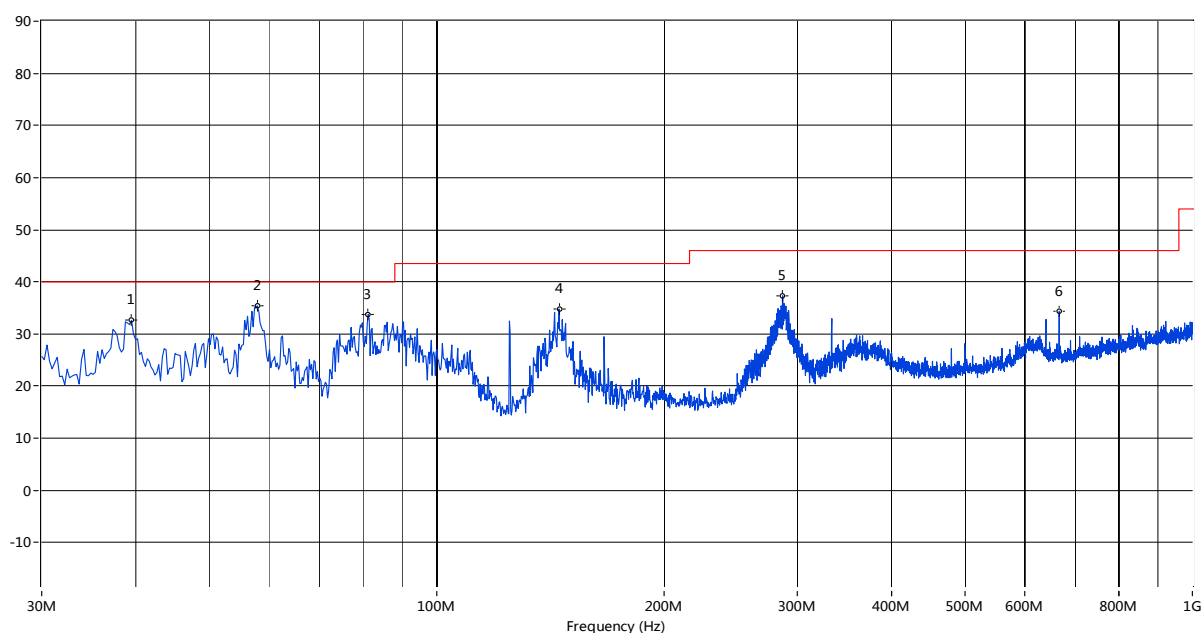
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7201.331	49.74	54.0	4.3	0.0	Horizontal	PASS
13935.108	50.48	54.0	3.5	0.0	Horizontal	PASS
24430.948	49.38	54.0	4.6	0.0	Horizontal	PASS

802.11n-20MHz LOW CHANNEL Below 30MHz



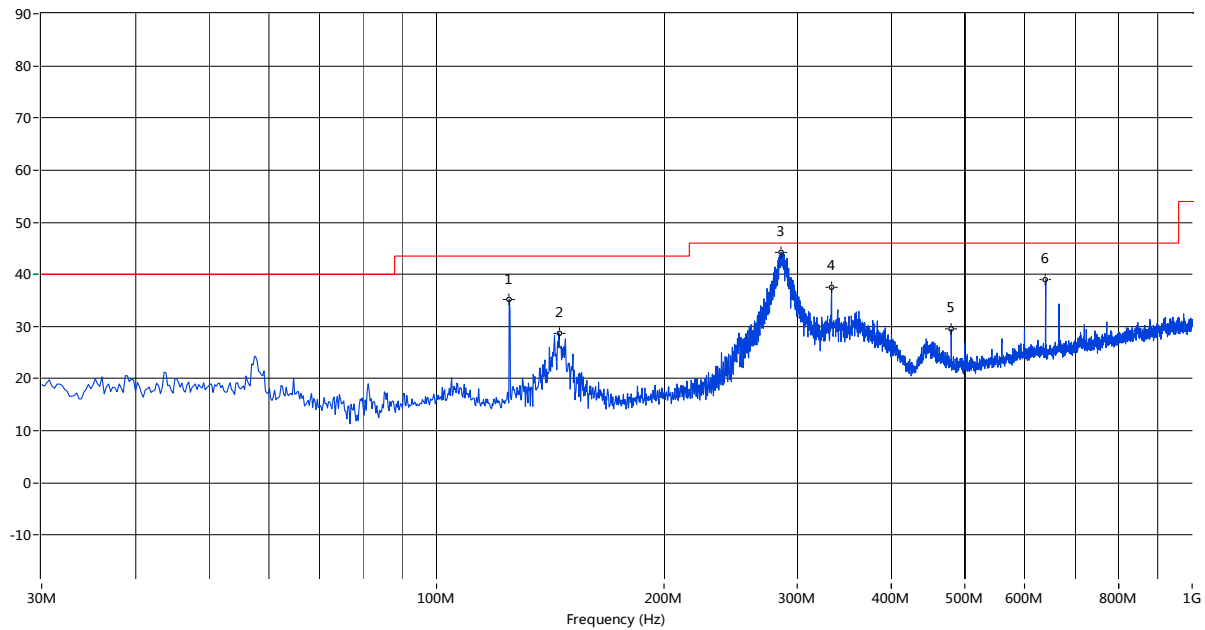
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	30.37	--	--	--	110.8	--	0.0	PASS
0.166	29.48	--	--	--	103.2	--	0.0	PASS
0.339	20.87	--	--	--	97.0	--	0.0	PASS

802.11n-20MHz LOW CHANNEL 30MHz to 1GHz, ANT V



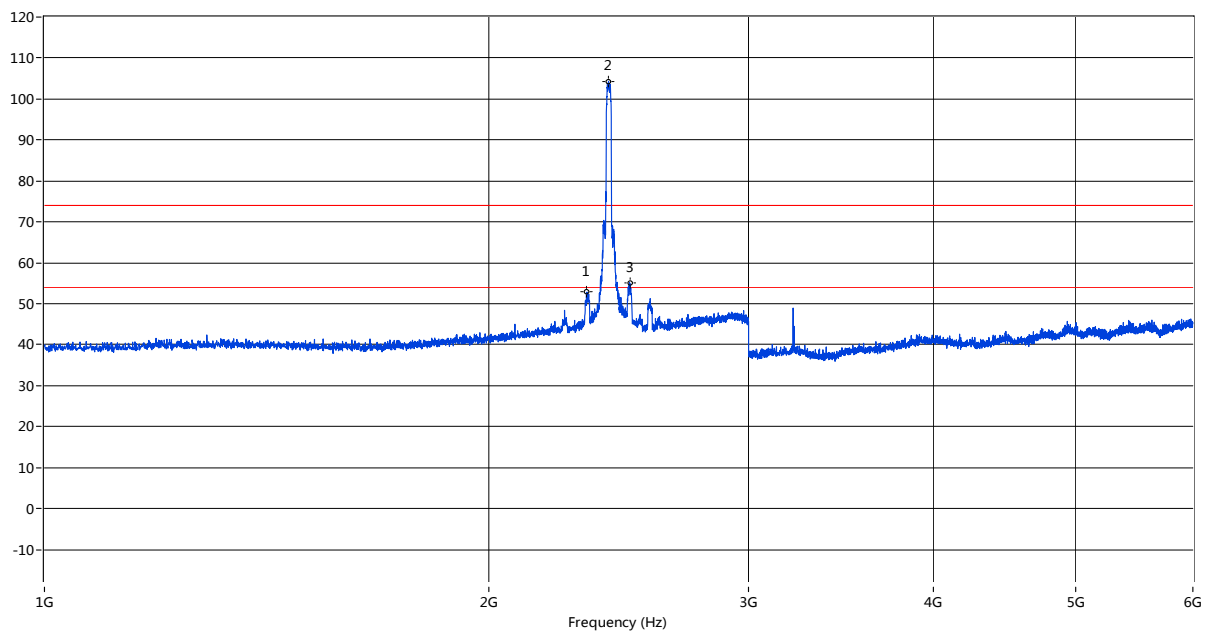
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
39.455	32.62	--	--	--	40.0	--	293.9	Vertical	PASS
57.881	35.41	--	--	--	40.0	--	76.6	Vertical	PASS
81.155	33.80	--	--	--	40.0	--	237.3	Vertical	PASS
145.159	34.79	--	--	--	43.5	--	359.9	Vertical	PASS
286.986	37.35	--	--	--	46.0	--	351.5	Vertical	PASS
666.646	34.38	--	--	--	46.0	--	146.1	Vertical	PASS

802.11n-20MHz LOW CHANNEL 30MHz to 1GHz, ANT H



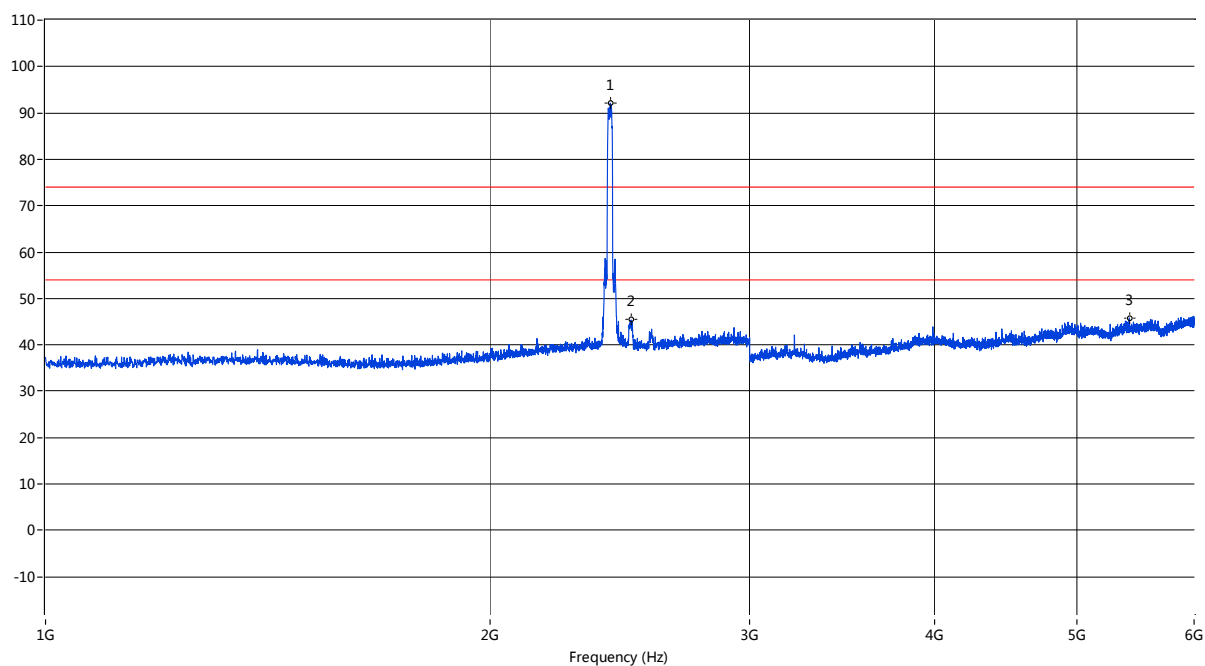
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	35.24	--	--	--	43.5	--	0.7	Horizontal	PASS
145.159	28.80	--	--	--	43.5	--	356.4	Horizontal	PASS
285.774	44.31	41.96	--	--	46.0	--	52.7	Horizontal	PASS
333.292	37.58	--	--	--	46.0	--	123.3	Horizontal	PASS
479.968	29.49	--	--	--	46.0	--	267.2	Horizontal	PASS
639.978	39.04	--	--	--	46.0	--	2.2	Horizontal	PASS

802.11n-20MHz LOW CHANNEL 1GHz to 6GHz, ANT V



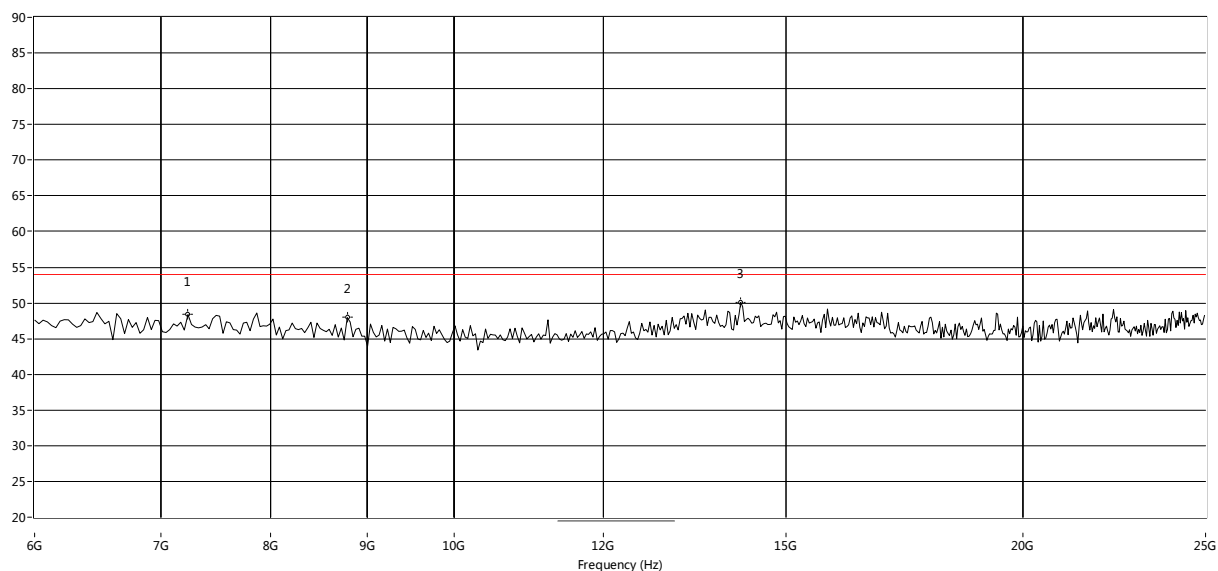
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2331.167	52.85	--	--	74.0	--	54.0	333.1	Vertical	PASS
2411.147	104.34	--	--	74.0	--	54.0	147.7	Vertical	N/A
2491.627	55.17	--	45.57	74.0	--	54.0	216.5	Vertical	PASS

802.11n-20MHz LOW CHANNEL 1GHz to 6GHz, ANT H



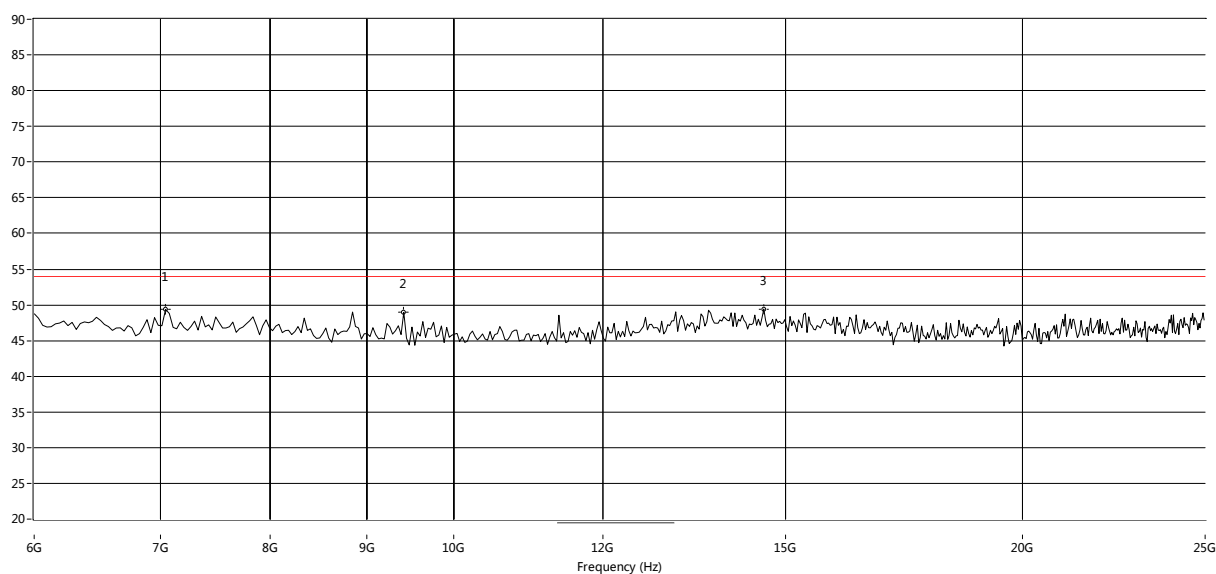
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2413.147	92.14	--	--	74.0	--	54.0	358.0	Horizontal	N/A
2493.127	45.38	--	--	74.0	--	54.0	355.1	Horizontal	PASS
5424.144	45.78	--	--	74.0	--	54.0	331.2	Horizontal	PASS

802.11n-20MHz LOW CHANNEL 6GHz to 25GHz, ANT V



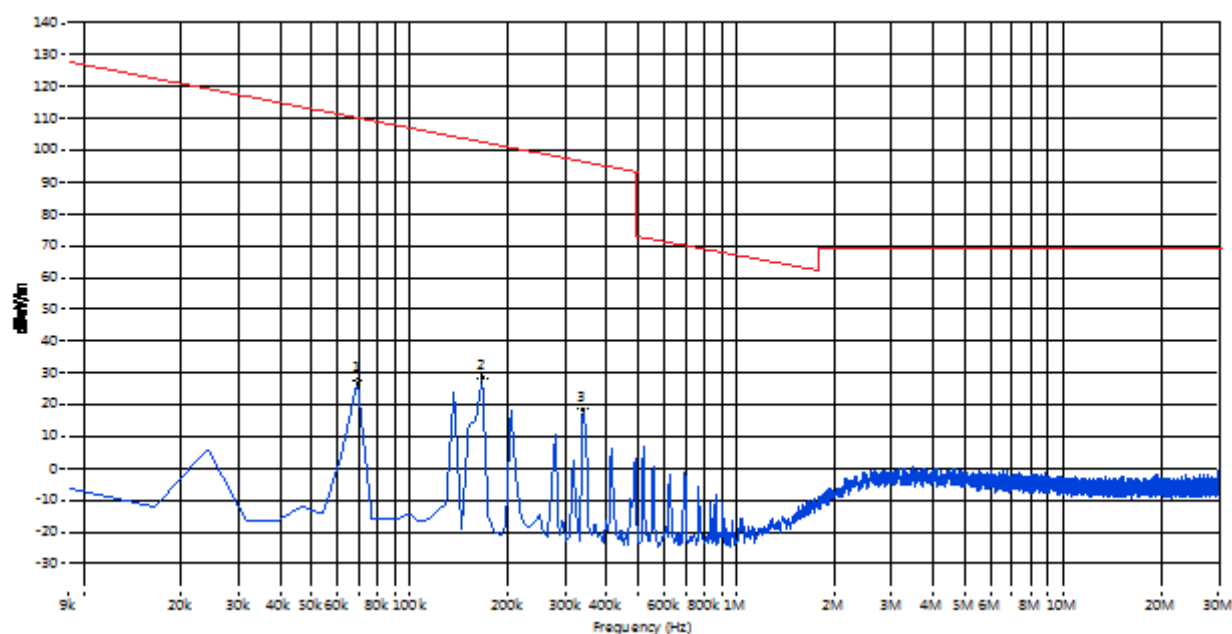
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7232.945	48.37	54.0	5.6	0.0	Vertical	PASS
8782.030	47.94	54.0	6.1	0.0	Vertical	PASS
14188.020	50.09	54.0	3.9	0.0	Vertical	PASS

802.11n-20MHz LOW CHANNEL 6GHz to 25GHz, ANT H



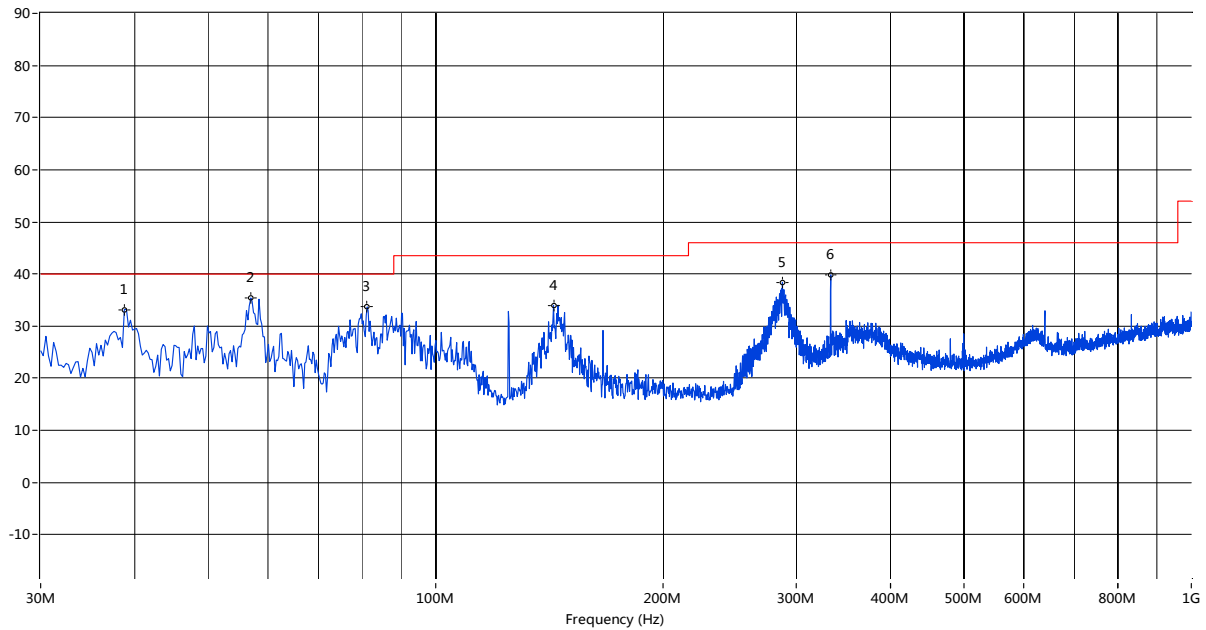
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7043.261	49.36	54.0	4.6	0.0	Horizontal	PASS
9414.309	48.95	54.0	5.0	0.0	Horizontal	PASS
14188.020	47.72	54.0	6.3	0.0	Horizontal	PASS

802.11n-20MHz MID CHANNEL Below 30MHz



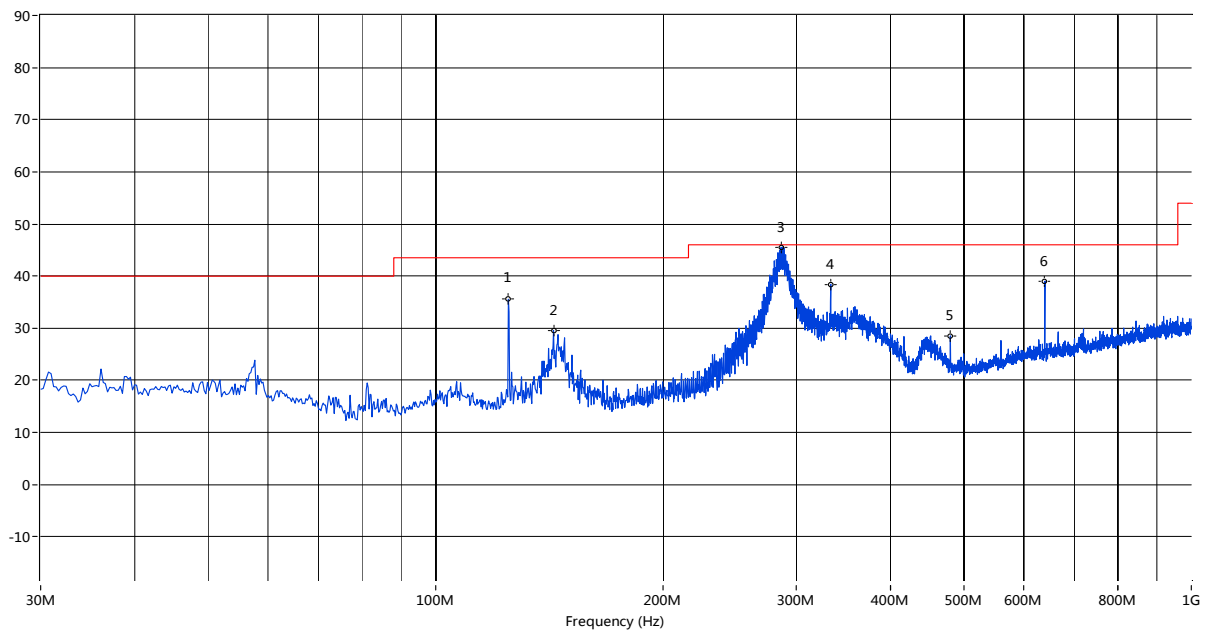
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	27.23	--	--	--	110.8	--	0.0	PASS
0.166	28.27	--	--	--	103.2	--	0.0	PASS
0.339	18.55	--	--	--	97.0	--	0.0	PASS

802.11n-20MHz MID CHANNEL 30MHz to 1GHz, ANT V



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
56.911	35.39	--	--	--	40.0	--	305.6	Vertical	PASS
81.155	33.67	--	--	--	40.0	--	313.6	Vertical	PASS
143.219	34.02	--	--	--	43.5	--	4.6	Vertical	PASS
287.713	38.41	--	--	--	46.0	--	345.0	Vertical	PASS
333.292	39.83	--	--	--	46.0	--	359.5	Vertical	PASS

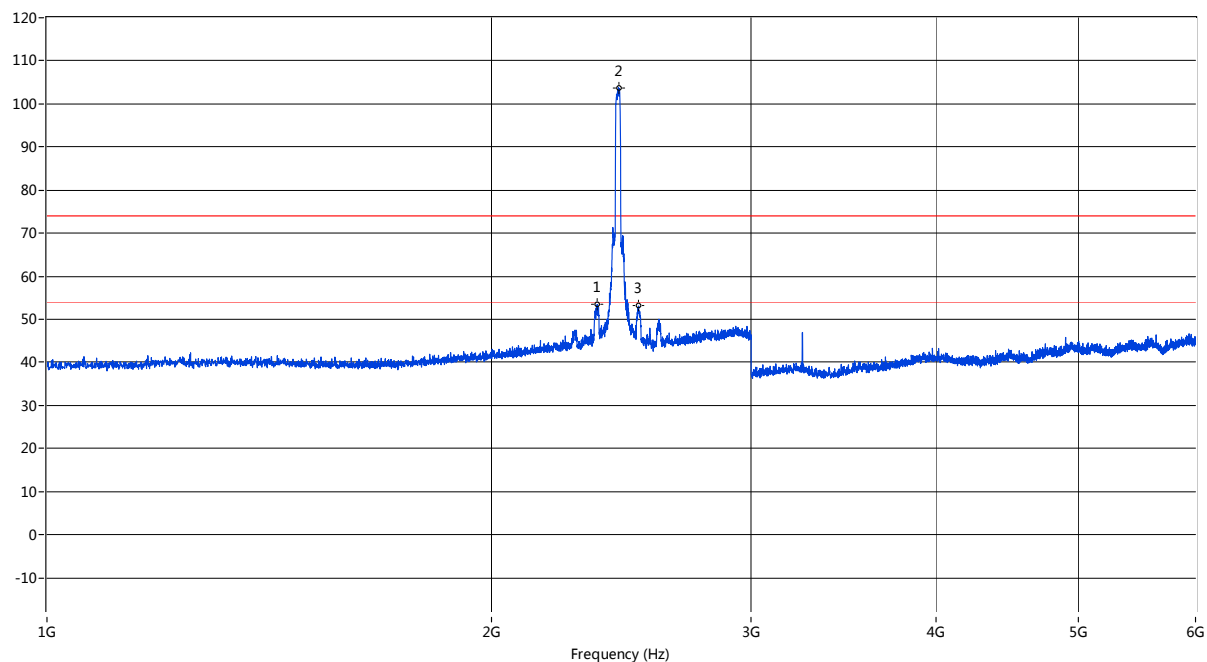
802.11n-20MHz MID CHANNEL 30MHz to 1GHz, ANT H



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	35.57	--	--	--	43.5	--	357.9	Horizontal	PASS
143.219	29.55	--	--	--	43.5	--	13.2	Horizontal	PASS
286.501	45.54	42.24	--	--	46.0	--	69.5	Horizontal	PASS
333.292	38.45	--	--	--	46.0	--	126.4	Horizontal	PASS

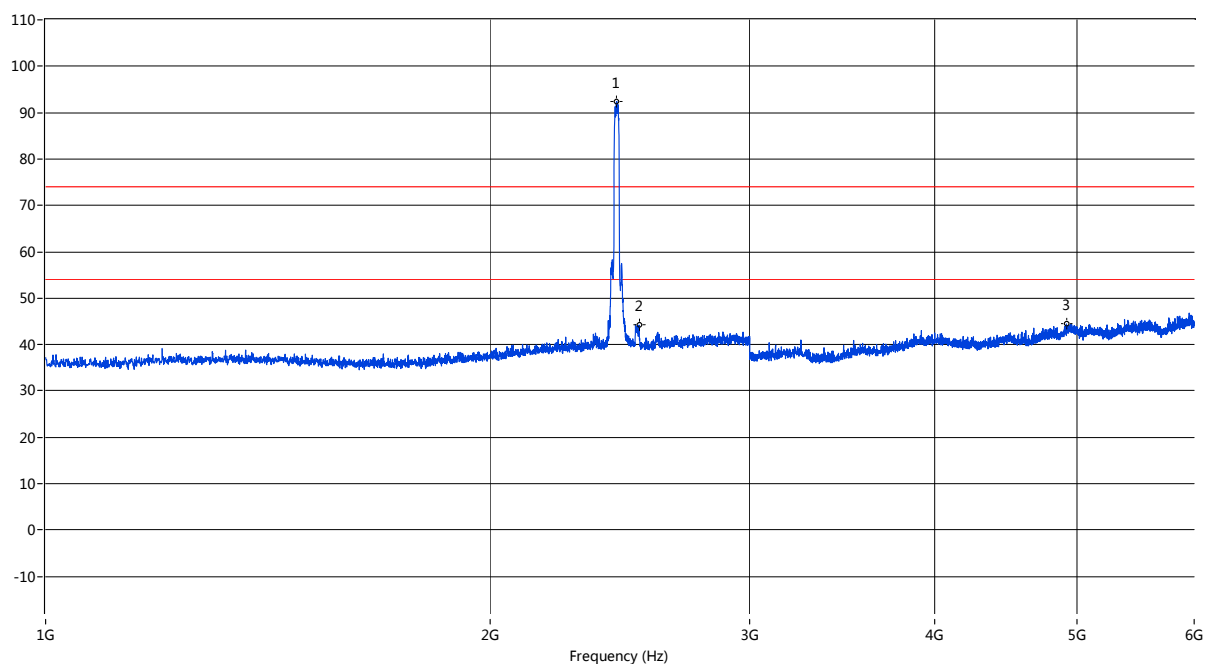
639.978 39.04 -- -- -- 46.0 -- 0.5 Horizontal PASS

802.11n-20MHz MID CHANNEL 1GHz to 6GHz, ANT V



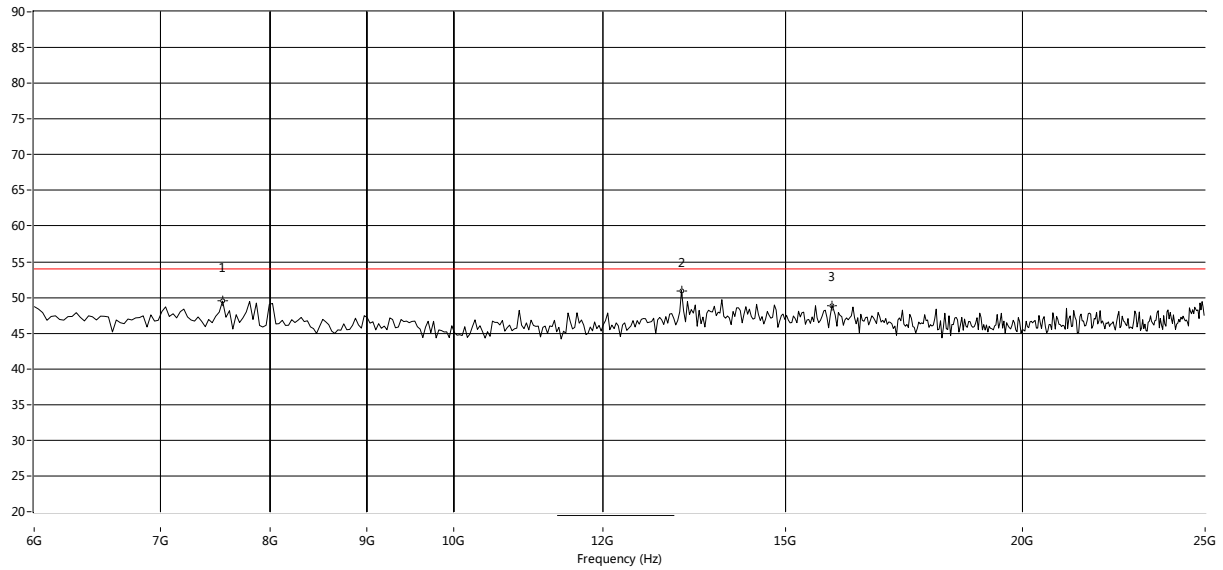
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2359.660	53.42	--	--	74.0	--	54.0	341.6	Vertical	PASS
2438.640	103.83	--	--	74.0	--	54.0	134.0	Vertical	N/A
2460.635	53.70	--	--	74.0	--	54.0	136.7	Vertical	PASS

802.11n-20MHz MID CHANNEL 1GHz to 6GHz, ANT H



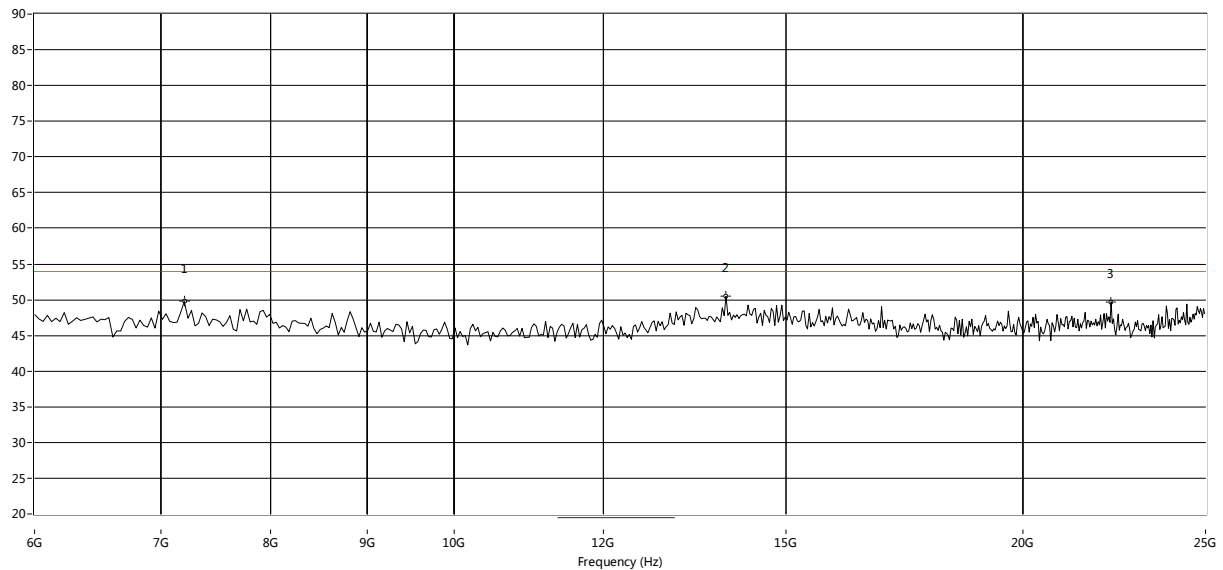
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2437.641	92.39	--	--	74.0	--	54.0	359.4	Horizontal	N/A
2523.619	44.20	--	--	74.0	--	54.0	354.2	Horizontal	PASS
4916.521	44.46	--	--	74.0	--	54.0	107.8	Horizontal	PASS

802.11n-20MHz MID CHANNEL 6GHz to 25GHz, ANT V



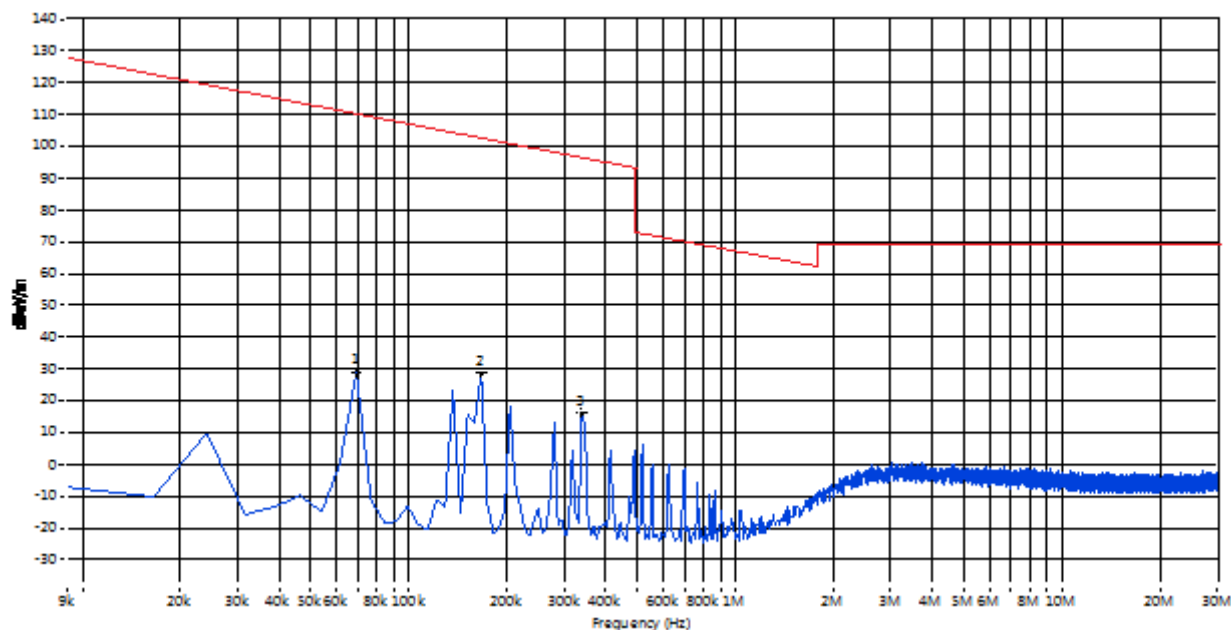
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7549.085	49.49	54.0	4.5	0.0	Vertical	PASS
13207.987	50.96	54.0	3.0	0.0	Vertical	PASS
15547.421	48.84	54.0	5.2	0.0	Vertical	PASS

802.11n-20MHz MID CHANNEL 6GHz to 25GHz, ANT H



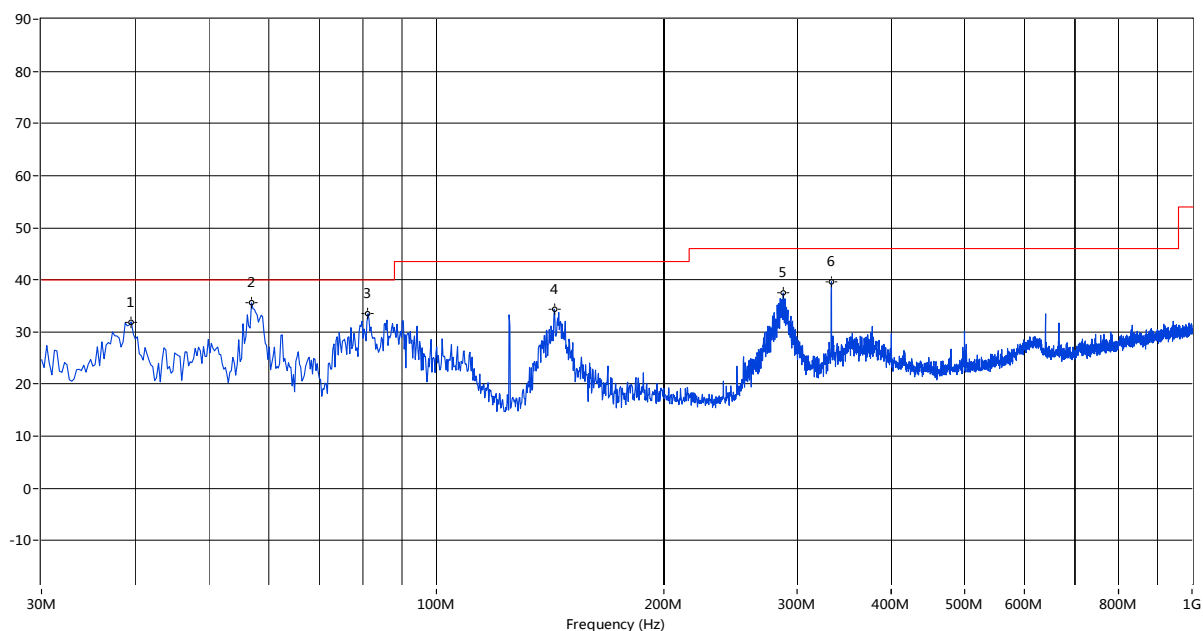
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7201.331	49.74	54.0	4.3	0.0	Horizontal	PASS
13935.108	50.48	54.0	3.5	0.0	Horizontal	PASS
22281.198	49.72	54.0	4.3	0.0	Horizontal	PASS

802.11n-20MHz HIGH CHANNEL Below 30MHz



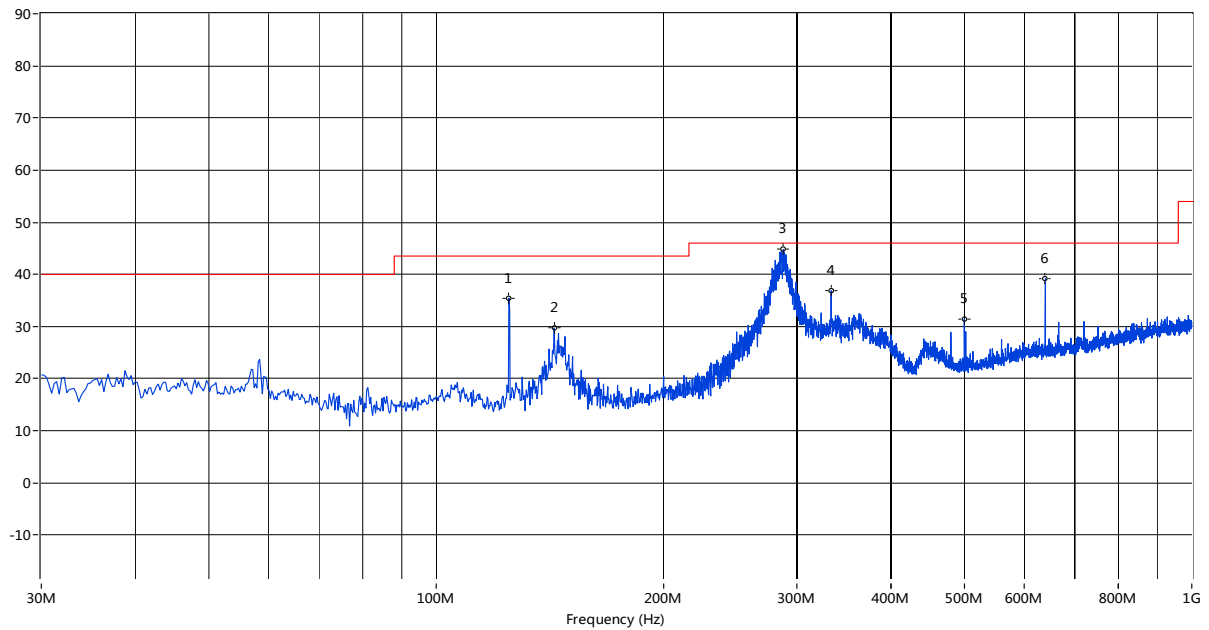
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	28.86	--	--	--	110.8	--	0.0	PASS
0.166	28.57	--	--	--	103.2	--	0.0	PASS
0.339	16.07	--	--	--	97.0	--	0.0	PASS

802.11n-20MHz HIGH CHANNEL 30MHz to 1GHz, ANT V



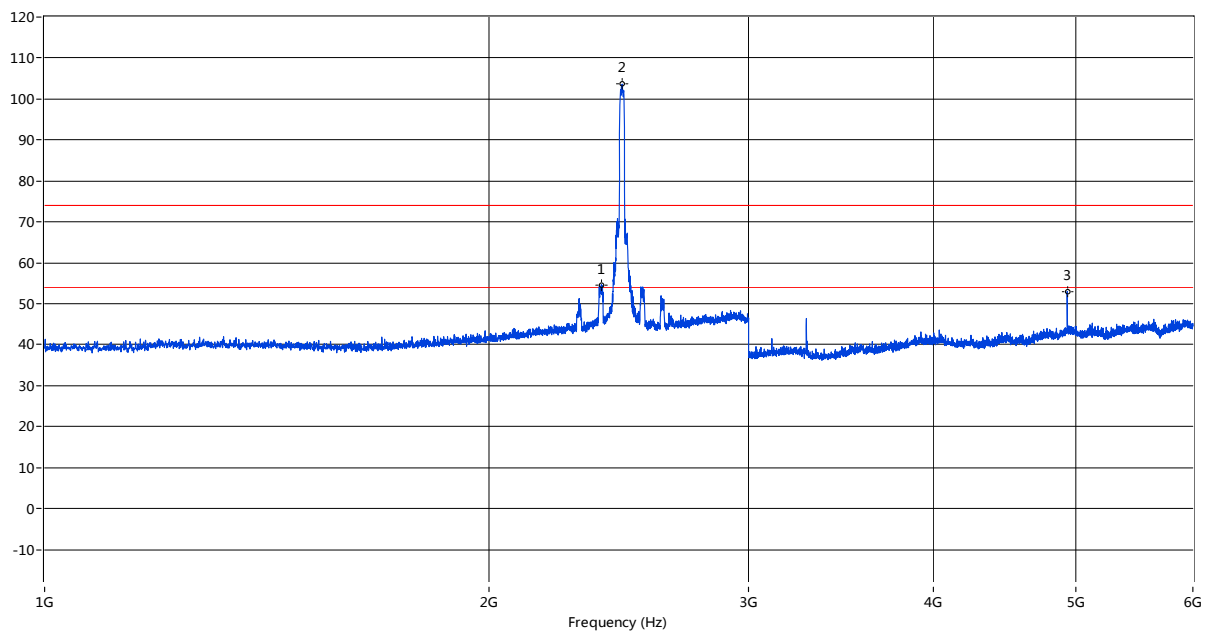
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
39.455	31.95	--	--	--	40.0	--	37.7	Vertical	PASS
56.911	35.59	--	--	--	40.0	--	333.3	Vertical	PASS
81.155	33.51	--	--	--	40.0	--	237.7	Vertical	PASS
143.219	34.39	--	--	--	43.5	--	350.5	Vertical	PASS
287.713	37.48	--	--	--	46.0	--	0.8	Vertical	PASS
333.292	39.65	--	--	--	46.0	--	356.1	Vertical	PASS

802.11n-20MHz HIGH CHANNEL 30MHz to 1GHz, ANT H



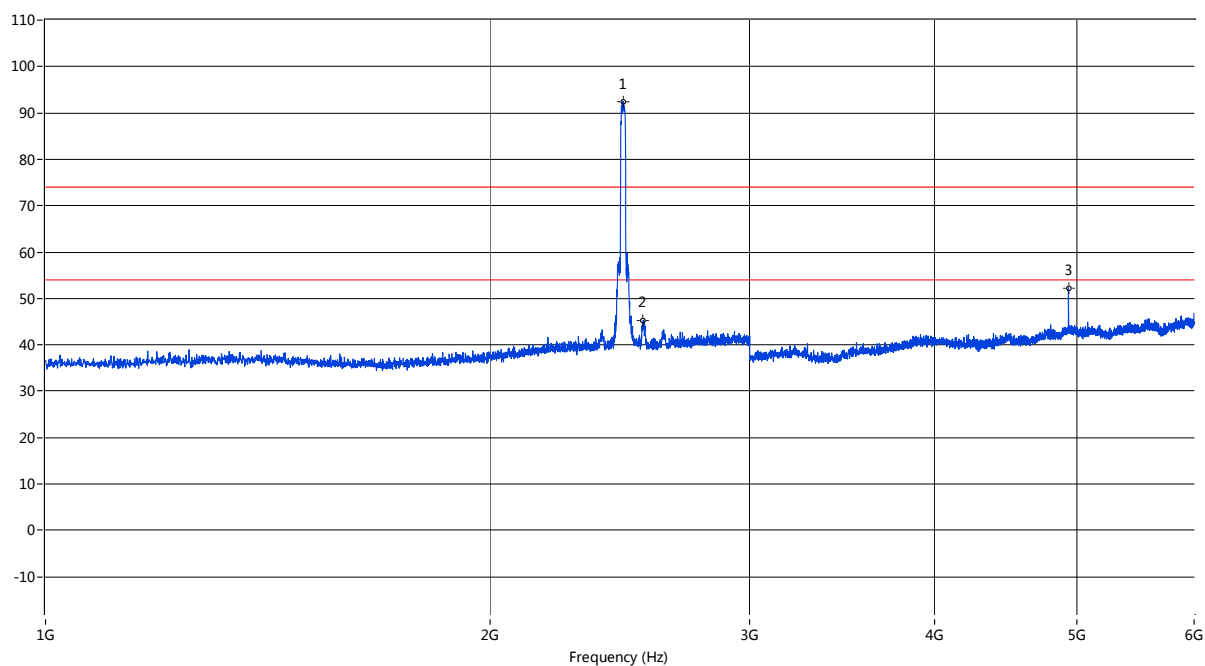
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	35.46	--	--	--	43.5	--	4.2	Horizontal	PASS
143.219	29.73	--	--	--	43.5	--	3.5	Horizontal	PASS
287.956	44.81	42.32	--	--	46.0	--	71.6	Horizontal	PASS
333.292	36.88	--	--	--	46.0	--	98.9	Horizontal	PASS
499.848	31.43	--	--	--	46.0	--	1.9	Horizontal	PASS
639.978	39.19	--	--	--	46.0	--	360.3	Horizontal	PASS

802.11n-20MHz HIGH CHANNEL 1GHz to 6GHz, ANT V



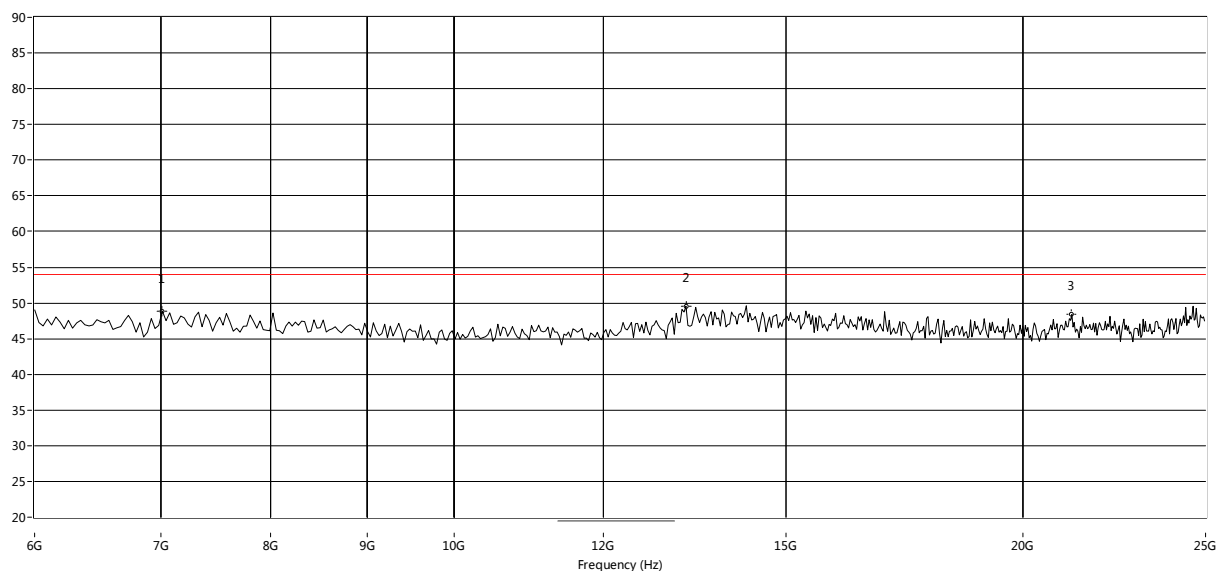
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2383.654	54.65	--	45.85	74.0	--	54.0	139.0	Vertical	PASS
2463.134	103.63	--	--	74.0	--	54.0	134.1	Vertical	N/A
4931.517	52.93	--	--	74.0	--	54.0	215.0	Vertical	PASS

802.11n-20MHz HIGH CHANNEL 1GHz to 6GHz, ANT H



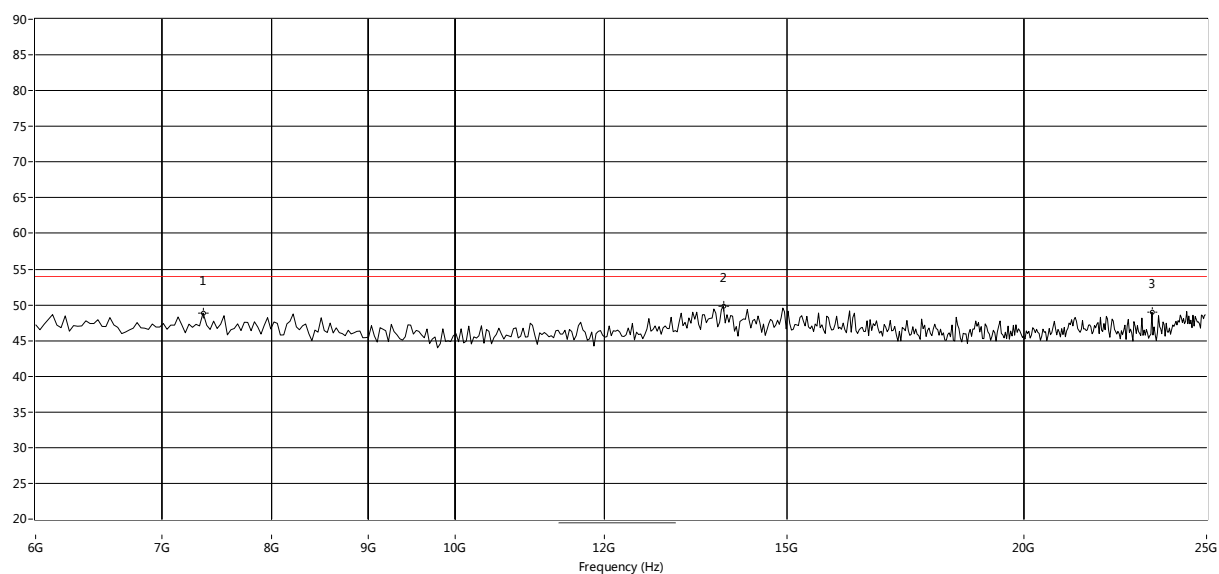
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2461.135	92.37	--	--	74.0	--	54.0	1.0	Horizontal	N/A
2540.615	45.36	--	--	74.0	--	54.0	357.5	Horizontal	PASS
4931.517	52.31	--	--	74.0	--	54.0	118.8	Horizontal	PASS

802.11n-20MHz HIGH CHANNEL 6GHz to 25GHz, ANT V



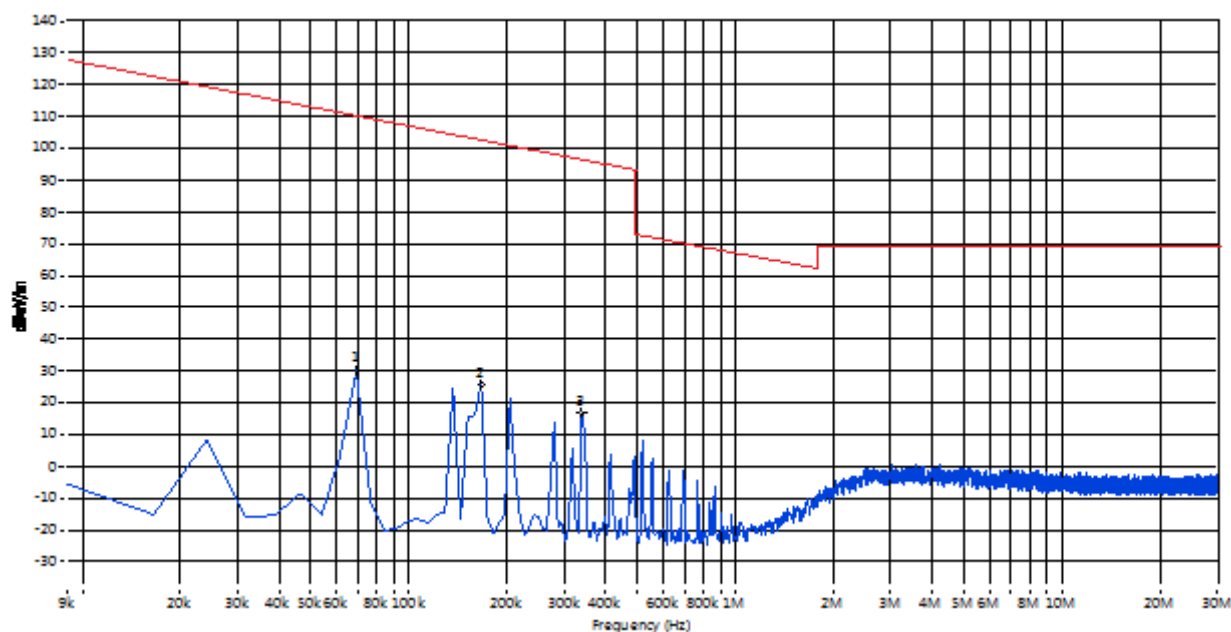
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7011.647	48.87	54.0	5.1	0.0	Vertical	PASS
13507.987	49.09	54.0	4.9	0.0	Vertical	PASS
21263.561	47.74	54.0	6.3	0.0	Vertical	PASS

802.11n-20MHz HIGH CHANNEL 6GHz to 25GHz, ANT H



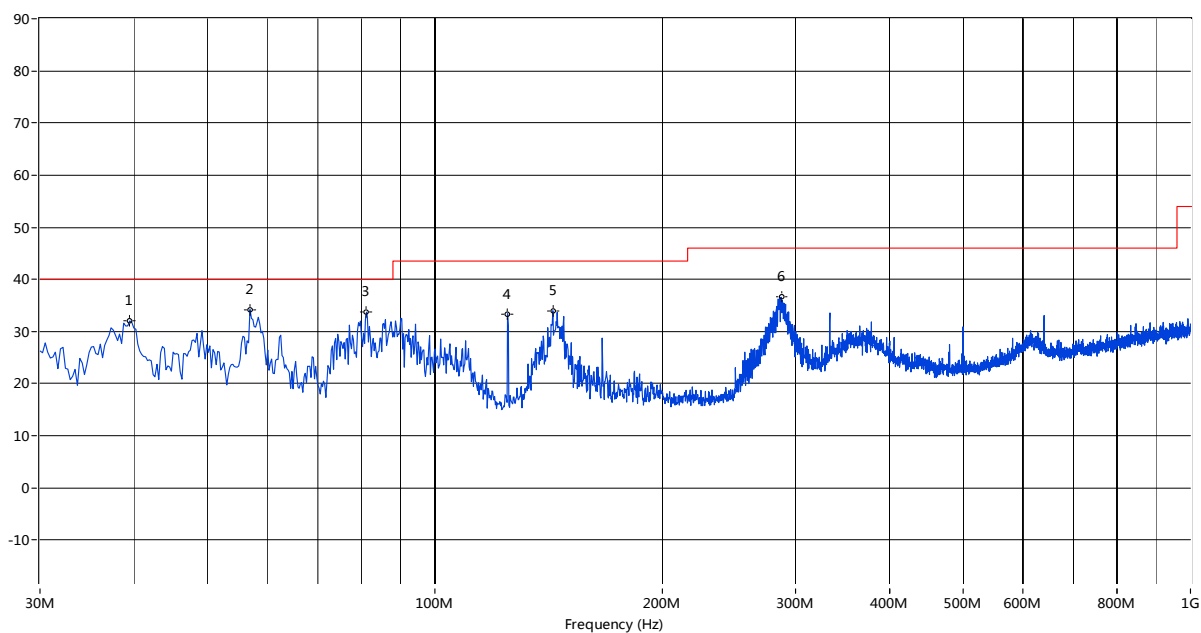
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7359.401	48.85	54.0	5.1	0.0	Horizontal	PASS
13871.880	49.81	54.0	4.2	0.0	Horizontal	PASS
24209.651	48.58	54.0	5.4	0.0	Horizontal	PASS

802.11n-40MHz LOW MODE Below 30MHz



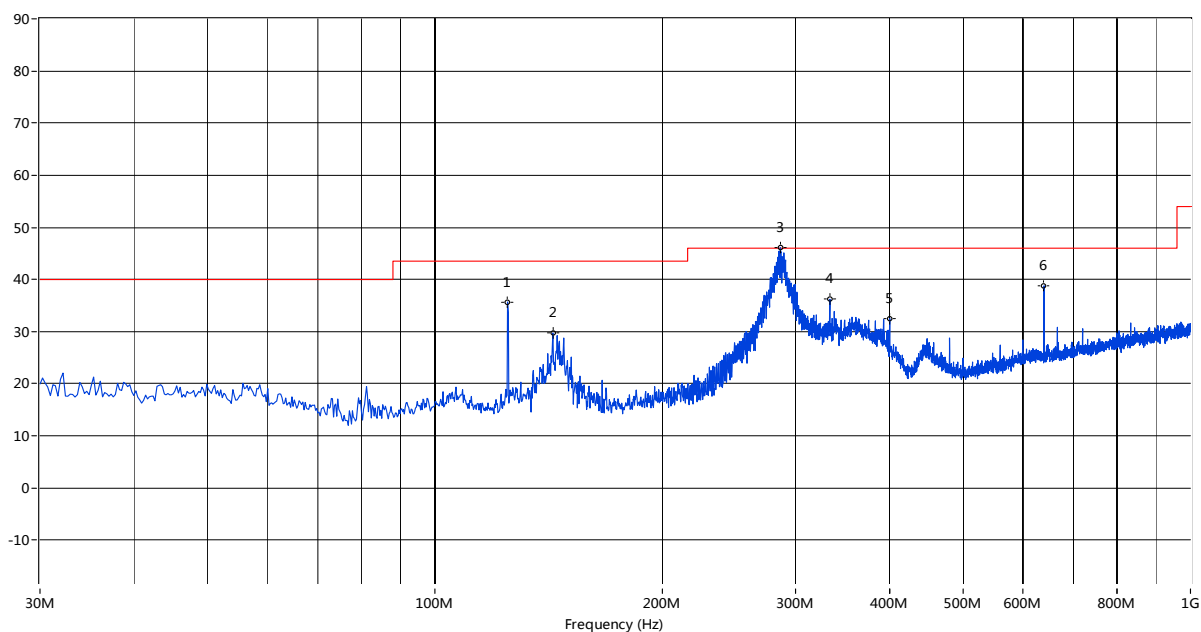
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	30.00	--	--	--	110.8	--	0.0	PASS
0.166	25.65	--	--	--	103.2	--	0.0	PASS
0.339	16.64	--	--	--	97.0	--	0.0	PASS

802.11n-40MHz LOW MODE 30MHz to 1GHz, ANT V



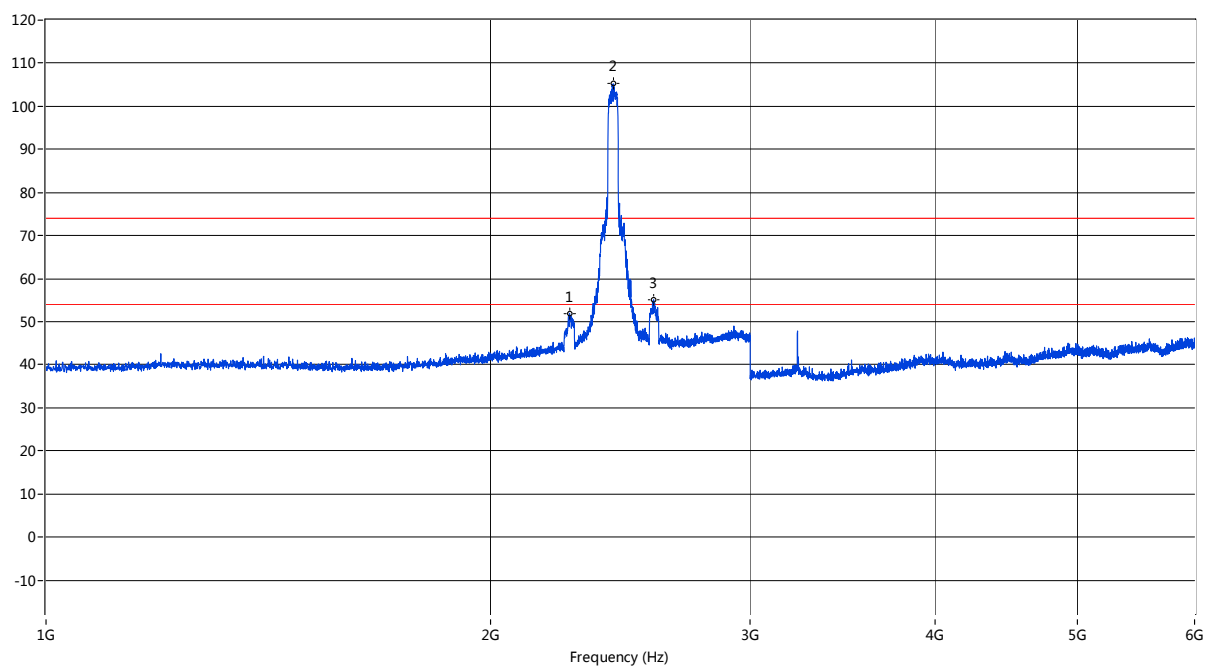
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
56.911	34.20	--	--	--	40.0	--	251.0	Vertical	PASS
81.155	33.71	--	--	--	40.0	--	360.0	Vertical	PASS
124.794	33.42	--	--	--	43.5	--	317.8	Vertical	PASS
143.219	34.00	--	--	--	43.5	--	0.0	Vertical	PASS
287.228	36.58	--	--	--	46.0	--	-0.1	Vertical	PASS

802.11n-40MHz LOW MODE 30MHz to 1GHz, ANT H



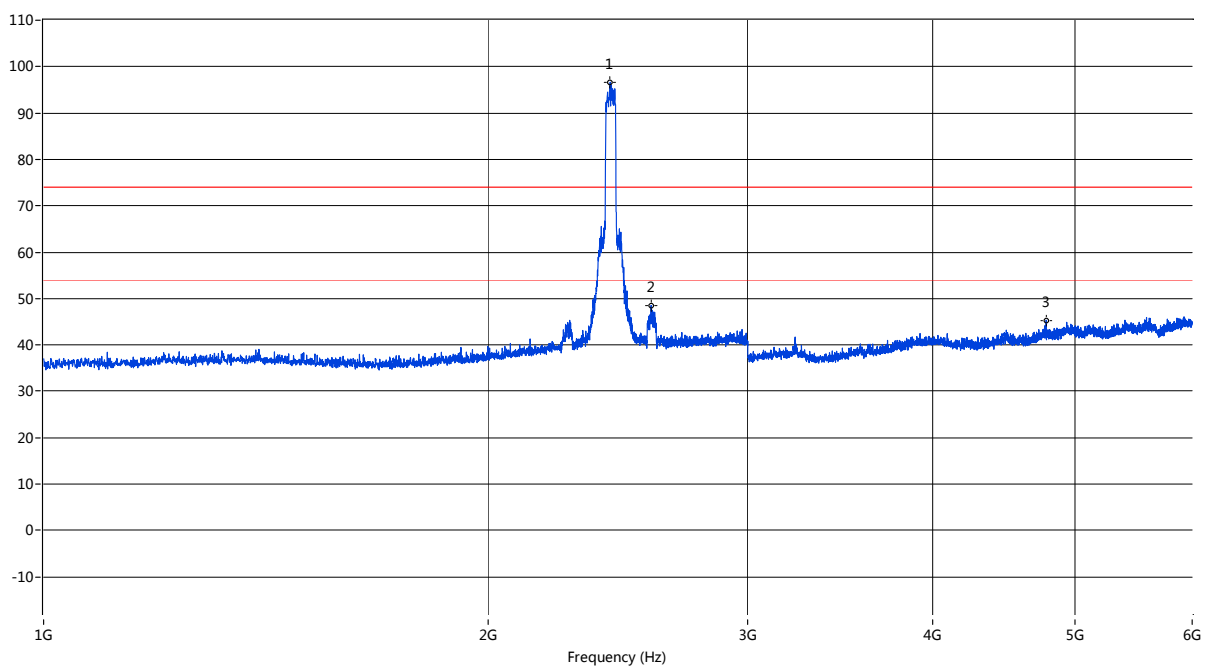
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	35.70	--	--	--	43.5	--	360.3	Horizontal	PASS
143.219	29.72	--	--	--	43.5	--	0.1	Horizontal	PASS
286.501	46.10	42.84	--	--	46.0	--	51.9	Horizontal	PASS
333.292	36.20	--	--	--	46.0	--	95.5	Horizontal	PASS
639.978	38.81	--	--	--	46.0	--	0.1	Horizontal	PASS

802.11n-40MHz LOW MODE 1GHz to 6GHz, ANT V



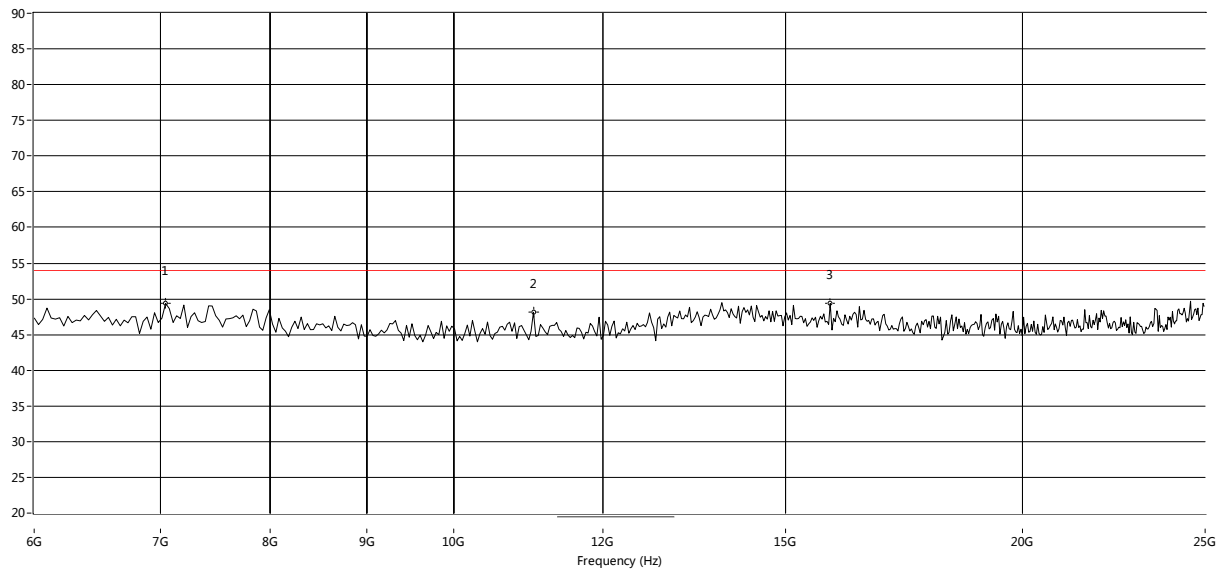
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2262.684	51.94	--	--	74.0	--	54.0	150.8	Vertical	PASS
2423.144	105.17	--	--	74.0	--	54.0	172.0	Vertical	N/A
2579.105	54.95	--	45.65	74.0	--	54.0	89.0	Vertical	PASS

802.11n-40MHz LOW MODE 1GHz to 6GHz, ANT H



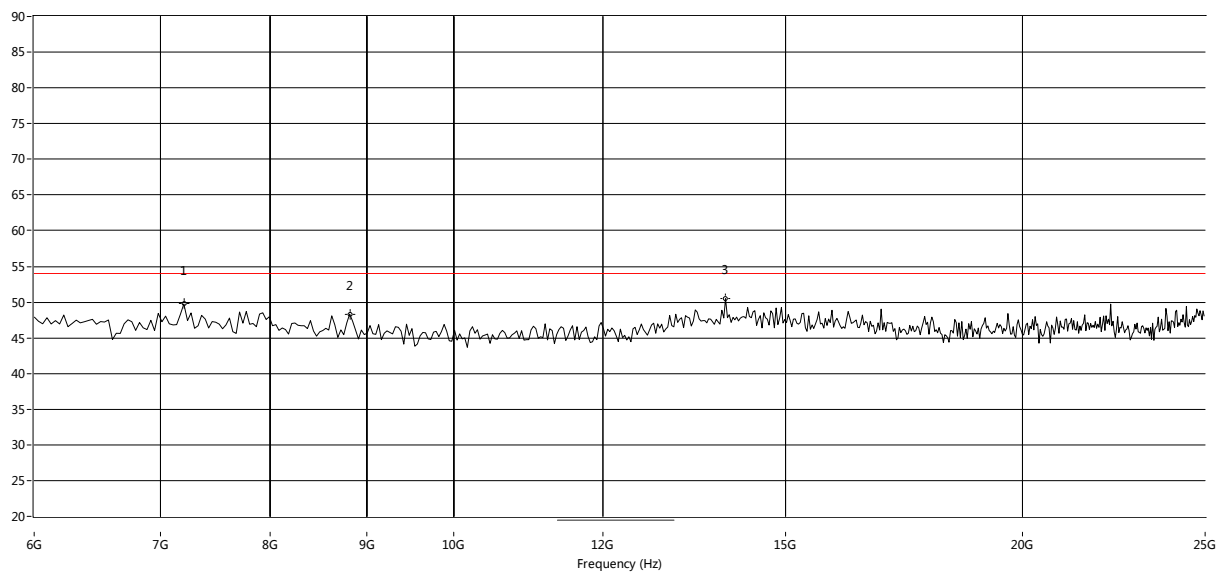
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2419.645	96.58	--	--	74.0	--	54.0	2.0	Horizontal	N/A
2579.605	48.51	--	--	74.0	--	54.0	7.1	Horizontal	PASS
4694.601	37.11	--	--	74.0	--	54.0	336.1	Horizontal	PASS

802.11n-40MHz LOW MODE 6GHz to 25GHz, ANT V



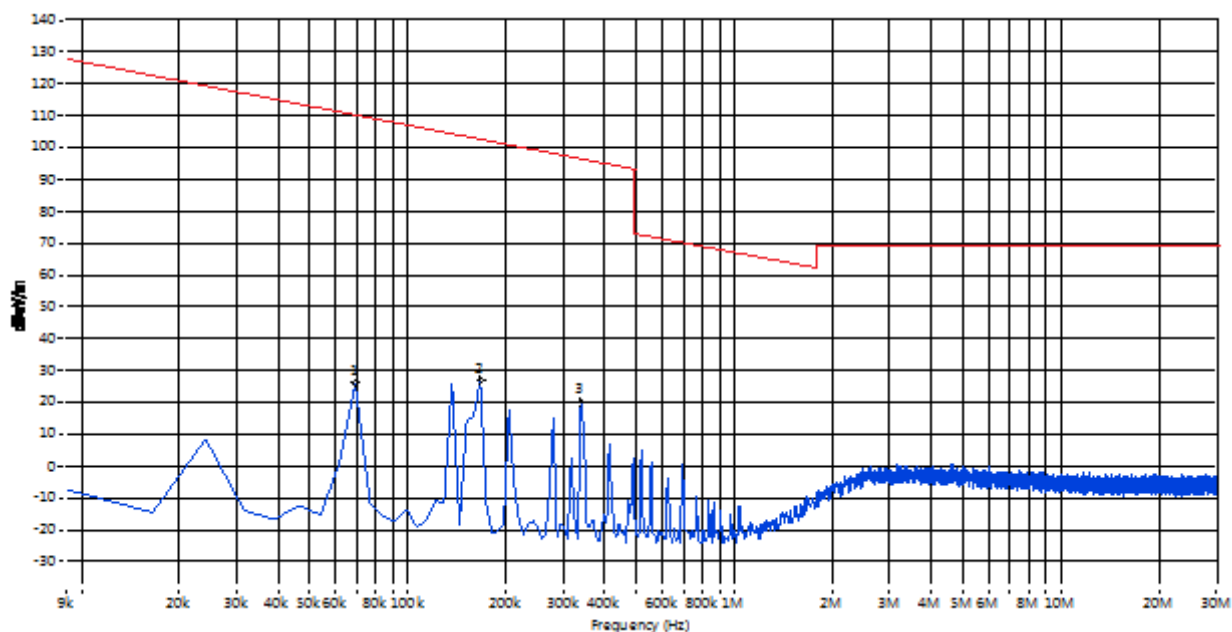
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7043.261	49.34	54.0	4.7	0.0	Vertical	PASS
11026.622	48.13	54.0	5.9	0.0	Vertical	PASS
15831.947	49.36	54.0	4.6	0.0	Vertical	PASS

802.11n-40MHz LOW MODE 6GHz to 25GHz, ANT H



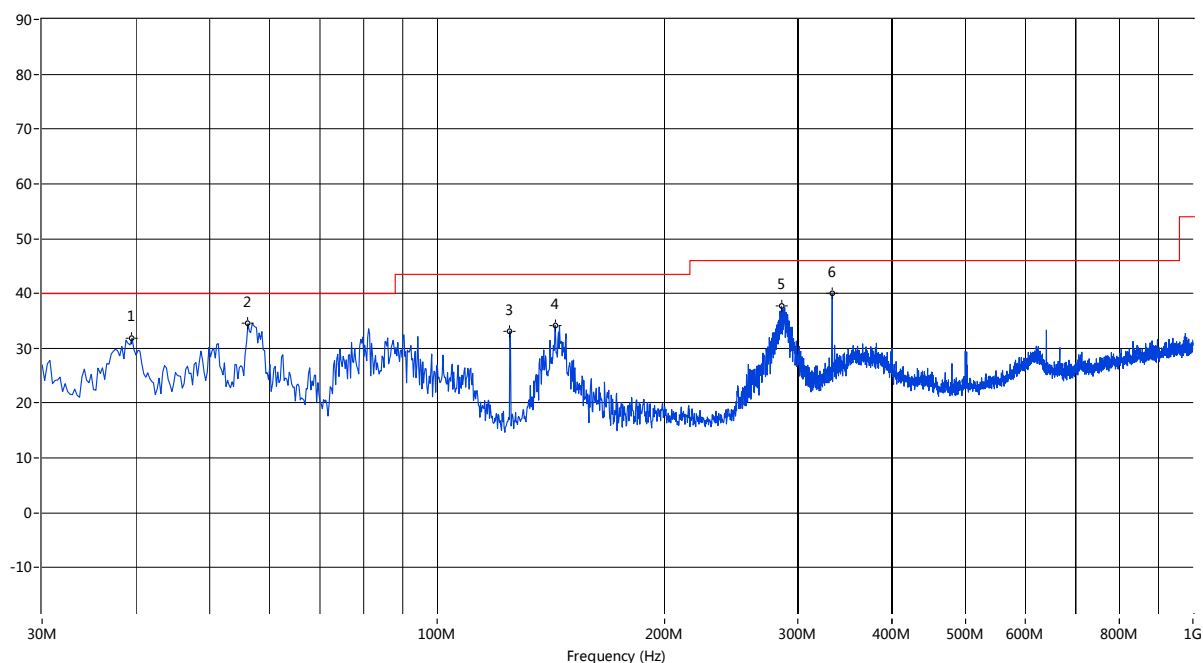
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7201.331	51.04	54.0	4.0	0.0	Horizontal	PASS
8813.644	48.32	54.0	5.7	0.0	Horizontal	PASS
13843.594	50.42	54.0	4.6	0.0	Horizontal	PASS

802.11n-40MHz MID MODE Below 30MHz



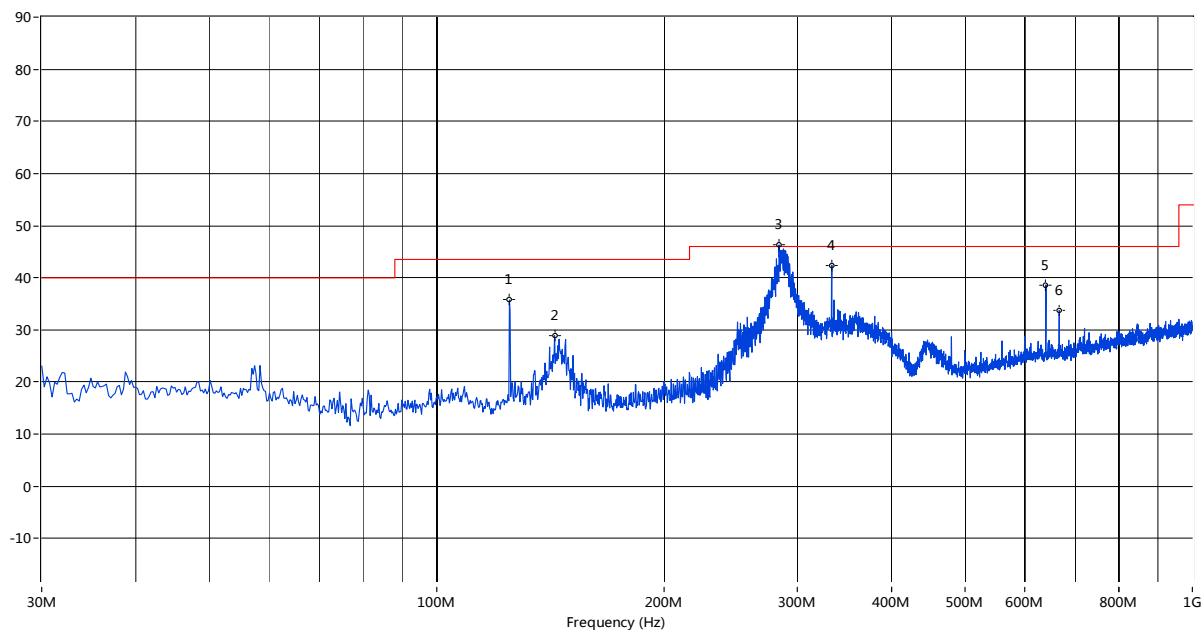
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	25.80	--	--	--	110.8	--	0.0	PASS
0.166	26.93	--	--	--	103.2	--	0.0	PASS
0.339	20.09	--	--	--	97.0	--	0.0	PASS

802.11n-40MHZ MID MODE 30MHz to 1GHz, ANT V



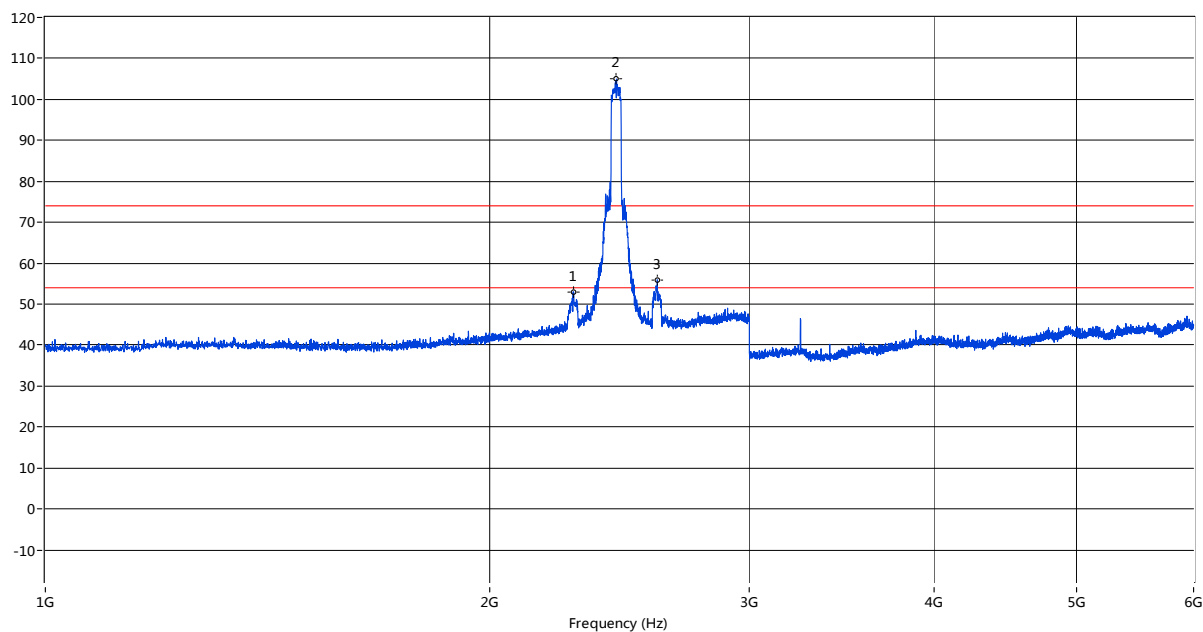
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
56.183	34.49	--	--	--	40.0	--	12.5	Vertical	PASS
124.794	33.15	--	--	--	43.5	--	298.7	Vertical	PASS
143.219	34.17	--	--	--	43.5	--	11.0	Vertical	PASS
285.531	37.68	--	--	--	46.0	--	0.6	Vertical	PASS
333.292	40.07	--	--	--	46.0	--	-0.8	Vertical	PASS

802.11n-40MHZ MID MODE 30MHz to 1GHz, ANT H



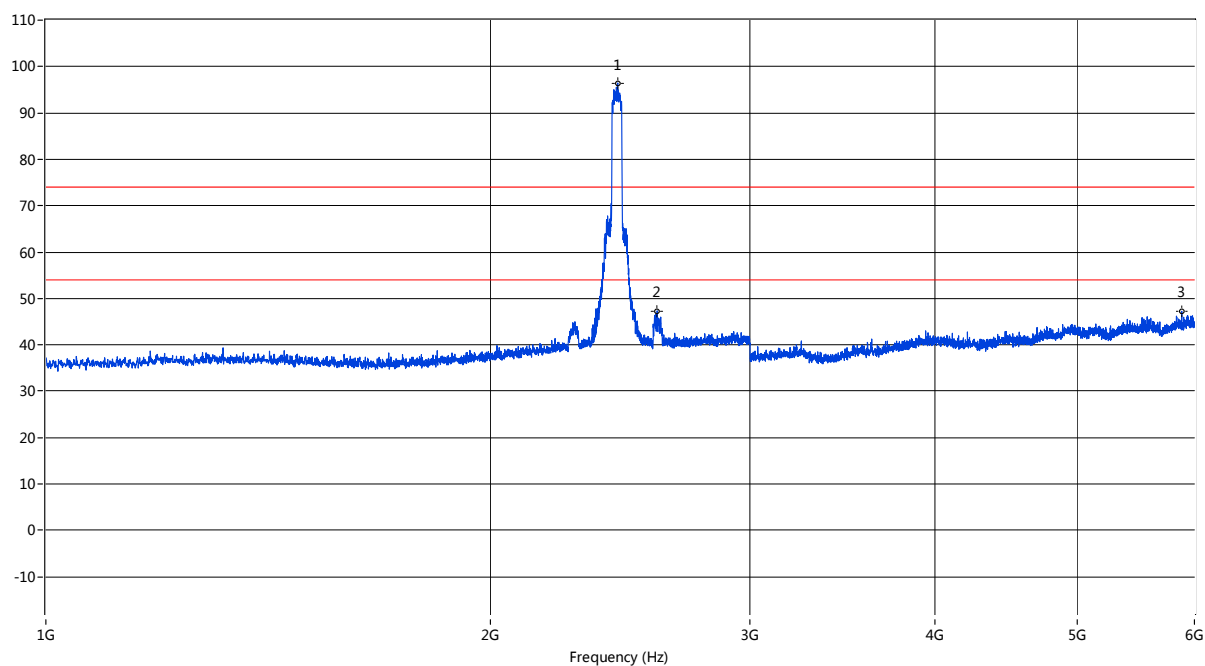
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	35.74	--	--	--	43.5	--	1.6	Horizontal	PASS
143.219	28.91	--	--	--	43.5	--	2.9	Horizontal	PASS
283.834	46.31	42.69	--	--	46.0	--	73.4	Horizontal	PASS
333.292	42.44	--	--	--	46.0	--	280.8	Horizontal	PASS
639.978	38.63	--	--	--	46.0	--	7.7	Horizontal	PASS
666.646	33.75	--	--	--	46.0	--	350.8	Horizontal	PASS

802.11n-40MHZ MID MODE 1GHz to 6GHz, ANT V



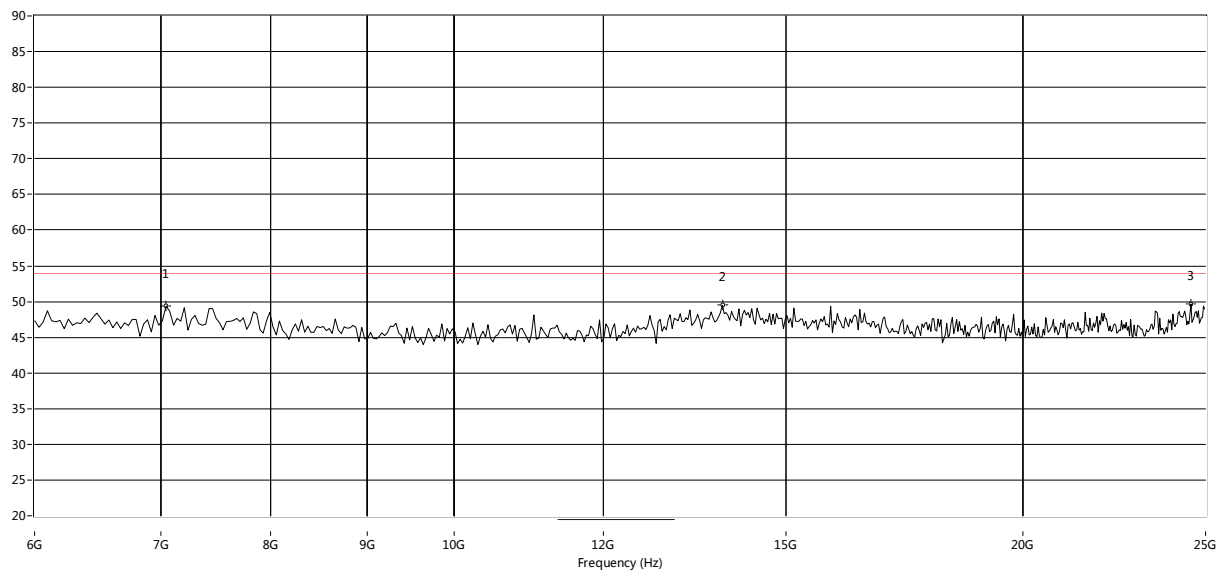
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2278.680	53.01	--	--	74.0	--	54.0	168.3	Vertical	PASS
2438.140	104.96	--	--	74.0	--	54.0	153.5	Vertical	N/A
2598.600	55.98	--	46.15	74.0	--	54.0	223.9	Vertical	PASS

802.11n-40MHZ MID MODE 1GHz to 6GHz, ANT H



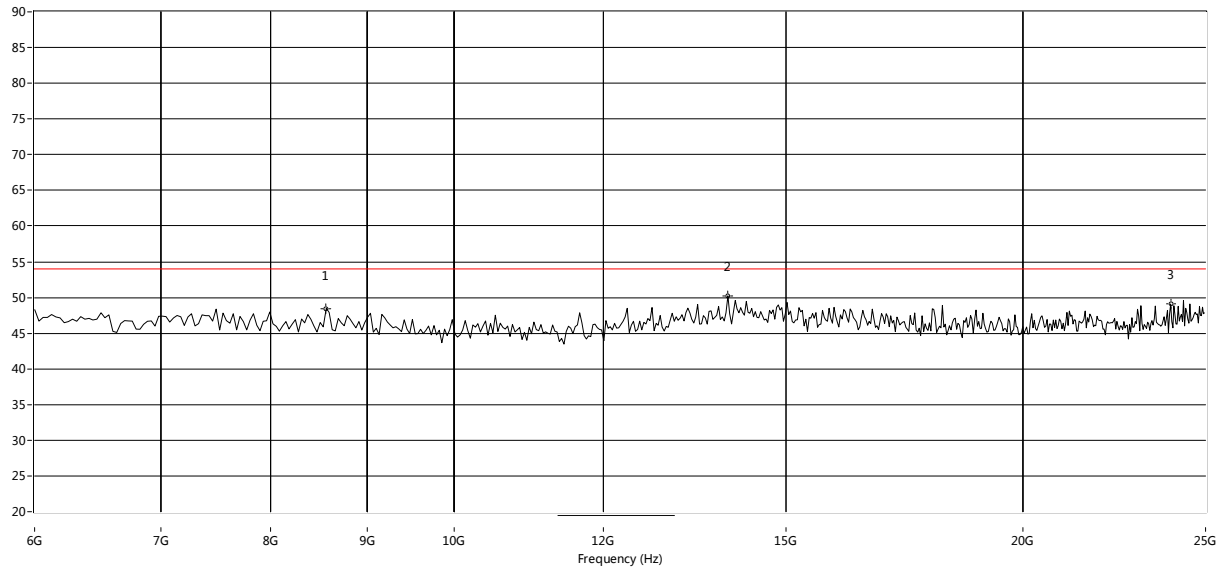
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2439.640	96.38	--	--	74.0	--	54.0	-0.4	Horizontal	N/A
2595.101	47.32	--	--	74.0	--	54.0	4.7	Horizontal	PASS
5881.530	47.24	--	--	74.0	--	54.0	26.5	Horizontal	PASS

802.11n-40MHZ MID MODE 6GHz to 25GHz, ANT V



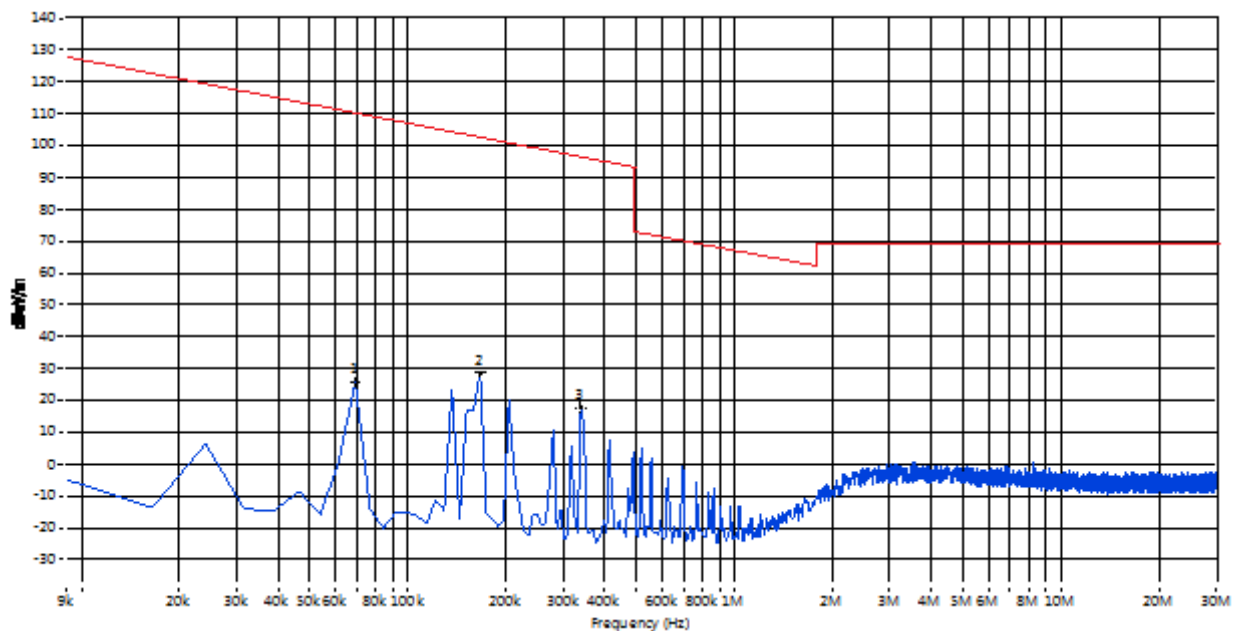
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7043.261	49.34	54.0	4.7	0.0	Vertical	PASS
13871.880	49.48	54.0	4.5	0.0	Vertical	PASS
23956.739	47.43	54.0	6.6	0.0	Vertical	PASS

802.11n-40MHz MID MODE 6GHz to 25GHz, ANT H



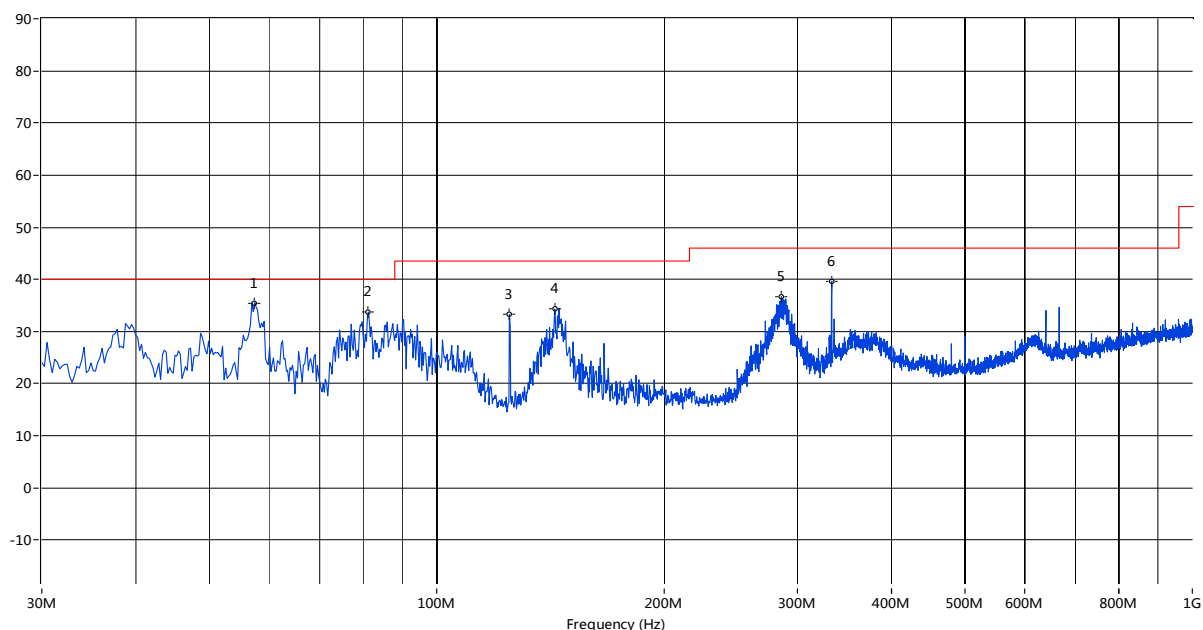
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
8560.732	48.48	54.0	5.5	0.0	Horizontal	PASS
13966.722	50.23	54.0	3.8	0.0	Horizontal	PASS
24336.106	49.58	54.0	4.4	0.0	Horizontal	PASS

802.11n-40MHz HIGH MODE Below 30MHz



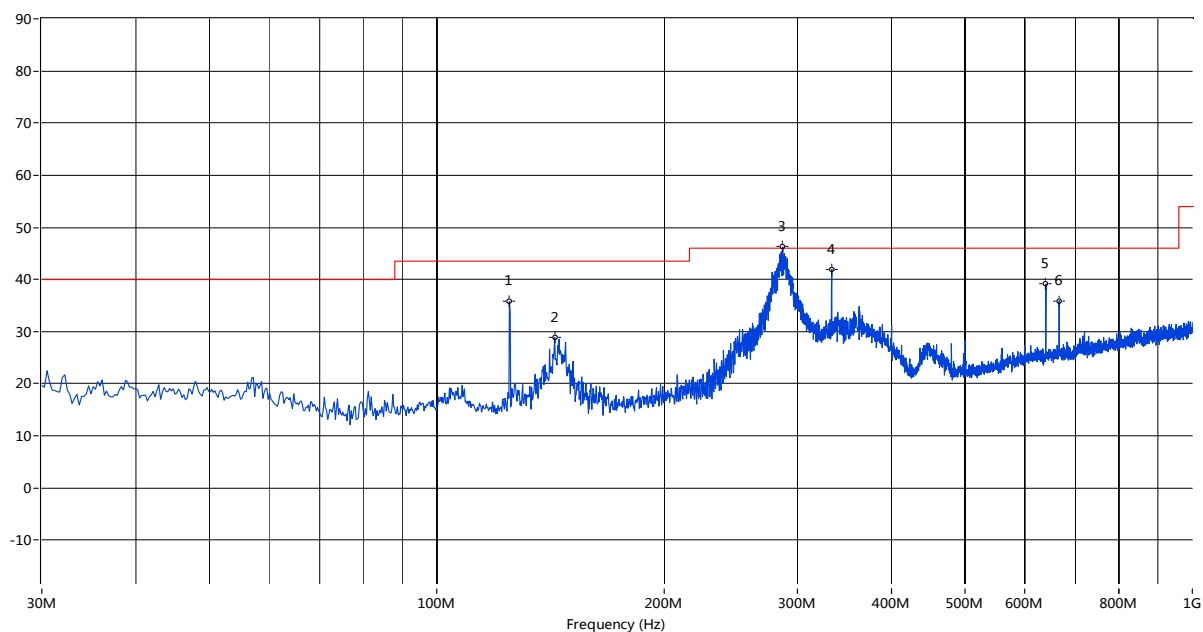
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	25.80	--	--	--	110.8	--	0.0	PASS
0.166	26.93	--	--	--	103.2	--	0.0	PASS
0.339	20.09	--	--	--	97.0	--	0.0	PASS

802.11n-40MHZ HIGH MODE 30MHz to 1GHz, ANT V



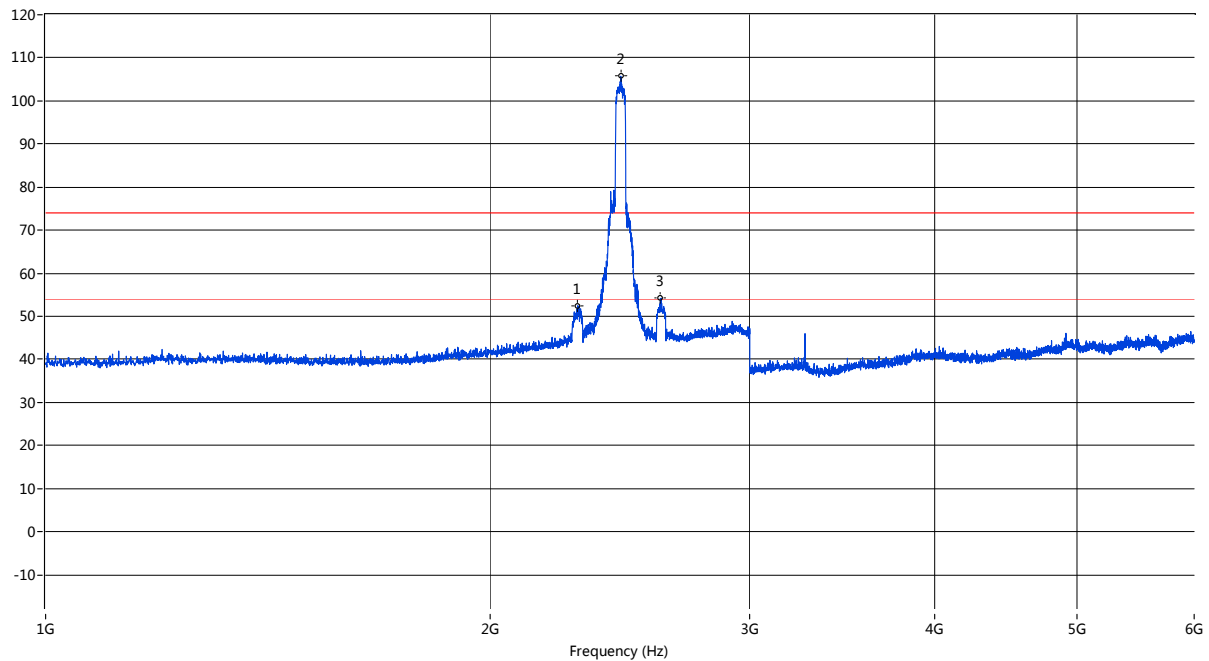
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
57.396	35.52	--	--	--	40.0	--	301.4	Vertical	PASS
81.155	33.76	--	--	--	40.0	--	269.7	Vertical	PASS
124.794	33.26	--	--	--	43.5	--	303.2	Vertical	PASS
143.219	34.28	--	--	--	43.5	--	354.7	Vertical	PASS
333.292	39.66	--	--	--	46.0	--	0.2	Vertical	PASS

802.11n-40MHZ HIGH MODE 30MHz to 1GHz, ANT H



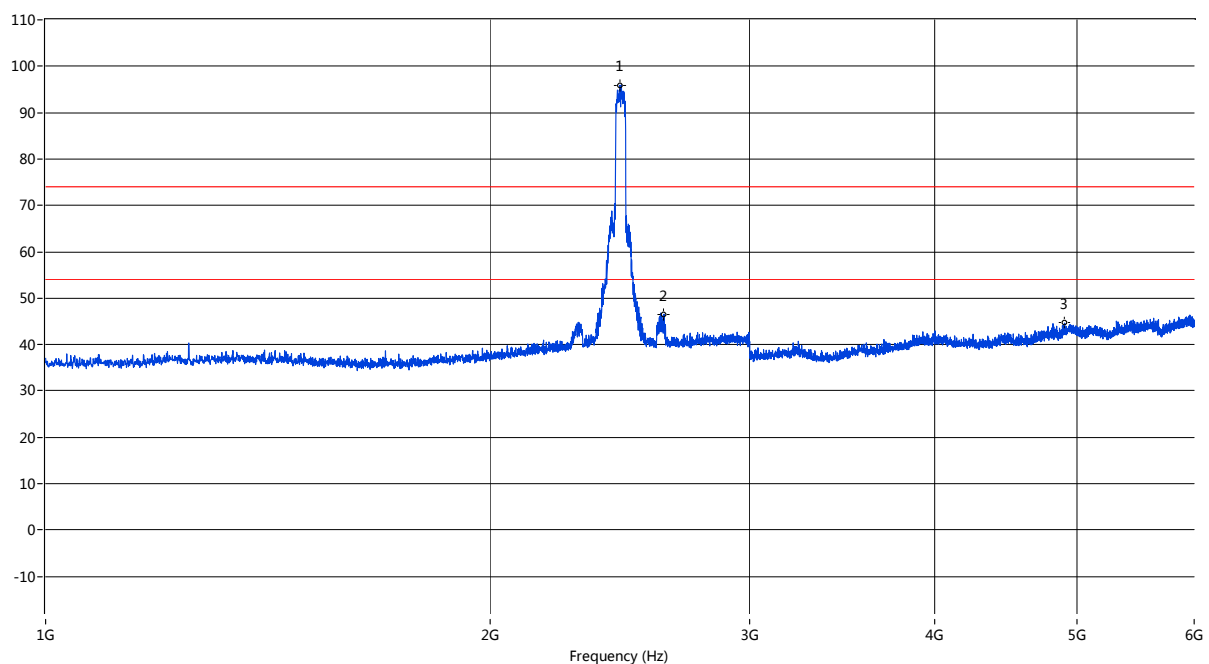
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	35.75	--	--	--	43.5	--	2.5	Horizontal	PASS
143.219	28.91	--	--	--	43.5	--	2.9	Horizontal	PASS
286.986	46.24	42.39	--	--	46.0	--	63.3	Horizontal	PASS
333.292	41.99	--	--	--	46.0	--	315.5	Horizontal	PASS
639.978	39.14	--	--	--	46.0	--	-0.5	Horizontal	PASS

802.11n-40MHz HIGH MODE 1GHz to 6GHz, ANT V



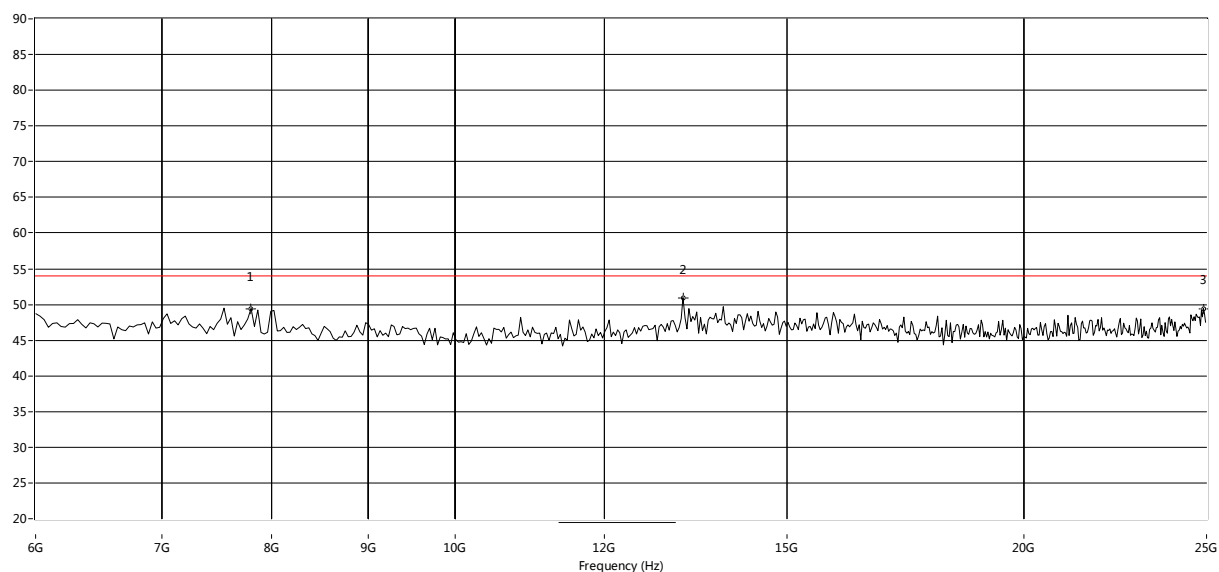
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2293.677	52.47	--	--	74.0	--	54.0	166.8	Vertical	PASS
2453.137	105.72	--	--	74.0	--	54.0	152.3	Vertical	N/A
2609.598	54.15	--	45.84	74.0	--	54.0	178.1	Vertical	PASS

802.11n-40MHz HIGH MODE 1GHz to 6GHz, ANT H



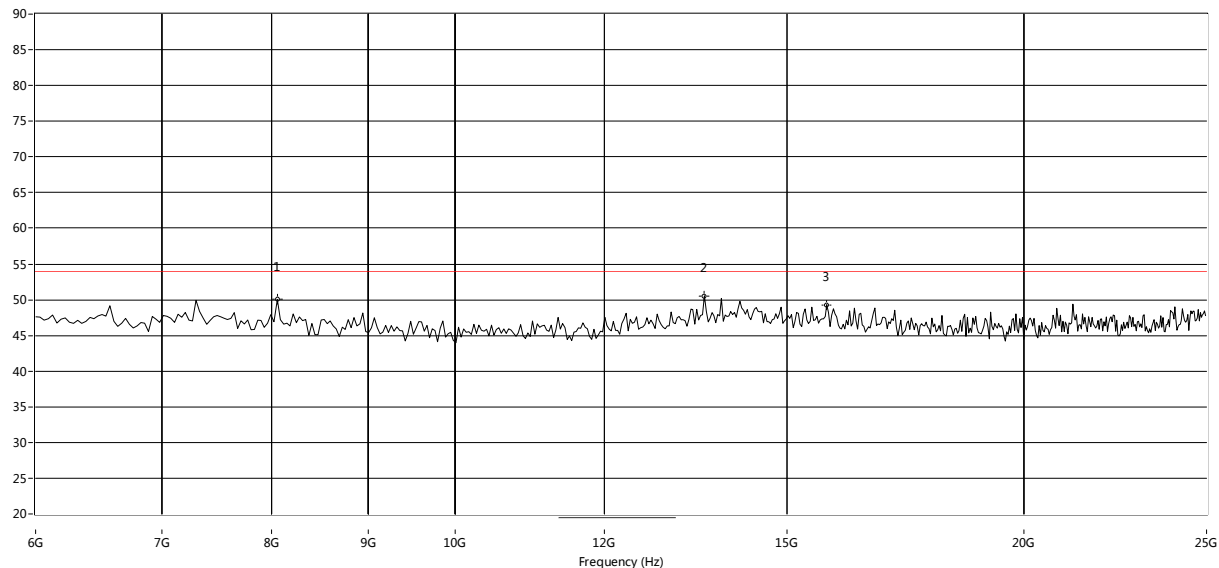
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2450.137	95.91	--	--	74.0	--	54.0	0.1	Horizontal	N/A
2624.094	46.57	--	--	74.0	--	54.0	50.9	Horizontal	PASS
4813.047	44.50	--	--	74.0	--	54.0	297.4	Horizontal	PASS

802.11n-40MHZ HIGH MODE 6GHz to 25GHz, ANT V



Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7801.997	49.45	54.0	4.5	0.0	Vertical	PASS
13207.987	50.96	54.0	3.0	0.0	Vertical	PASS
24557.404	48.00	54.0	6.0	0.0	Vertical	PASS

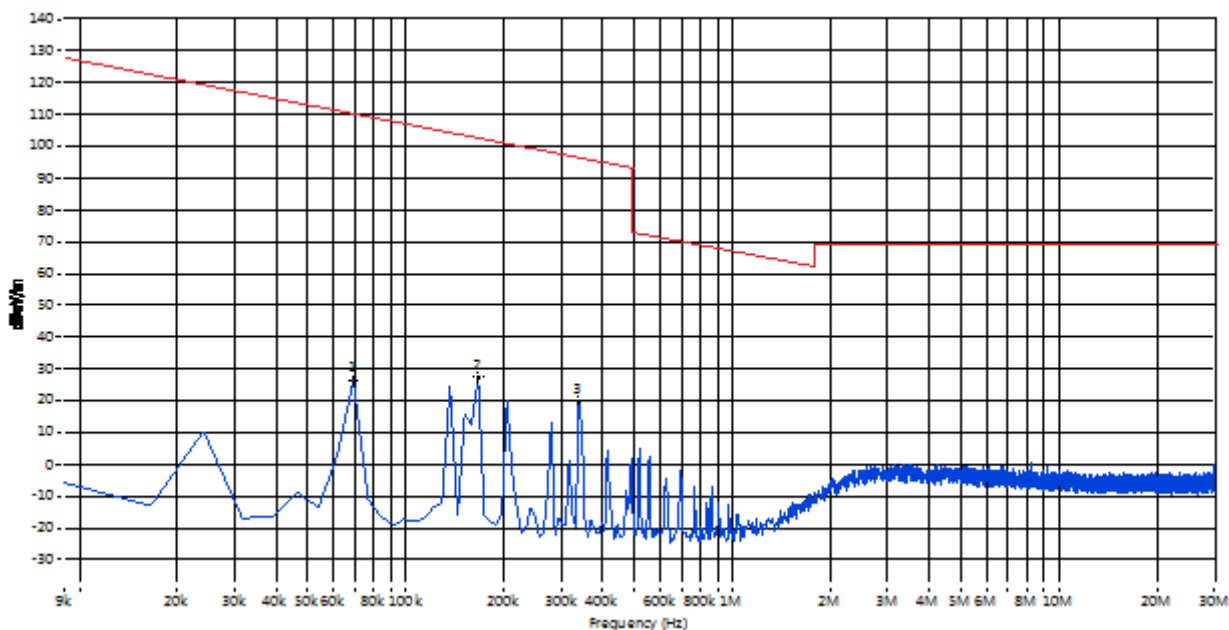
802.11n-40MHZ HIGH MODE 6GHz to 25GHz, ANT H



Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
8054.908	50.03	54.0	4.0	0.0	Horizontal	PASS
13555.740	50.53	54.0	3.5	0.0	Horizontal	PASS
15905.158	48.11	54.0	5.9	0.0	Horizontal	PASS

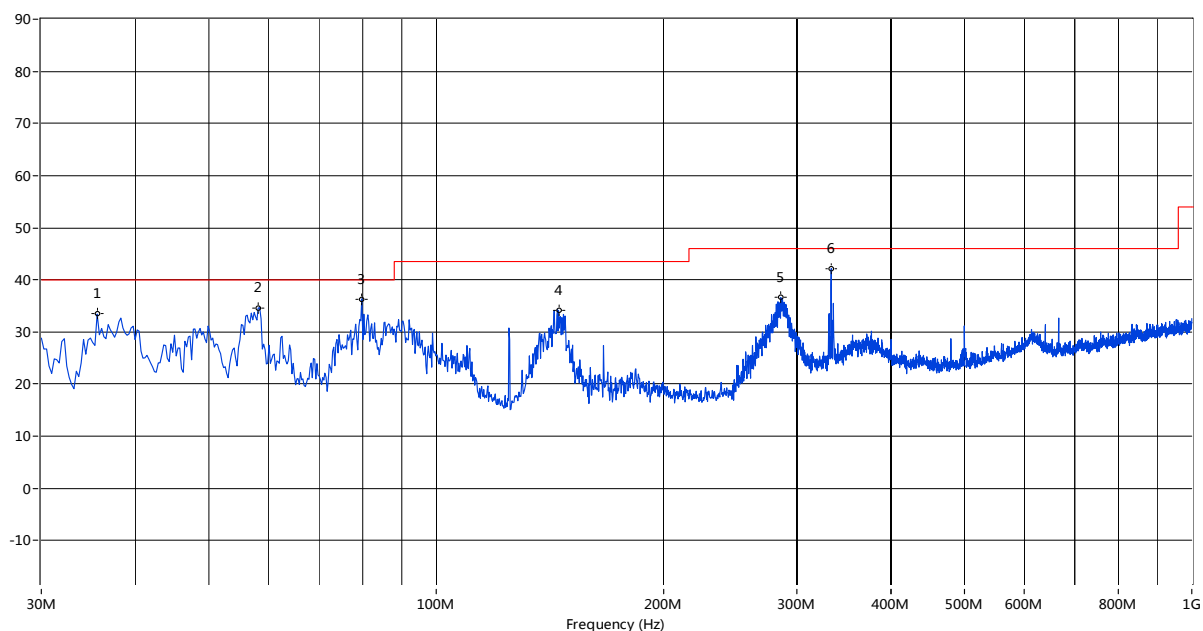
Test Data and Plots (Ant 1)

802.11b LOW CHANNEL Below 30MHz



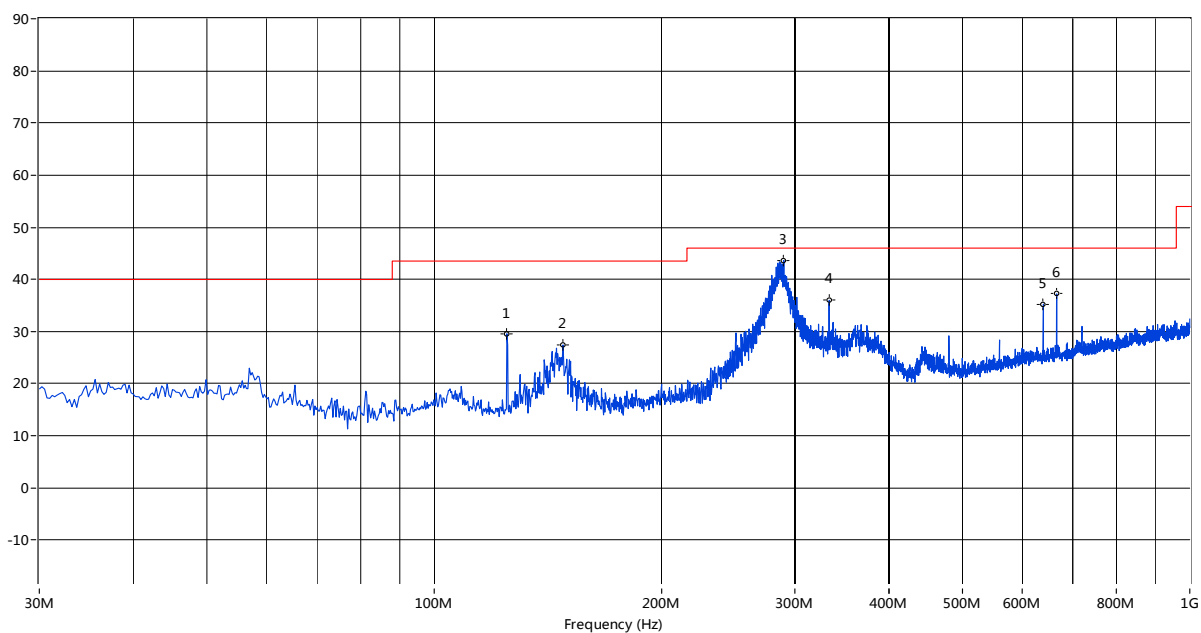
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	25.70	--	--	--	110.8	--	0.0	PASS
0.166	28.86	--	--	--	103.2	--	0.0	PASS
0.339	17.58	--	--	--	97.0	--	0.0	PASS

802.11b LOW CHANNEL 30MHz to 1GHz, ANT V



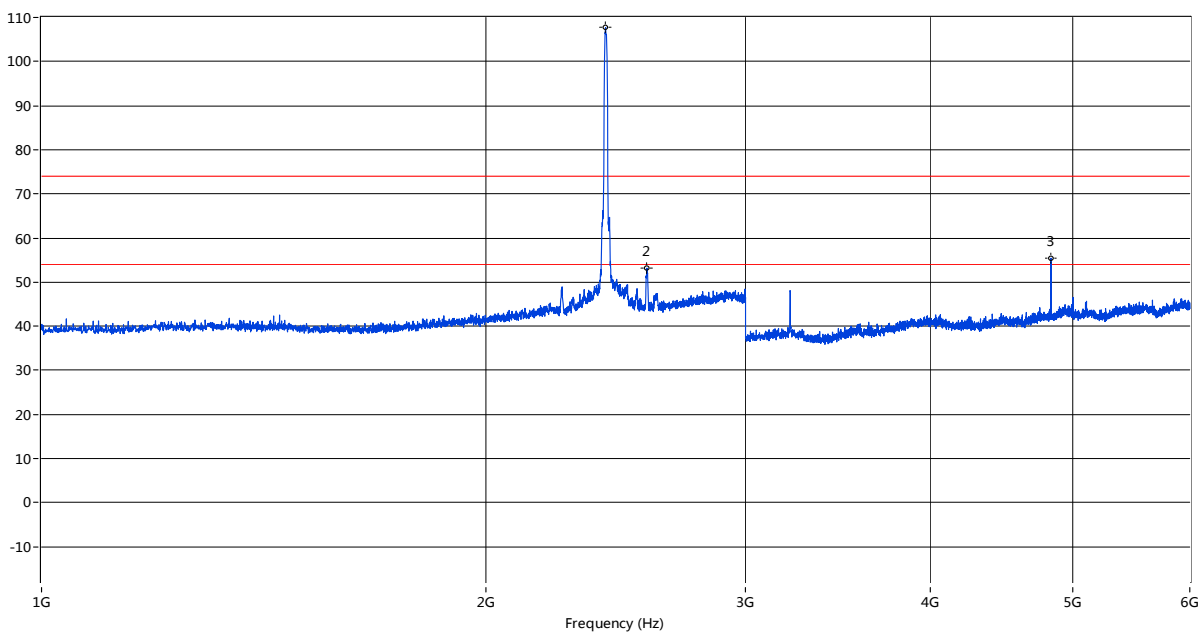
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
35.576	33.46	--	--	--	40.0	--	31.0	Vertical	PASS
58.123	34.61	--	--	--	40.0	--	3.7	Vertical	PASS
79.700	36.36	--	--	--	40.0	--	342.5	Vertical	PASS
145.159	34.07	--	--	--	43.5	--	3.7	Vertical	PASS
285.774	36.59	--	--	--	46.0	--	-0.0	Vertical	PASS
333.292	42.15	--	--	--	46.0	--	-0.0	Vertical	PASS

802.11b LOW CHANNEL 30MHz to 1GHz, ANT H



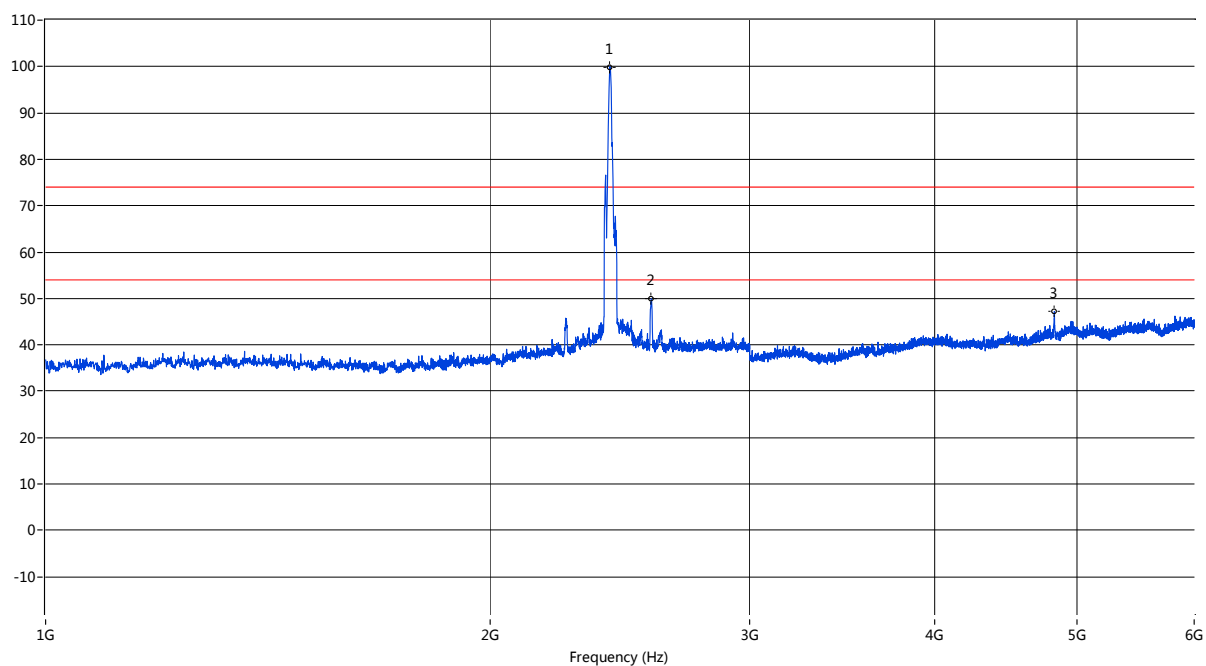
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	29.58	--	--	--	43.5	--	359.4	Horizontal	PASS
290.137	43.62	41.98	--	--	46.0	--	76.9	Horizontal	PASS
333.292	35.98	--	--	--	46.0	--	111.3	Horizontal	PASS
639.978	35.24	--	--	--	46.0	--	348.3	Horizontal	PASS
666.646	37.23	--	--	--	46.0	--	359.1	Horizontal	PASS

802.11b LOW CHANNEL 1GHz to 6GHz, ANT V



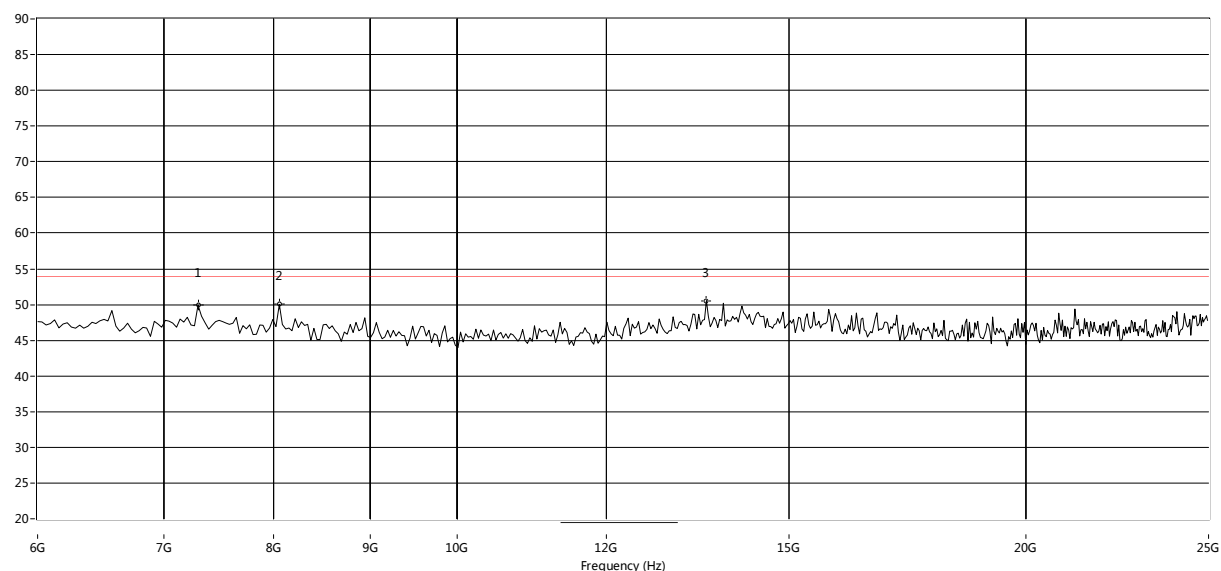
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2411.647	107.72	--	--	74.0	--	54.0	142.8	Vertical	N/A
2572.107	53.19	--	--	74.0	--	54.0	226.2	Vertical	PASS
4831.792	55.43	--	47.52	74.0	--	54.0	248.2	Vertical	PASS

802.11b LOW CHANNEL 1GHz to 6GHz, ANT H



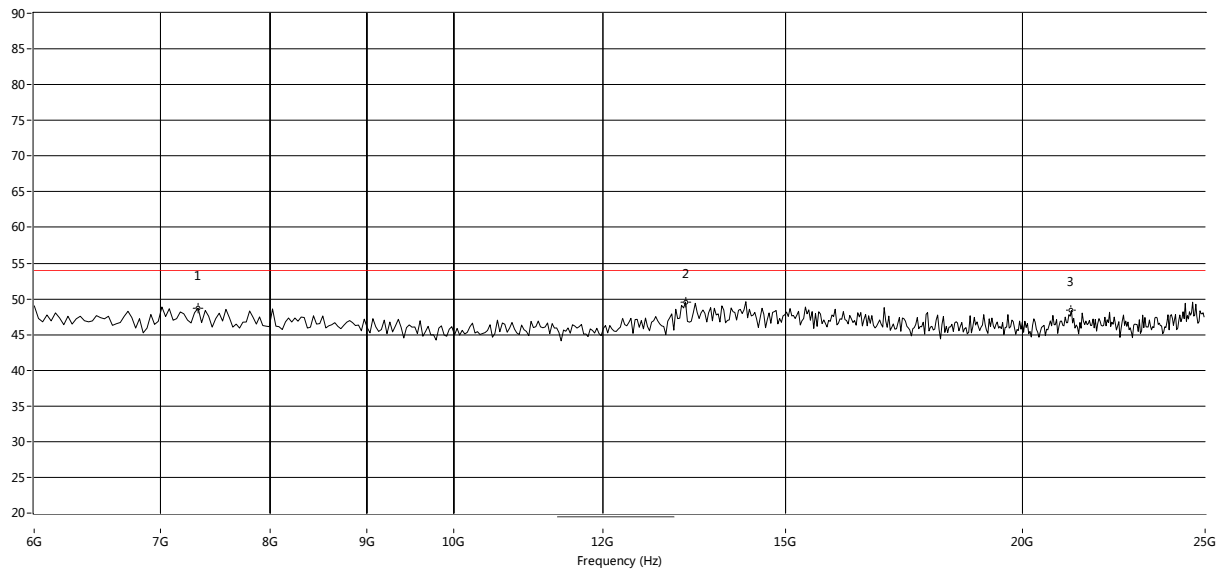
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2411.147	99.94	--	--	74.0	--	54.0	360.6	Horizontal	N/A
2572.107	49.93	--	--	74.0	--	54.0	3.5	Horizontal	PASS
4823.544	47.15	--	--	74.0	--	54.0	139.6	Horizontal	PASS

802.11b LOW CHANNEL 6GHz to 25GHz, ANT V



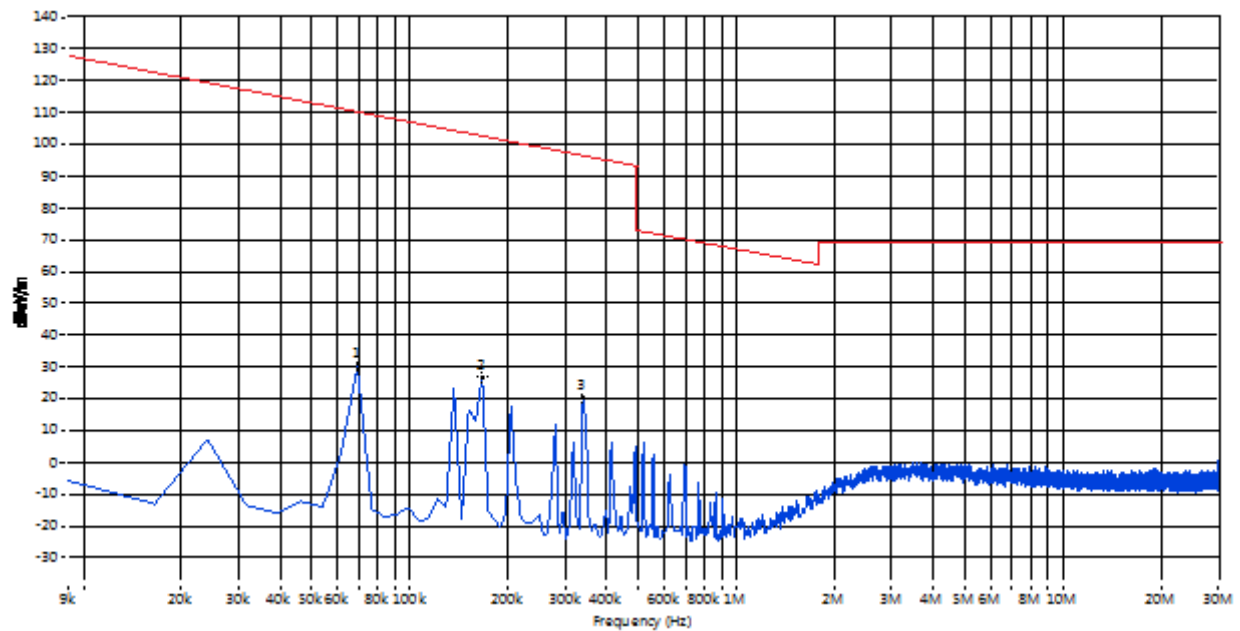
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7296.173	49.93	54.0	4.1	0.0	Vertical	PASS
8086.287	46.29	54.0	7.7	0.0	Vertical	PASS
13271.215	49.39	54.0	4.6	0.0	Vertical	PASS

802.11b LOW CHANNEL 6GHz to 25GHz, ANT H



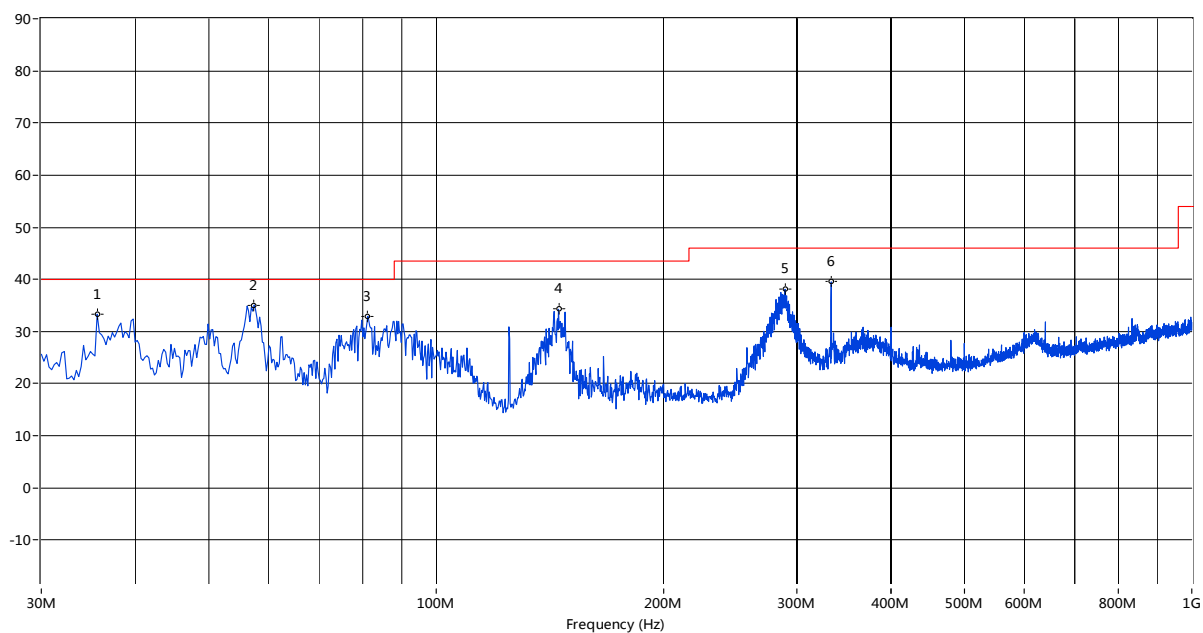
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7327.787	48.70	54.0	5.3	0.0	Horizontal	PASS
13271.215	49.56	54.0	4.4	0.0	Horizontal	PASS
21237.937	48.41	54.0	5.6	0.0	Horizontal	PASS

802.11b MID CHANNEL Below 30MHz



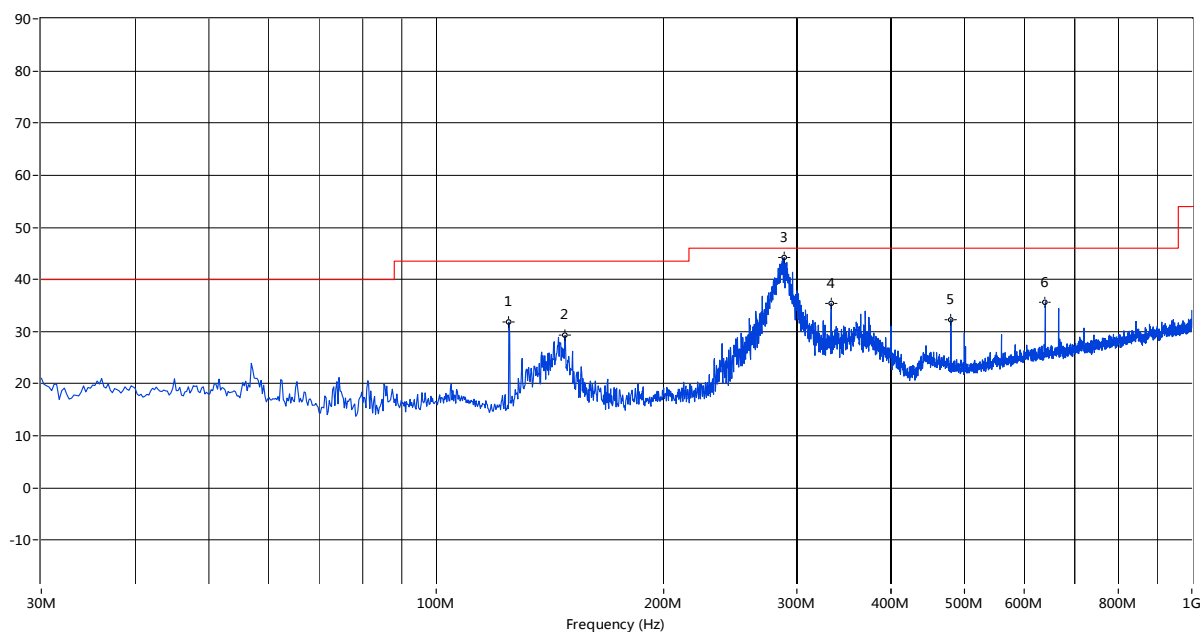
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	26.14	--	--	--	110.8	--	0.0	PASS
0.166	27.21	--	--	--	103.2	--	0.0	PASS
0.339	19.91	--	--	--	97.0	--	0.0	PASS

802.11b MID CHANNEL 30MHz to 1GHz, ANT V



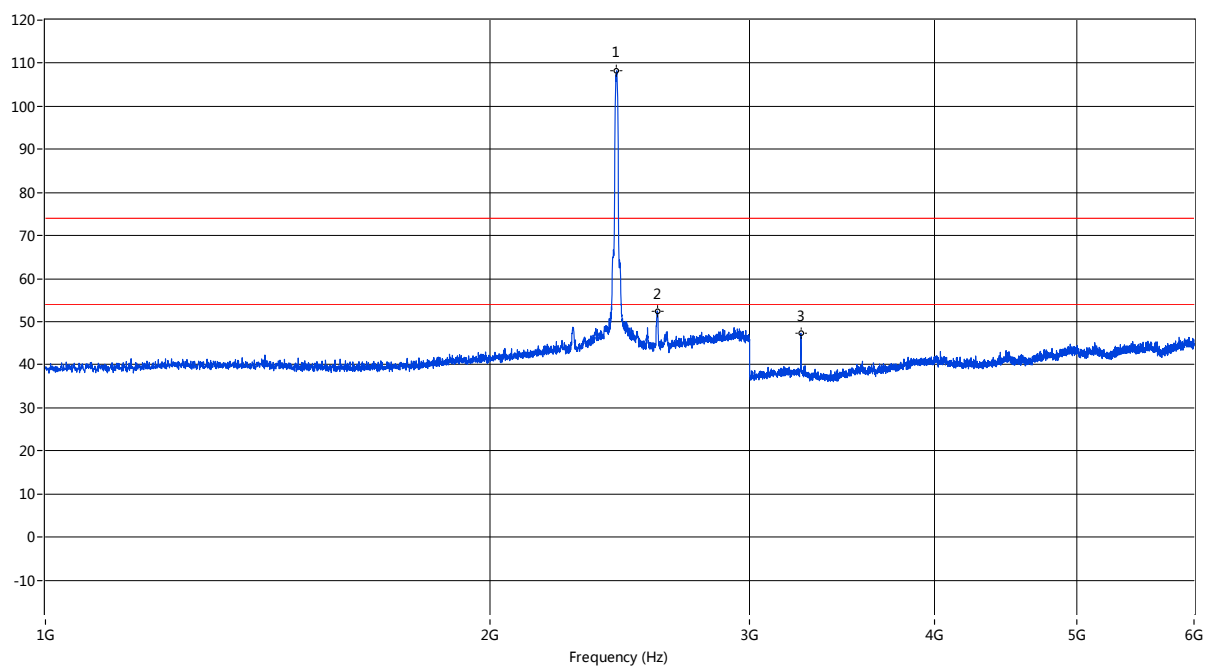
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
57.396	35.10	--	--	--	40.0	--	98.7	Vertical	PASS
81.155	32.93	--	--	--	40.0	--	325.1	Vertical	PASS
145.159	34.29	--	--	--	43.5	--	352.9	Vertical	PASS
289.410	38.11	--	--	--	46.0	--	356.6	Vertical	PASS
333.292	39.54	--	--	--	46.0	--	16.5	Vertical	PASS

802.11b MID CHANNEL 30MHz to 1GHz, ANT H



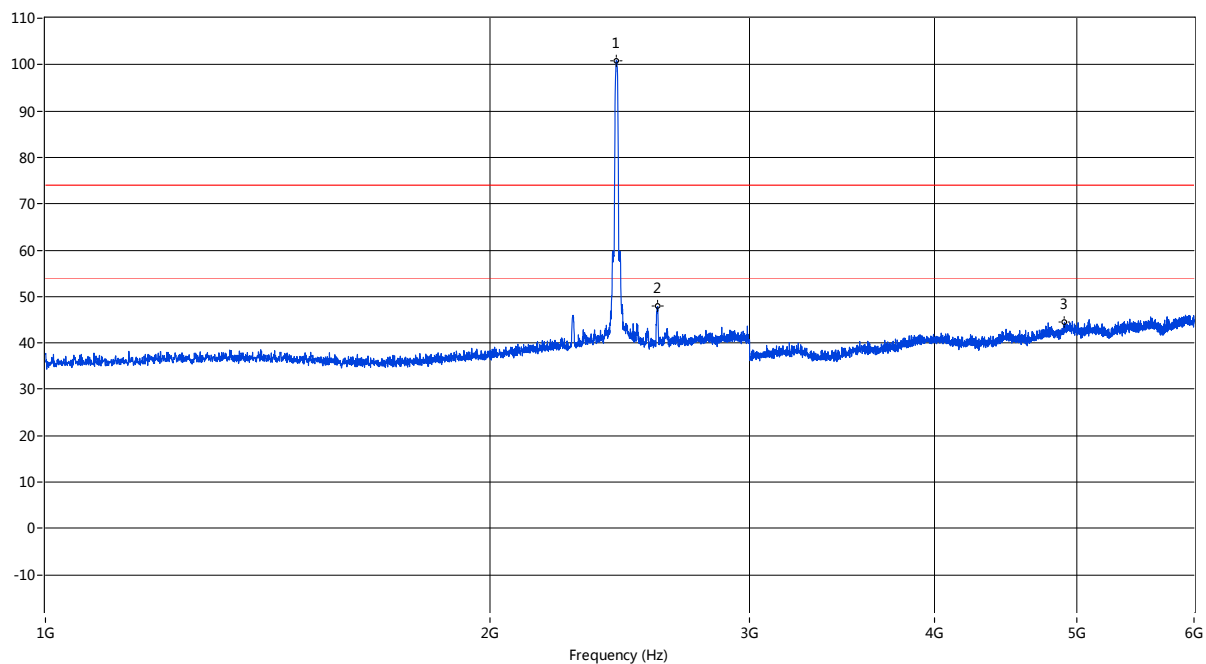
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	31.81	--	--	--	43.5	--	-0.0	Horizontal	PASS
148.068	29.28	--	--	--	43.5	--	359.6	Horizontal	PASS
288.683	44.23	42.45	--	--	46.0	--	62.1	Horizontal	PASS
333.292	35.46	--	--	--	46.0	--	126.6	Horizontal	PASS
479.968	32.37	--	--	--	46.0	--	-0.0	Horizontal	PASS

802.11b MID CHANNEL 1GHz to 6GHz, ANT V



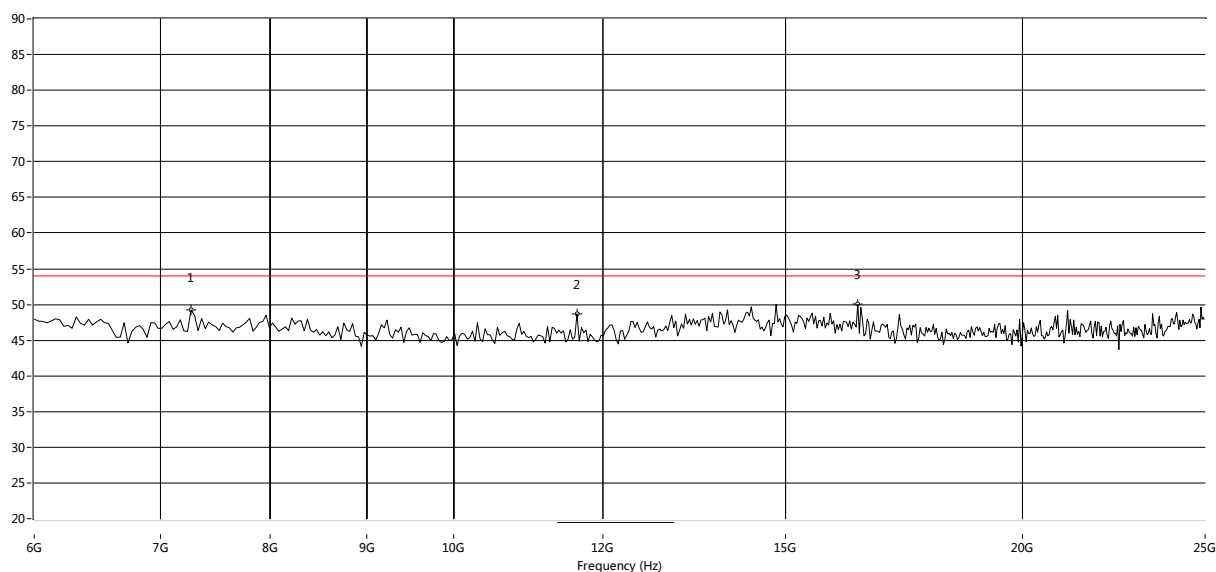
Fre. (MHz)	Pk	QP	AV	Limit-P K	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2438.140	108.26	--	--	74.0	--	54.0	137.2	Vertical	N/A
2597.101	52.48	--	--	74.0	--	54.0	262.9	Vertical	PASS
3248.938	47.25	--	--	74.0	--	54.0	133.9	Vertical	PASS

802.11b MID CHANNEL 1GHz to 6GHz, ANT H



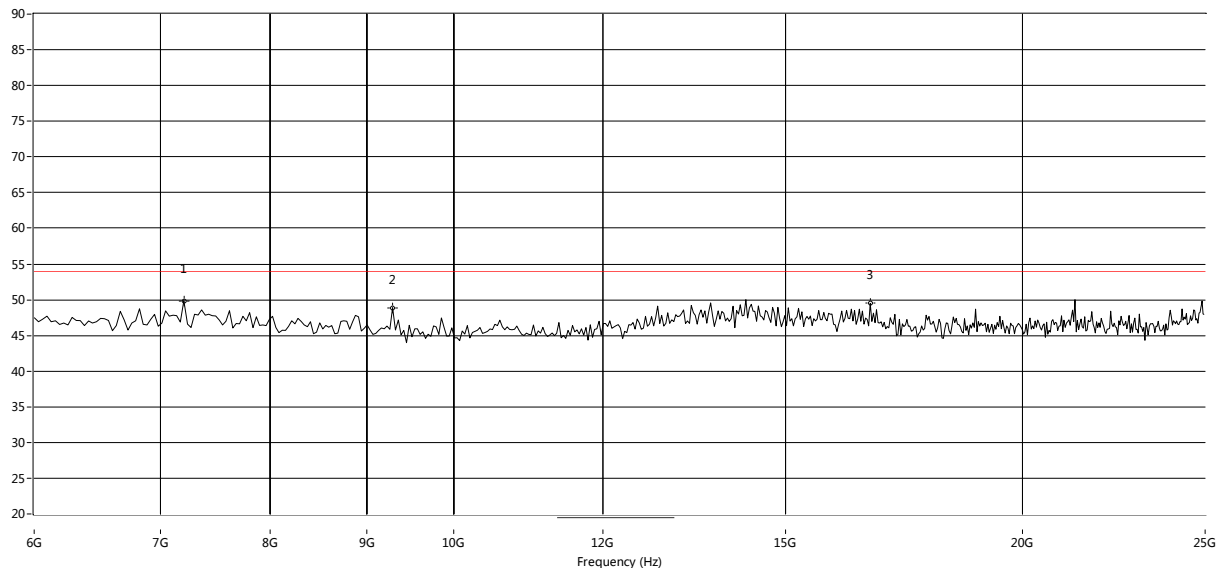
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2435.641	100.70	--	--	74.0	--	54.0	2.3	Horizontal	N/A
2599.100	47.86	--	--	74.0	--	54.0	269.8	Horizontal	PASS
4902.274	44.45	--	--	74.0	--	54.0	258.4	Horizontal	PASS

802.11b MID CHANNEL 6GHz to 25GHz, ANT V



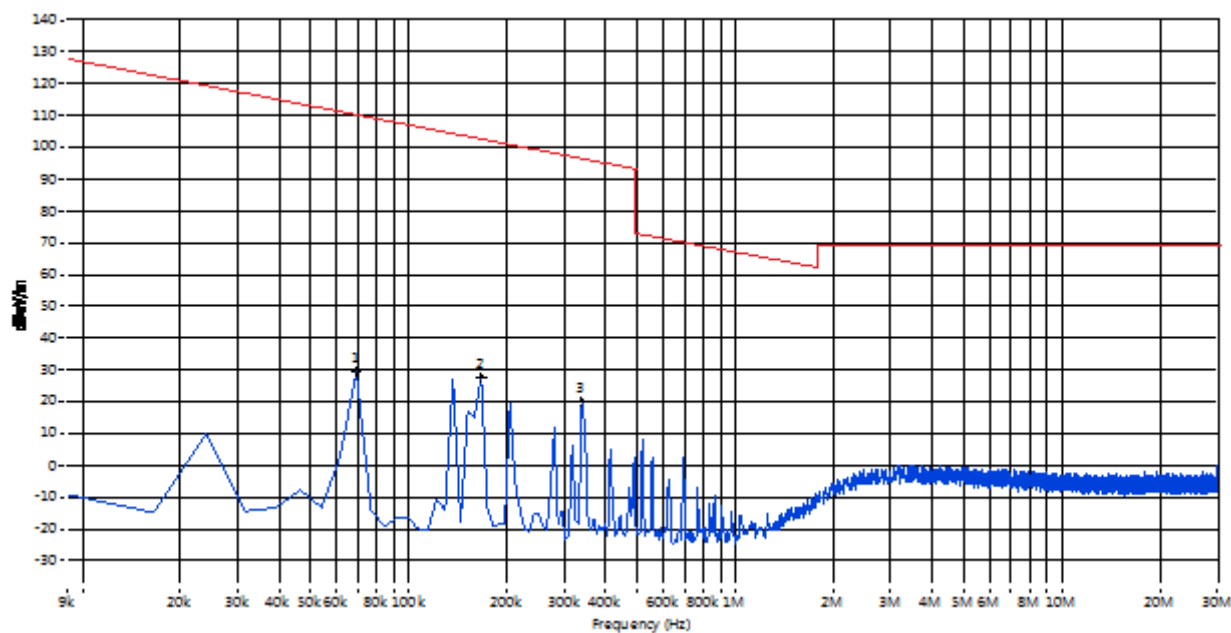
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7264.559	49.23	54.0	4.8	0.0	Vertical	PASS
11236.938	47.36	54.0	6.6	0.0	Vertical	PASS
16369.740	47.88	54.0	6.1	0.0	Vertical	PASS

802.11b MID CHANNEL 6GHz to 25GHz, ANT H



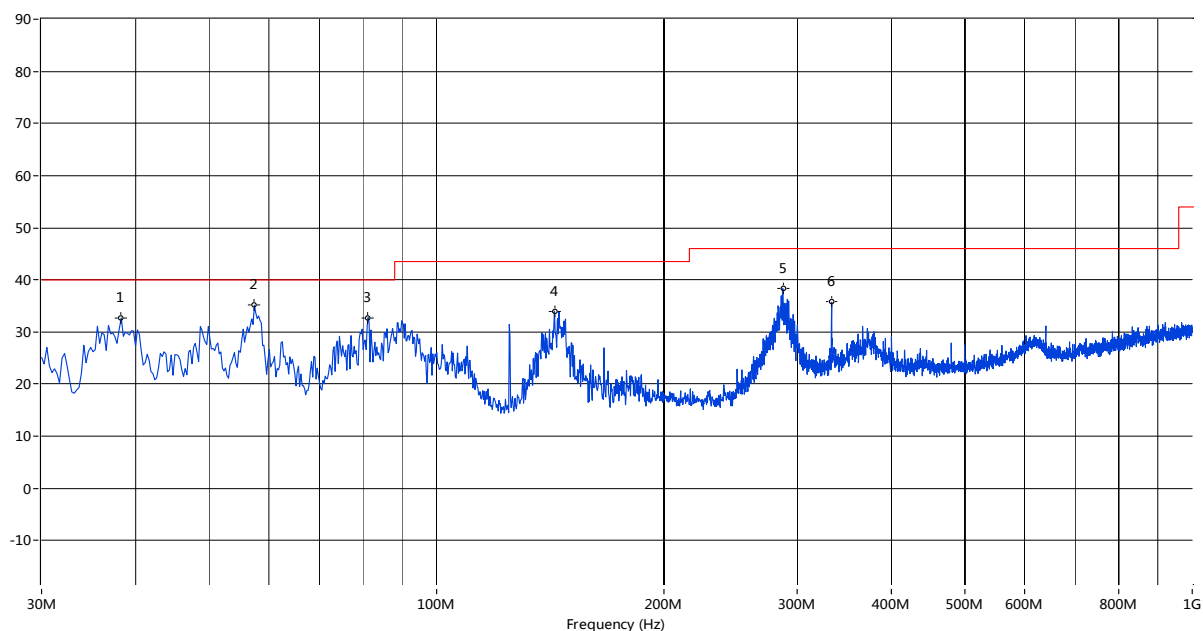
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7201.331	49.87	54.0	4.1	0.0	Horizontal	PASS
9287.854	48.89	54.0	5.1	0.0	Horizontal	PASS
16369.384	47.32	54.0	6.7	0.0	Horizontal	PASS

802.11b HIGH CHANNEL Below 30MHz



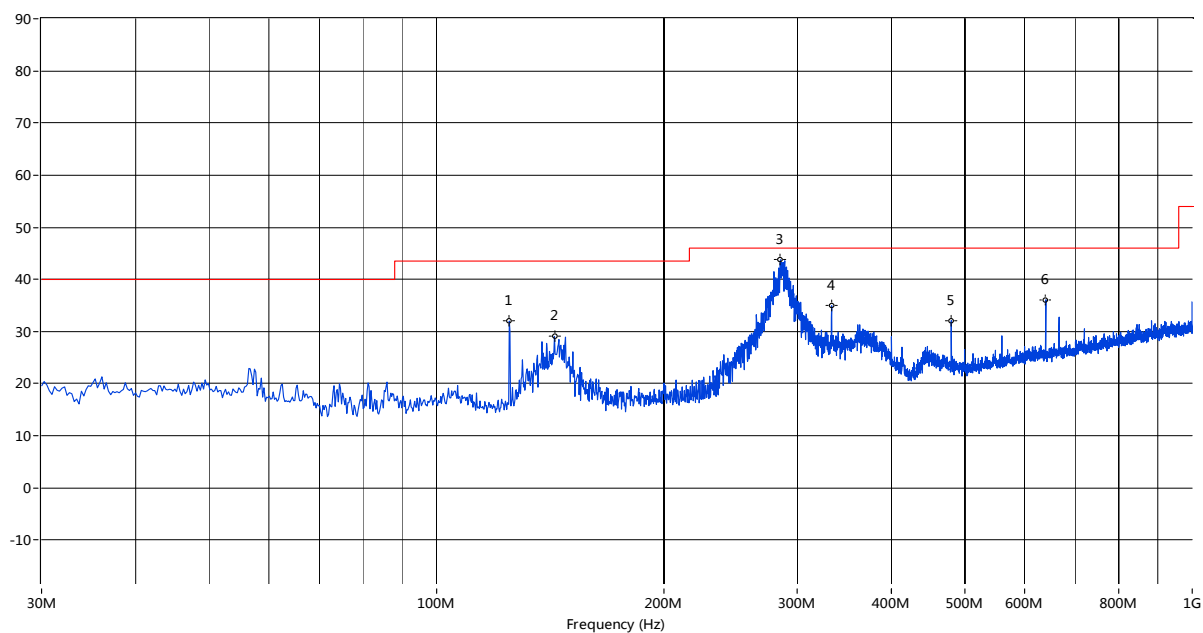
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	29.23	--	--	--	110.8	--	0.0	PASS
0.166	27.73	--	--	--	103.2	--	0.0	PASS
0.339	20.08	--	--	--	97.0	--	0.0	PASS

802.11b HIGH CHANNEL 30MHz to 1GHz, ANT V



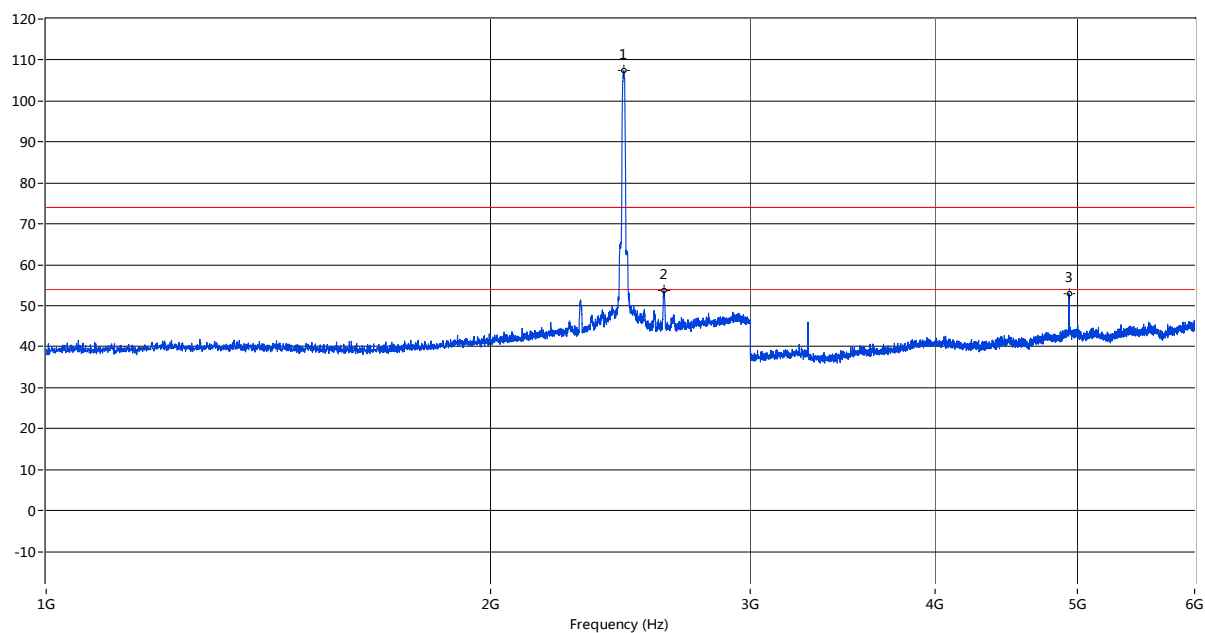
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
38.243	32.68	--	--	--	40.0	--	117.8	Vertical	PASS
57.396	35.12	--	--	--	40.0	--	43.7	Vertical	PASS
81.155	32.77	--	--	--	40.0	--	304.8	Vertical	PASS
143.219	34.00	--	--	--	43.5	--	3.7	Vertical	PASS
287.228	38.35	--	--	--	46.0	--	336.9	Vertical	PASS
333.292	35.74	--	--	--	46.0	--	346.1	Vertical	PASS

802.11b HIGH CHANNEL 30MHz to 1GHz, ANT H



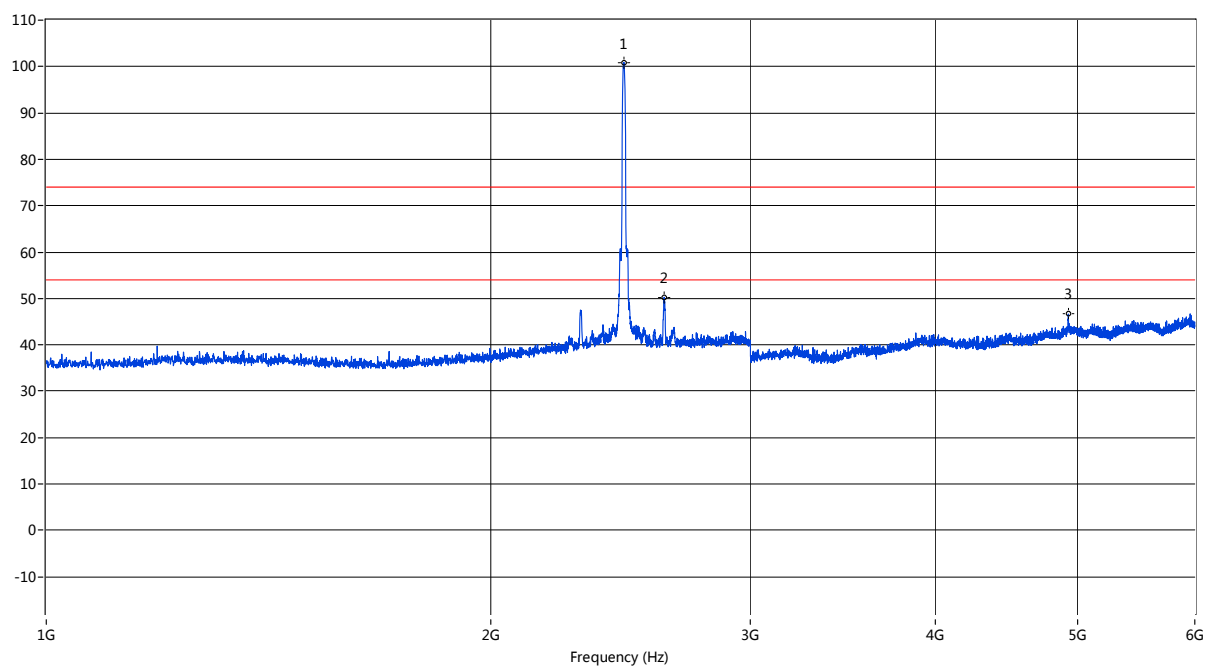
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	31.99	--	--	--	43.5	--	-0.0	Horizontal	PASS
143.219	29.05	--	--	--	43.5	--	-0.9	Horizontal	PASS
285.046	43.76	41.86	--	--	46.0	--	61.6	Horizontal	PASS
333.292	34.94	--	--	--	46.0	--	110.8	Horizontal	PASS
479.968	32.10	--	--	--	46.0	--	-0.0	Horizontal	PASS
639.978	36.10	--	--	--	46.0	--	-0.0	Horizontal	PASS

802.11b HIGH CHANNEL 1GHz to 6GHz, ANT V



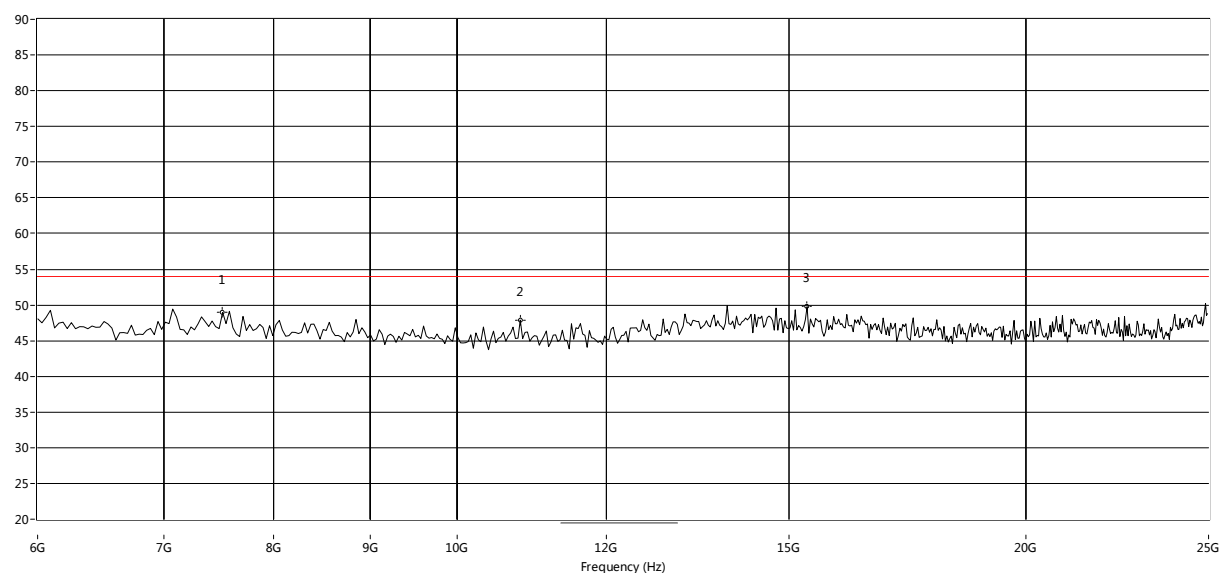
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2461.135	107.45	--	--	74.0	--	54.0	132.9	Vertical	N/A
2622.094	53.63	--	44.23	74.0	--	54.0	233.3	Vertical	PASS
4932.267	53.02	--	--	74.0	--	54.0	232.6	Vertical	PASS

802.11b HIGH CHANNEL 1GHz to 6GHz, ANT H



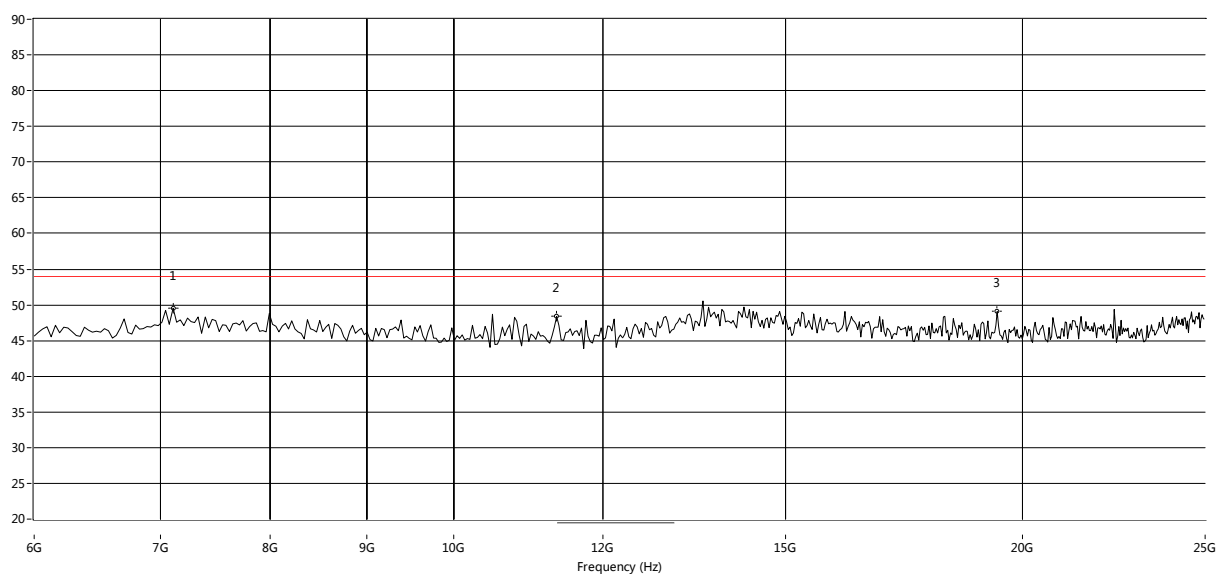
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2460.635	100.75	--	--	74.0	--	54.0	1.2	Horizontal	N/A
2621.595	50.29	--	--	74.0	--	54.0	10.7	Horizontal	PASS
4956.511	46.66	--	--	74.0	--	54.0	12.0	Horizontal	PASS

802.11b HIGH CHANNEL 6GHz to 25GHz, ANT V



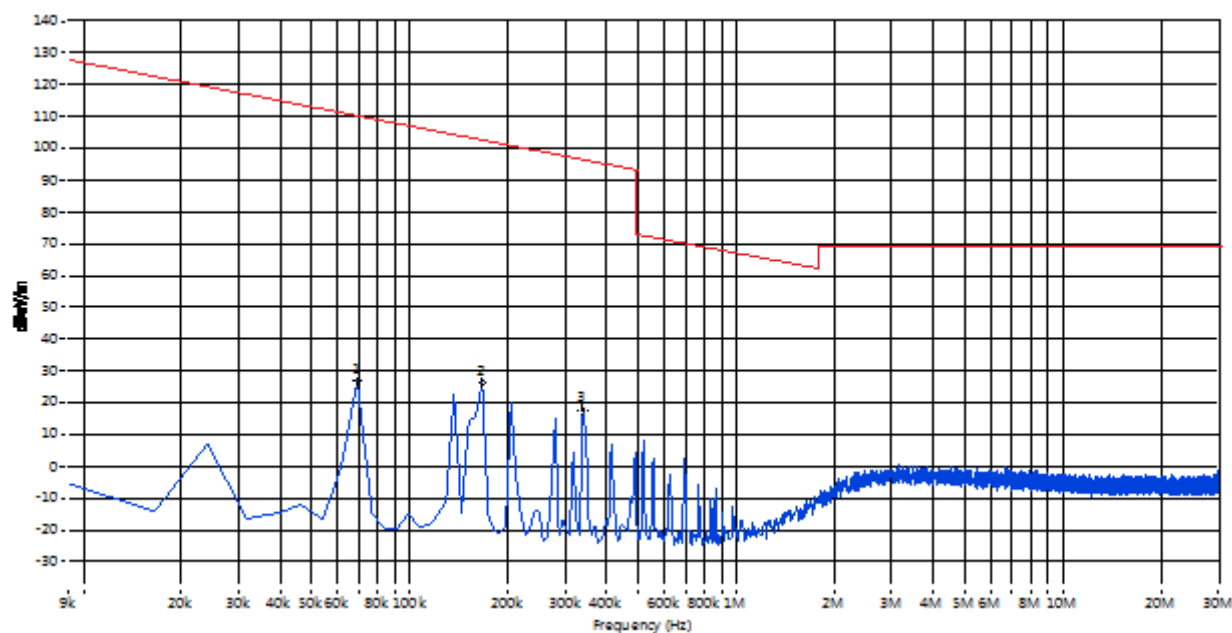
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7517.471	48.94	54.0	5.1	0.0	Vertical	PASS
10805.324	47.88	54.0	6.1	0.0	Vertical	PASS
15326.123	49.76	54.0	4.2	0.0	Vertical	PASS

802.11b HIGH CHANNEL 6GHz to 25GHz, ANT H



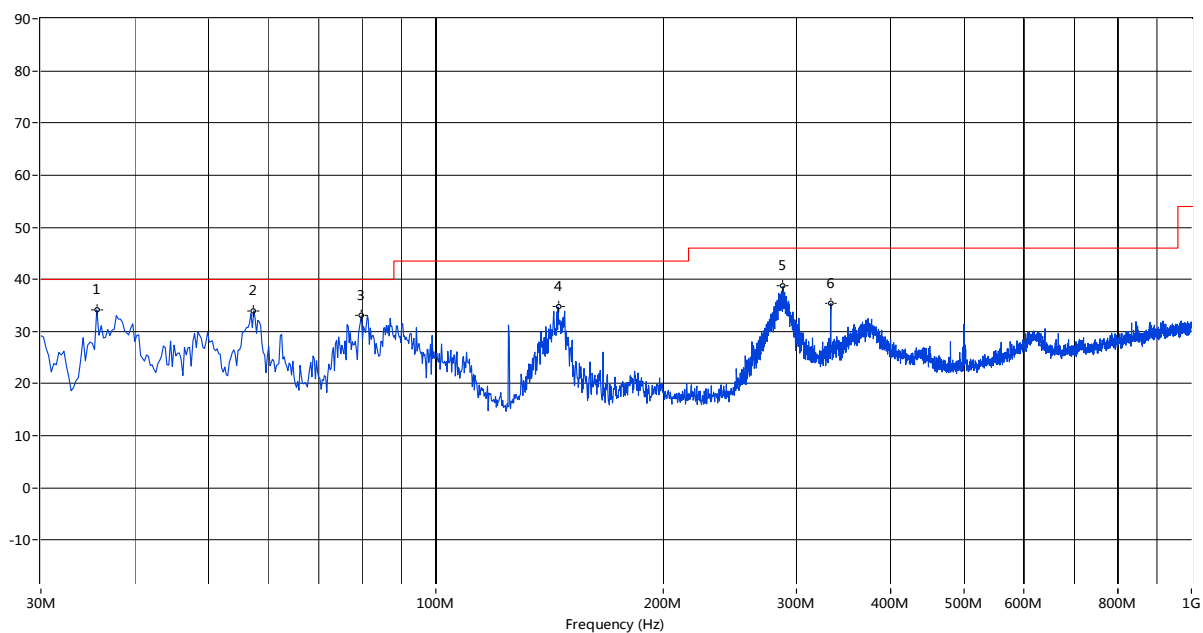
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7106.489	49.55	54.0	4.5	0.0	Horizontal	PASS
11342.762	48.38	54.0	5.6	0.0	Horizontal	PASS
18922.296	46.98	54.0	7.0	0.0	Horizontal	PASS

802.11g LOW CHANNEL Below 30MHz



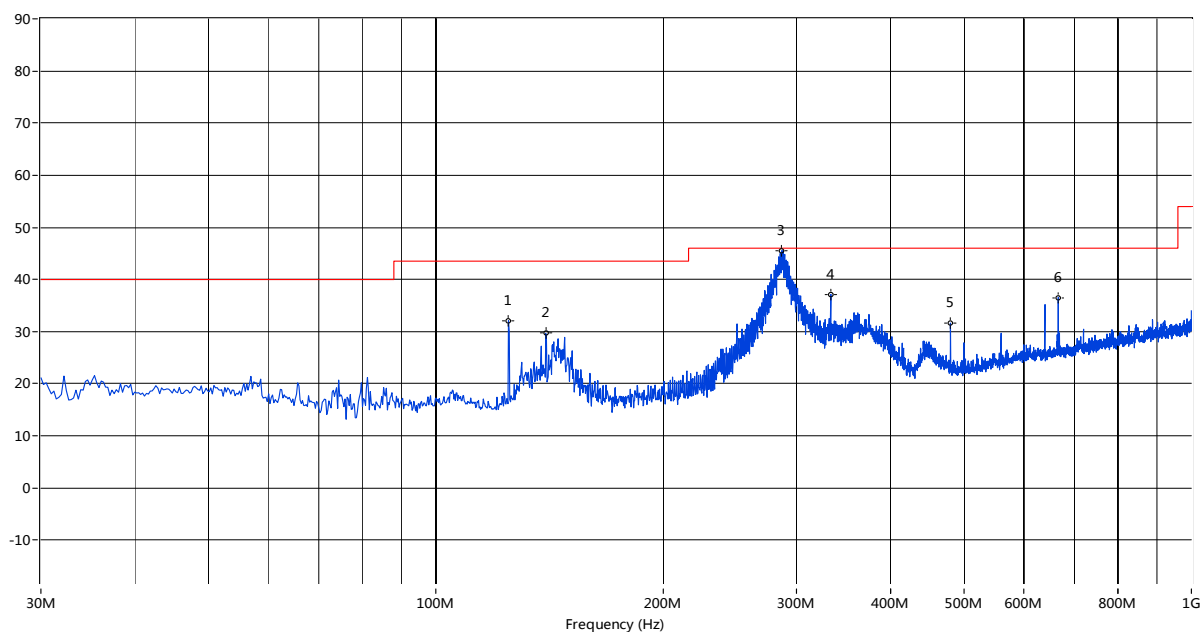
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	26.79	--	--	--	110.8	--	0.0	PASS
0.166	26.31	--	--	--	103.2	--	0.0	PASS
0.339	17.57	--	--	--	97.0	--	0.0	PASS

802.11g LOW CHANNEL 30MHz to 1GHz, ANT V



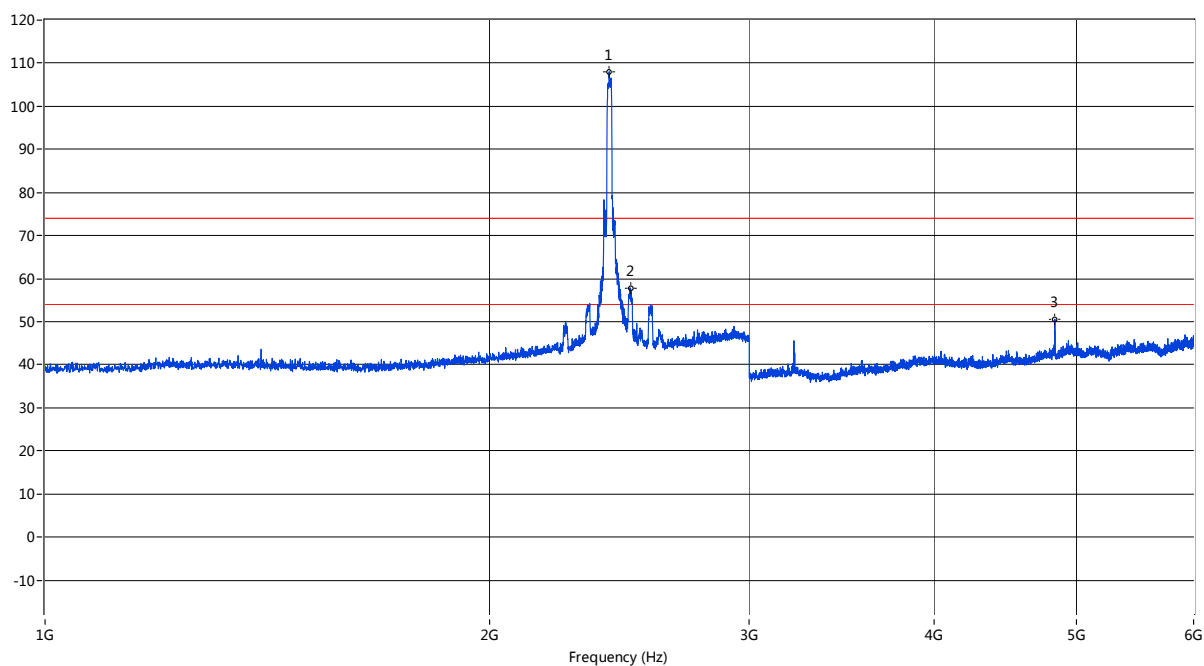
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
35.576	34.13	--	--	--	40.0	--	344.7	Vertical	PASS
57.396	34.02	--	--	--	40.0	--	104.0	Vertical	PASS
79.700	33.02	--	--	--	40.0	--	3.6	Vertical	PASS
145.159	34.74	--	--	--	43.5	--	359.5	Vertical	PASS
288.198	38.74	--	--	--	46.0	--	341.4	Vertical	PASS

802.11g LOW CHANNEL 30MHz to 1GHz, ANT H



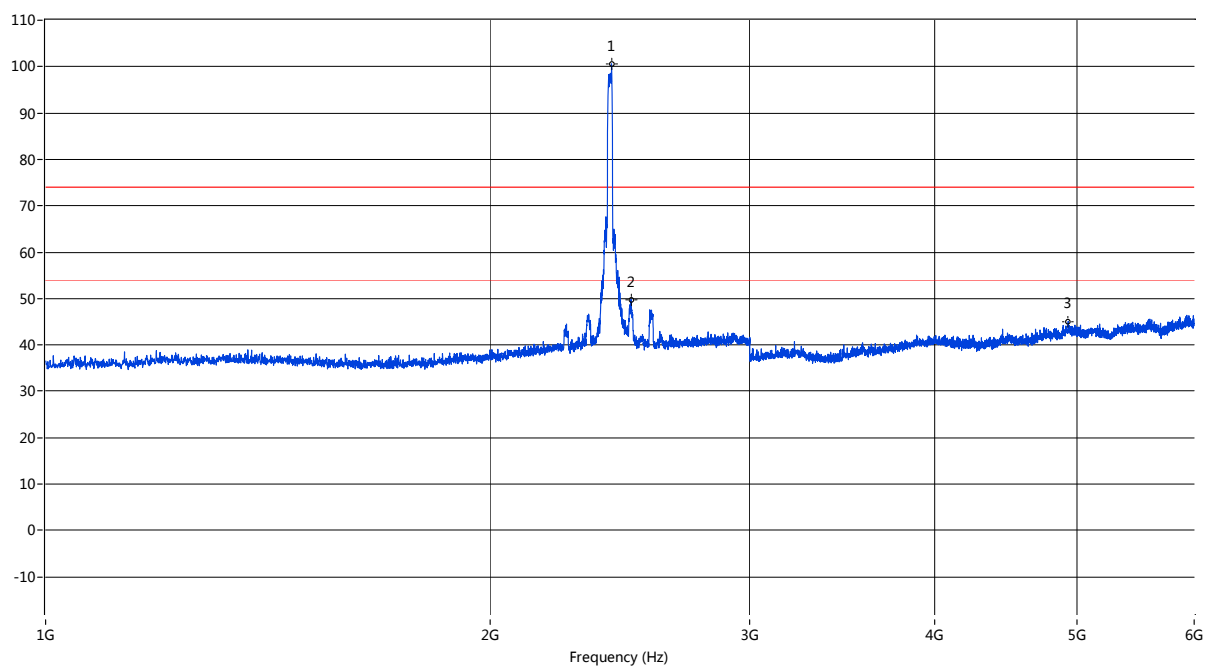
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	32.10	--	--	--	43.5	--	360.0	Horizontal	PASS
286.986	45.53	42.26	--	--	46.0	--	57.5	Horizontal	PASS
333.292	37.15	--	--	--	46.0	--	174.6	Horizontal	PASS
479.968	31.64	--	--	--	46.0	--	360.0	Horizontal	PASS
666.646	36.57	--	--	--	46.0	--	360.0	Horizontal	PASS

802.11g LOW CHANNEL 1GHz to 6GHz, ANT V



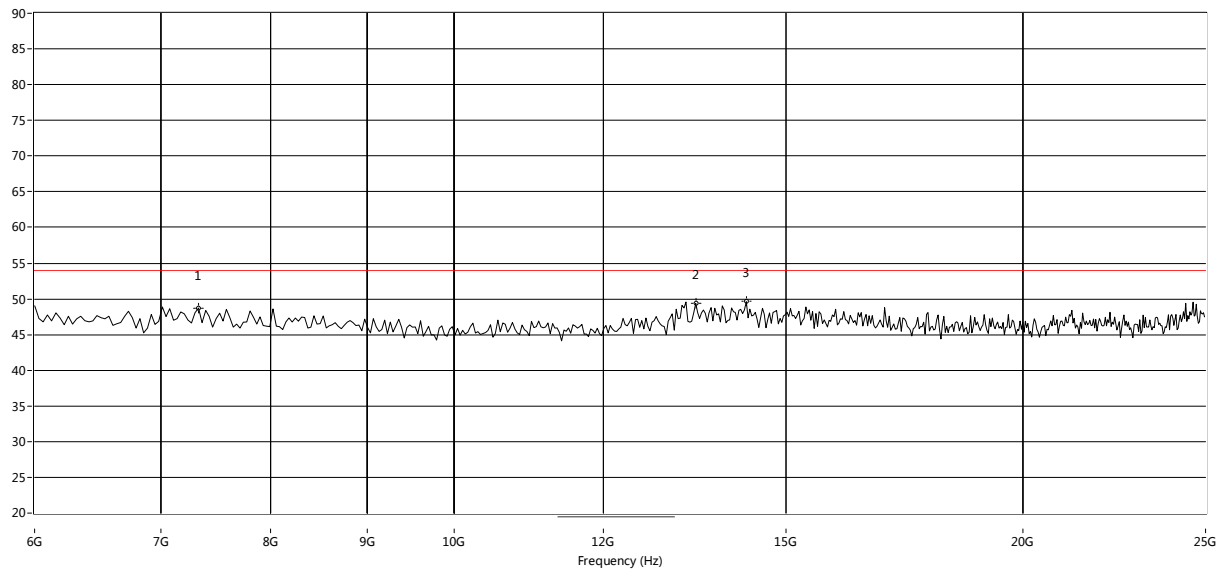
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2410.647	108.03	--	--	74.0	--	54.0	164.0	Vertical	N/A
2492.627	57.67	--	47.78	74.0	--	54.0	187.1	Vertical	PASS
4831.792	51.68	--	--	74.0	--	54.0	304.0	Vertical	PASS

802.11g LOW CHANNEL 1GHz to 6GHz, ANT H



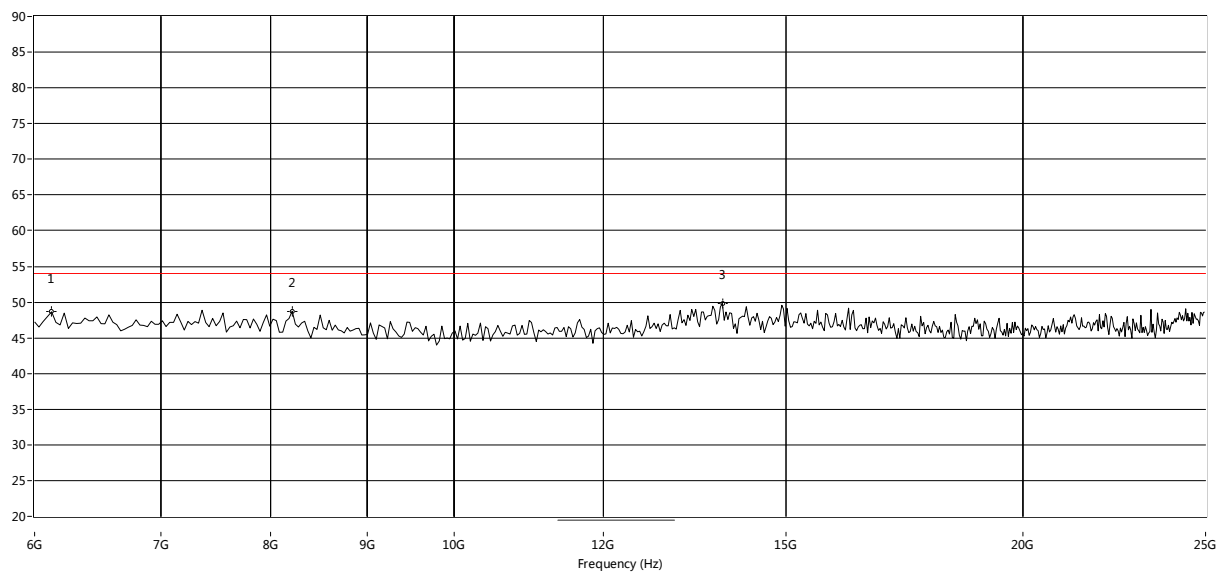
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2417.646	100.60	--	--	74.0	--	54.0	359.8	Horizontal	N/A
2492.127	49.80	--	--	74.0	--	54.0	204.8	Horizontal	PASS
4929.268	45.08	--	--	74.0	--	54.0	18.2	Horizontal	PASS

802.11g LOW CHANNEL 6GHz to 25GHz, ANT V



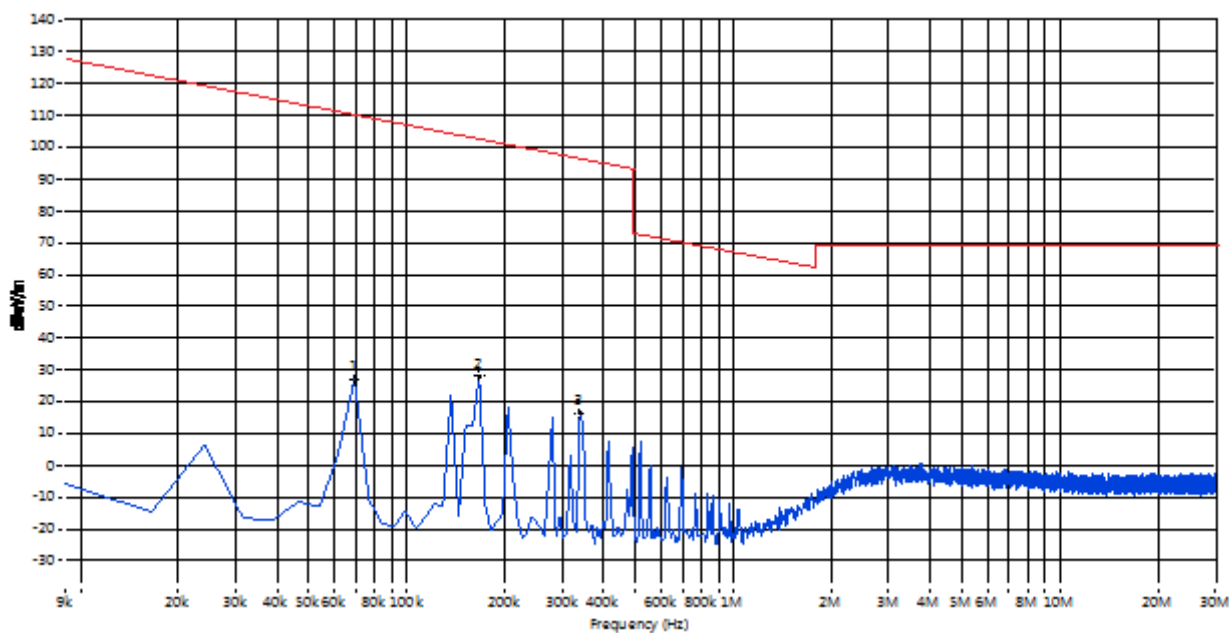
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7327.787	48.70	54.0	5.3	0.0	Vertical	PASS
13429.285	49.38	54.0	4.6	0.0	Vertical	PASS
14282.862	49.61	54.0	4.4	0.0	Vertical	PASS

802.11g LOW CHANNEL 6GHz to 25GHz, ANT H



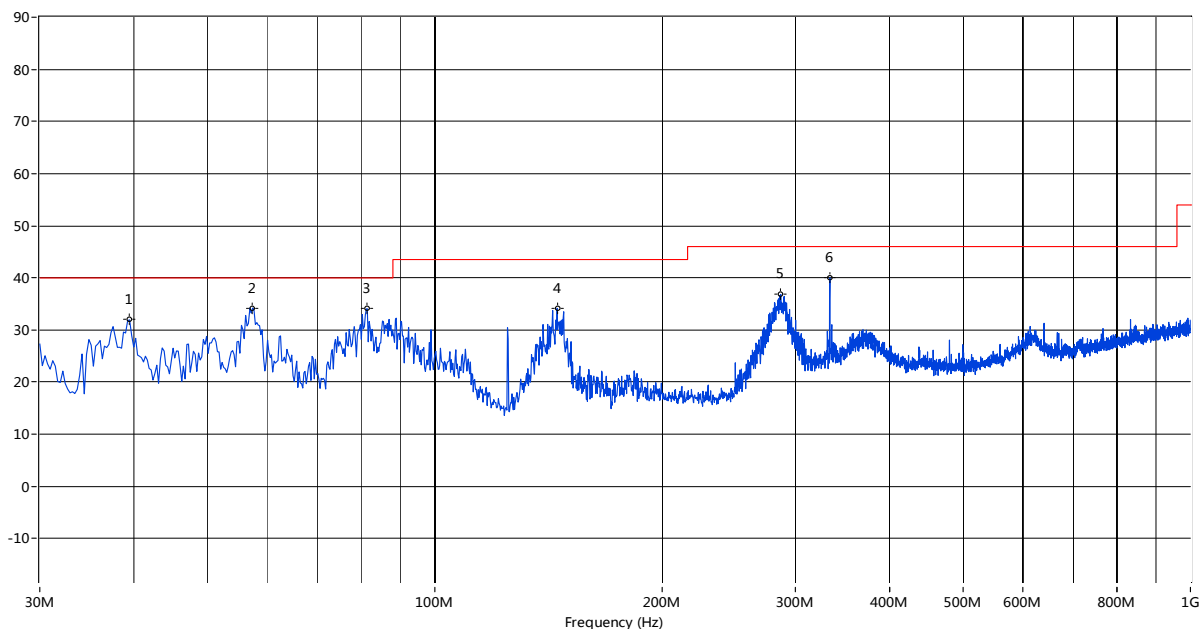
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
6126.456	49.26	54.0	5.4	0.0	Horizontal	PASS
8212.978	48.73	54.0	5.3	0.0	Horizontal	PASS
13871.880	49.81	54.0	4.2	0.0	Horizontal	PASS

802.11g MID CHANNEL Below 30MHz



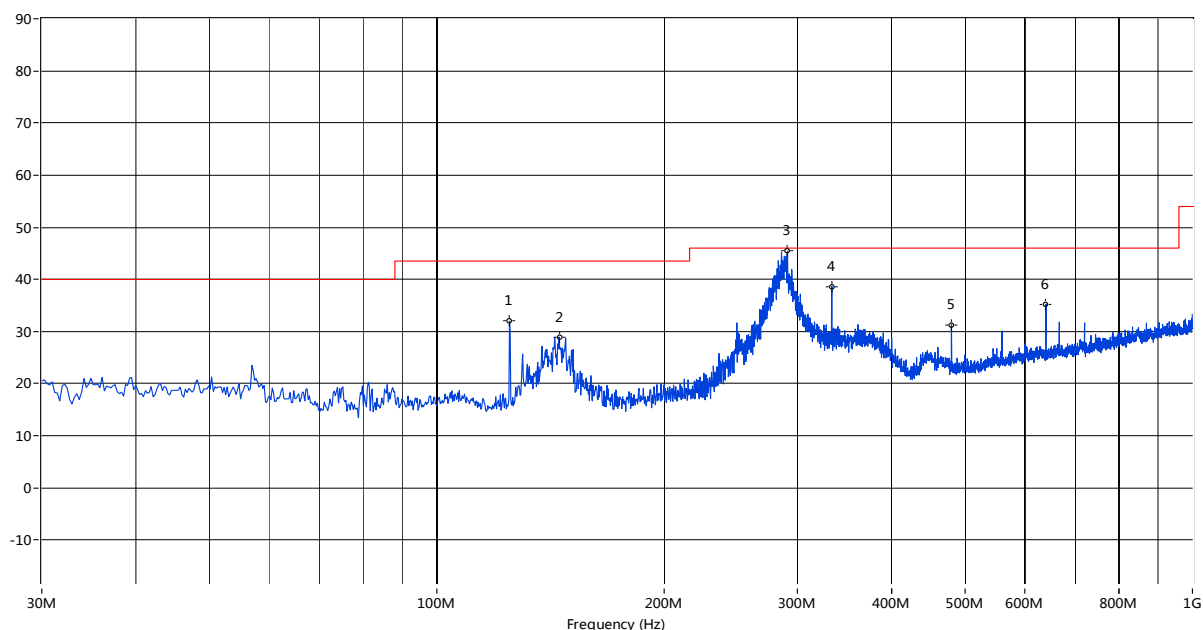
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	26.98	--	--	--	110.8	--	0.0	PASS
0.166	27.99	--	--	--	103.2	--	0.0	PASS
0.339	16.25	--	--	--	97.0	--	0.0	PASS

802.11g MID CHANNEL 30MHz to 1GHz, ANT V



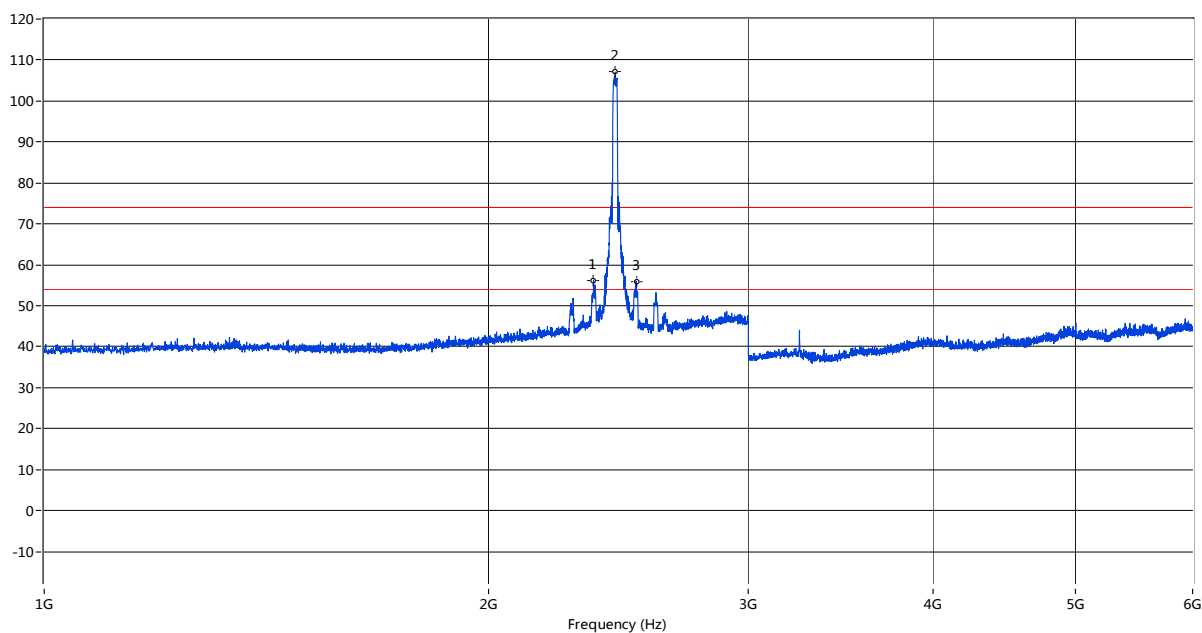
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
39.455	31.96	--	--	--	40.0	--	231.6	Vertical	PASS
57.396	34.20	--	--	--	40.0	--	341.5	Vertical	PASS
81.397	34.11	--	--	--	40.0	--	24.5	Vertical	PASS
145.159	34.16	--	--	--	43.5	--	356.5	Vertical	PASS
286.986	36.82	--	--	--	46.0	--	344.9	Vertical	PASS
333.292	40.00	--	--	--	46.0	--	24.5	Vertical	PASS

802.11g MID CHANNEL 30MHz to 1GHz, ANT H



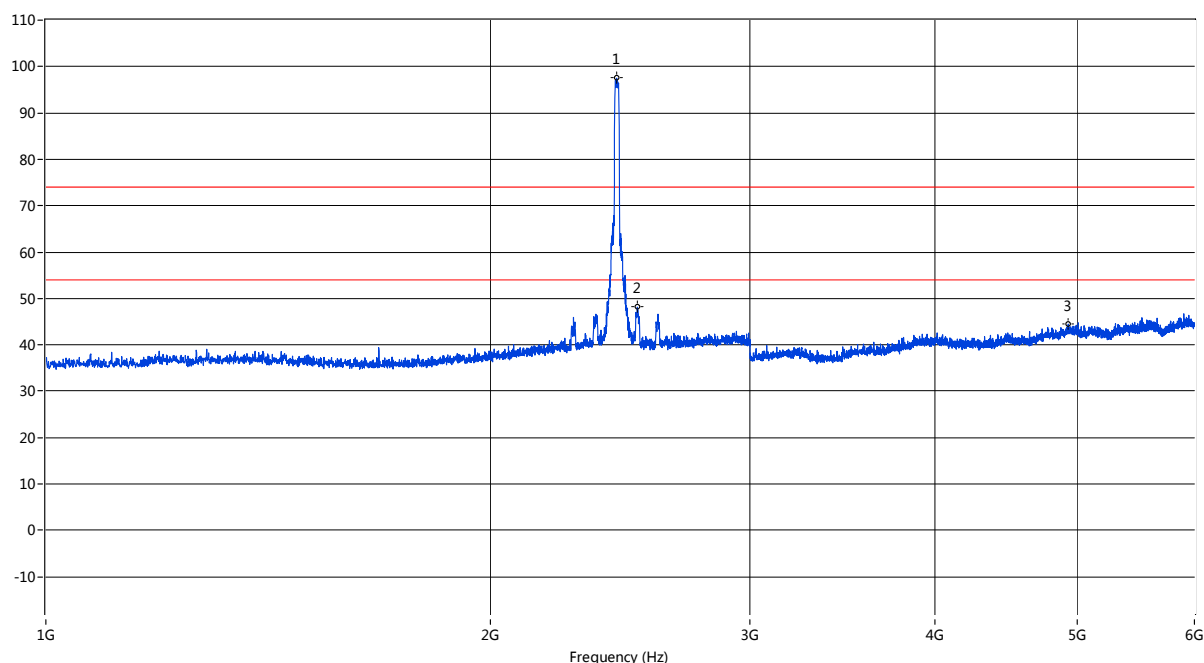
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	32.00	--	--	--	43.5	--	361.0	Horizontal	PASS
145.159	28.97	--	--	--	43.5	--	-0.9	Horizontal	PASS
291.107	45.43	42.58	--	--	46.0	--	72.6	Horizontal	PASS
333.292	38.65	--	--	--	46.0	--	63.4	Horizontal	PASS
479.968	31.28	--	--	--	46.0	--	361.0	Horizontal	PASS
639.978	35.26	--	--	--	46.0	--	361.0	Horizontal	PASS

802.11g MID CHANNEL 1GHz to 6GHz, ANT V



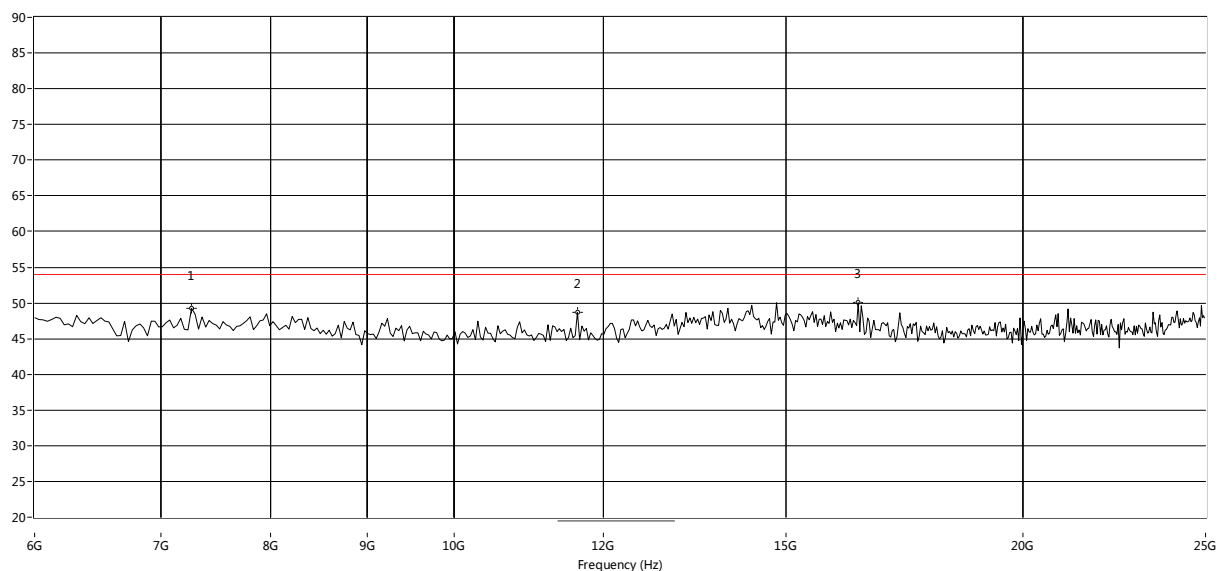
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2356.661	56.24	--	46.59	74.0	--	54.0	162.1	Vertical	PASS
2438.140	107.05	--	--	74.0	--	54.0	162.1	Vertical	N/A
2518.620	55.97	--	47.06	74.0	--	54.0	164.6	Vertical	PASS

802.11g MID CHANNEL 1GHz to 6GHz, ANT H



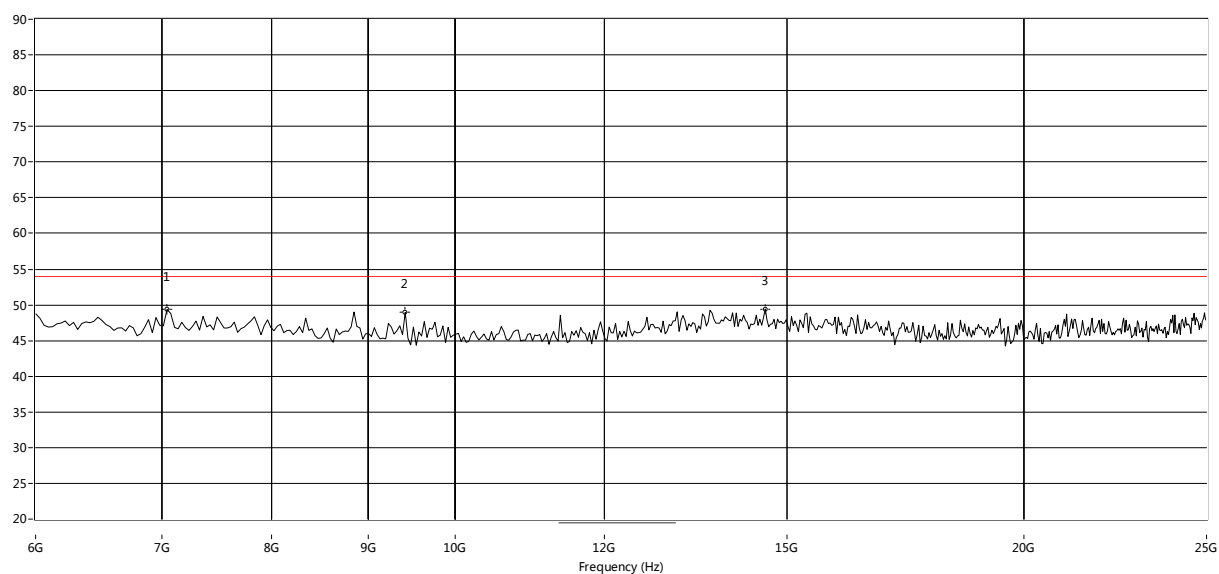
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2436.141	97.47	--	--	74.0	--	54.0	-0.1	Horizontal	N/A
2515.621	48.12	--	--	74.0	--	54.0	0.4	Horizontal	PASS
4928.518	44.47	--	--	74.0	--	54.0	154.6	Horizontal	PASS

802.11g MID CHANNEL 6GHz to 25GHz, ANT V



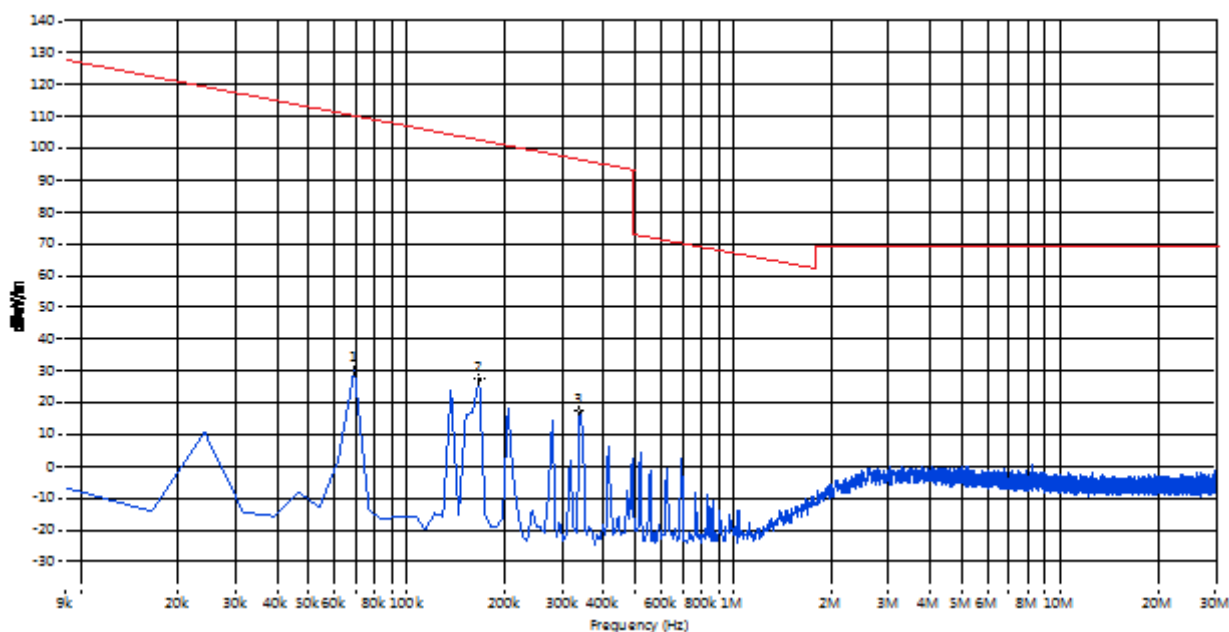
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7264.559	49.23	54.0	4.8	0.0	Vertical	PASS
11529.285	47.23	54.0	6.8	0.0	Vertical	PASS
16182.862	48.80	54.0	5.2	0.0	Vertical	PASS

802.11g MID CHANNEL 6GHz to 25GHz, ANT H



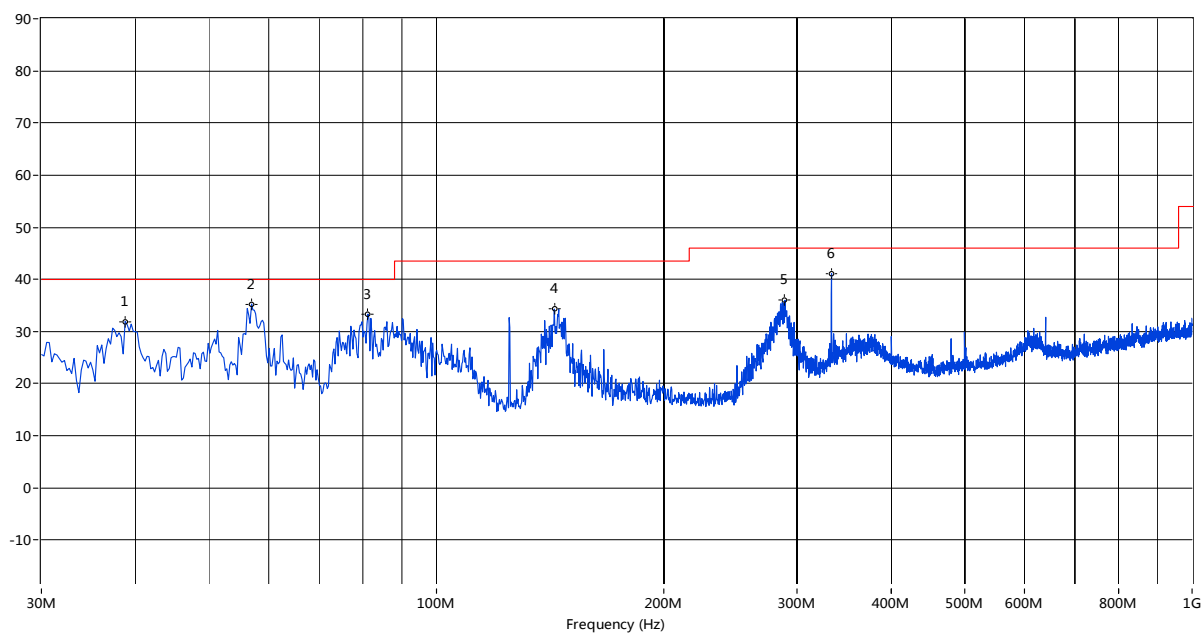
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7043.261	49.36	54.0	4.6	0.0	Horizontal	PASS
9414.309	48.95	54.0	5.0	0.0	Horizontal	PASS
14599.002	49.43	54.0	4.6	0.0	Horizontal	PASS

802.11g HIGH CHANNEL Below 30MHz



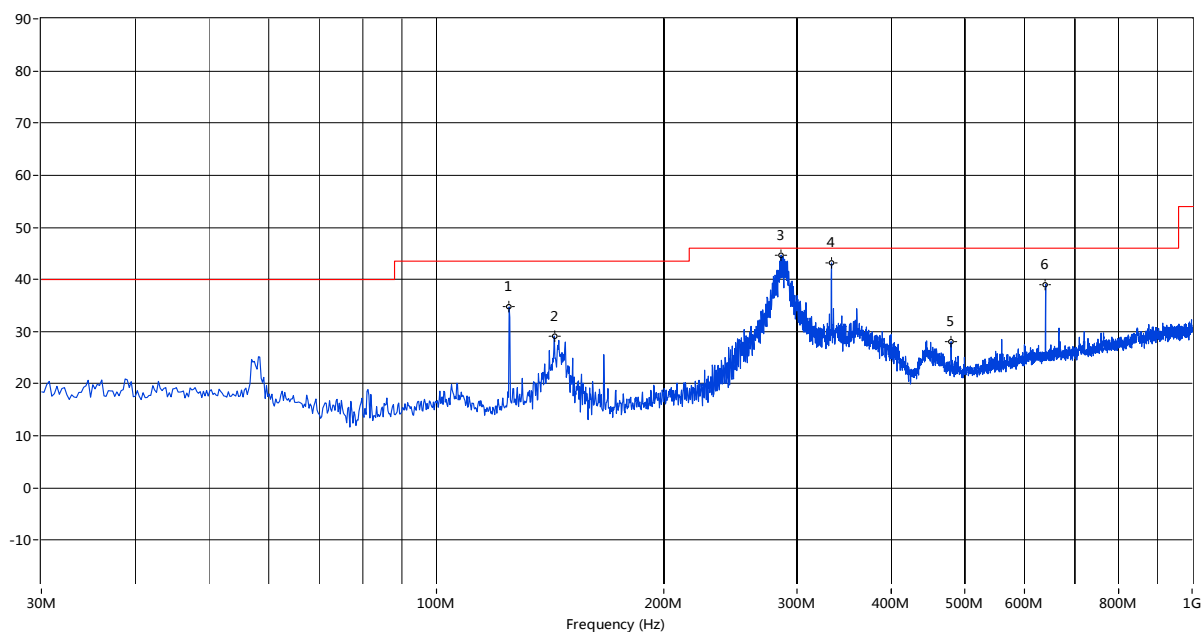
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	30.18	--	--	--	110.8	--	0.0	PASS
0.166	27.43	--	--	--	103.2	--	0.0	PASS
0.339	17.50	--	--	--	97.0	--	0.0	PASS

802.11g HIGH CHANNEL 30MHz to 1GHz, ANT V



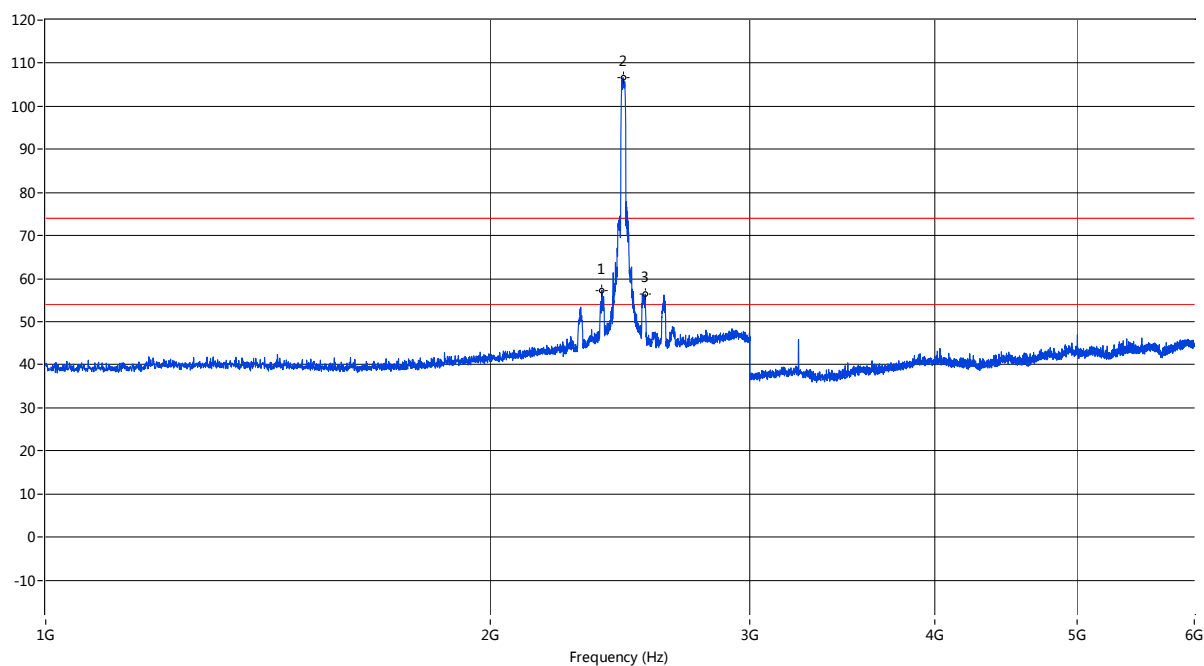
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
38.728	31.93	--	--	--	40.0	--	45.3	Vertical	PASS
56.911	35.30	--	--	--	40.0	--	360.6	Vertical	PASS
81.155	33.34	--	--	--	40.0	--	273.2	Vertical	PASS
143.219	34.31	--	--	--	43.5	--	357.8	Vertical	PASS
333.292	41.15	--	--	--	46.0	--	36.1	Vertical	PASS

802.11g HIGH CHANNEL 30MHz to 1GHz, ANT H



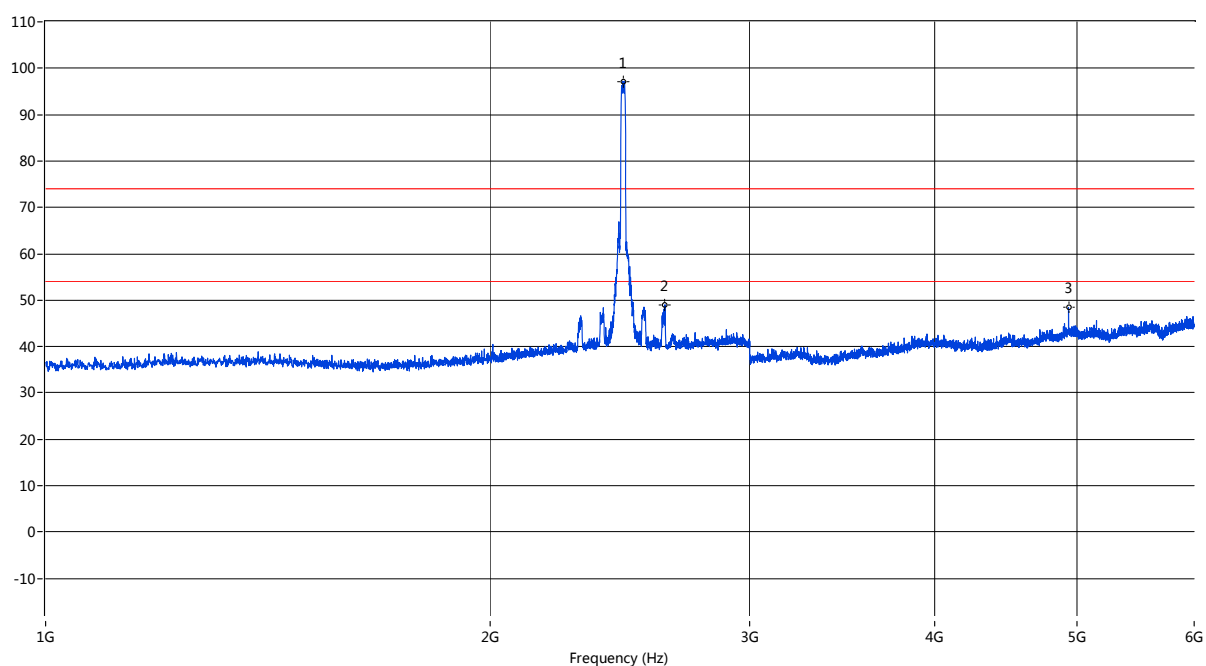
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	34.75	--	--	--	43.5	--	360.0	Horizontal	PASS
143.219	29.15	--	--	--	43.5	--	7.8	Horizontal	PASS
285.774	44.67	42.50	--	--	46.0	--	77.8	Horizontal	PASS
333.292	43.18	--	--	--	46.0	--	110.3	Horizontal	PASS
639.978	39.09	--	--	--	46.0	--	4.5	Horizontal	PASS

802.11g HIGH CHANNEL 1GHz to 6GHz, ANT V



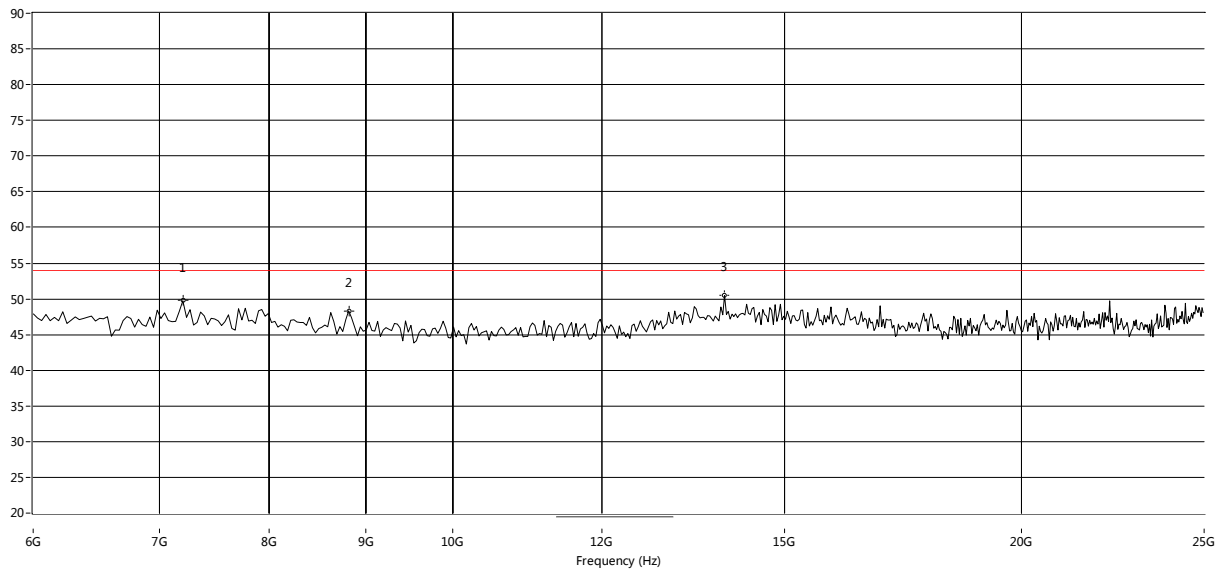
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2381.155	57.34	--	47.95	74.0	--	54.0	159.0	Vertical	PASS
2461.135	106.67	--	--	74.0	--	54.0	156.6	Vertical	N/A
2547.613	56.42	--	48.06	74.0	--	54.0	161.5	Vertical	PASS

802.11g HIGH CHANNEL 1GHz to 6GHz, ANT H



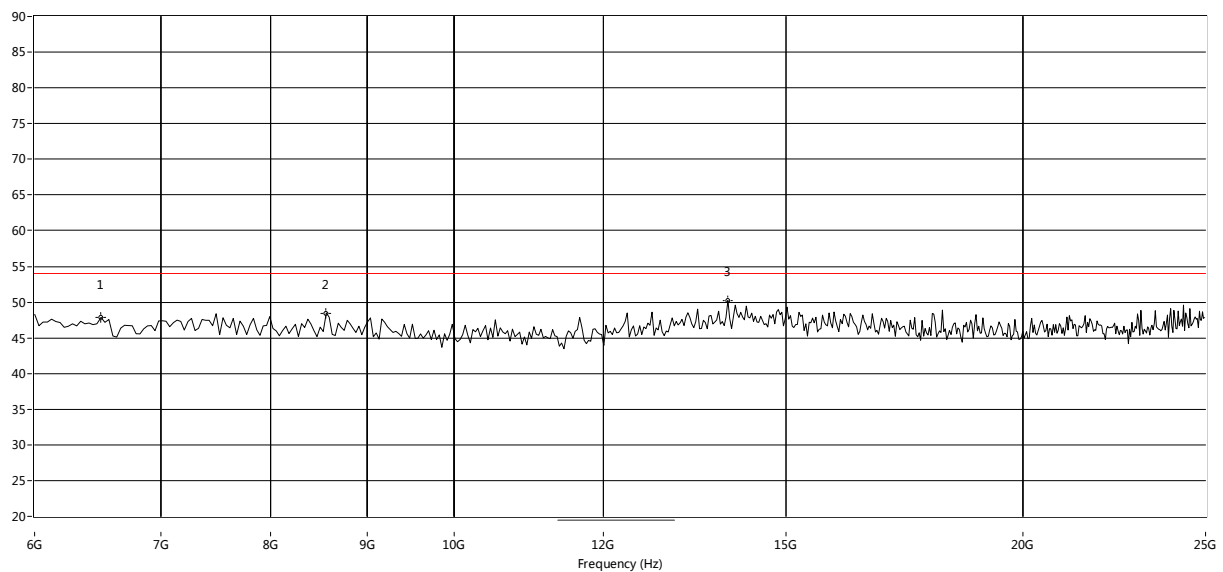
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2461.135	97.22	--	--	74.0	--	54.0	359.5	Horizontal	N/A
2627.593	49.02	--	--	74.0	--	54.0	270.5	Horizontal	PASS
4932.267	48.38	--	--	74.0	--	54.0	143.1	Horizontal	PASS

802.11g HIGH CHANNEL 6GHz to 25GHz, ANT V



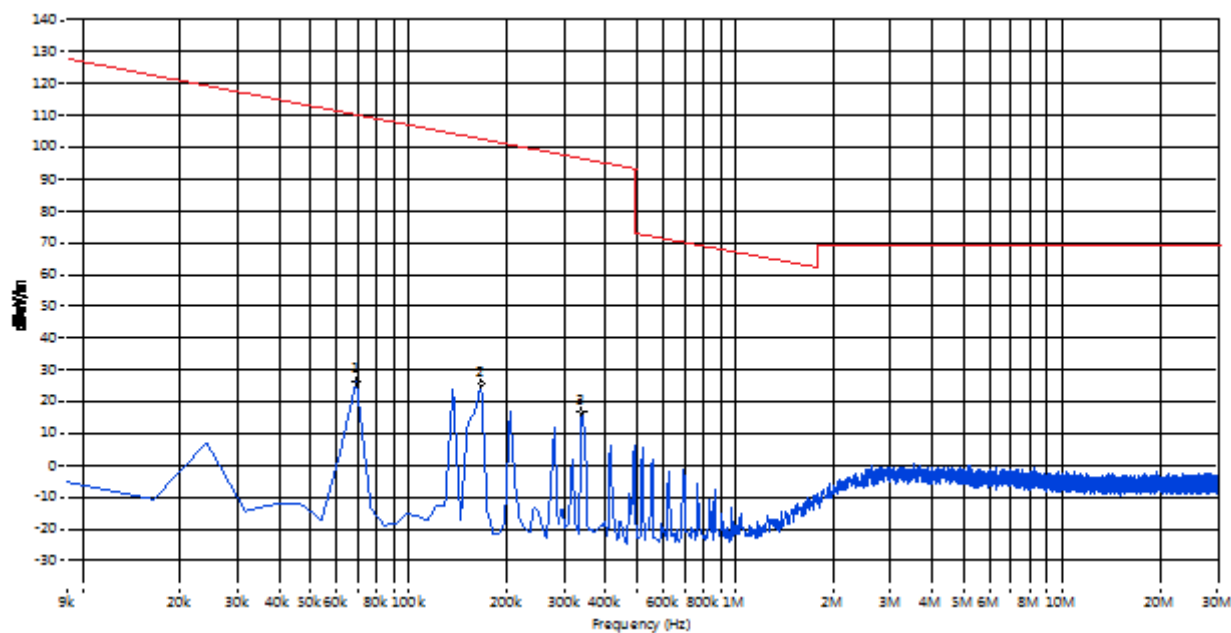
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7201.331	49.74	54.0	4.3	0.0	Vertical	PASS
8813.644	48.32	54.0	5.7	0.0	Vertical	PASS
13935.108	50.48	54.0	3.5	0.0	Vertical	PASS

802.11g HIGH CHANNEL 6GHz to 25GHz, ANT H



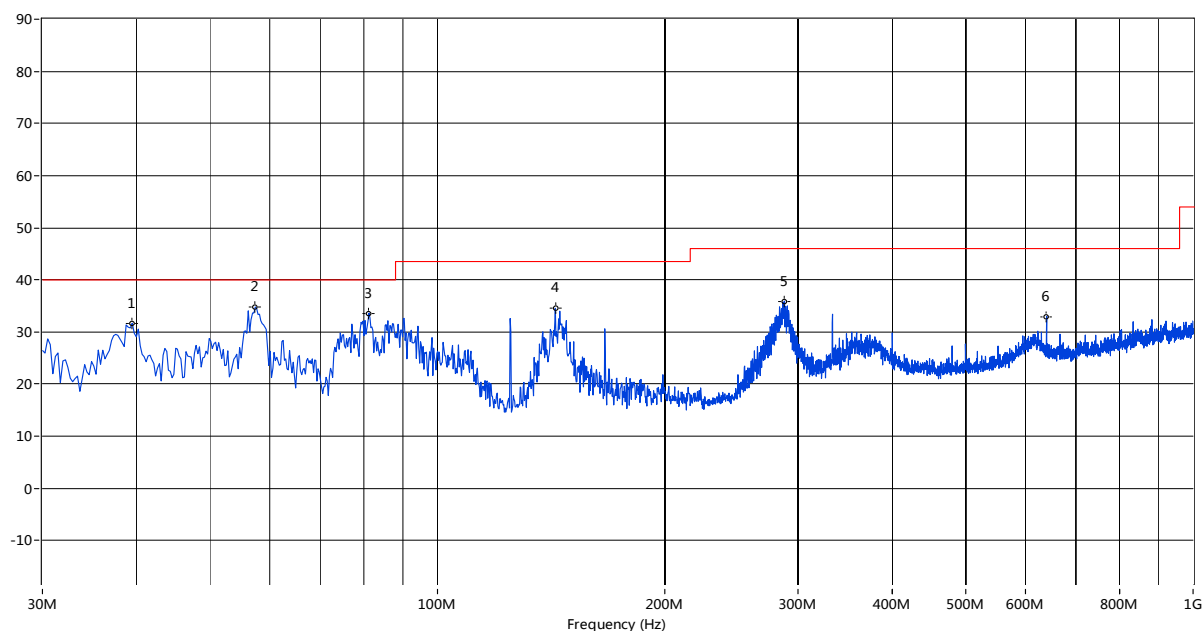
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
6505.824	47.87	54.0	6.1	0.0	Horizontal	PASS
8560.732	48.48	54.0	5.5	0.0	Horizontal	PASS
13966.722	50.23	54.0	3.8	0.0	Horizontal	PASS

802.11n-20MHz LOW CHANNEL Below 30MHz



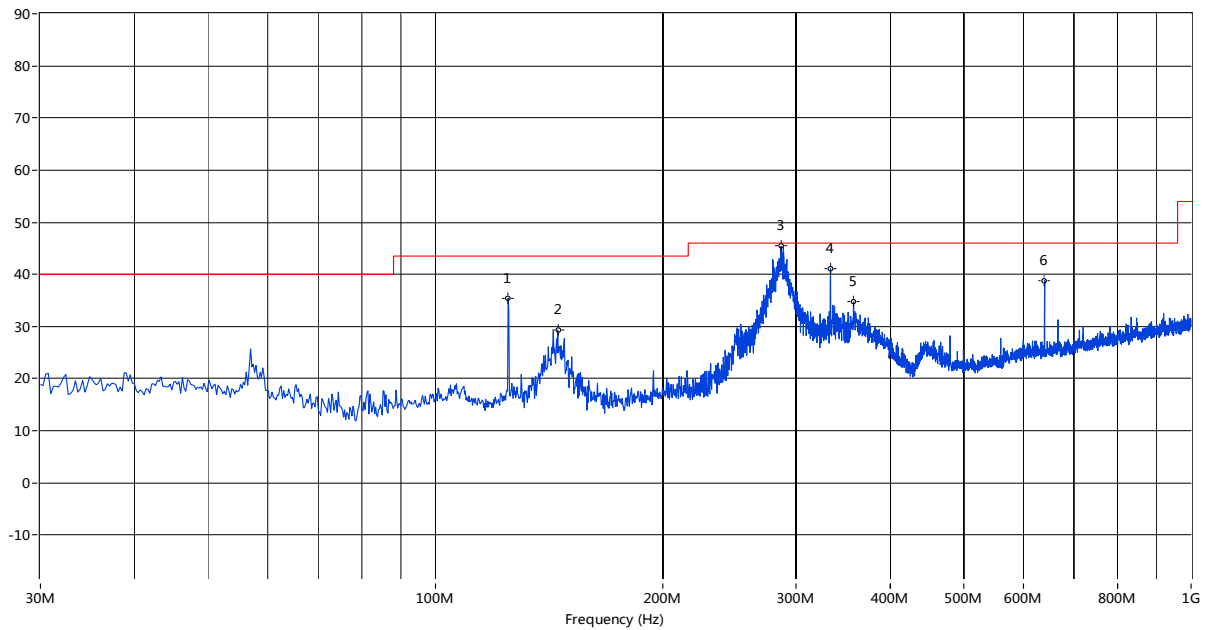
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	30.18	--	--	--	110.8	--	0.0	PASS
0.166	27.43	--	--	--	103.2	--	0.0	PASS
0.339	17.50	--	--	--	97.0	--	0.0	PASS

802.11n-20MHz LOW CHANNEL 30MHz to 1GHz, ANT V



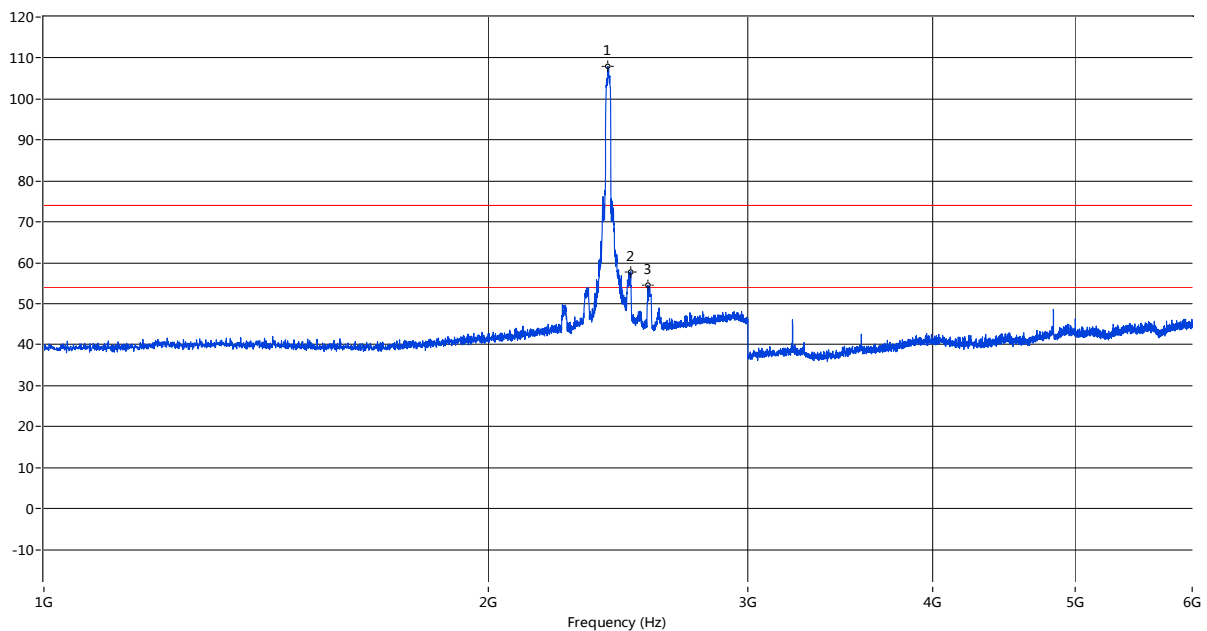
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
39.455	31.68	--	--	--	40.0	--	355.3	Vertical	PASS
57.396	34.78	--	--	--	40.0	--	180.4	Vertical	PASS
81.155	33.63	--	--	--	40.0	--	272.7	Vertical	PASS
143.219	34.56	--	--	--	43.5	--	359.7	Vertical	PASS
287.471	35.84	--	--	--	46.0	--	4.0	Vertical	PASS
639.978	32.98	--	--	--	46.0	--	183.5	Vertical	PASS

802.11n-20MHz LOW CHANNEL 30MHz to 1GHz, ANT H



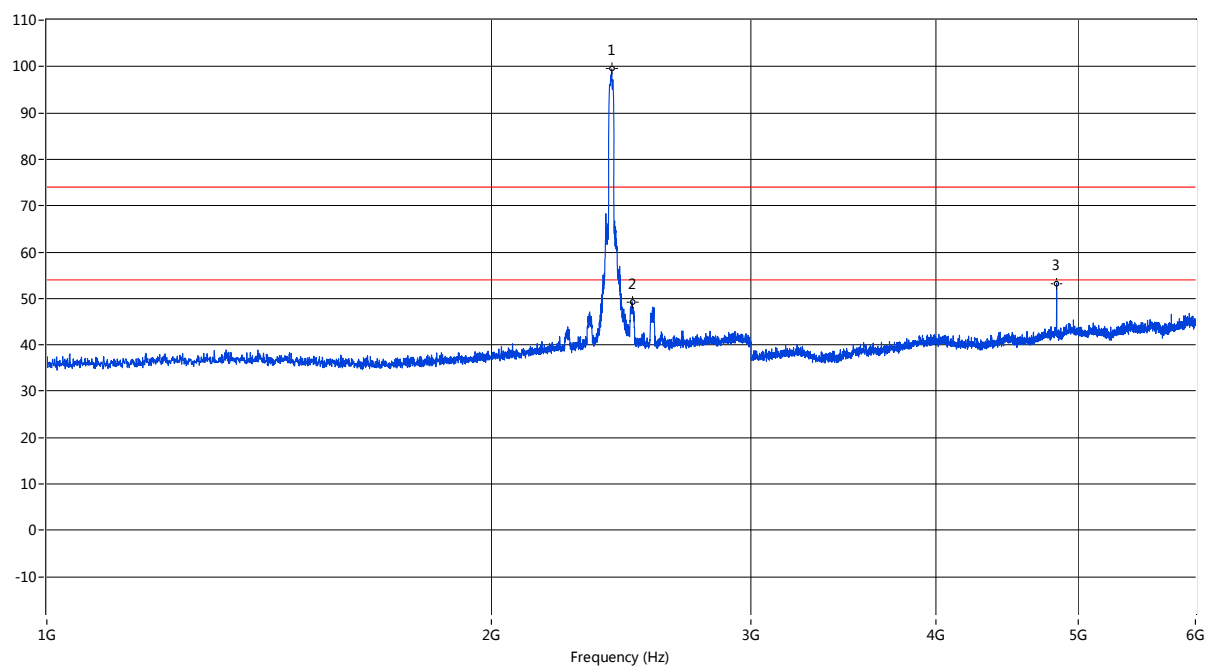
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	35.47	--	--	--	43.5	--	3.8	Horizontal	PASS
145.159	29.30	--	--	--	43.5	--	3.2	Horizontal	PASS
286.743	45.40	42.85	--	--	46.0	--	77.7	Horizontal	PASS
333.292	41.08	--	--	--	46.0	--	285.0	Horizontal	PASS
357.536	34.75	--	--	--	46.0	--	99.8	Horizontal	PASS
639.978	38.82	--	--	--	46.0	--	-0.1	Horizontal	PASS

802.11n-20MHz LOW CHANNEL 1GHz to 6GHz, ANT V



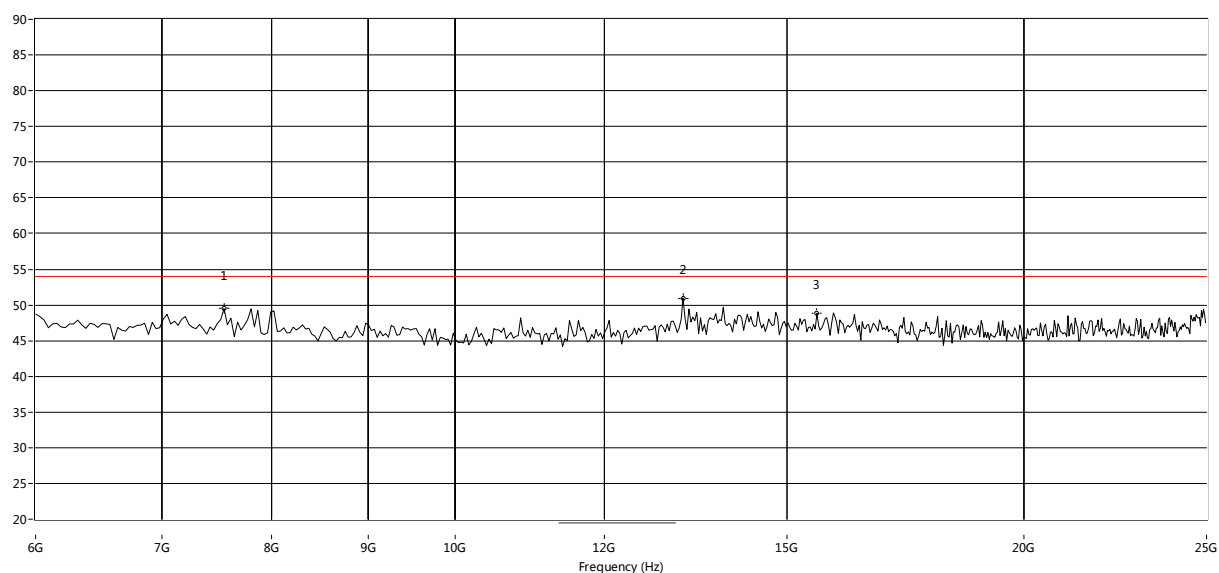
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2411.147	107.99	--	--	74.0	--	54.0	170.9	Vertical	N/A
2498.125	57.86	--	48.62	74.0	--	54.0	163.5	Vertical	PASS
2566.108	54.51	--	47.43	74.0	--	54.0	82.1	Vertical	PASS

802.11n-20MHz LOW CHANNEL 1GHz to 6GHz, ANT H



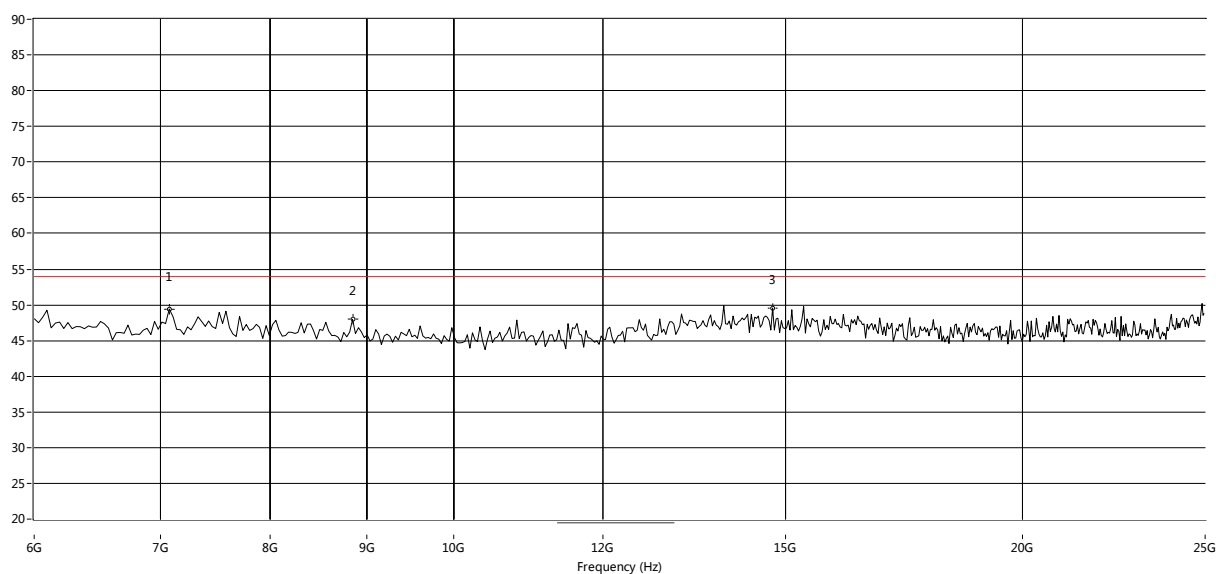
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2413.147	99.49	--	--	74.0	--	54.0	3.6	Horizontal	N/A
2491.627	49.26	--	--	74.0	--	54.0	2.0	Horizontal	PASS
4831.792	53.30	--	--	74.0	--	54.0	147.7	Horizontal	PASS

802.11n-20MHz LOW CHANNEL 6GHz to 25GHz, ANT V



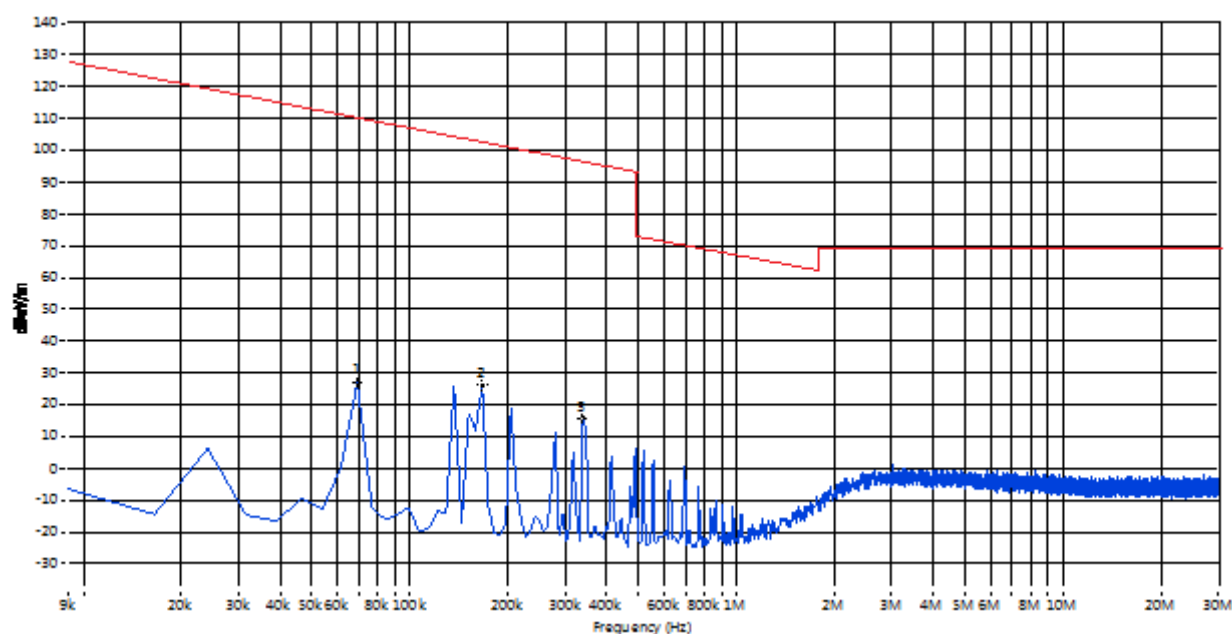
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7549.085	49.49	54.0	4.5	0.0	Vertical	PASS
13207.987	50.96	54.0	3.0	0.0	Vertical	PASS
15547.421	48.84	54.0	5.2	0.0	Vertical	PASS

802.11n-20MHz LOW CHANNEL 6GHz to 25GHz, ANT H



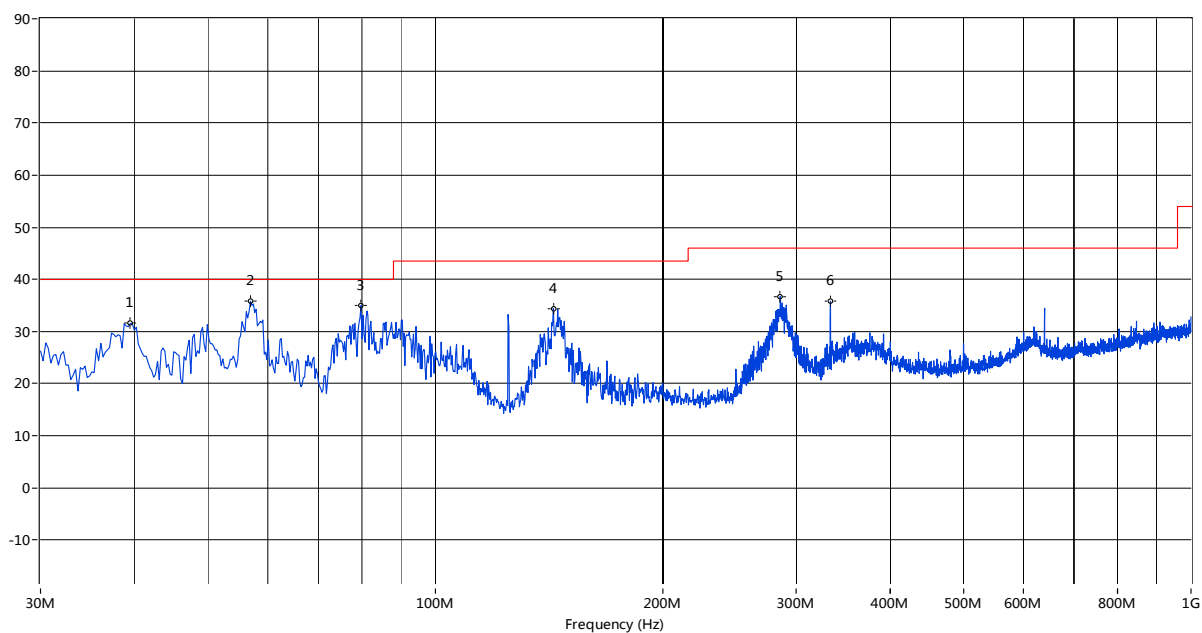
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7074.875	49.41	54.0	4.6	0.0	Horizontal	PASS
8845.258	47.96	54.0	6.0	0.0	Horizontal	PASS
14387.687	46.54	54.0	7.5	0.0	Horizontal	PASS

802.11n-20MHz MID CHANNEL Below 30MHz



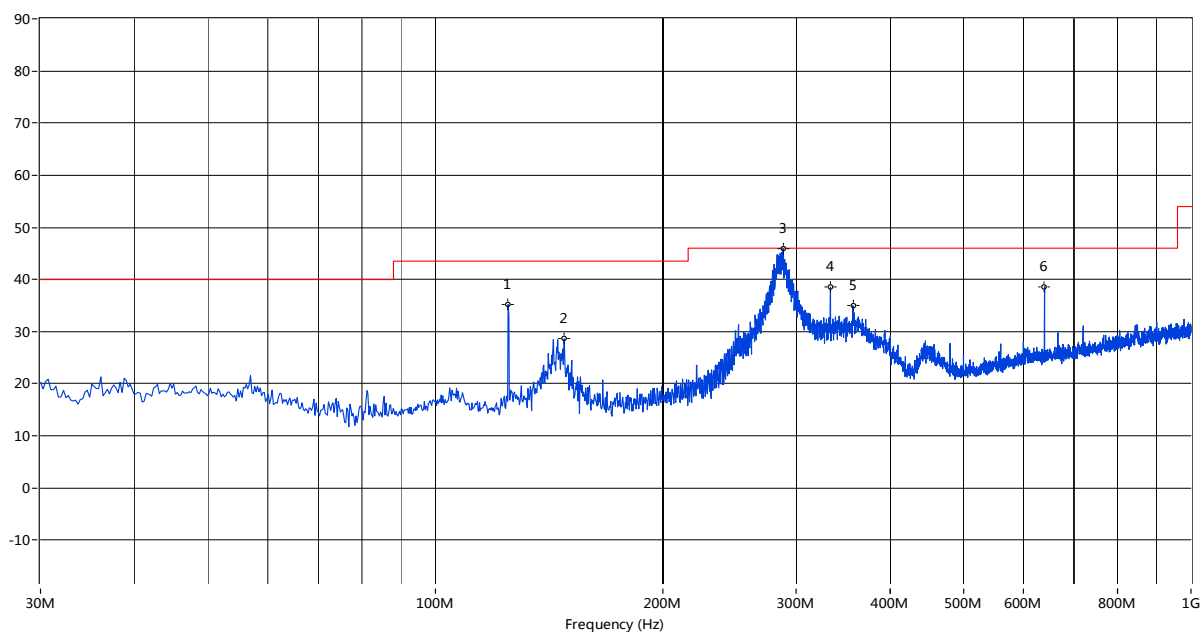
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	26.91	--	--	--	110.8	--	0.0	PASS
0.166	25.93	--	--	--	103.2	--	0.0	PASS
0.339	15.76	--	--	--	97.0	--	0.0	PASS

802.11n-20MHz MID CHANNEL 30MHz to 1GHz, ANT V



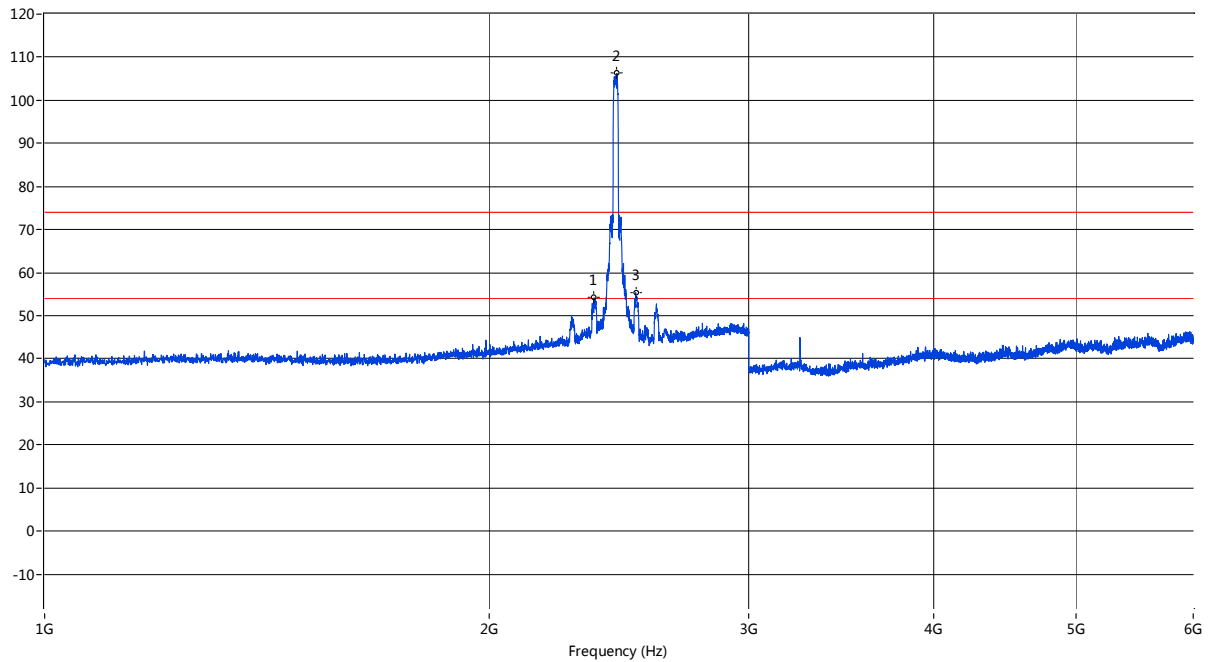
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
56.911	35.79	--	--	--	40.0	--	291.6	Vertical	PASS
79.700	34.98	--	--	--	40.0	--	256.8	Vertical	PASS
143.219	34.45	--	--	--	43.5	--	1.0	Vertical	PASS
286.016	36.73	--	--	--	46.0	--	347.6	Vertical	PASS
333.292	35.82	--	--	--	46.0	--	330.6	Vertical	PASS

802.11n-20MHz MID CHANNEL 30MHz to 1GHz, ANT H



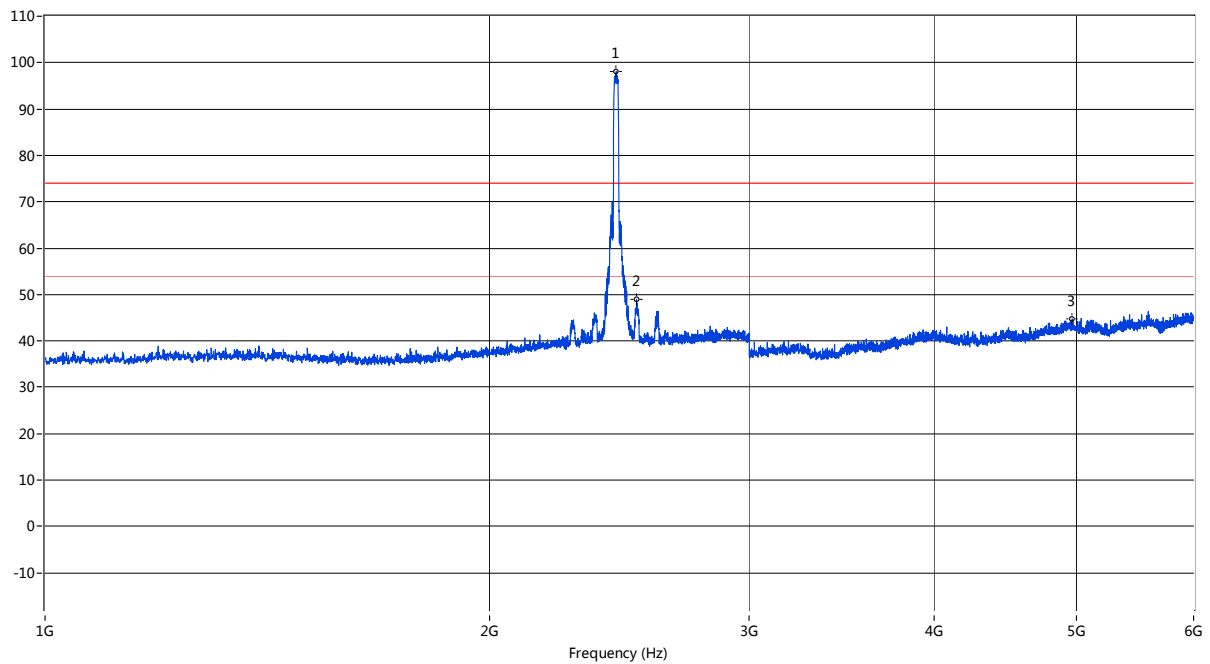
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	35.21	--	--	--	43.5	--	359.3	Horizontal	PASS
148.068	28.64	--	--	--	43.5	--	359.7	Horizontal	PASS
288.440	45.90	41.98	--	--	46.0	--	83.8	Horizontal	PASS
333.292	38.57	--	--	--	46.0	--	306.3	Horizontal	PASS
639.978	38.66	--	--	--	46.0	--	348.7	Horizontal	PASS

802.11n-20MHz MID CHANNEL 1GHz to 6GHz, ANT V



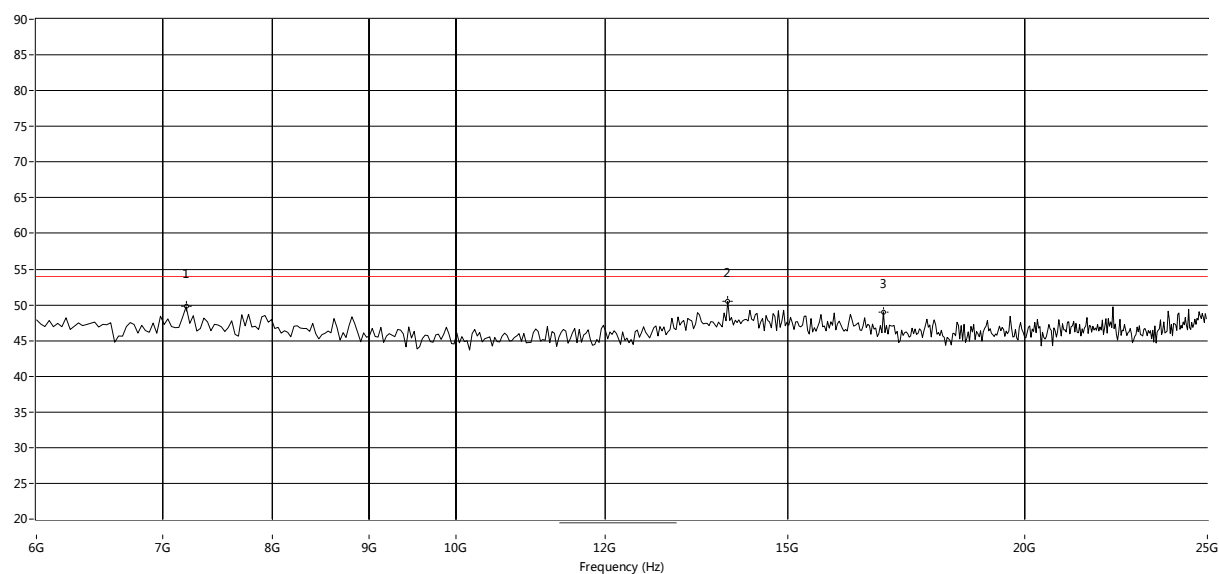
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2356.161	54.18	--	46.38	74.0	--	54.0	165.9	Vertical	PASS
2442.139	106.26	--	--	74.0	--	54.0	161.0	Vertical	N/A
2514.121	55.43	--	47.51	74.0	--	54.0	158.3	Vertical	PASS

802.11n-20MHz MID CHANNEL 1GHz to 6GHz, ANT H



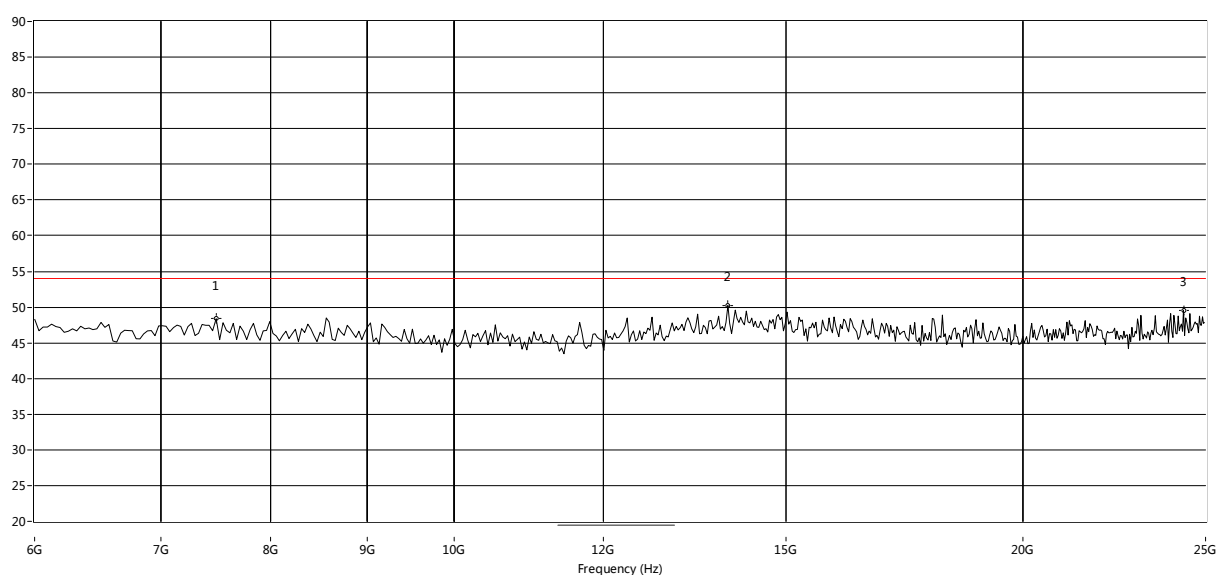
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2437.641	98.09	--	--	74.0	--	54.0	4.2	Horizontal	N/A
2515.621	48.90	--	--	74.0	--	54.0	-0.3	Horizontal	PASS
4964.509	44.76	--	--	74.0	--	54.0	223.7	Horizontal	PASS

802.11n-20MHz MID CHANNEL 6GHz to 25GHz, ANT V



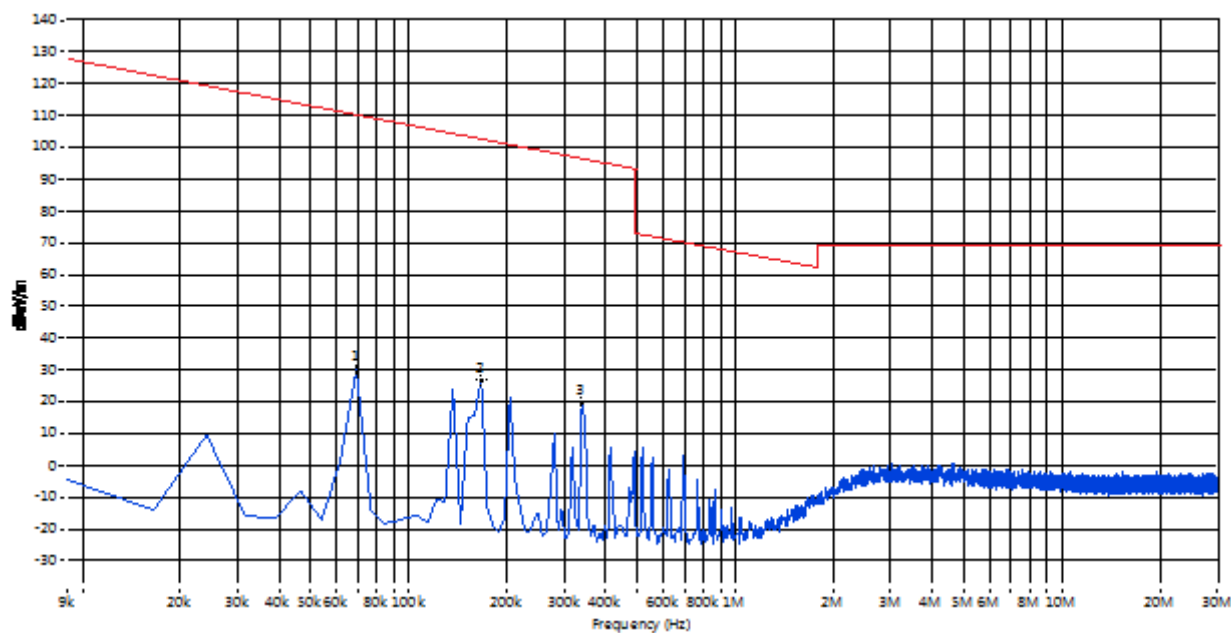
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7201.331	49.74	54.0	4.3	0.0	Vertical	PASS
13935.108	50.48	54.0	3.5	0.0	Vertical	PASS
16843.594	49.02	54.0	5.0	0.0	Vertical	PASS

802.11n-20MHz MID CHANNEL 6GHz to 25GHz, ANT H



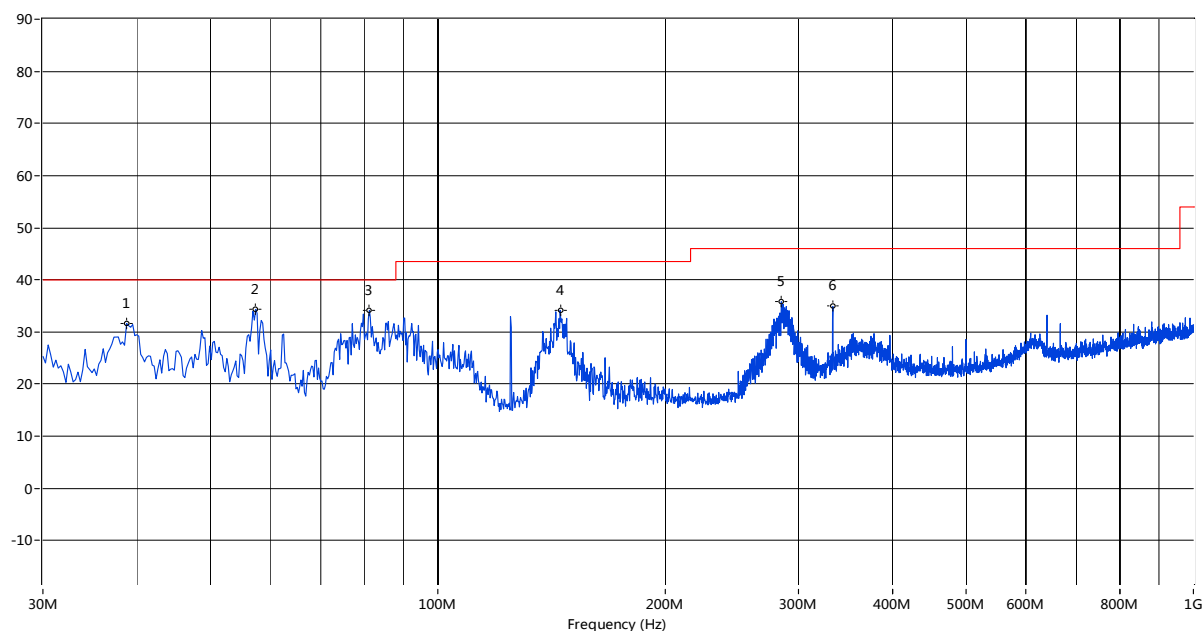
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7485.857	48.37	54.0	5.6	0.0	Horizontal	PASS
13966.722	50.23	54.0	3.8	0.0	Horizontal	PASS
24043.594	47.73	54.0	6.3	0.0	Horizontal	PASS

802.11n-20MHz HIGH CHANNEL Below 30MHz



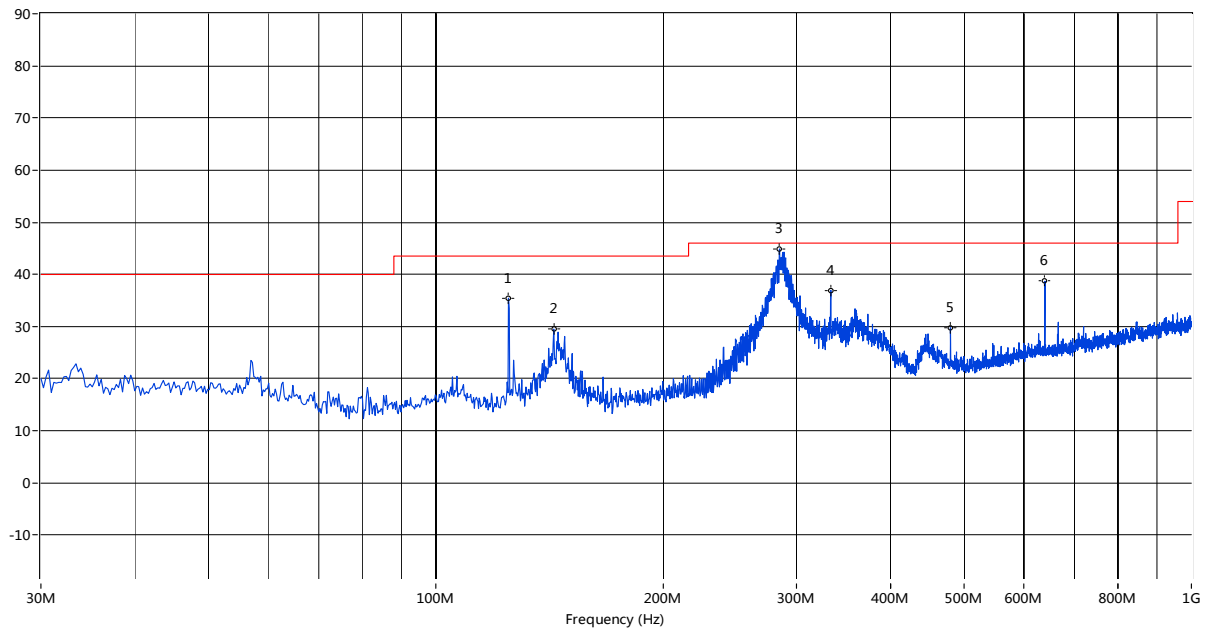
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	29.93	--	--	--	110.8	--	0.0	PASS
0.166	26.73	--	--	--	103.2	--	0.0	PASS
0.339	19.60	--	--	--	97.0	--	0.0	PASS

802.11n-20MHz HIGH CHANNEL 30MHz to 1GHz, ANT V



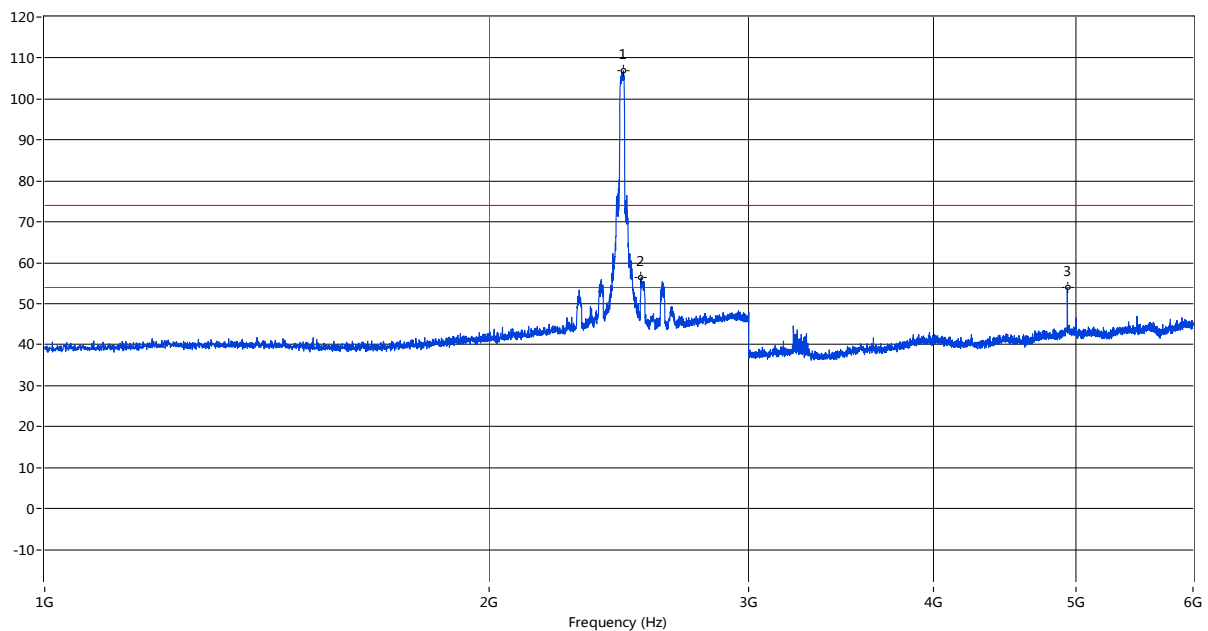
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
38.728	31.63	--	--	--	40.0	--	0.3	Vertical	PASS
57.396	34.34	--	--	--	40.0	--	284.9	Vertical	PASS
81.155	34.17	--	--	--	40.0	--	359.3	Vertical	PASS
145.159	34.15	--	--	--	43.5	--	360.9	Vertical	PASS
284.804	35.81	--	--	--	46.0	--	359.5	Vertical	PASS
333.292	34.90	--	--	--	46.0	--	0.7	Vertical	PASS

802.11n-20MHz HIGH CHANNEL 30MHz to 1GHz, ANT H



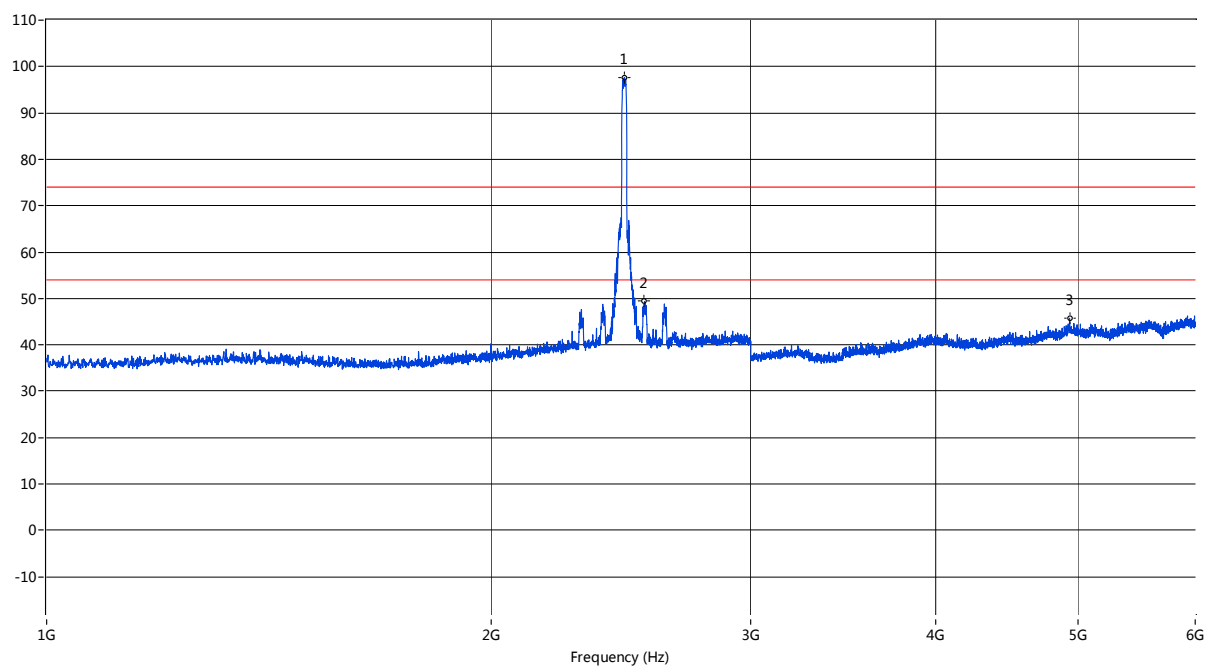
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	35.43	--	--	--	43.5	--	-0.0	Horizontal	PASS
143.219	29.53	--	--	--	43.5	--	359.8	Horizontal	PASS
285.046	44.90	--	--	--	46.0	--	66.5	Horizontal	PASS
333.292	36.94	--	--	--	46.0	--	120.7	Horizontal	PASS
479.968	29.78	--	--	--	46.0	--	263.8	Horizontal	PASS
639.978	38.69	--	--	--	46.0	--	-0.3	Horizontal	PASS

802.11n-20MHz HIGH CHANNEL 1GHz to 6GHz, ANT V



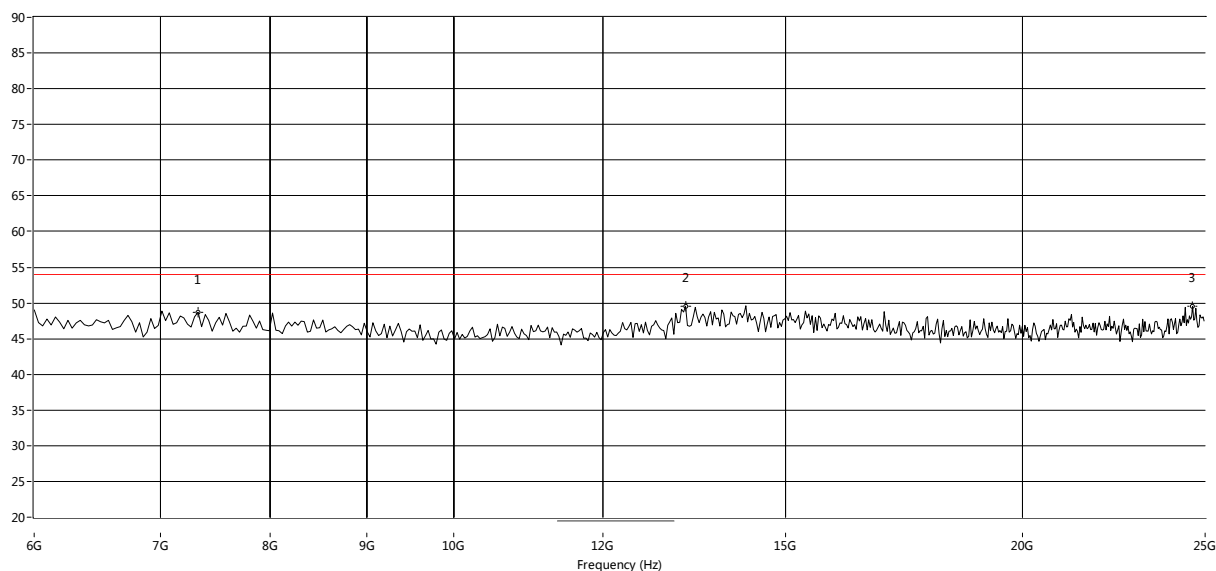
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2467.133	106.94	--	--	74.0	--	54.0	177.6	Vertical	N/A
2536.116	56.46	--	48.24	74.0	--	54.0	155.9	Vertical	PASS
4931.517	53.88	--	44.97	74.0	--	54.0	219.2	Vertical	PASS

802.11n-20MHz HIGH CHANNEL 1GHz to 6GHz, ANT H



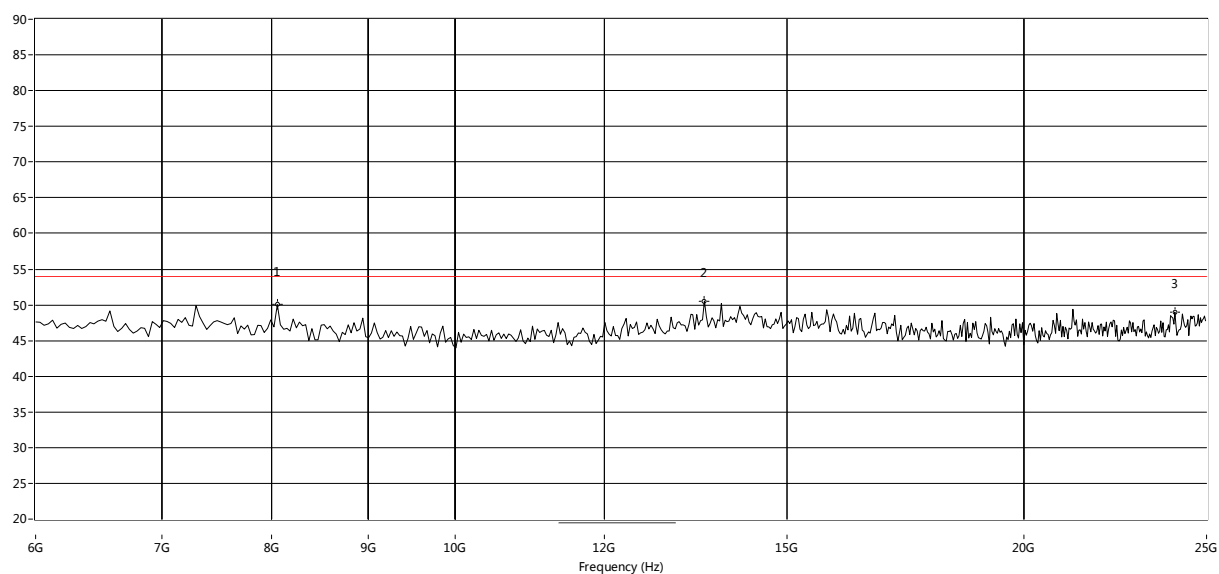
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2461.135	97.51	--	--	74.0	--	54.0	2.6	Horizontal	N/A
2541.115	49.35	--	--	74.0	--	54.0	3.5	Horizontal	PASS
4932.267	45.77	--	--	74.0	--	54.0	77.1	Horizontal	PASS

802.11n-20MHz HIGH CHANNEL 6GHz to 25GHz, ANT V



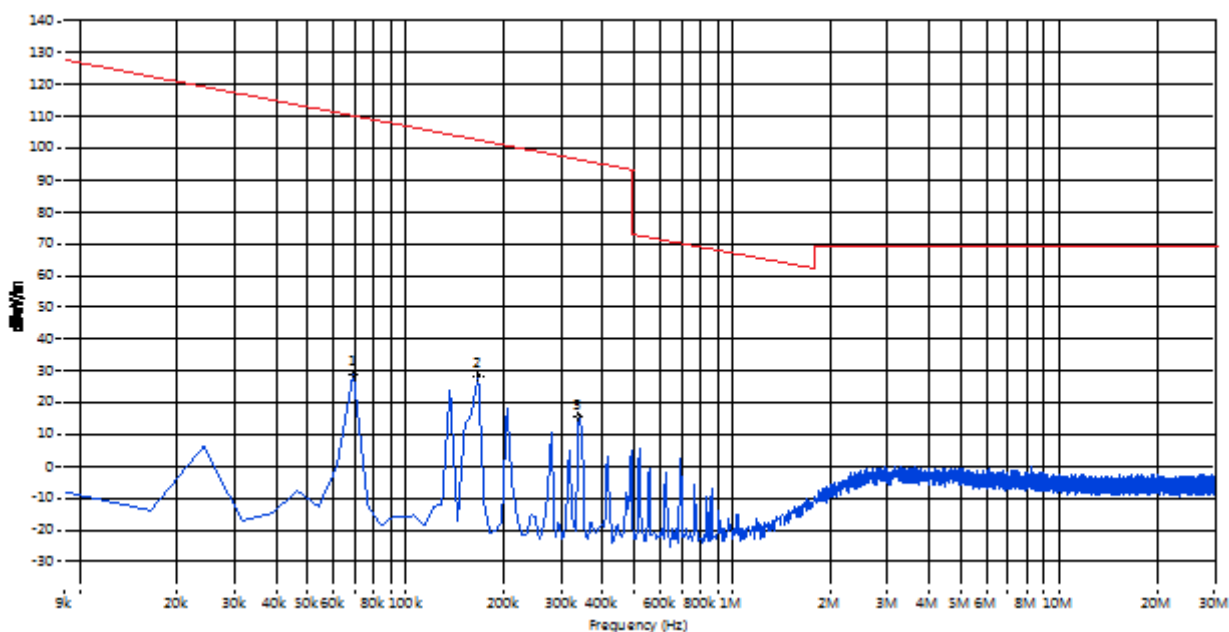
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7327.787	48.70	54.0	5.3	0.0	Vertical	PASS
13271.215	49.56	54.0	4.4	0.0	Vertical	PASS
24620.632	49.52	54.0	4.5	0.0	Vertical	PASS

802.11n-20MHz HIGH CHANNEL 6GHz to 25GHz, ANT H



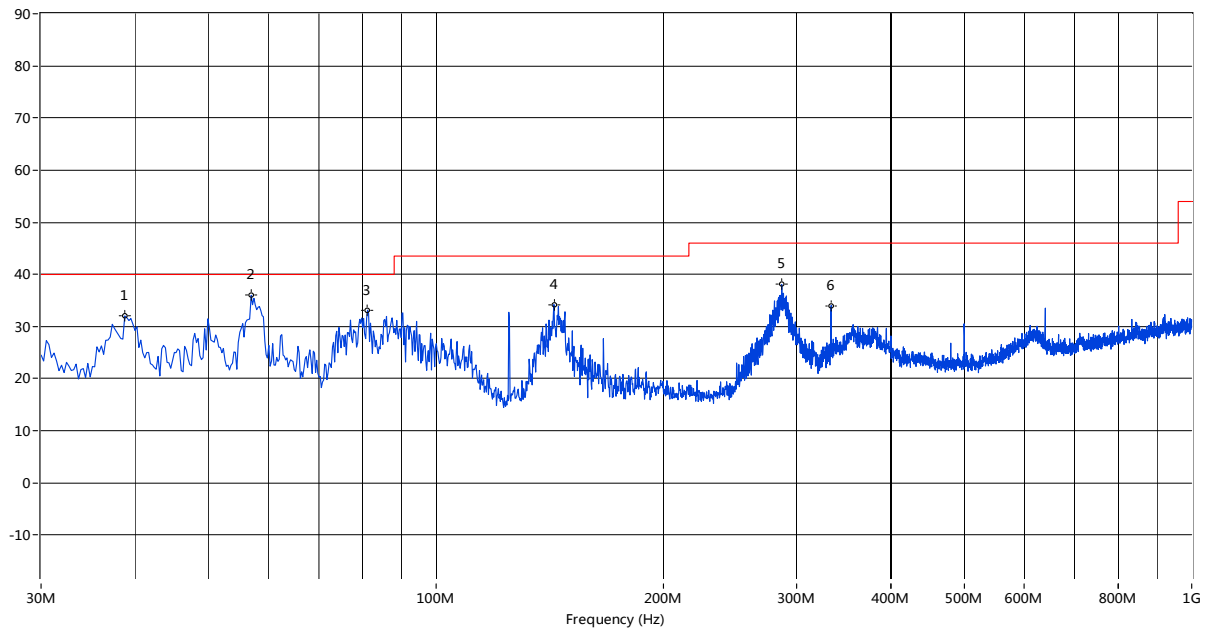
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
8054.908	50.03	54.0	4.0	0.0	Horizontal	PASS
13966.722	47.71	54.0	6.3	0.0	Horizontal	PASS
24336.106	47.12	54.0	6.9	0.0	Horizontal	PASS

802.11n-40MHz LOW MODE Below 30MHz



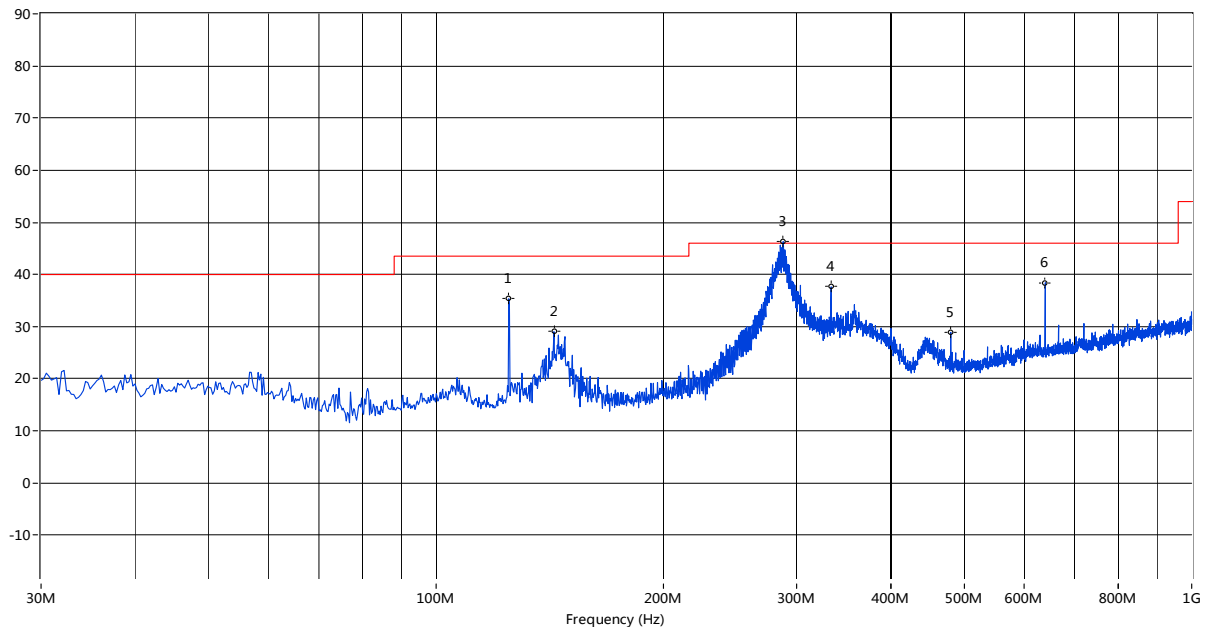
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	29.00	--	--	--	110.8	--	0.0	PASS
0.166	28.49	--	--	--	103.2	--	0.0	PASS
0.339	15.81	--	--	--	97.0	--	0.0	PASS

802.11n-40MHZ LOW MODE 30MHz to 1GHz, ANT V



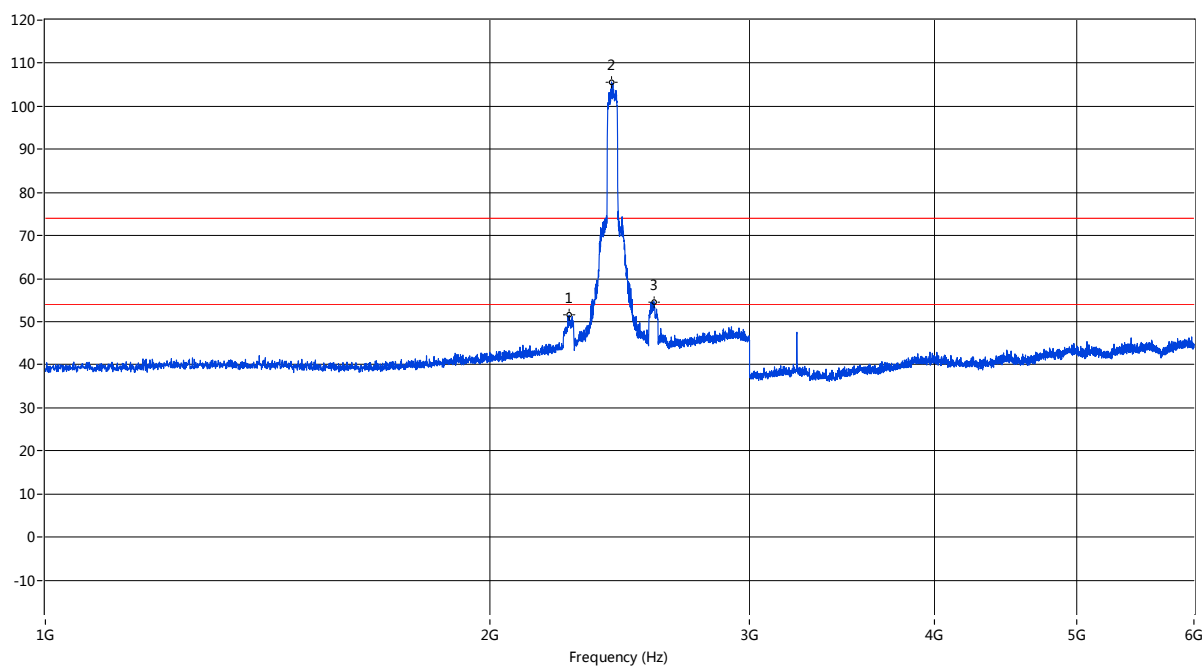
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
38.728	32.03	--	--	--	40.0	--	58.1	Vertical	PASS
56.911	36.02	--	--	--	40.0	--	243.6	Vertical	PASS
81.155	33.13	--	--	--	40.0	--	185.8	Vertical	PASS
143.219	34.21	--	--	--	43.5	--	358.5	Vertical	PASS
286.743	38.05	--	--	--	46.0	--	-0.3	Vertical	PASS

802.11n-40MHZ LOW MODE 30MHz to 1GHz, ANT H



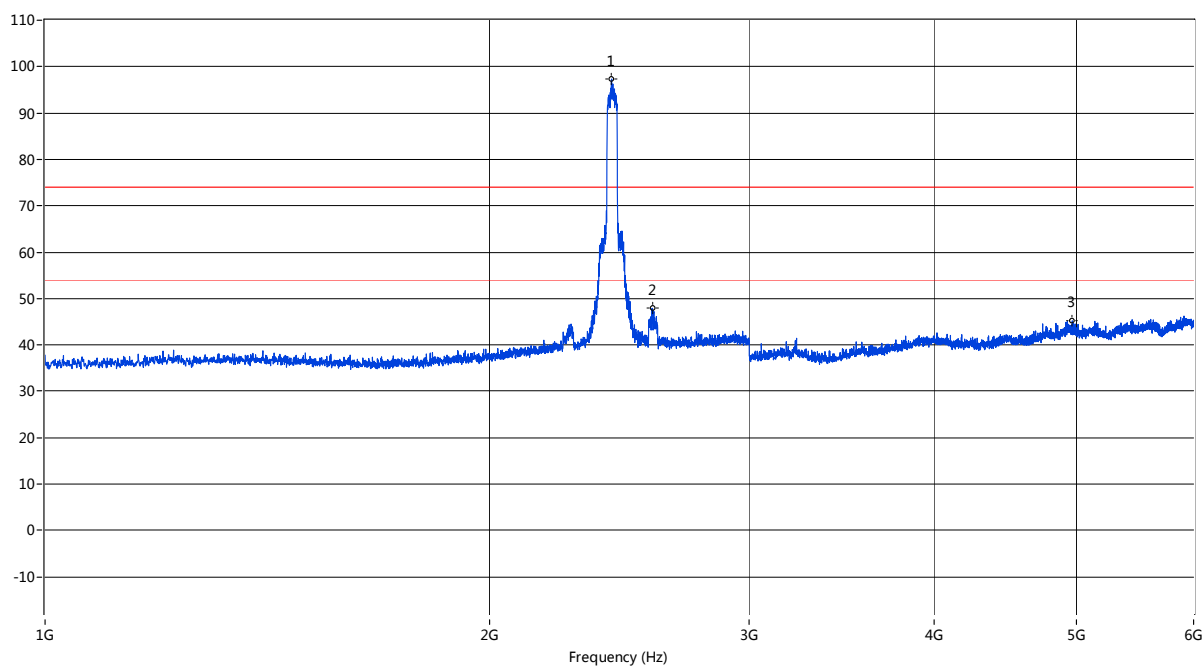
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	35.35	--	--	--	43.5	--	360.0	Horizontal	PASS
143.219	29.05	--	--	--	43.5	--	0.1	Horizontal	PASS
287.956	46.32	42.58	--	--	46.0	--	49.5	Horizontal	PASS
333.292	37.63	--	--	--	46.0	--	256.2	Horizontal	PASS
639.978	38.41	--	--	--	46.0	--	360.2	Horizontal	PASS

802.11n-40MHZ LOW MODE 1GHz to 6GHz, ANT V



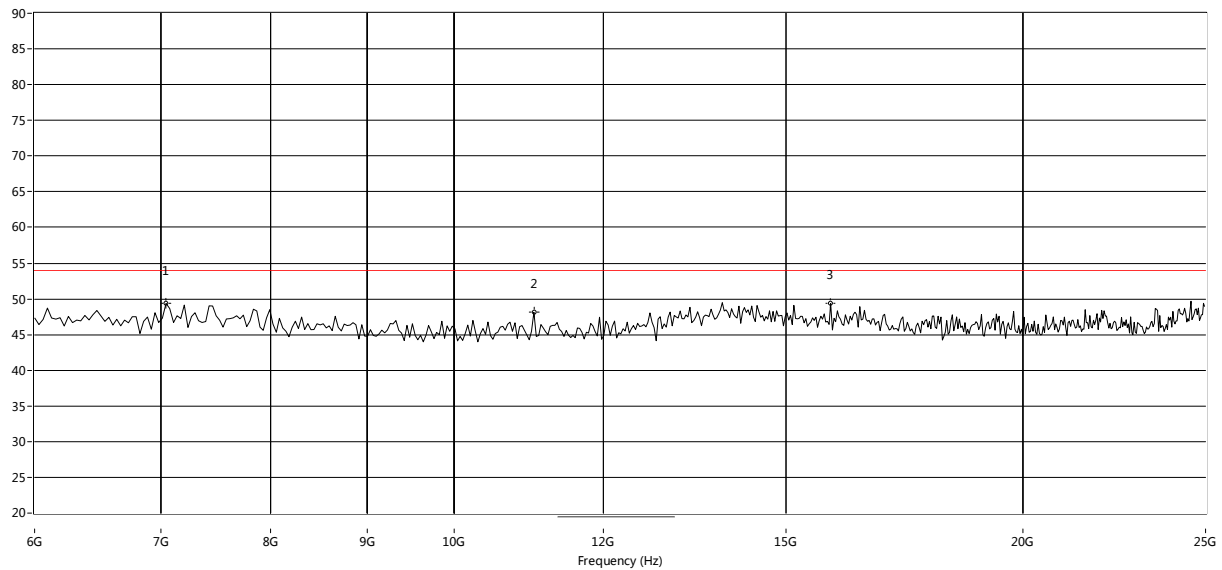
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2263.684	51.52	--	--	74.0	--	54.0	151.5	Vertical	PASS
2418.645	105.64	--	--	74.0	--	54.0	141.6	Vertical	N/A
2583.104	54.43	--	46.28	74.0	--	54.0	228.3	Vertical	PASS

802.11n-40MHZ LOW MODE 1GHz to 6GHz, ANT H



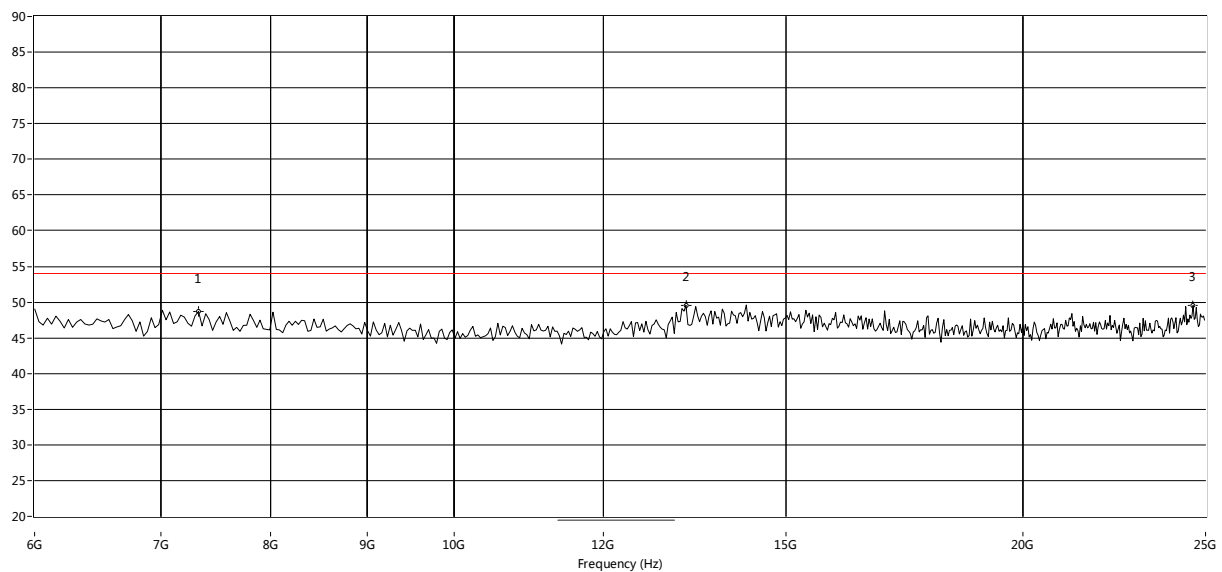
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2419.645	97.31	--	--	74.0	--	54.0	359.6	Horizontal	N/A
2578.105	47.88	--	--	74.0	--	54.0	0.7	Horizontal	PASS
4966.008	45.20	--	--	74.0	--	54.0	150.2	Horizontal	PASS

802.11n-40MHZ LOW MODE 6GHz to 25GHz, ANT V



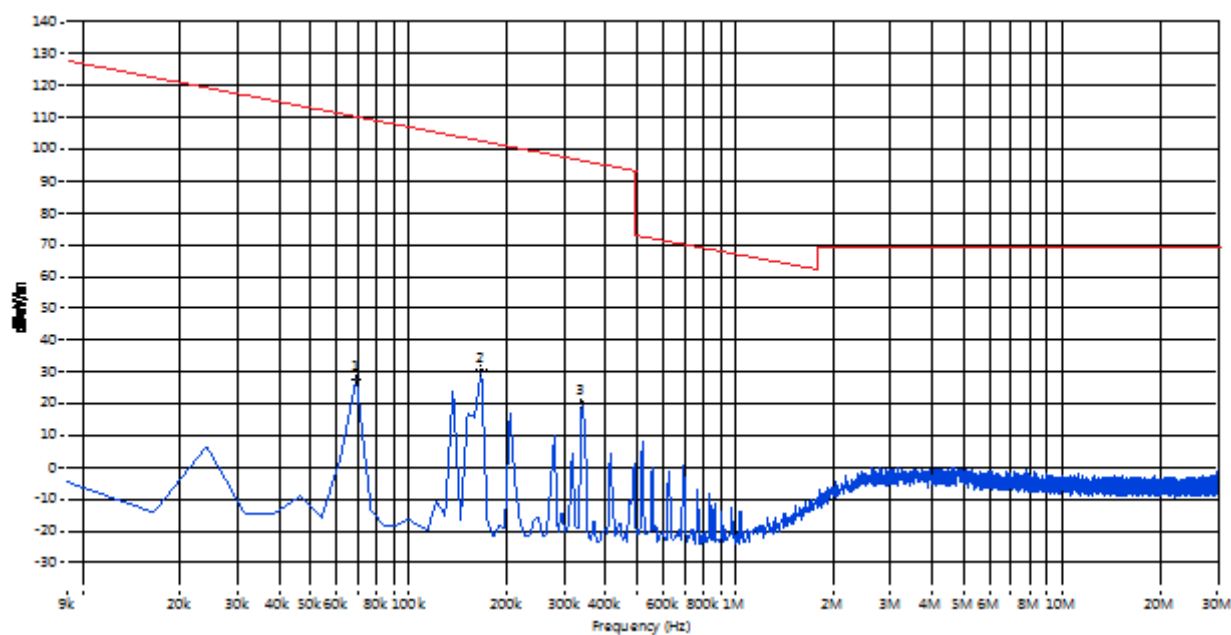
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7043.261	49.34	54.0	4.7	0.0	Vertical	PASS
11026.622	48.13	54.0	5.9	0.0	Vertical	PASS
15620.632	47.46	54.0	6.5	0.0	Vertical	PASS

802.11n-40MHZ LOW MODE 6GHz to 25GHz, ANT H



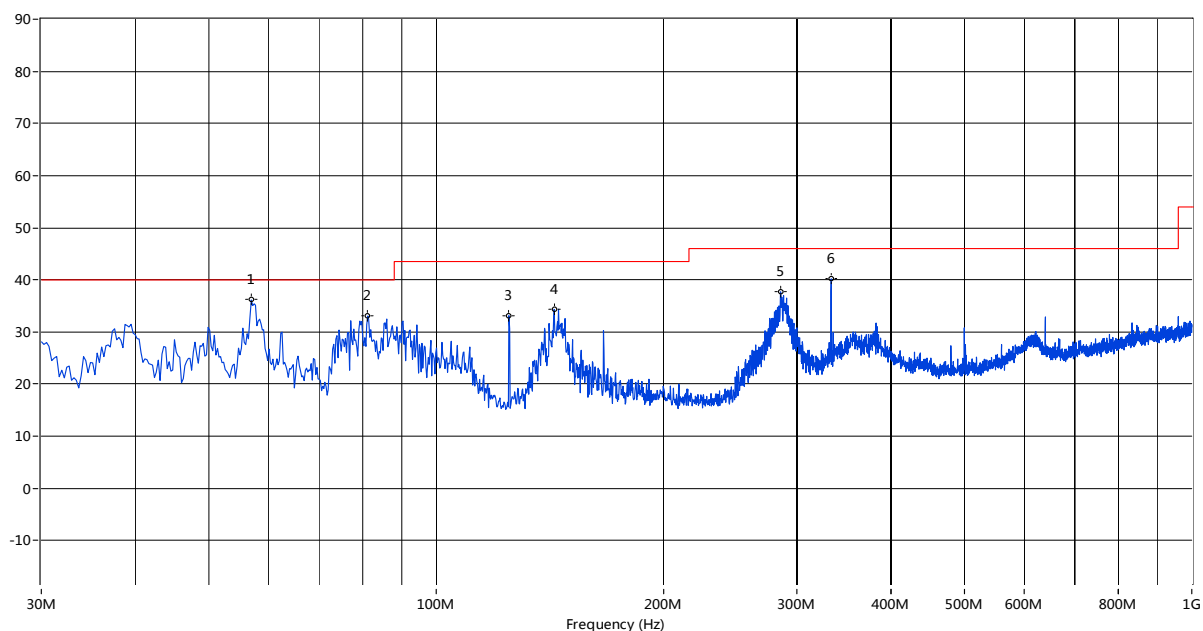
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7327.787	48.70	54.0	5.3	0.0	Horizontal	PASS
13555.740	48.43	54.0	5.6	0.0	Horizontal	PASS
24537.105	46.60	54.0	7.4	0.0	Horizontal	PASS

802.11n-40MHz MID MODE Below 30MHz



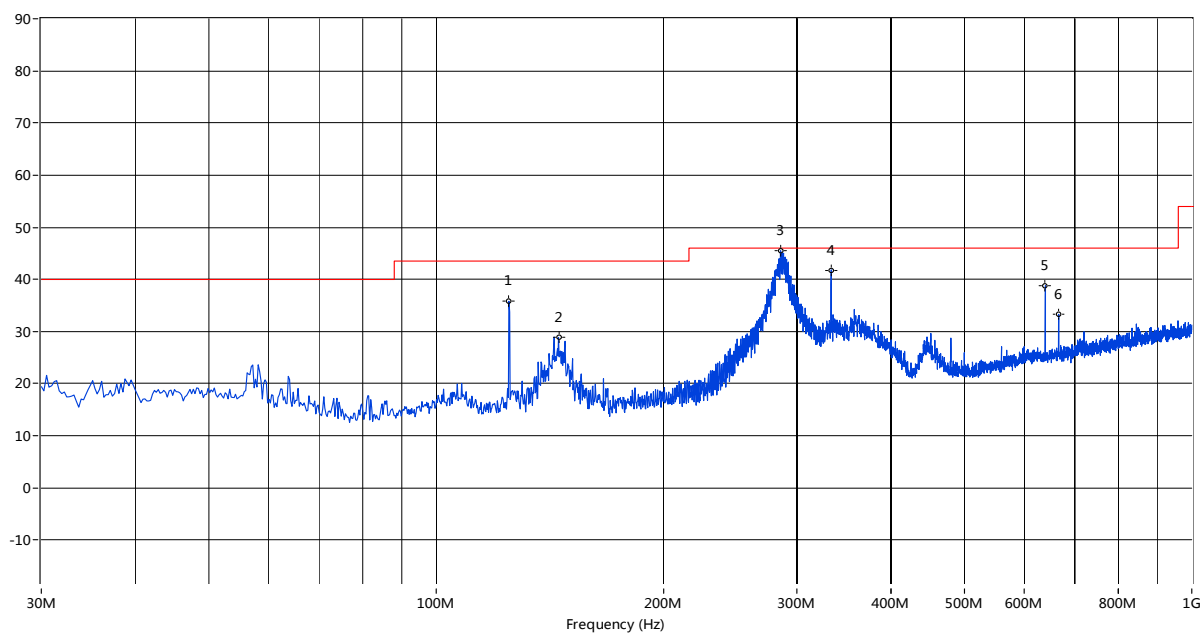
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	29.00	--	--	--	110.8	--	0.0	PASS
0.166	28.49	--	--	--	103.2	--	0.0	PASS
0.339	15.81	--	--	--	97.0	--	0.0	PASS

802.11n-40MHz MID MODE 30MHz to 1GHz, ANT V



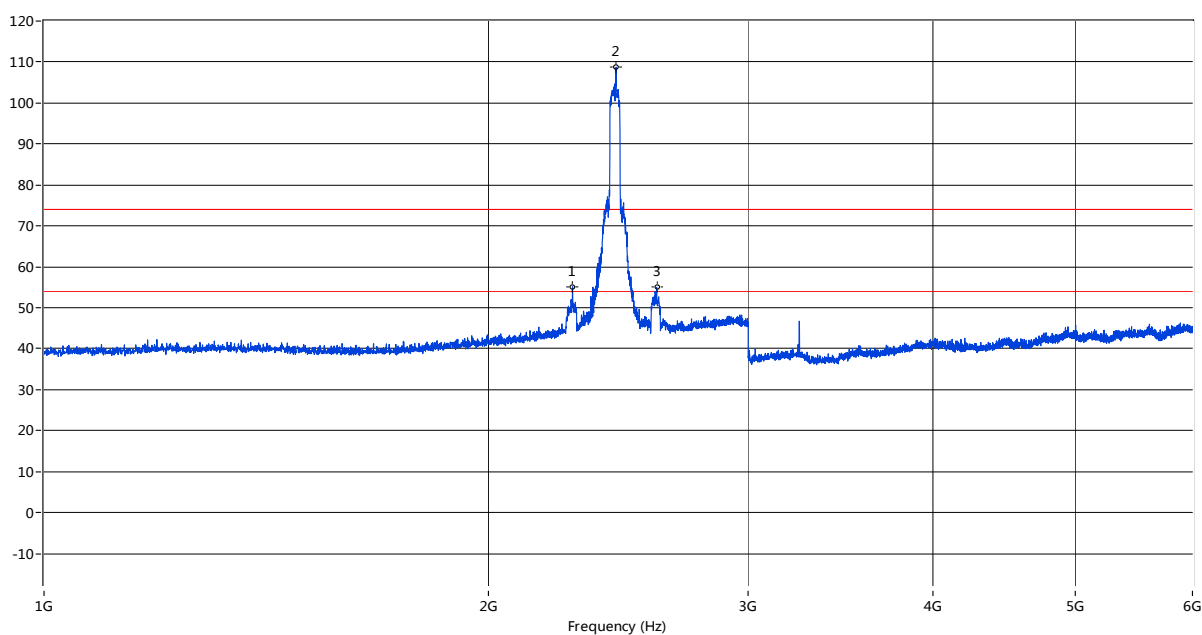
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
56.911	36.16	--	--	--	40.0	--	8.5	Vertical	PASS
81.155	33.09	--	--	--	40.0	--	348.4	Vertical	PASS
124.794	33.15	--	--	--	43.5	--	317.3	Vertical	PASS
143.219	34.32	--	--	--	43.5	--	358.9	Vertical	PASS
285.531	37.70	--	--	--	46.0	--	351.4	Vertical	PASS
333.292	40.22	--	--	--	46.0	--	361.0	Vertical	PASS

802.11n-40MHz MID MODE 30MHz to 1GHz, ANT H



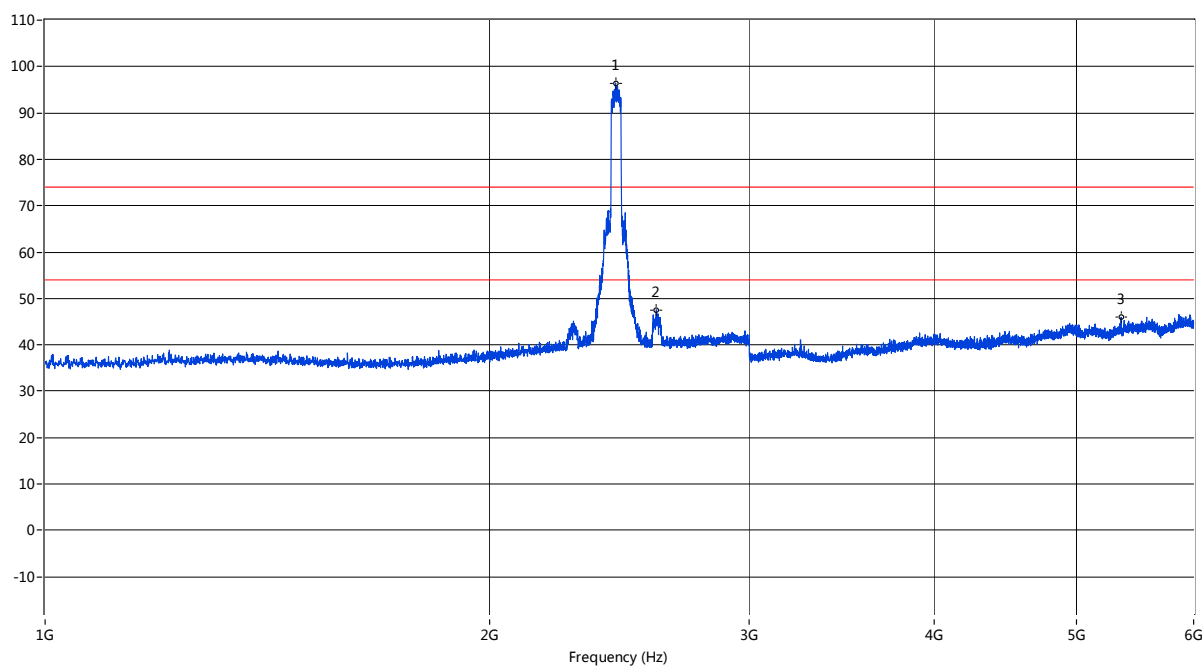
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	35.80	--	--	--	43.5	--	-0.9	Horizontal	PASS
145.159	28.88	--	--	--	43.5	--	0.8	Horizontal	PASS
285.531	45.51	41.67	--	--	46.0	--	75.4	Horizontal	PASS
333.292	41.81	--	--	--	46.0	--	321.1	Horizontal	PASS
639.978	38.77	--	--	--	46.0	--	-0.6	Horizontal	PASS
666.646	33.29	--	--	--	46.0	--	359.5	Horizontal	PASS

802.11n-40MHz MID MODE 1GHz to 6GHz, ANT V



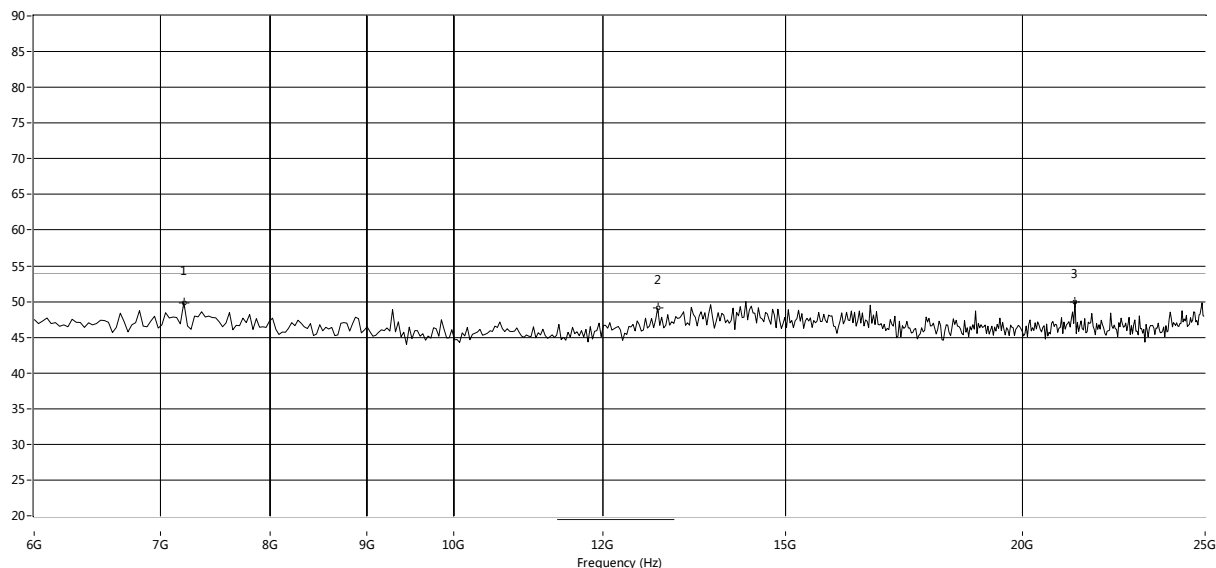
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2281.180	55.14	--	47.87	74.0	--	54.0	4.3	Vertical	PASS
2441.140	108.72	--	--	74.0	--	54.0	4.3	Vertical	N/A
2601.100	54.99	--	48.23	74.0	--	54.0	4.3	Vertical	PASS

802.11n-40MHZ MID MODE 1GHz to 6GHz, ANT H



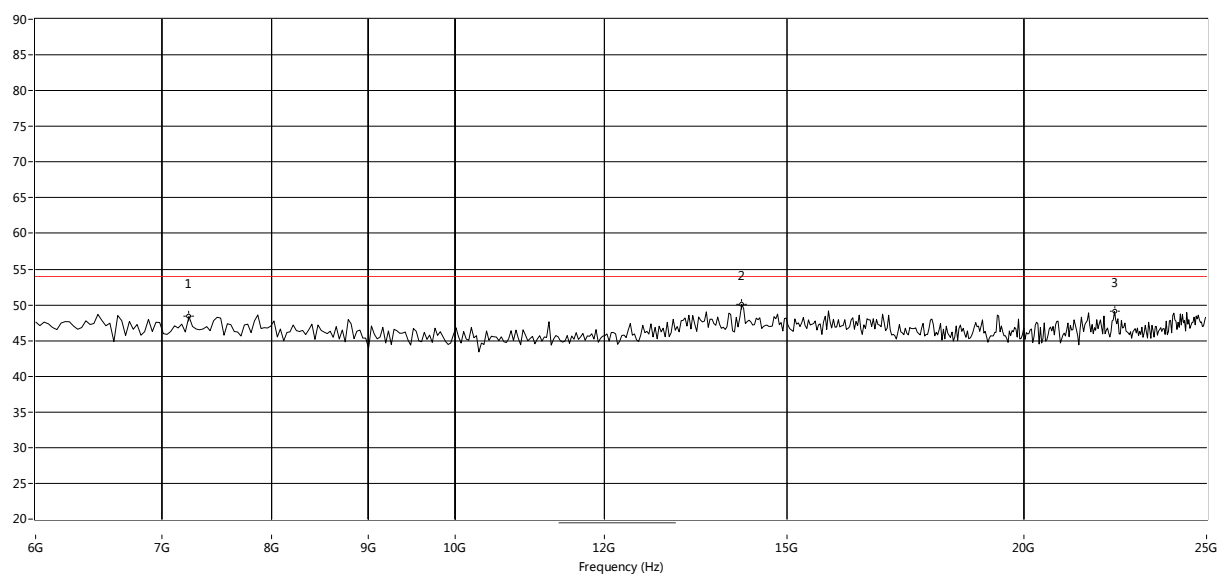
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2435.141	96.48	--	--	74.0	--	54.0	1.8	Horizontal	N/A
2594.601	47.57	--	--	74.0	--	54.0	273.0	Horizontal	PASS
5358.160	45.93	--	--	74.0	--	54.0	313.8	Horizontal	PASS

802.11n-40MHZ MID MODE 6GHz to 25GHz, ANT V



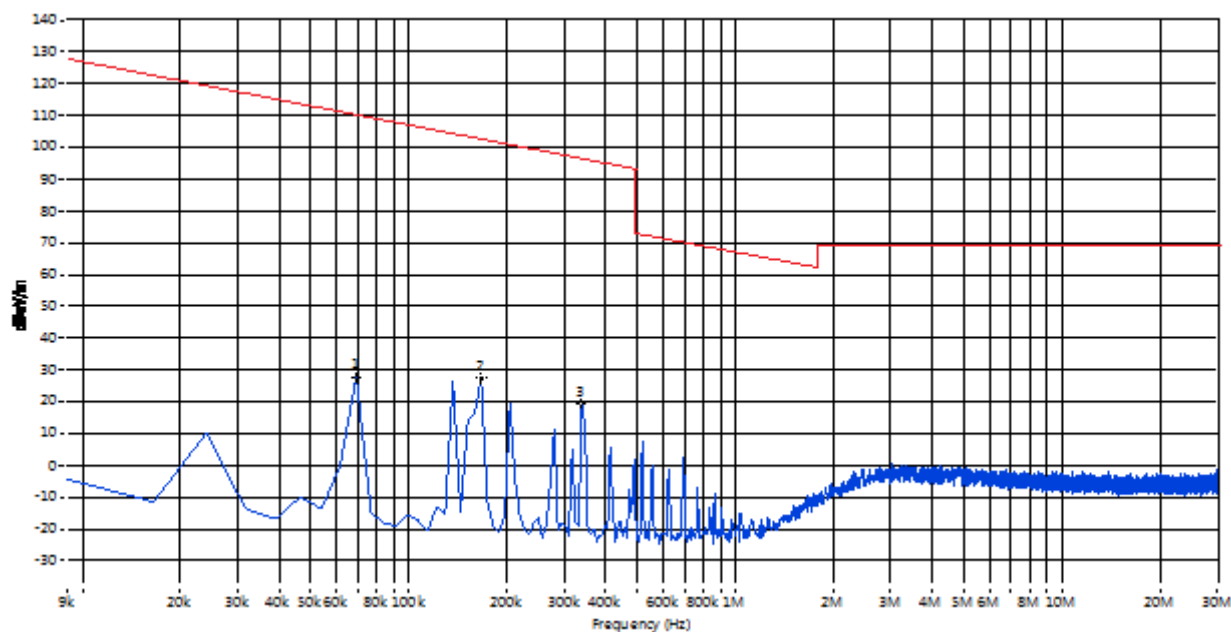
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7201.331	49.87	54.0	4.1	0.0	Vertical	PASS
12828.619	49.10	54.0	4.9	0.0	Vertical	PASS
20831.947	47.97	54.0	6.0	0.0	Vertical	PASS

802.11n-40MHz MID MODE 6GHz to 25GHz, ANT H



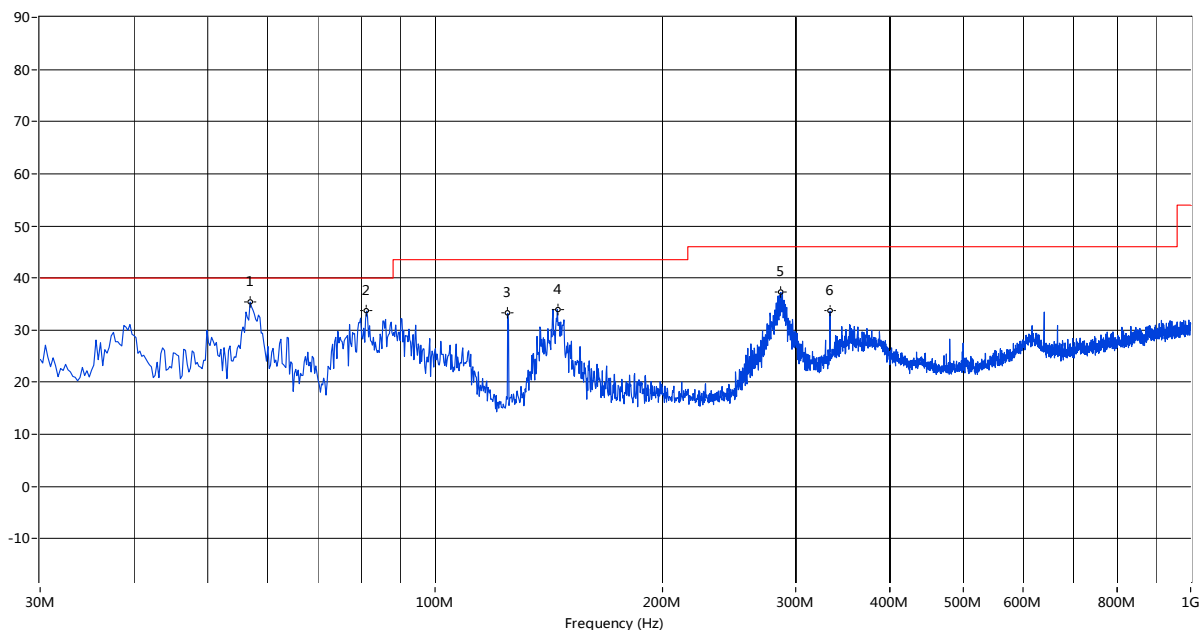
Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7232.945	48.37	54.0	5.6	0.0	Horizontal	PASS
14188.020	50.09	54.0	3.9	0.0	Horizontal	PASS
22344.426	49.10	54.0	4.9	0.0	Horizontal	PASS

802.11n-40MHz HIGH MODE Below 30MHz



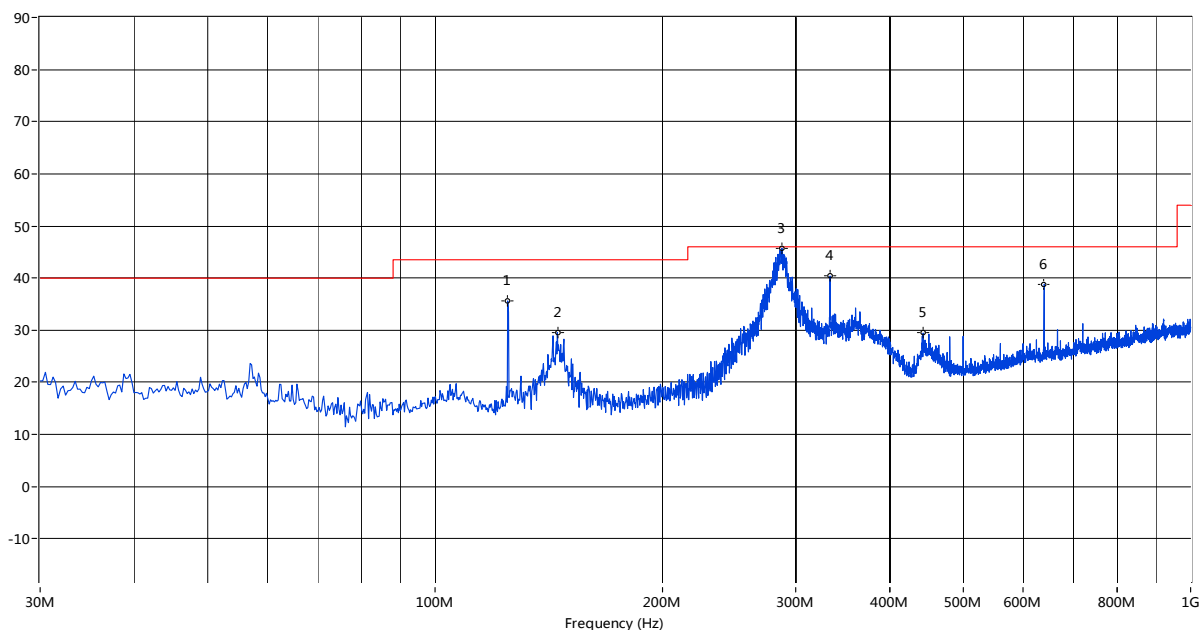
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Verdict
0.069	25.82	--	--	--	110.8	--	0.0	PASS
0.166	26.24	--	--	--	103.2	--	0.0	PASS
0.339	16.50	--	--	--	97.0	--	0.0	PASS

802.11n-40MHZ HIGH MODE 30MHz to 1GHz, ANT V



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
56.911	35.38	--	--	--	40.0	--	296.1	Vertical	PASS
124.794	33.22	--	--	--	43.5	--	302.3	Vertical	PASS
145.159	34.01	--	--	--	43.5	--	358.7	Vertical	PASS
286.743	37.22	--	--	--	46.0	--	0.1	Vertical	PASS
333.292	33.64	--	--	--	46.0	--	14.1	Vertical	PASS

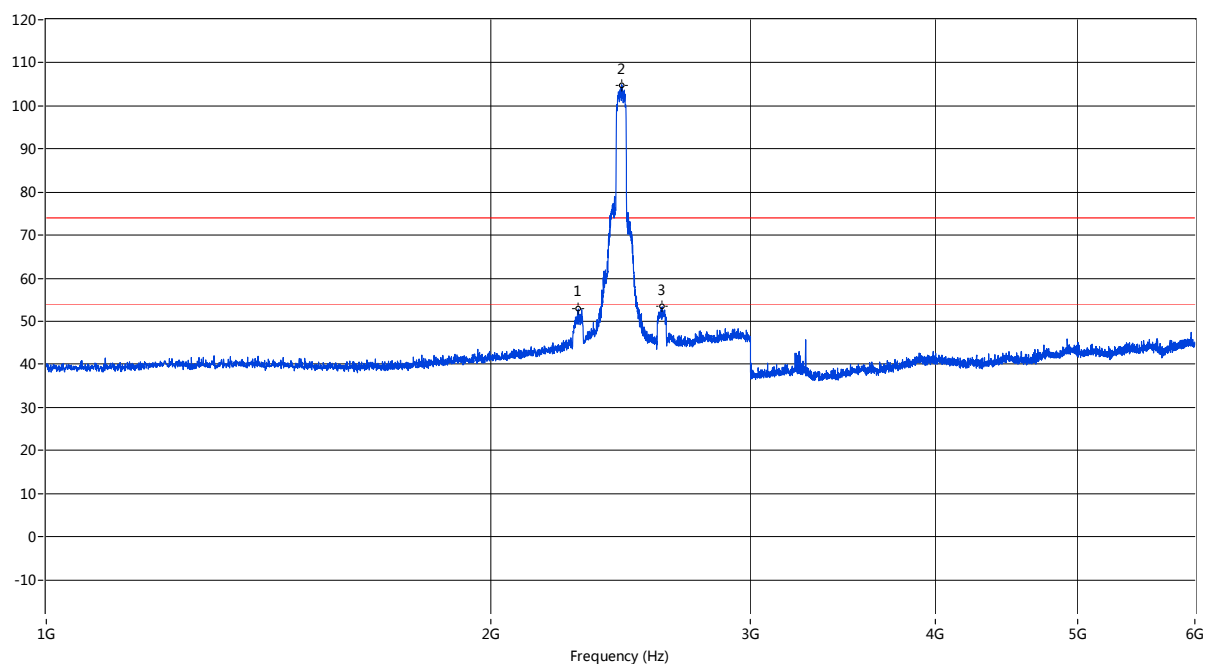
802.11n-40MHZ HIGH MODE 30MHz to 1GHz, ANT H



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
124.794	35.63	--	--	--	43.5	--	-0.0	Horizontal	PASS
145.159	29.57	--	--	--	43.5	--	2.0	Horizontal	PASS
287.713	45.73	42.15	--	--	46.0	--	59.7	Horizontal	PASS
333.292	40.39	--	--	--	46.0	--	160.7	Horizontal	PASS

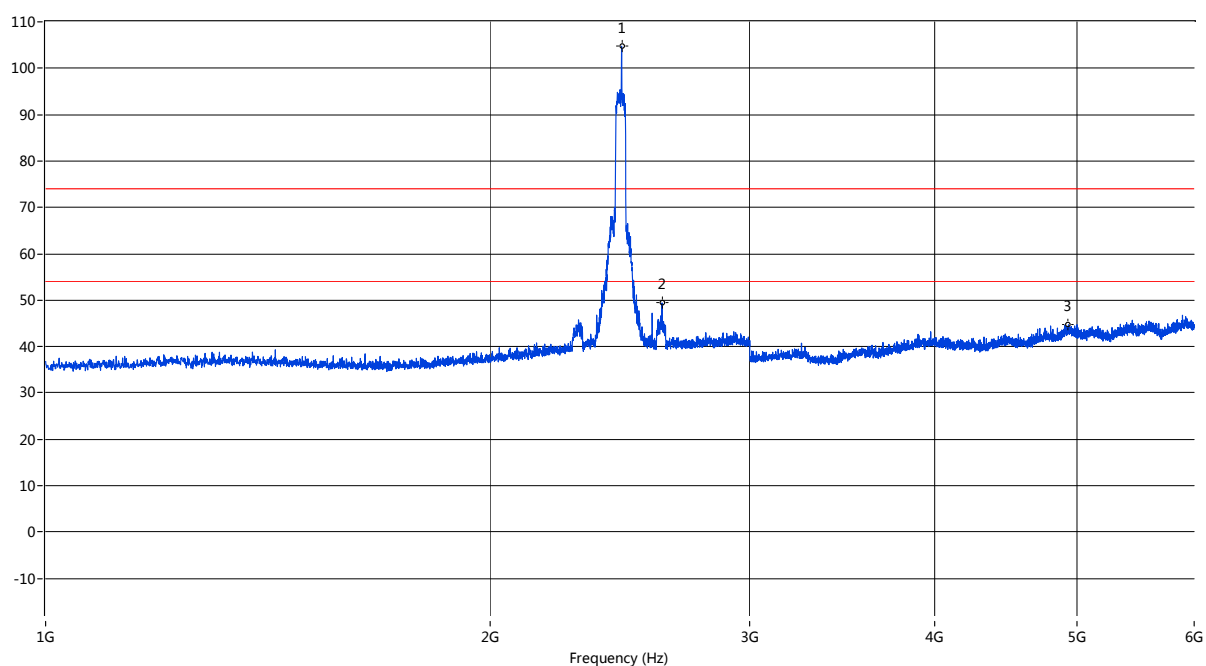
639.978 38.86 -- -- -- 46.0 -- 1.2 Horizontal PASS

802.11n-40MHZ HIGH MODE 1GHz to 6GHz, ANT V



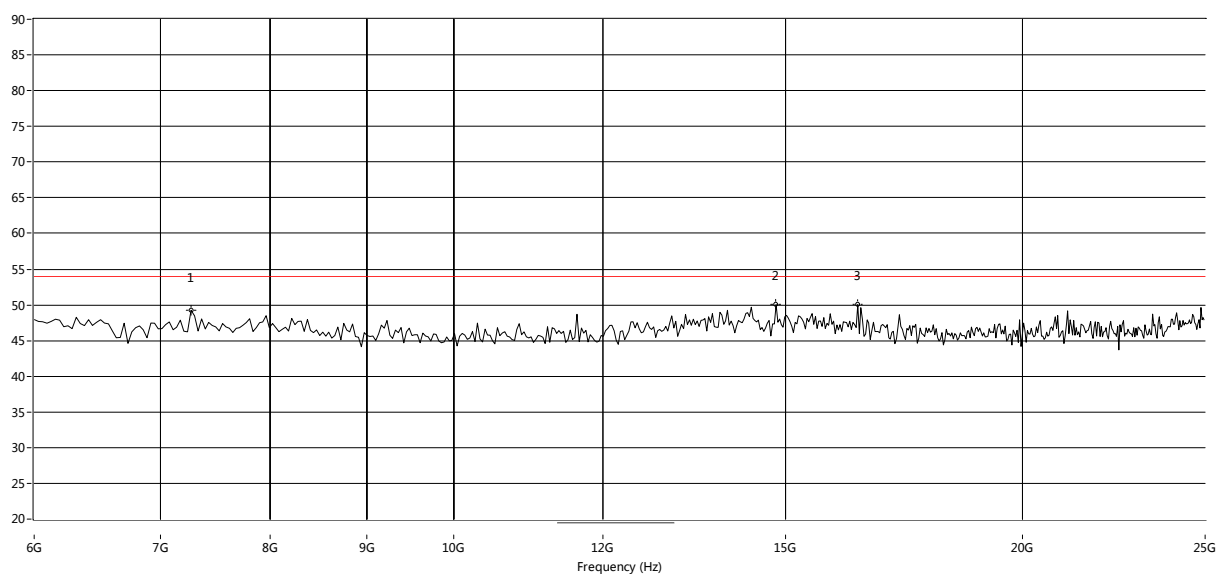
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2293.177	52.86	--	--	74.0	--	54.0	144.8	Vertical	PASS
2453.137	104.88	--	--	74.0	--	54.0	154.9	Vertical	N/A
2614.096	53.36	--	--	74.0	--	54.0	96.0	Vertical	PASS

802.11n-40MHZ HIGH MODE 1GHz to 6GHz, ANT H



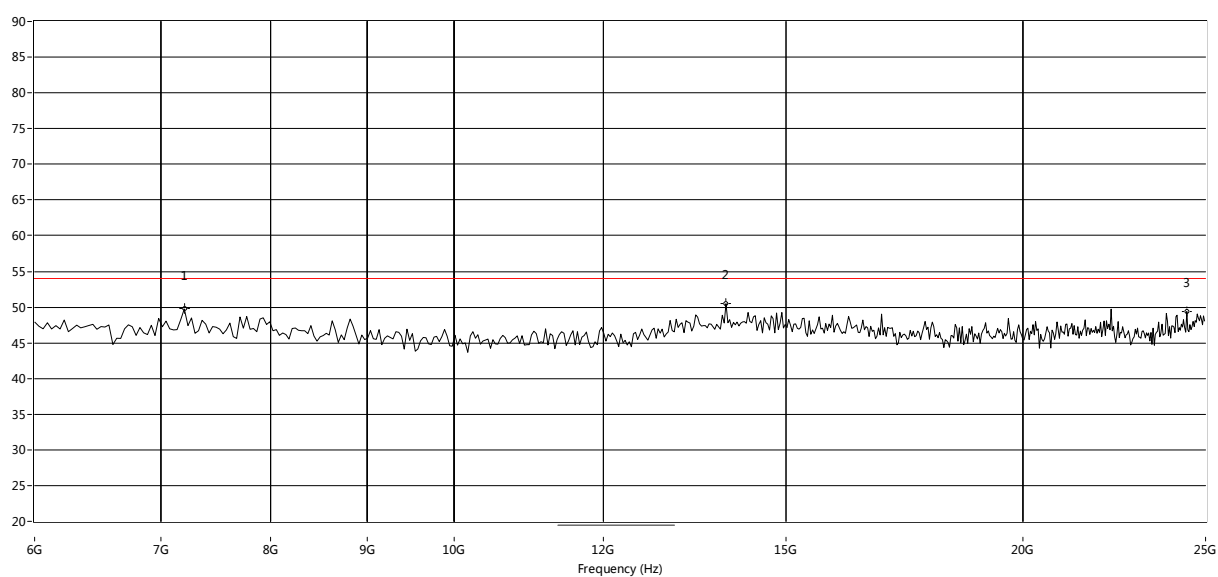
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Degree	Antenna	Verdict
2456.136	104.74	--	--	74.0	--	54.0	54.1	Horizontal	N/A
2616.096	49.41	--	--	74.0	--	54.0	54.1	Horizontal	PASS
4930.767	44.69	--	--	74.0	--	54.0	298.8	Horizontal	PASS

802.11n-40MHZ HIGH MODE 6GHz to 25GHz, ANT V



Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7264.559	49.23	54.0	4.8	0.0	Vertical	PASS
13935.108	47.73	54.0	6.3	0.0	Vertical	PASS
15830.948	47.35	54.0	6.6	0.0	Vertical	PASS

802.11n-40MHZ HIGH MODE 6GHz to 25GHz, ANT H



Fre. (MHz)	Peak	Limit(AV)	Margin	Degree	Antenna	Verdict
7201.331	49.74	54.0	4.3	0.0	Horizontal	PASS
14188.020	47.75	54.0	6.3	0.0	Horizontal	PASS
24044.426	47.31	54.0	6.7	0.0	Horizontal	PASS

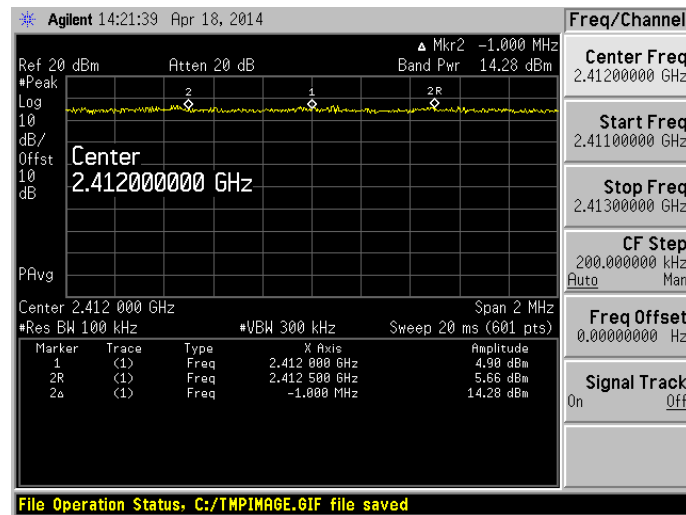
A.6 Band Edge

Test Data

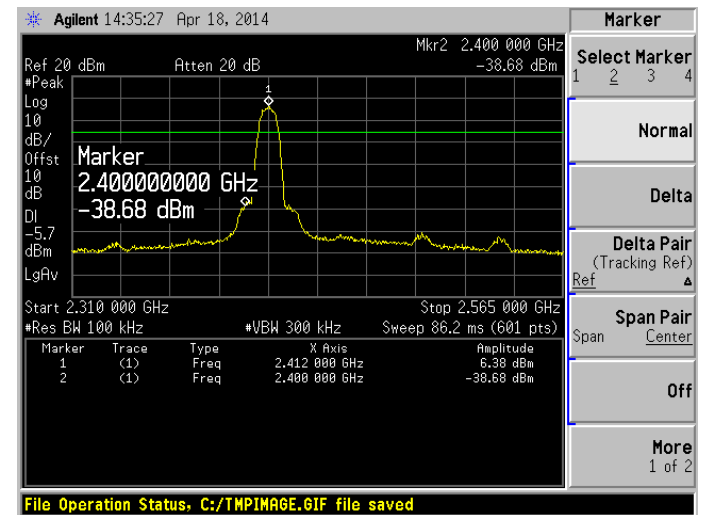
The lowest and highest channels are tested to verify the band edge emissions. Please refer to the following the plots for emissions values.

Test Plots(Ant 0)

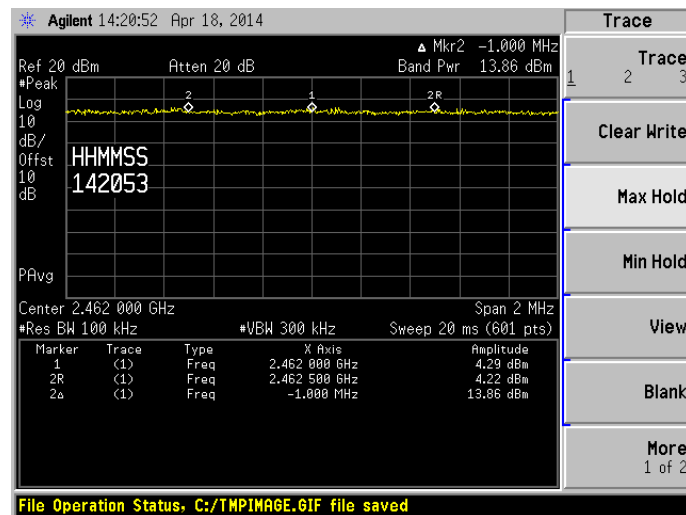
802.11b LOW CHANNEL, Reference level



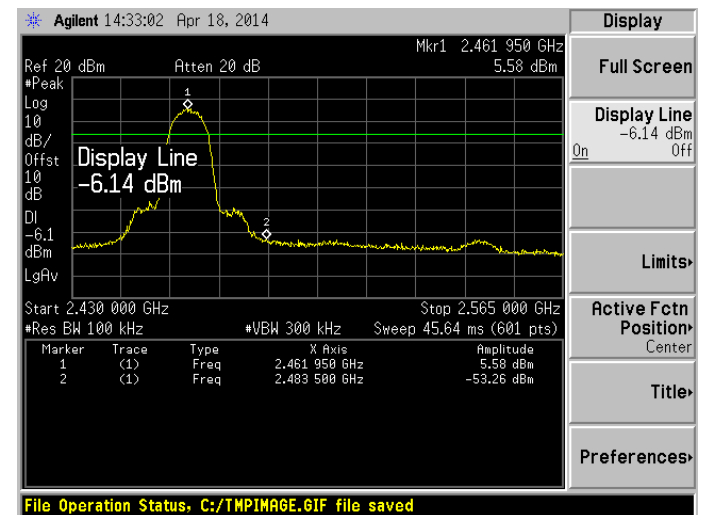
802.11b LOW CHANNEL, Band Edge



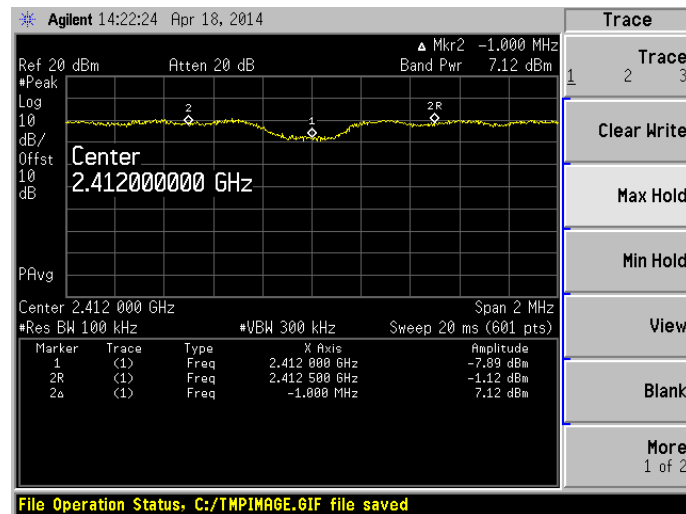
802.11b HIGH CHANNEL, Reference level



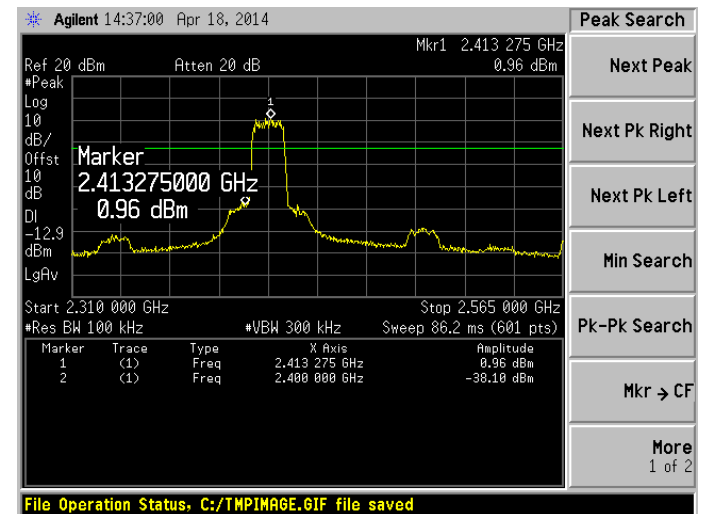
802.11b HIGH CHANNEL, Band Edge



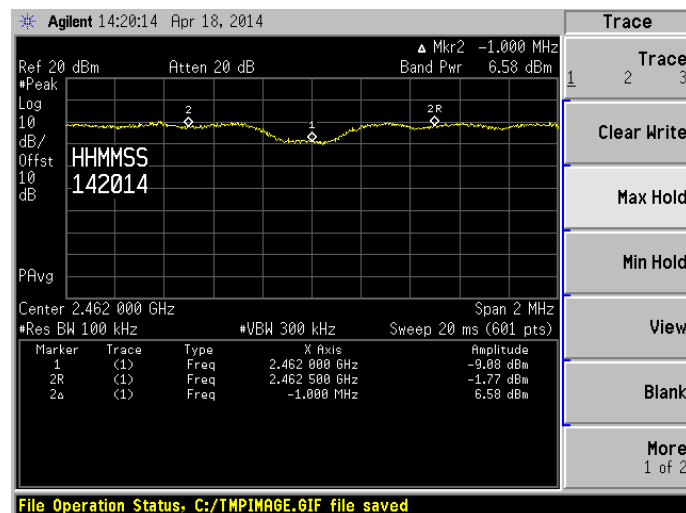
802.11g LOW CHANNEL, Reference level



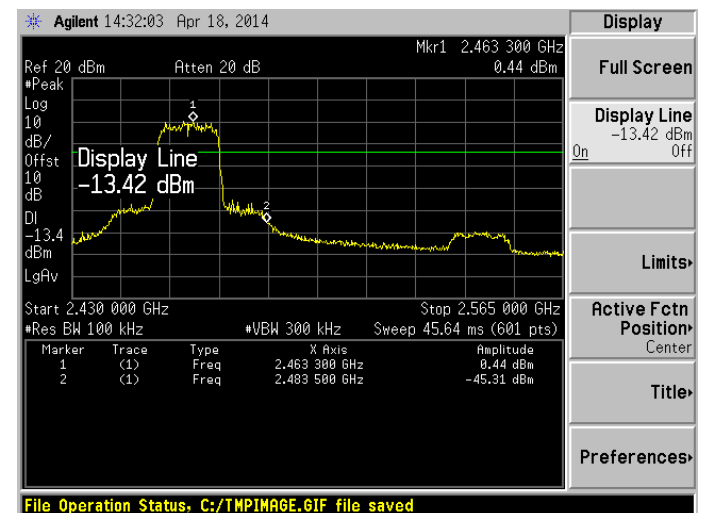
802.11g LOW CHANNEL, Band Edge



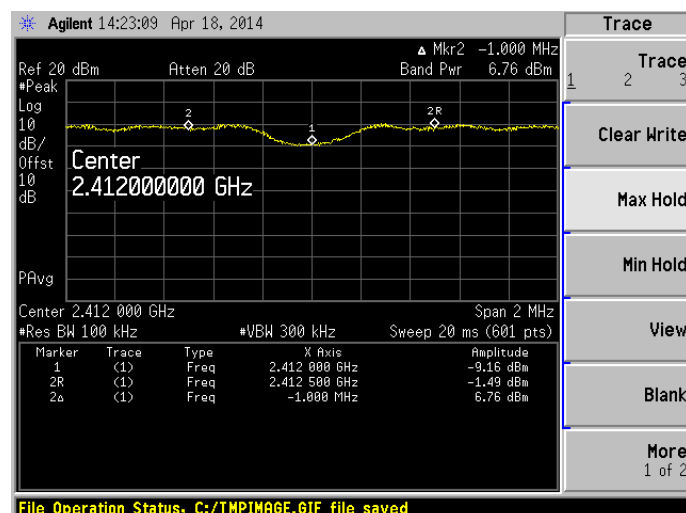
802.11g HIGH CHANNEL, Reference level



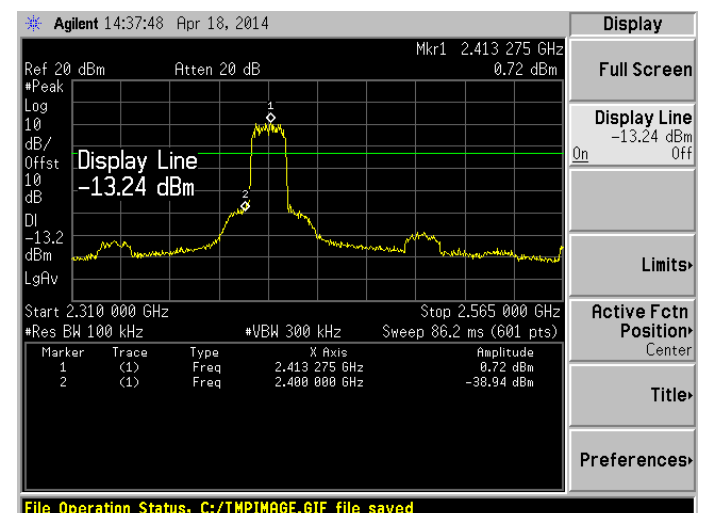
802.11g HIGH CHANNEL, Band Edge



802.11n-20MHz LOW CHANNEL, Reference level

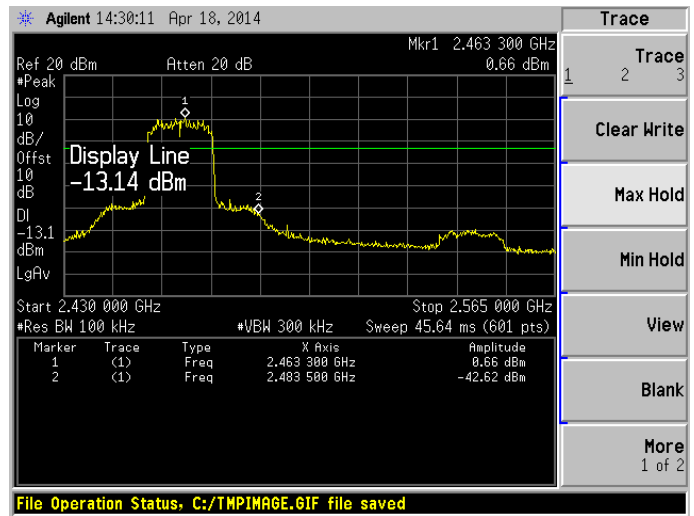
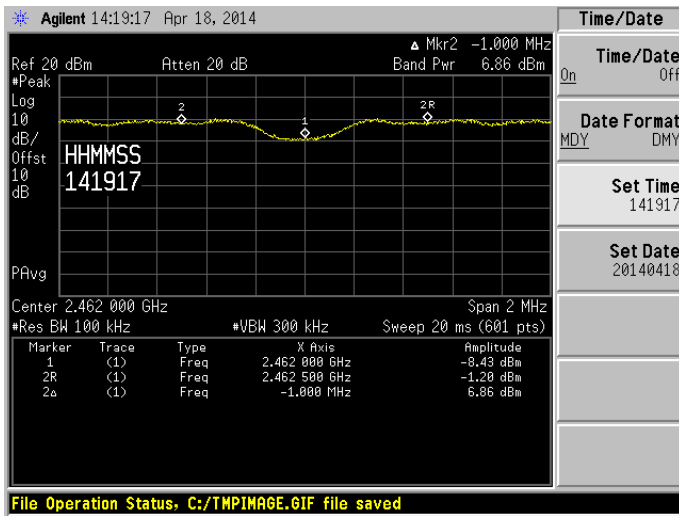


802.11n-20MHz LOW CHANNEL, Band Edge



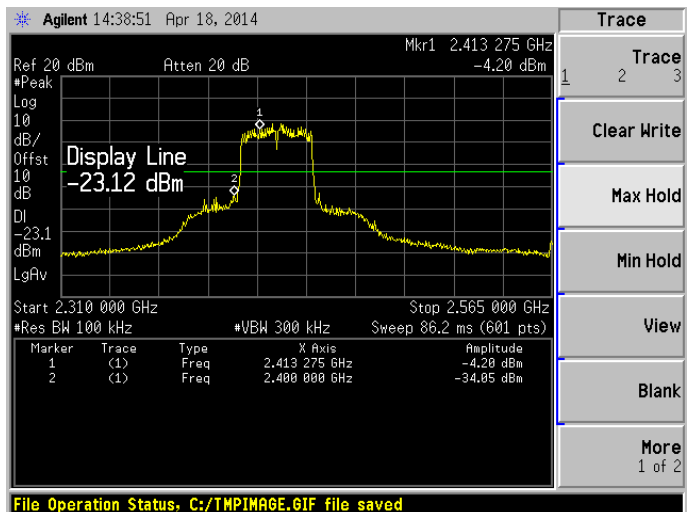
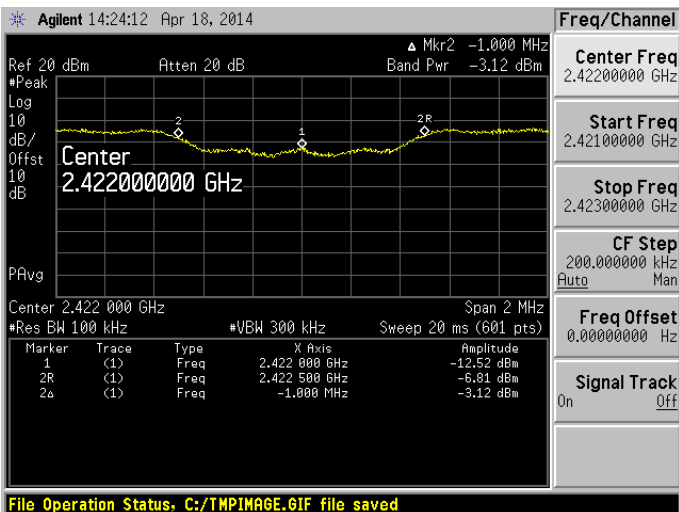
802.11n-20MHz HIGH CHANNEL, Reference level

802.11n-20MHz HIGH CHANNEL, Band Edge



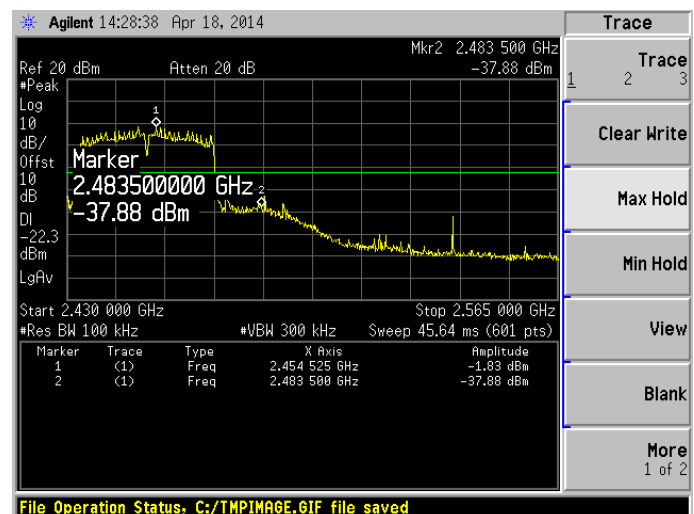
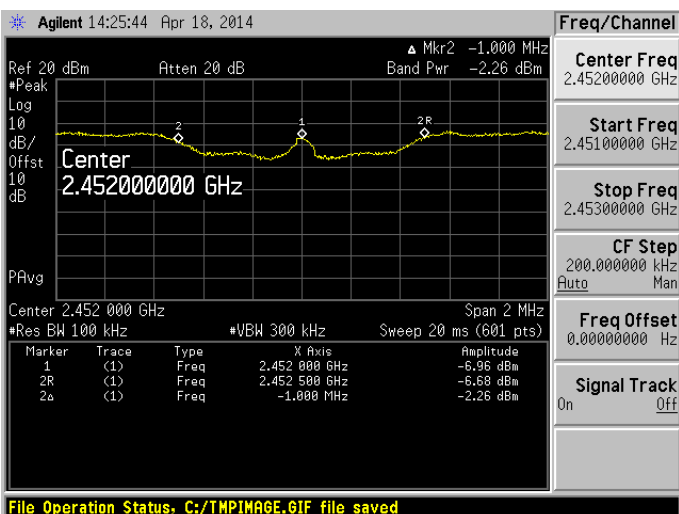
802.11n-40MHz LOW CHANNEL, Reference level

802.11n-40MHz LOW CHANNEL, Band Edge



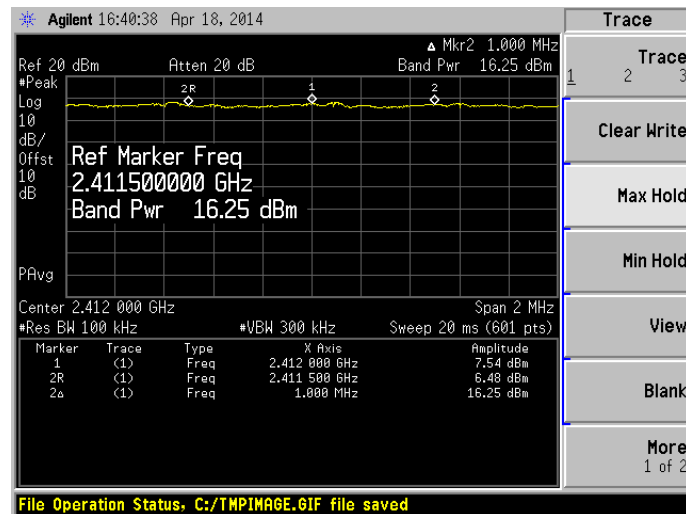
802.11n-40MHz HIGH CHANNEL, Reference level

802.11n-40MHz HIGH CHANNEL, Band Edge

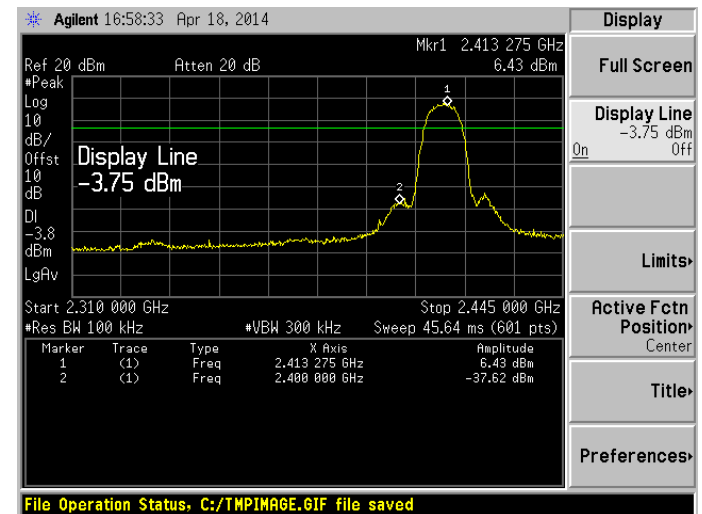


Test Plots(Ant 1)

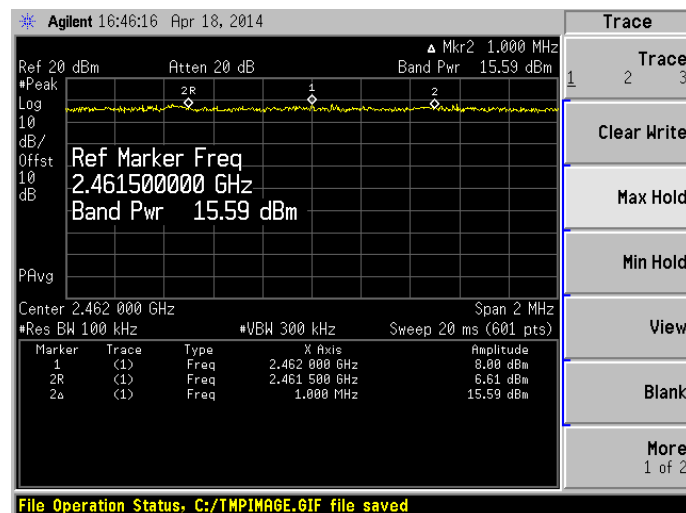
802.11b LOW CHANNEL, Reference level



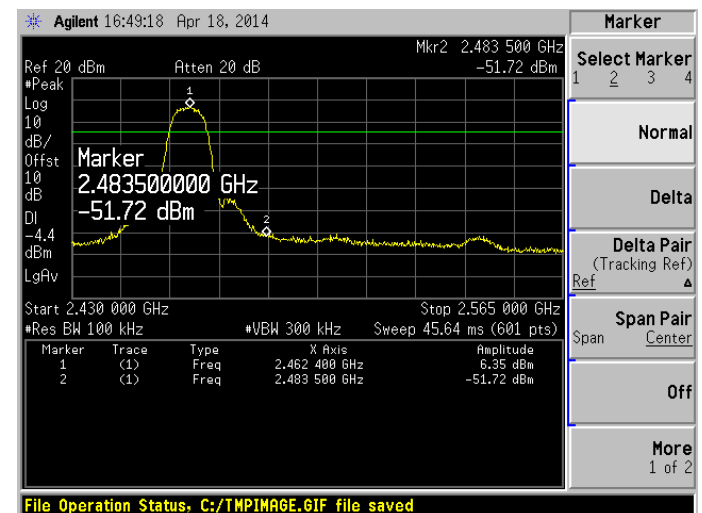
802.11b LOW CHANNEL, Band Edge



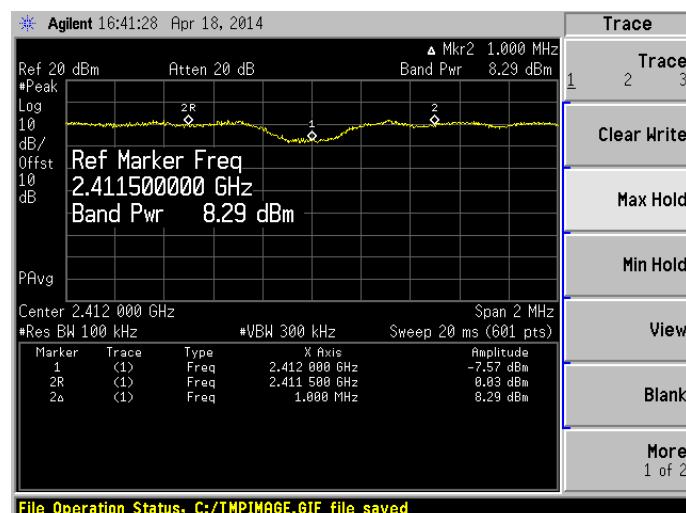
802.11b HIGH CHANNEL, Reference level



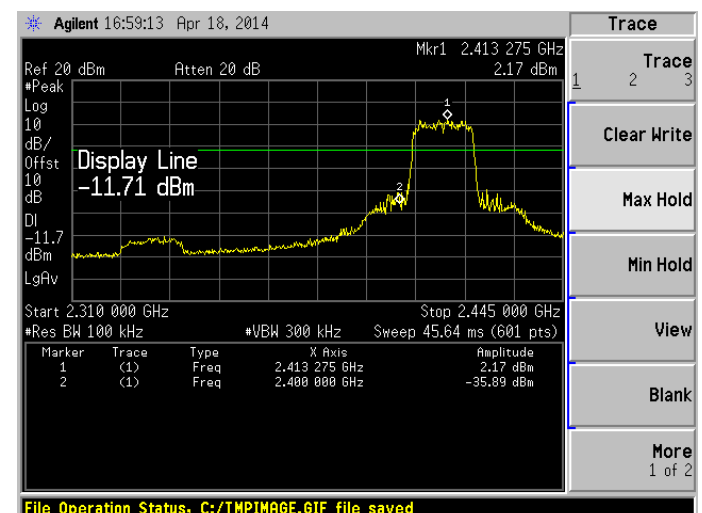
802.11b HIGH CHANNEL, Band Edge



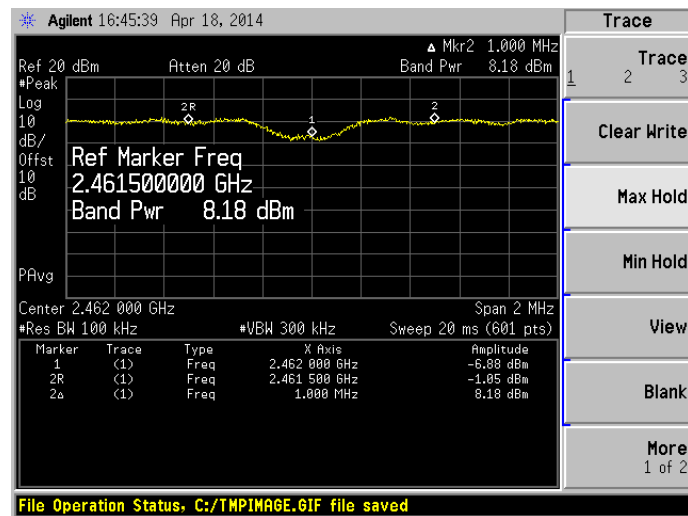
802.11g LOW CHANNEL, Reference level



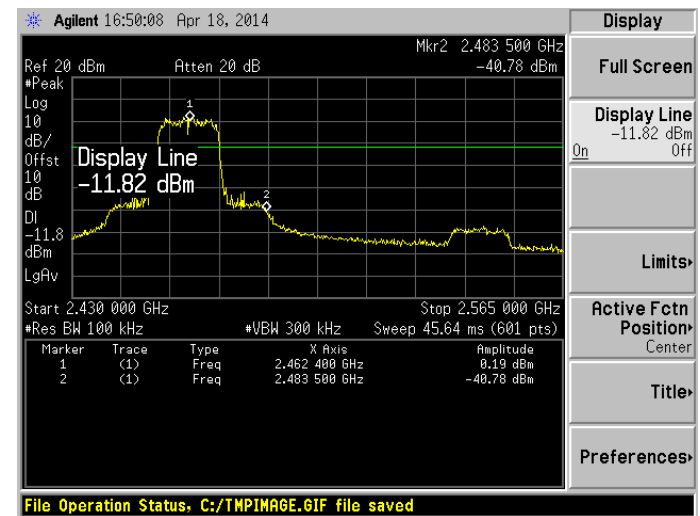
802.11g LOW CHANNEL, Band Edge



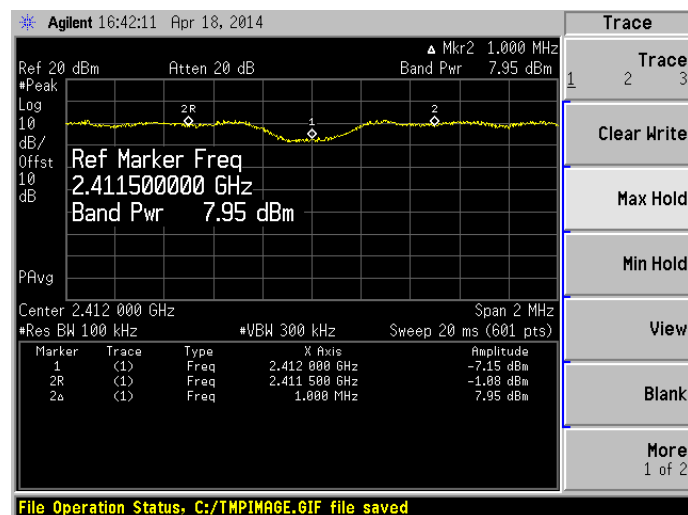
802.11g HIGH CHANNEL, Reference level



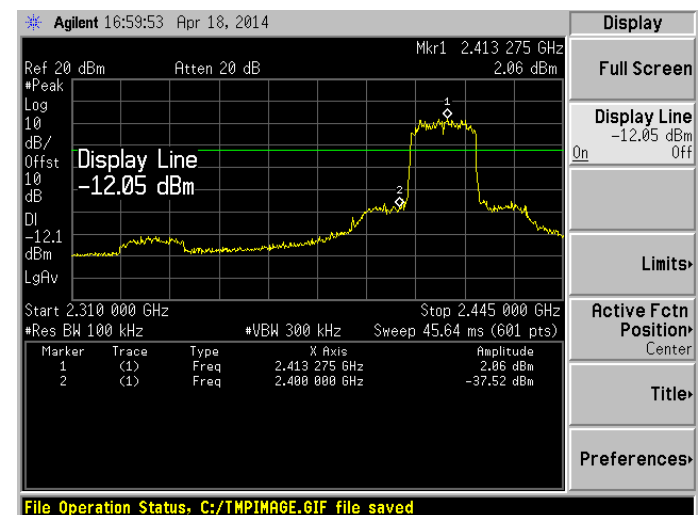
802.11g HIGH CHANNEL, Band Edge



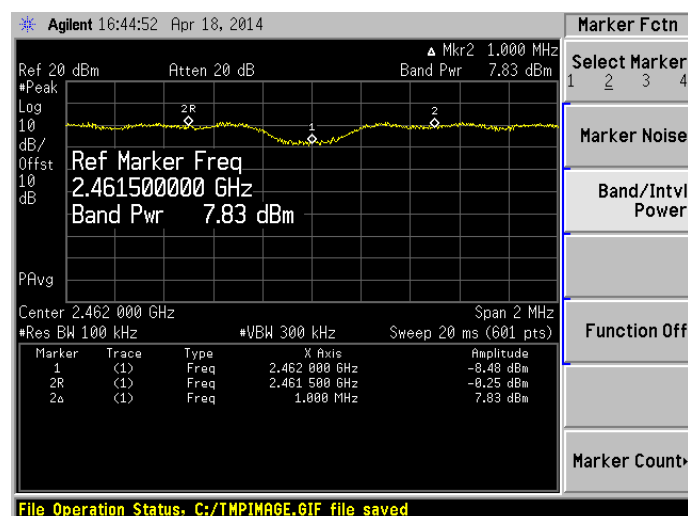
802.11n-20MHz LOW CHANNEL, Reference level



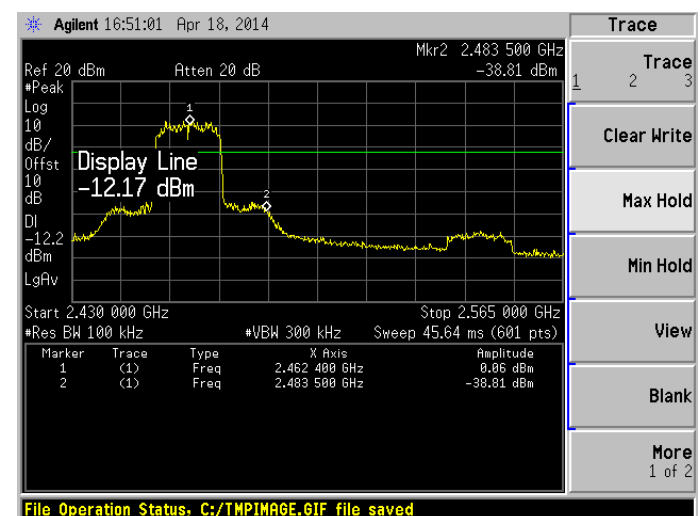
802.11n-20MHz LOW CHANNEL, Band Edge



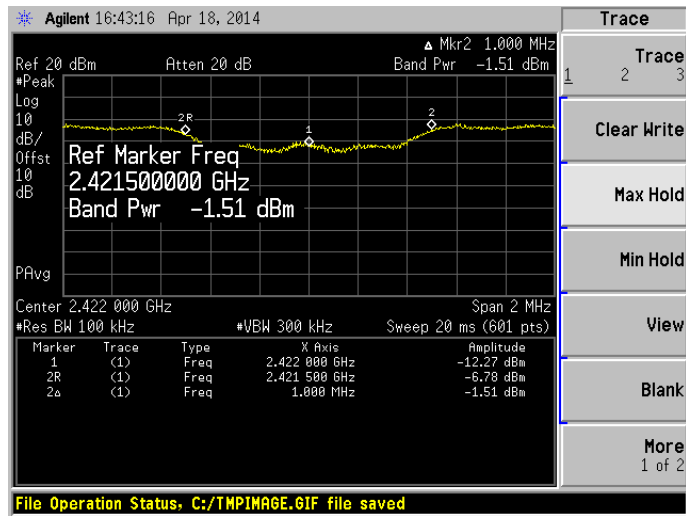
802.11n-20MHz HIGH CHANNEL, Reference level



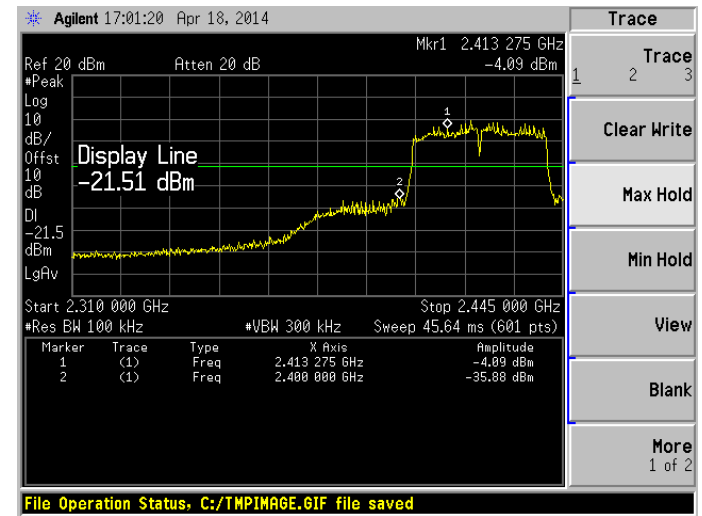
802.11n-20MHz HIGH CHANNEL, Band Edge



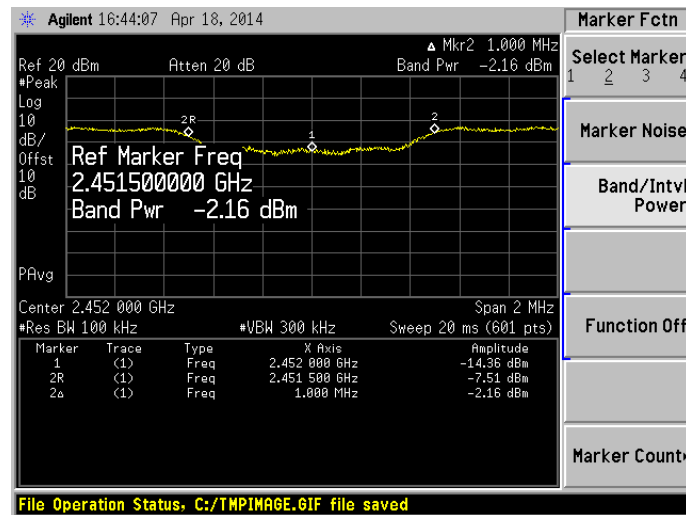
802.11n-40MHz LOW CHANNEL, Reference level



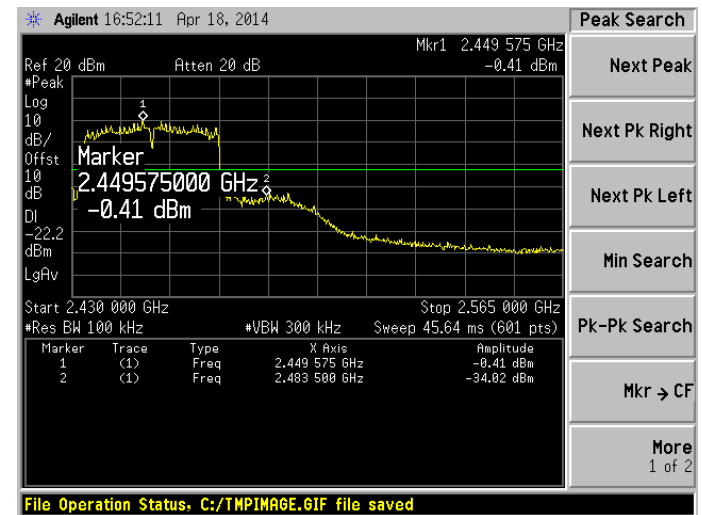
802.11n-40MHz LOW CHANNEL, Band Edge



802.11n-40MHz HIGH CHANNEL, Reference level



802.11n-40MHz HIGH CHANNEL, Band Edge



A.7 Power Spectral Density (PSD)

Test Data (Ant 0)

802.11b Mode:

Channel	Frequency (MHz)	Spectral power density (dBm/3kHz)	Limit (dBm/3kHz)
Low	2412	-7.33	8
Middle	2437	-8.14	8
High	2462	-9.44	8

802.11g Mode:

Channel	Frequency (MHz)	Spectral power density (dBm/3kHz)	Limit (dBm/3kHz)
Low	2412	-14.66	8
Middle	2437	-15.47	8
High	2462	-15.10	8

802.11n-20MHz Mode:

Channel	Frequency (MHz)	Spectral power density (dBm/3kHz)	Limit (dBm/3kHz)
Low	2412	-14.78	8
Middle	2437	-14.69	8
High	2462	-14.83	8

802.11n-40MHz Mode:

Channel	Frequency (MHz)	Spectral power density (dBm/3kHz)	Limit (dBm/3kHz)
Low	2422	-16.37	8
Middle	2437	-15.57	8
High	2452	-17.23	8

Test Data (Ant 1)

802.11b Mode:

Channel	Frequency (MHz)	Spectral power density (dBm/3kHz)	Limit (dBm/3kHz)
Low	2412	-7.60	8
Middle	2437	-8.21	8
High	2462	-7.19	8

802.11g Mode:

Channel	Frequency (MHz)	Spectral power density (dBm/3kHz)	Limit (dBm/3kHz)
Low	2412	-12.95	8
Middle	2437	-13.64	8
High	2462	-13.38	8

802.11n-20MHz Mode:

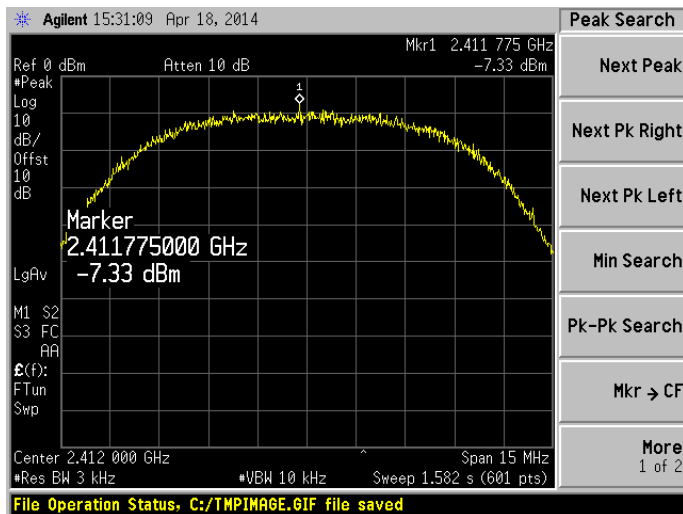
Channel	Frequency (MHz)	Spectral power density (dBm/3kHz)	Limit (dBm/3kHz)
Low	2412	-13.48	8
Middle	2437	-14.54	8
High	2462	-12.97	8

802.11n-40MHz Mode:

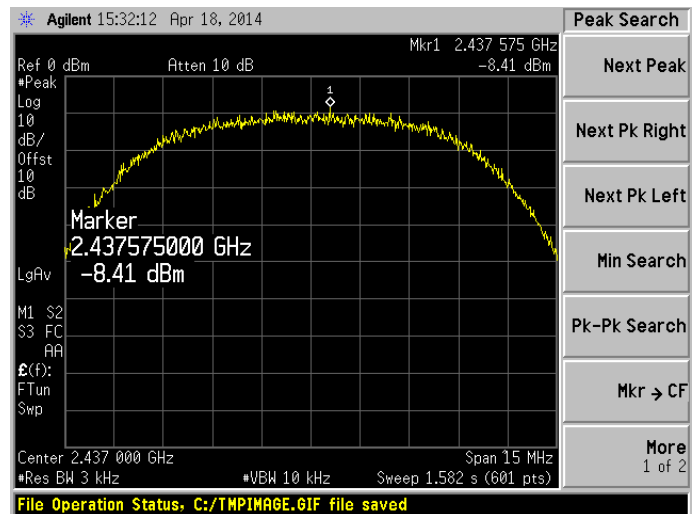
Channel	Frequency (MHz)	Spectral power density (dBm/3kHz)	Limit (dBm/3kHz)
Low	2422	-15.38	8
Middle	2437	-15.31	8
High	2452	-15.20	8

Test plots (Ant 0)

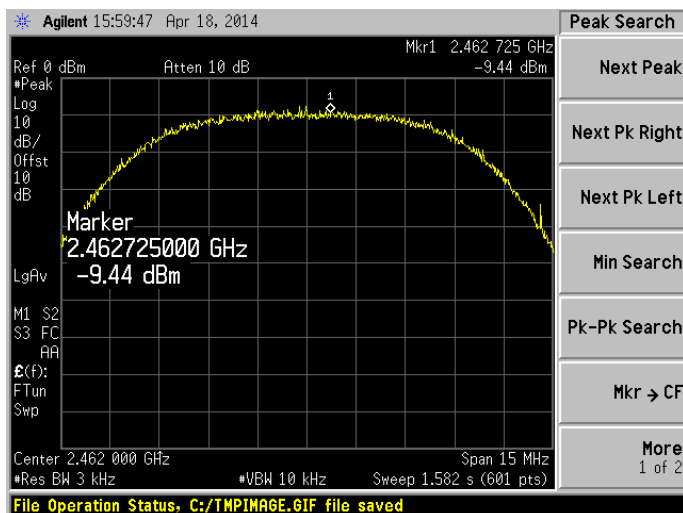
802.11b LOW CHANNEL



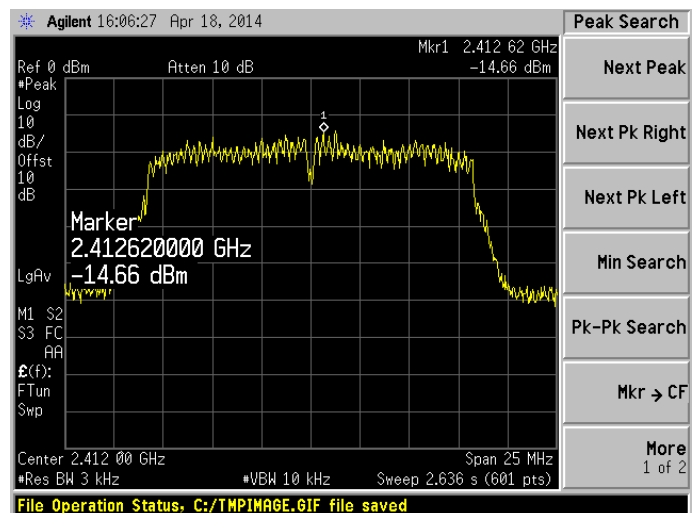
802.11b MID CHANNEL



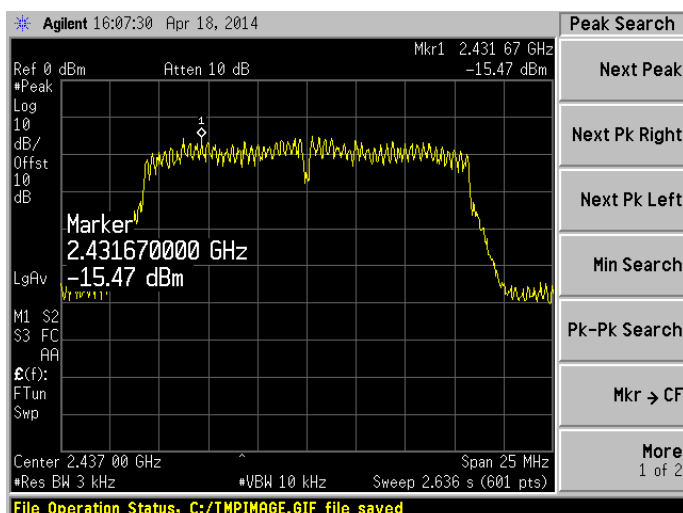
802.11b HIGH CHANNEL



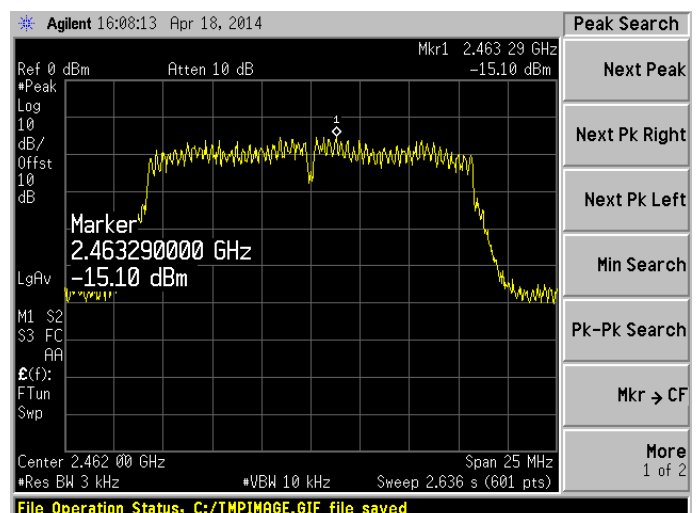
802.11g LOW CHANNEL



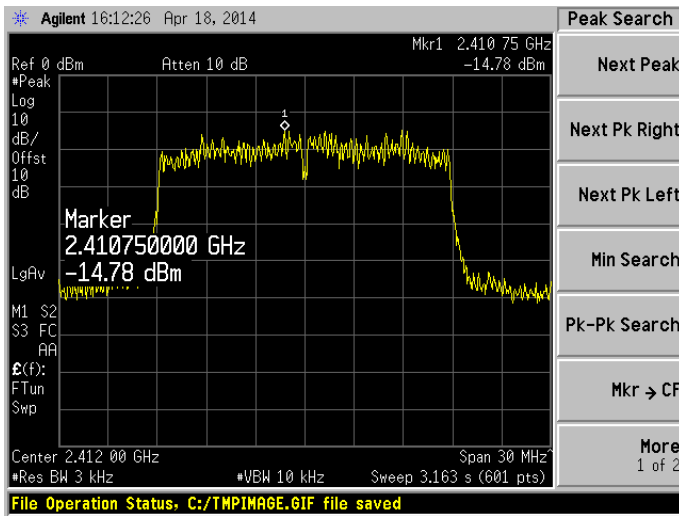
802.11g MID CHANNEL



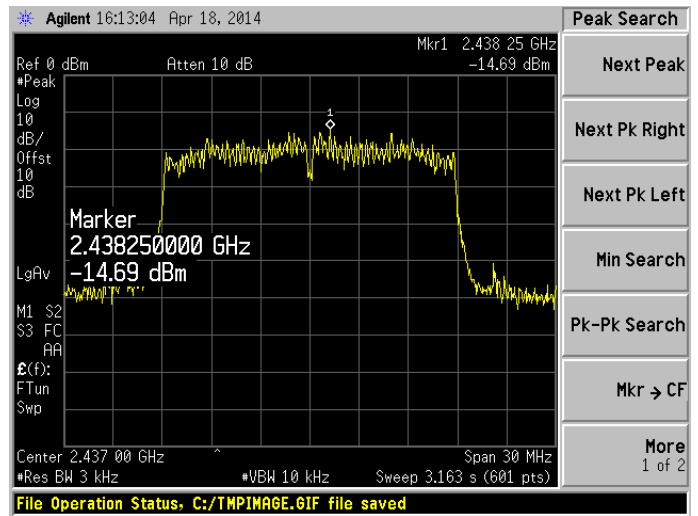
802.11g HIGH CHANNEL



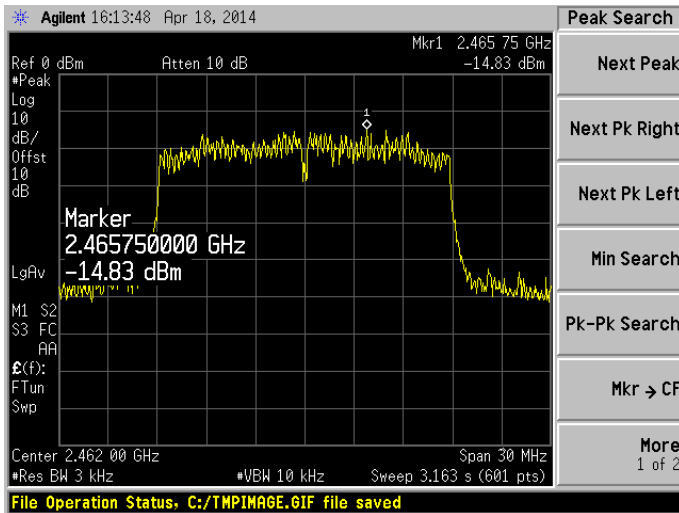
802.11n-20MHz LOW CHANNEL



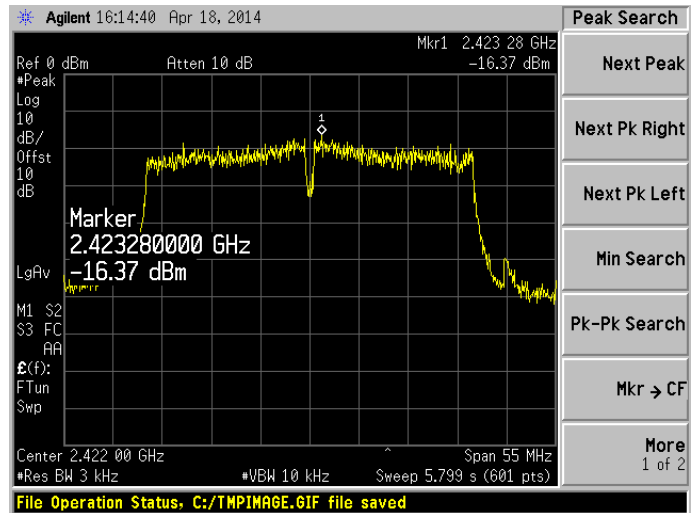
802.11 n-20MHz MID CHANNEL



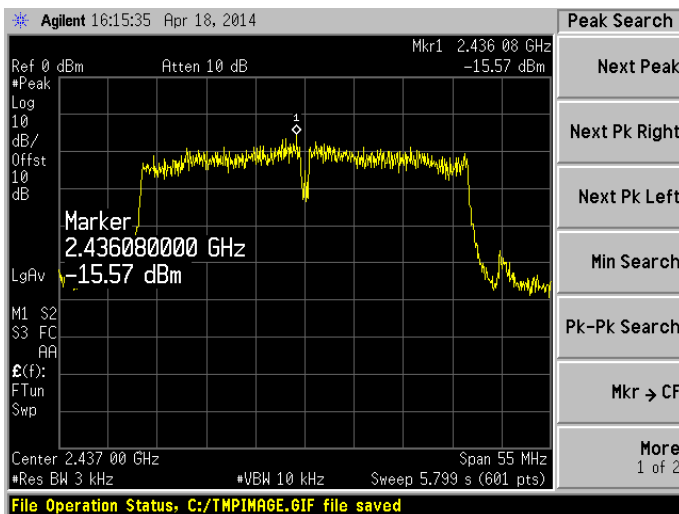
802.11n-20MHz HIGH CHANNEL



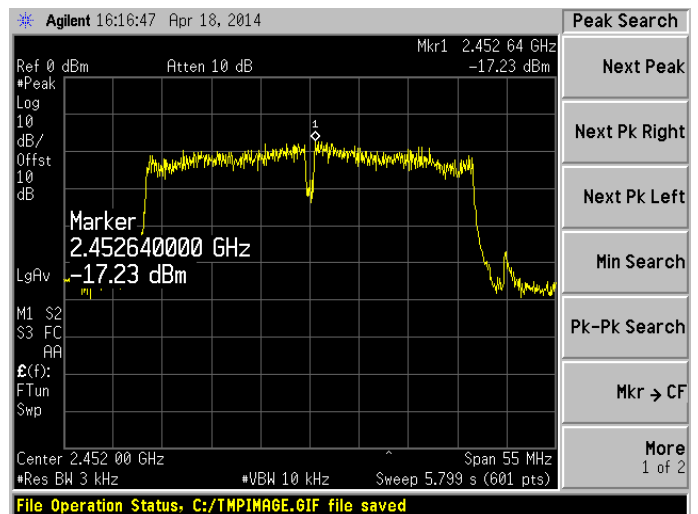
802.11n-40MHz LOW CHANNEL



802.11n-40MHz MID CHANNEL

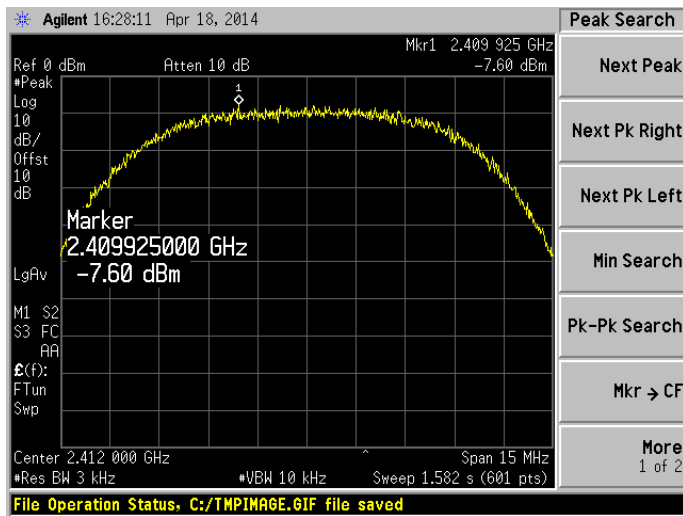


802.11n-40MHz HIGH CHANNEL

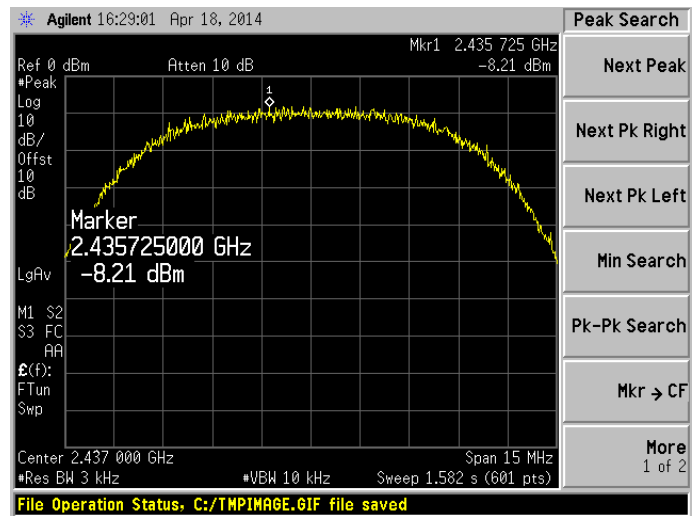


Test plots (Ant 1)

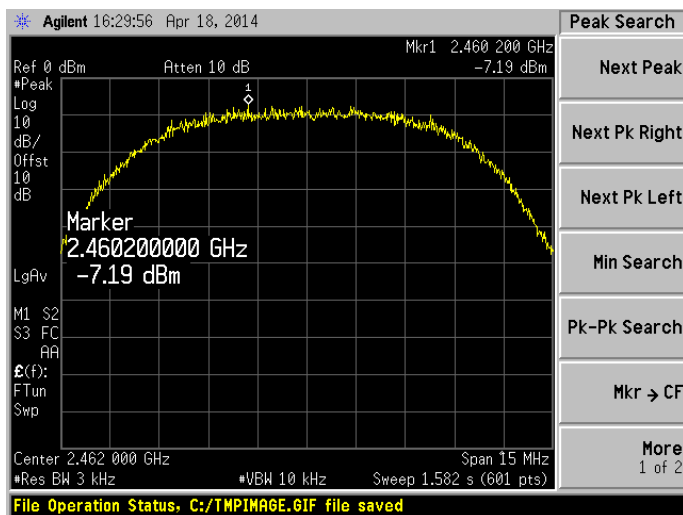
802.11b LOW CHANNEL



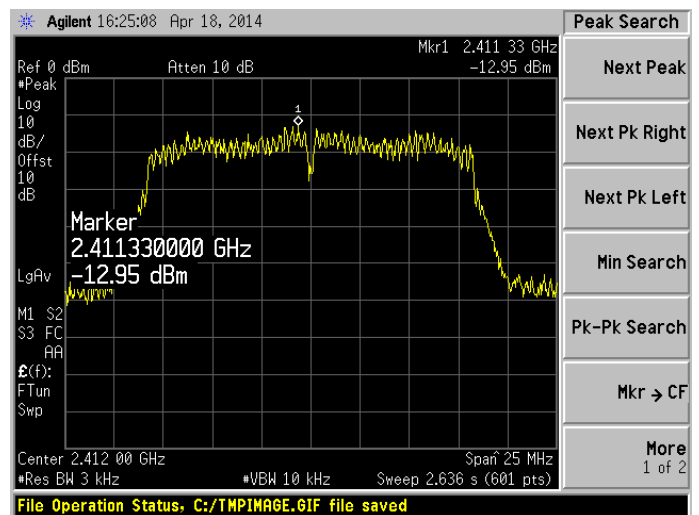
802.11b MID CHANNEL



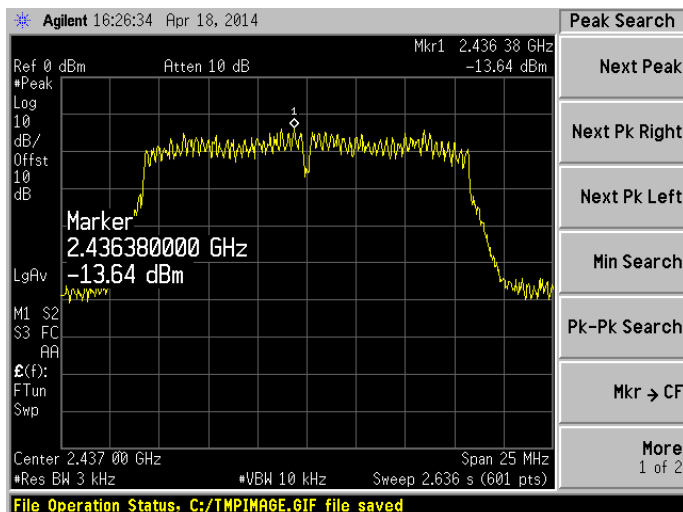
802.11b HIGH CHANNEL



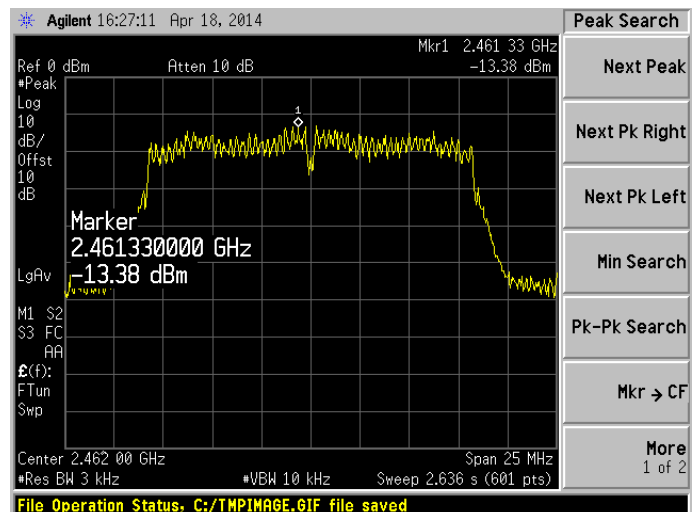
802.11g LOW CHANNEL



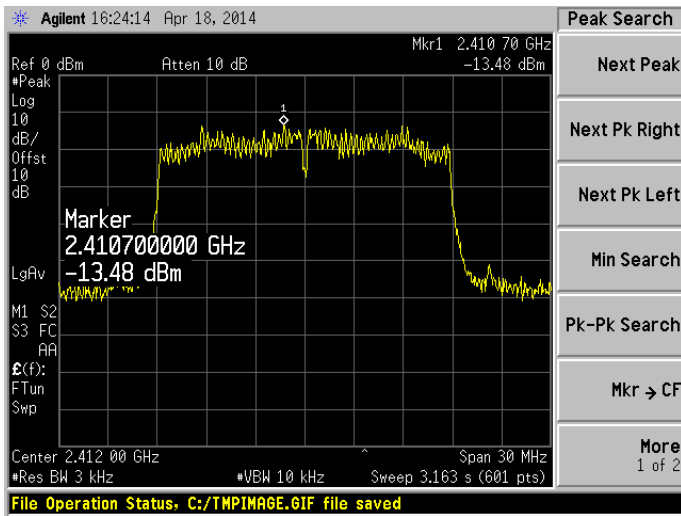
802.11g MID CHANNEL



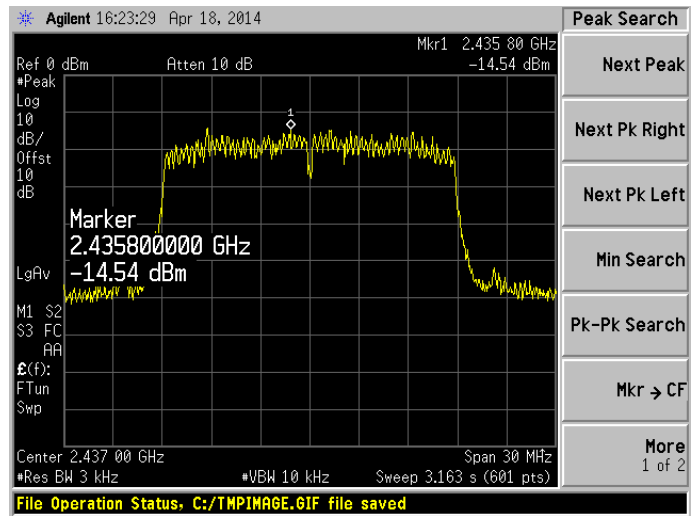
802.11g HIGH CHANNEL



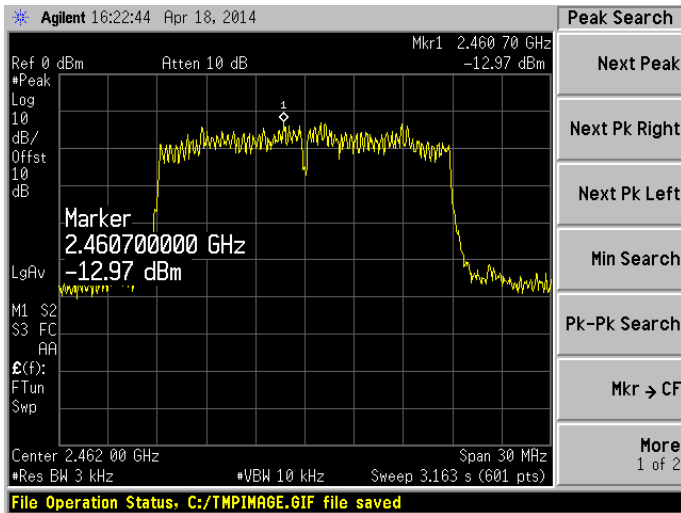
802.11n-20MHz LOW CHANNEL



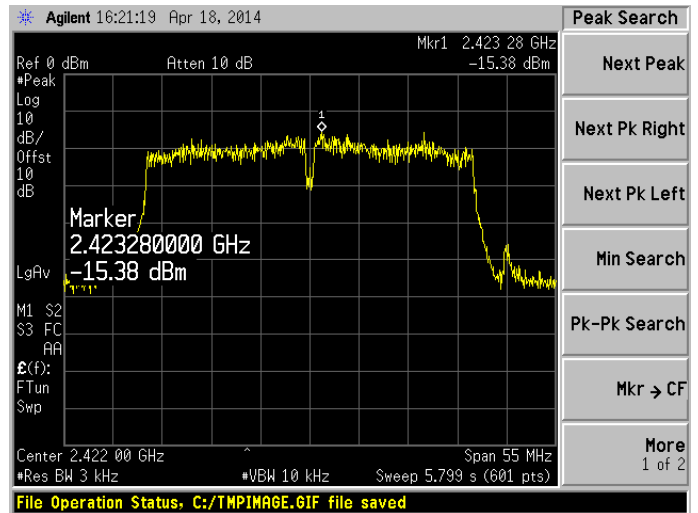
802.11 n-20MHz MID CHANNEL



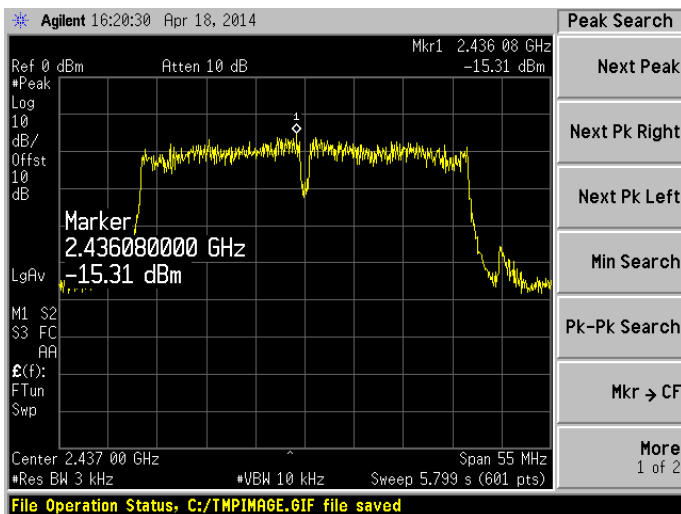
802.11n-20MHz HIGH CHANNEL



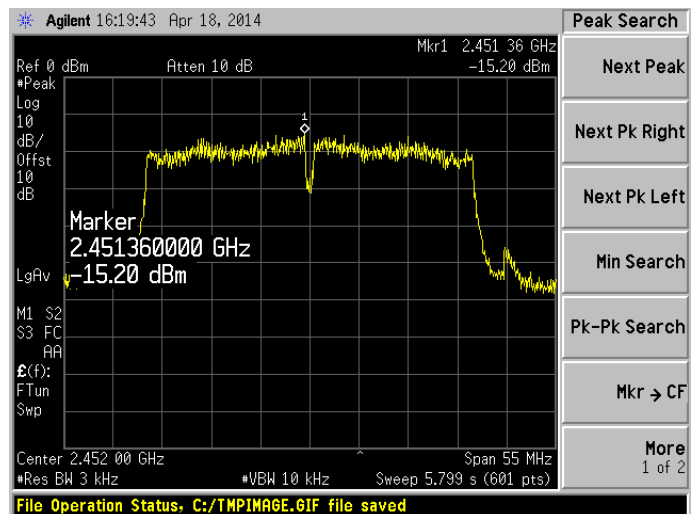
802.11n-40MHz LOW CHANNEL



802.11n-40MHz MID CHANNEL



802.11n-40MHz HIGH CHANNEL



ANNEX B TEST SETUP PHOTOS

B.1. Conducted Test Photo



(The Adapter DSA-12PFA-09 FUS 120100)



THE FRONT OF TEST PHOTO (The Adapter DSA-12PFA-09 FUS 120100)



(The Adapter DSA-12CA-12 120100)



THE FRONT OF TEST PHOTO (The Adapter DSA-12PFA-09 FUS 120100)

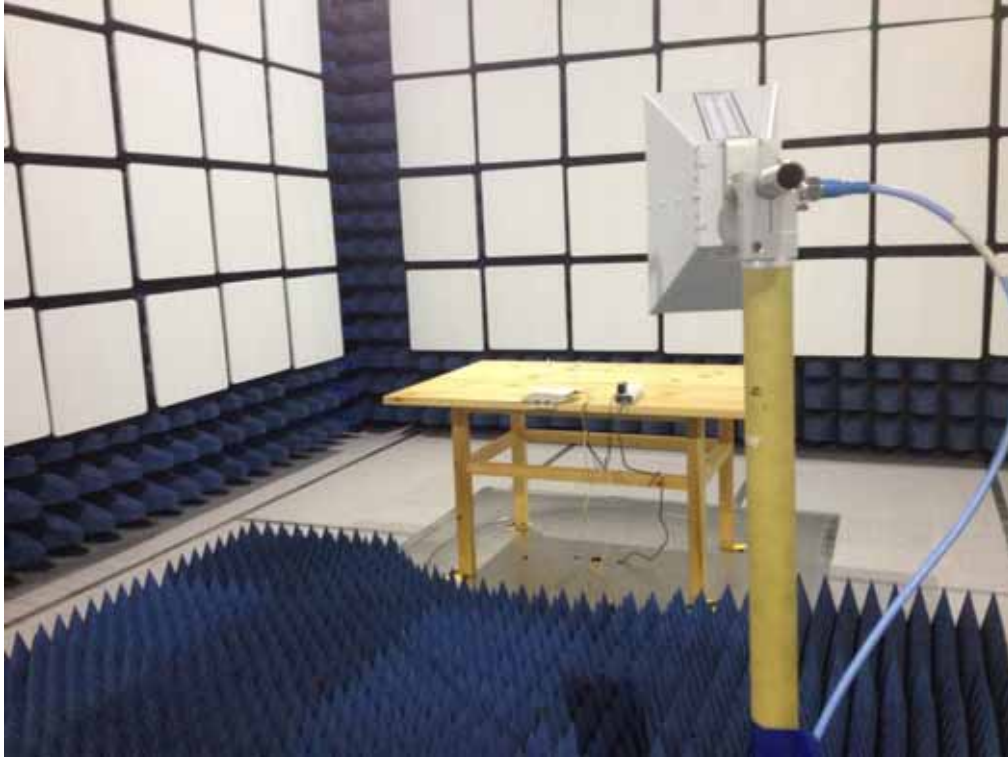
B.2. Radiated Test Photo



Below 30MHz



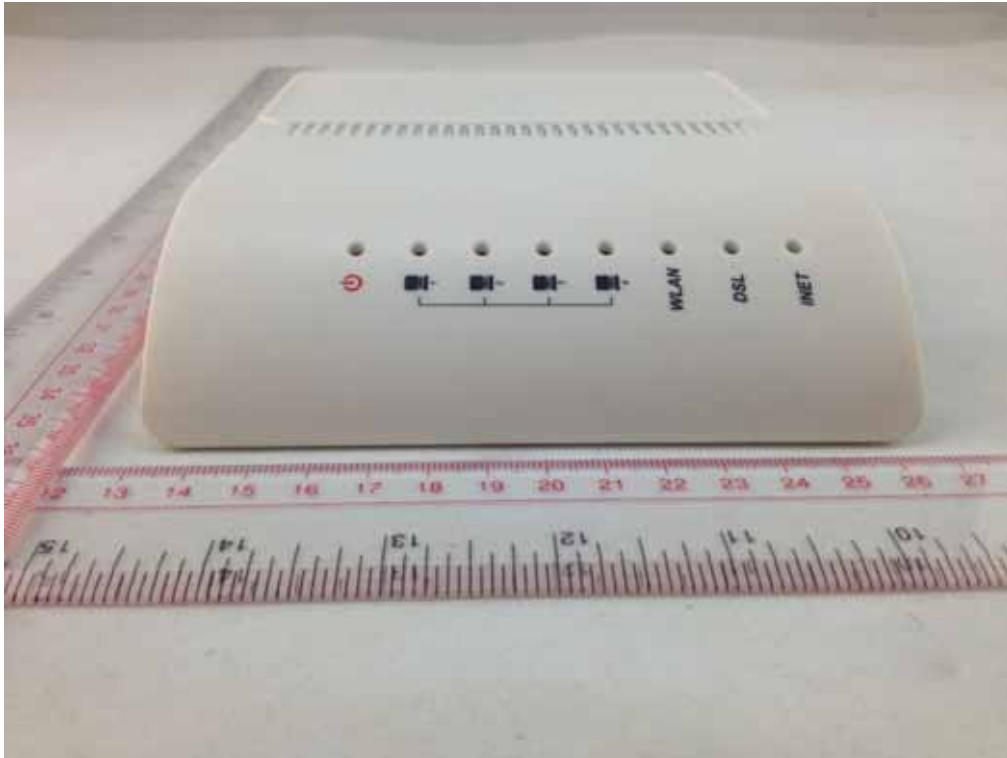
30MHz to 1GHz



Above 1GHz

ANNEX C EUT PHOTOS

C.1 Appearance of the EUT



THE FRONT OF EUT



THE BACK OF EUT



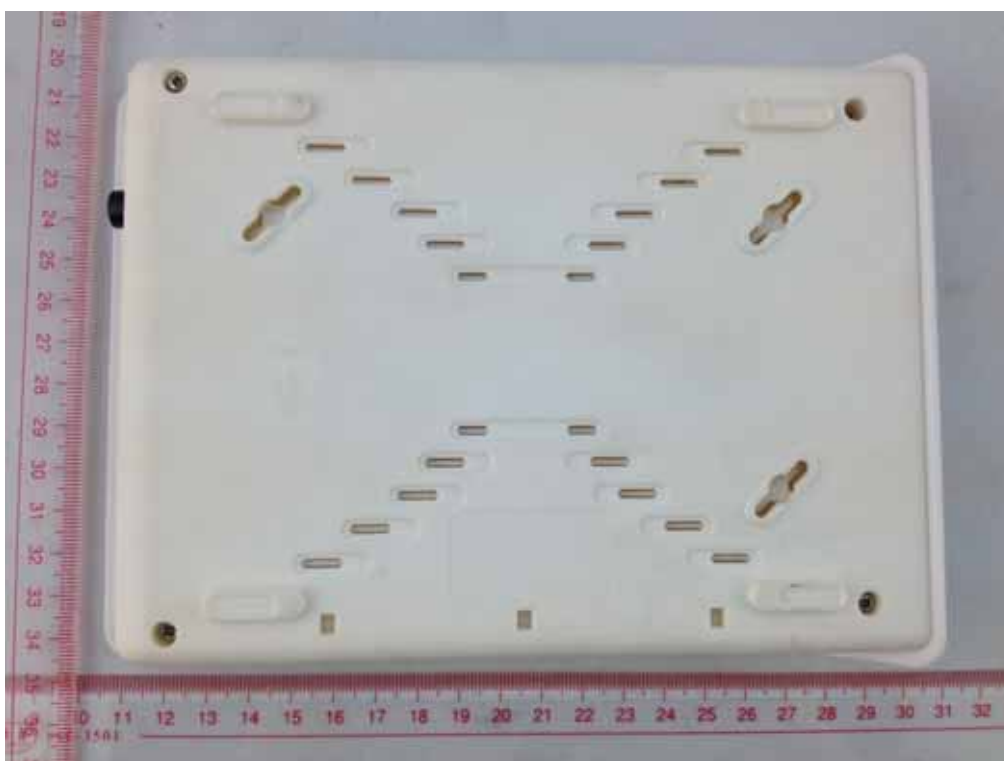
THE LEFT OF EUT



THE RIGHT OF EUT



THE UP OF EUT



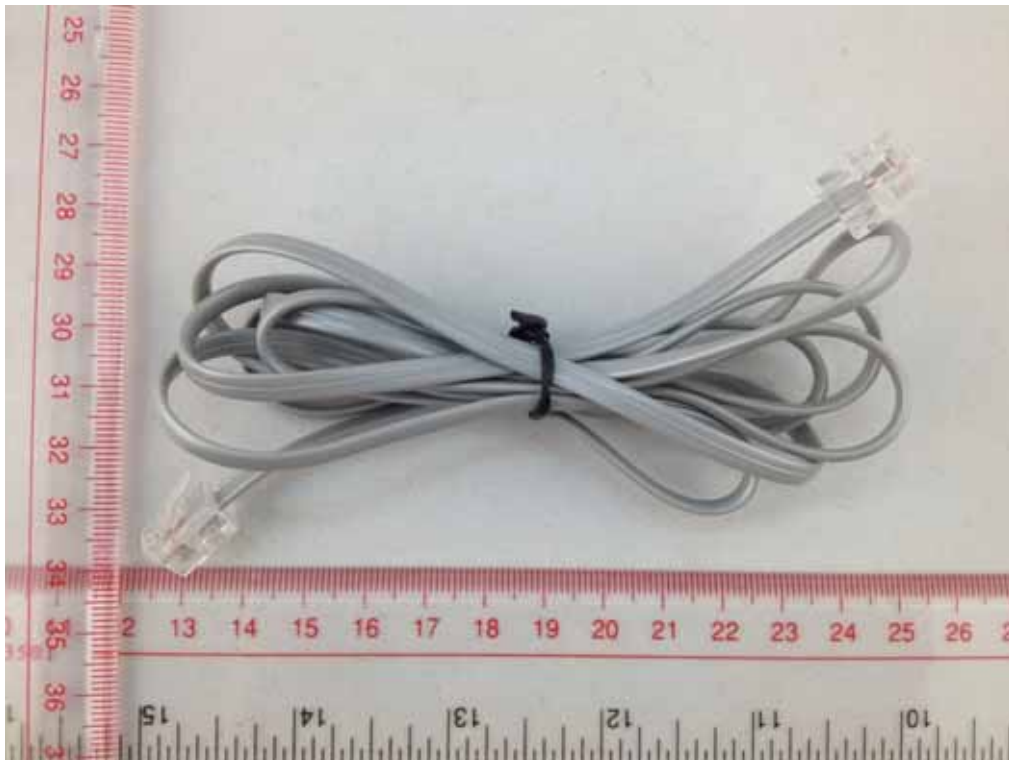
THE DOWN OF EUT



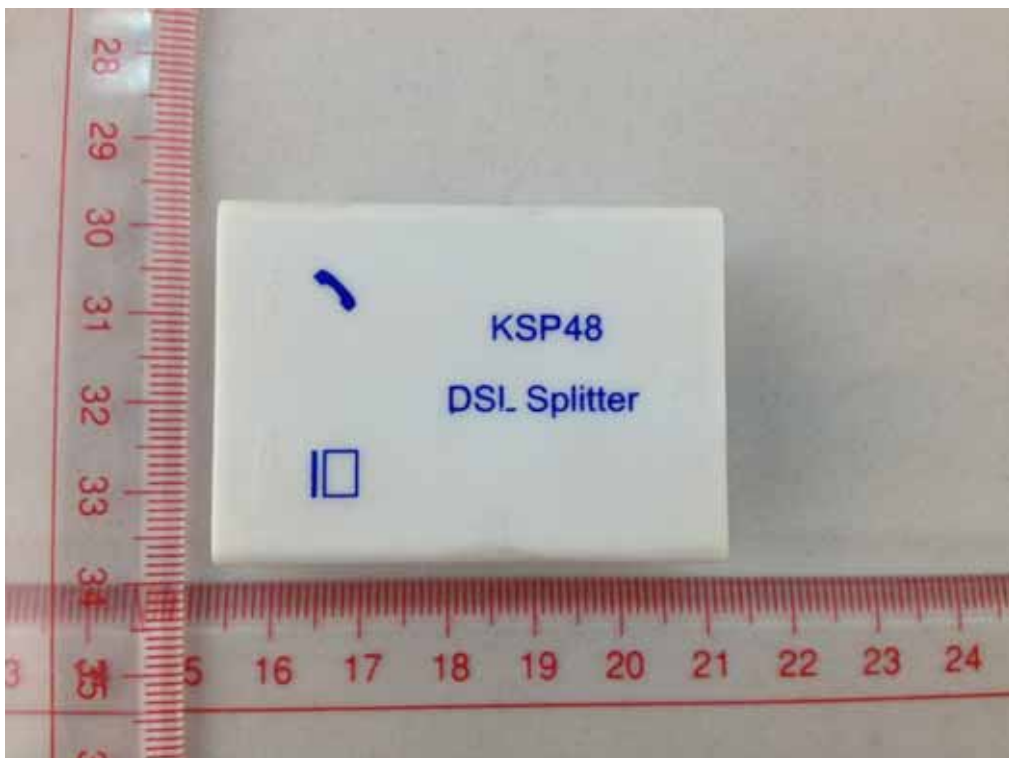
TWO ANTENNA



NETWORK CABLE



TELEPHONE WIRE



SPLITTER



THE ADAPTER DSA-12PFA-09 FUS 120100



THE ADAPTER DSA-12PFA-09 FUS 120100



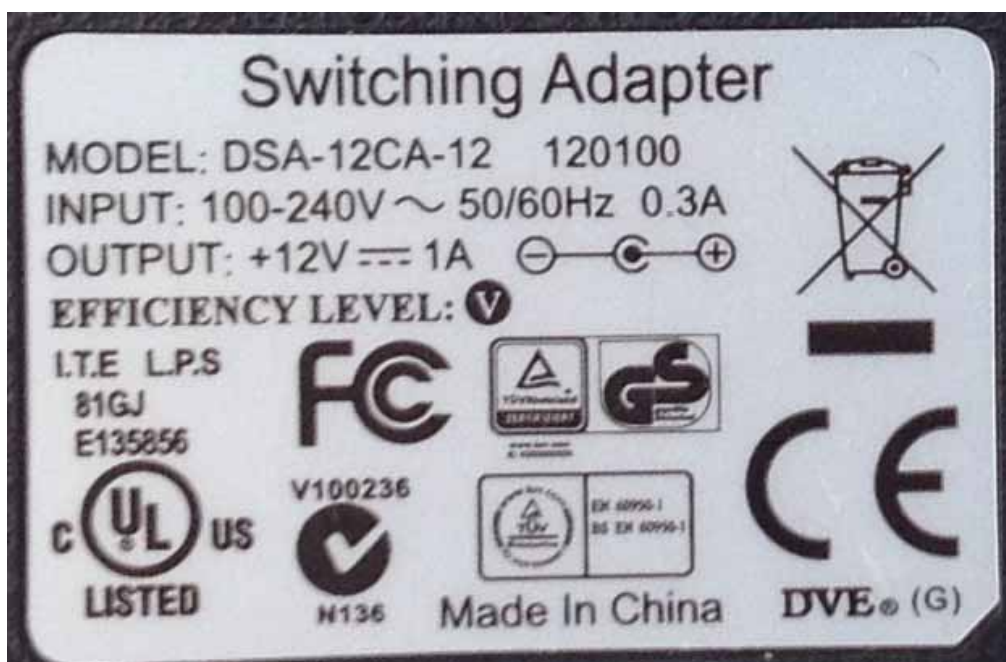
THE LABEL OF ADAPTER DSA-12PFA-09 FUS 120100



THE ADAPTER DSA-12CA-12 120100

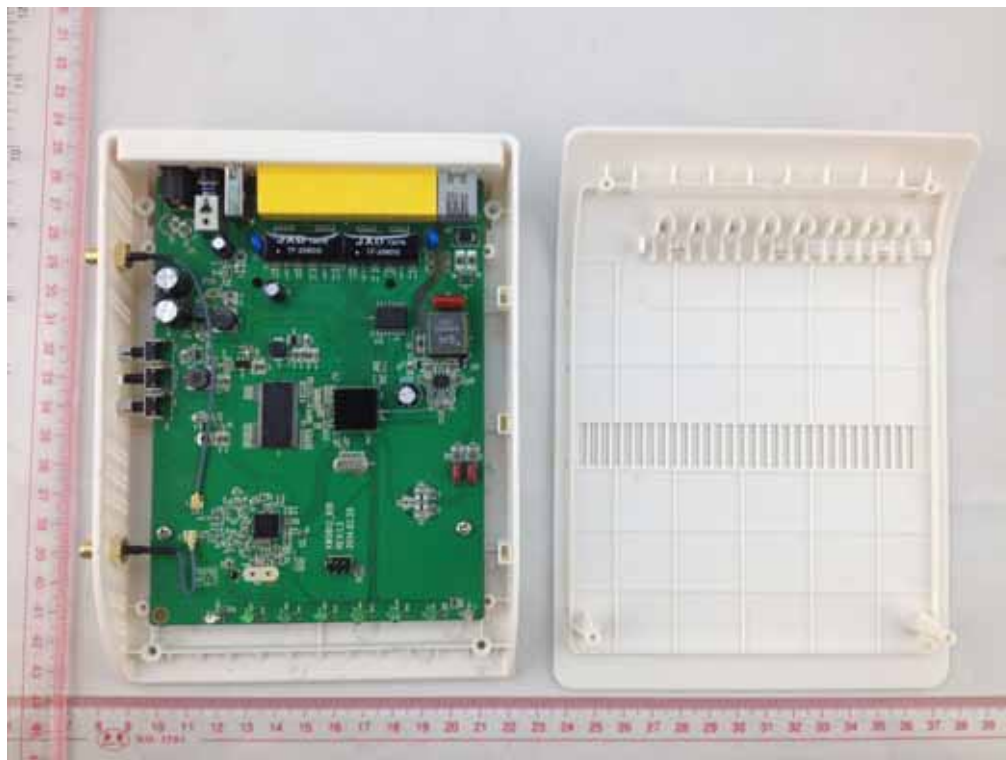


THE ADAPTER DSA-12CA-12 120100

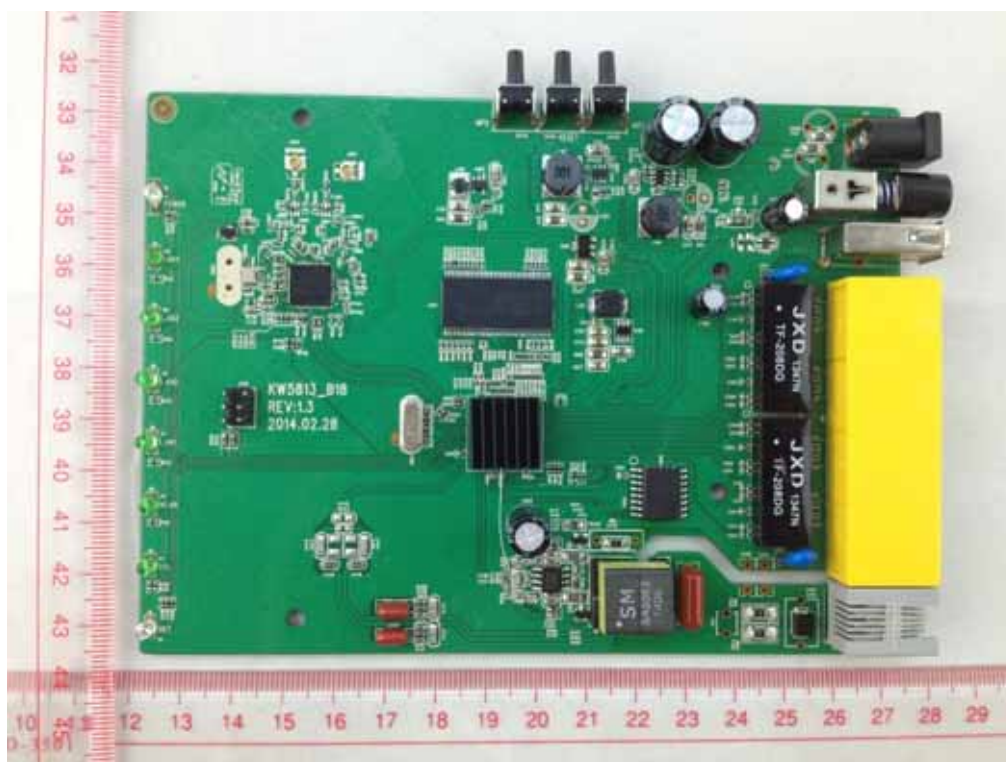


THE LABEL OF ADAPTER DSA-12CA-12 120100

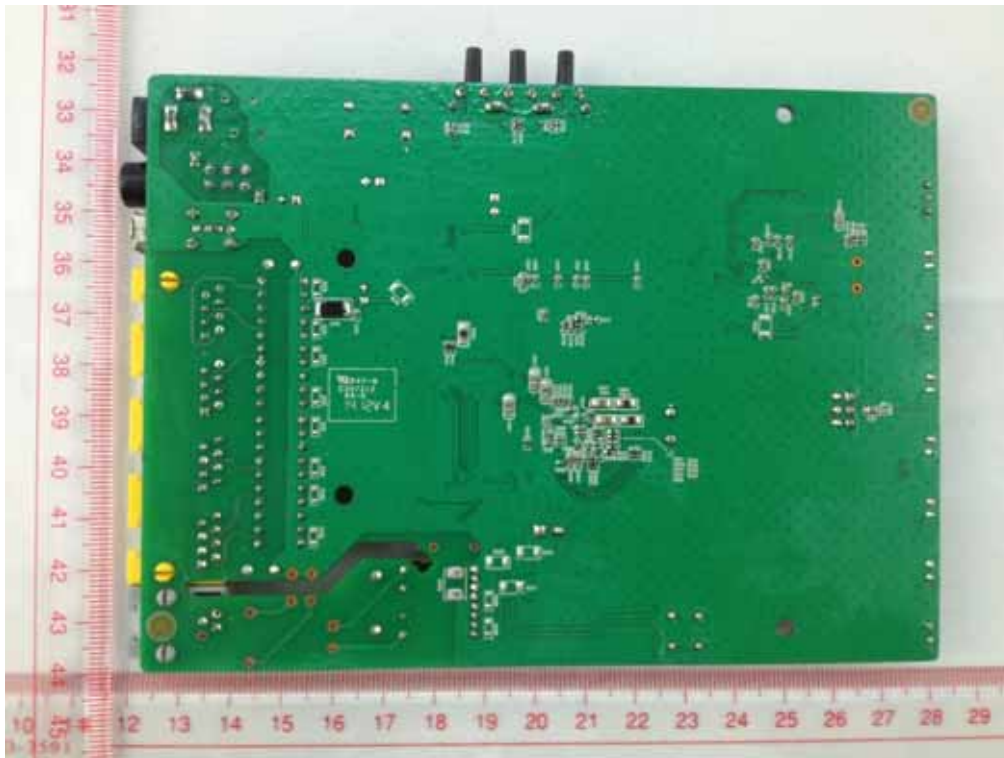
C.2 Inside of the EUT



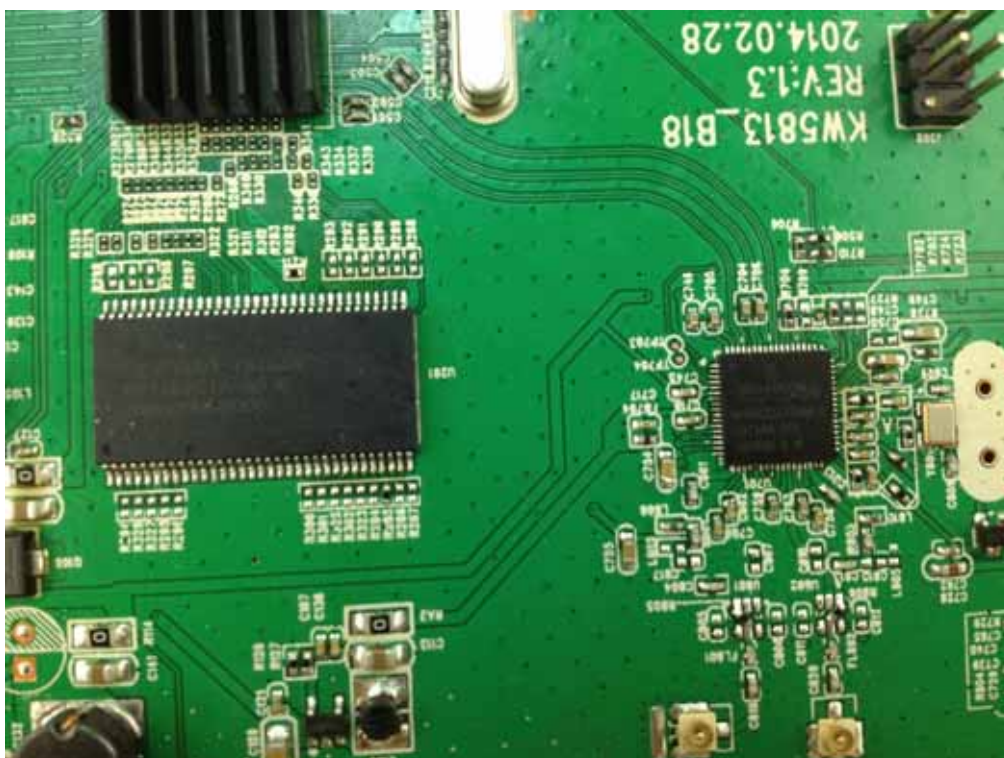
EUT UNCOVER VIEW



MAIN BOARD TOP VIEW 1



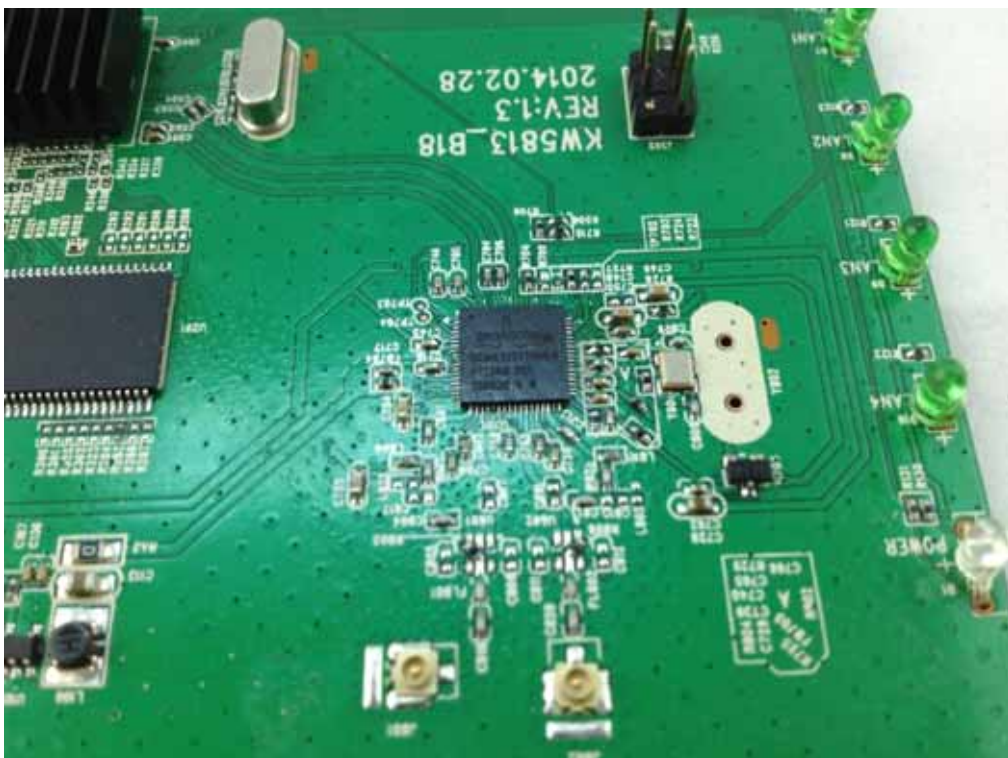
MAIN BOARD BACK VIEW 1



MAIN BOARD TOP VIEW 2



MAIN BOARD TOP VIEW 3



MAIN BOARD TOP VIEW 4

--END OF REPORT--