

FCC Test Report

(Class II Permissive Change)

Product Name	Intel® Wireless-AC 9461
Model No	9461NGW
FCC ID.	PD99461NG

Applicant	Intel Mobile Communications
Address	100 Center Point Circle, Suite 200 Columbia, South Carolina 29210 USA

Date of Receipt	Sep. 21, 2017
Issue Date	Jan. 25, 2018
Report No.	1790286R-RFUSP25V00
Report Version	V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.

Test Report

Issue Date: Jan. 25, 2018

Report No.: 1790286R-RFUSP25V00



Product Name	Intel® Wireless-AC 9461
Applicant	Intel Mobile Communications
Address	100 Center Point Circle, Suite 200 Columbia, South Carolina 29210 USA
Manufacturer	Intel Mobile Communications
Model No.	9461NGW
FCC ID.	PD99461NG
EUT Rated Voltage	DC 3.3V
EUT Test Voltage	DC 3.3V
Trade Name	Intel
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2016 ANSI C63.4: 2014, ANSI C63.10: 2013 KDB 558074 D01 DTS Meas Guidance v04
Test Result	Complied

Documented By :



(Senior Adm. Specialist / Joanne Lin)

Tested By :



(Assistant Engineer / Steven Tsai)

Approved By :



(Director / Vincent Lin)

TABLE OF CONTENTS

Description	Page
1. GENERAL INFORMATION	4
1.1. EUT Description.....	4
1.2. Operational Description	6
1.3. Tested System Details.....	7
1.4. Configuration of Tested System	7
1.5. EUT Exercise Software	7
1.6. Test Facility	8
1.7. List of Test Item and Equipment	9
2. Peak Power Output	10
2.1. Test Setup	10
2.2. Limits	10
2.3. Test Procedure	10
2.4. Uncertainty	10
2.5. Test Result of Peak Power Output.....	11
3. Radiated Emission.....	15
3.1. Test Setup	15
3.2. Limits	16
3.3. Test Procedure	17
3.4. Uncertainty	18
3.5. Test Result of Radiated Emission.....	19
4. Band Edge	43
4.1. Test Setup	43
4.2. Limits	44
4.3. Test Procedure	44
4.4. Uncertainty	45
4.5. Test Result of Band Edge	46
5. Duty Cycle.....	78
5.1. Test Setup	78
5.2. Test Procedure	78
5.3. Uncertainty	78
5.4. Test Result of Duty Cycle.....	79
6. EMI Reduction Method During Compliance Testing	82
Attachment 1: EUT Test Photographs	
Attachment 2: EUT Detailed Photographs	

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Intel® Wireless-AC 9461
Trade Name	Intel
Model No.	9461NGW
FCC ID.	PD99461NG
Frequency Range	2412-2472MHz for 802.11b/g/n-20BW, 2422-2462MHz for 802.11n-40BW
Number of Channels	802.11b/g/n-20MHz: 13, n-40MHz: 9
Data Speed	802.11b: 1-11Mbps, 802.11g: 6-54Mbps, 802.11n: up to 150Mbps
Channel separation	802.11b/g/n: 5 MHz
Type of Modulation	802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM)
Antenna Type	Dipole Antenna
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	WIESON Technologies co., Ltd	GY121HT0321-003-H (External)	Dipole	2.89dBi for 2.4 GHz

Note: The antenna of EUT is conforming to FCC 15.203.

802.11b/g/n-20MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2412 MHz	Channel 02:	2417 MHz	Channel 03:	2422 MHz	Channel 04:	2427 MHz
Channel 05:	2432 MHz	Channel 06:	2437 MHz	Channel 07:	2442 MHz	Channel 08:	2447 MHz
Channel 09:	2452 MHz	Channel 10:	2457 MHz	Channel 11:	2462 MHz	Channel 12:	2467 MHz
Channel 13:	2472 MHz						

802.11n-40MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 03:	2422 MHz	Channel 04:	2427 MHz	Channel 05:	2432 MHz	Channel 06:	2437 MHz
Channel 07:	2442 MHz	Channel 08:	2447 MHz	Channel 09:	2452 MHz	Channel 10:	2457 MHz
Channel 11:	2462 MHz						

Note:

1. The EUT is a Intel® Wireless-AC 9461 with a built-in WLAN(802.11a/b/g/n/ac) and Bluetooth (5.0 and V3.0+HS, V2.1+EDR) transceiver, this report for 2.4GHz WLAN.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report.
4. These tests are conducted on a sample for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.
5. This is to request a Class II permissive change for FCC ID: PD99461NG, originally granted on 09/29/2017.

The major change filed under this application is:

Change #1: Addition of new dipole type antenna is different from originally antenna type.

Manufacturer. WIESON, Part no. GY121HT0321-003-H (External).

Change #2: Reduce the Output Power through firmware and SAR measurement were evaluated.

Test Mode:	Mode 1: Transmit (802.11b 1Mbps)
	Mode 2: Transmit (802.11g 6Mbps)
	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)
	Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

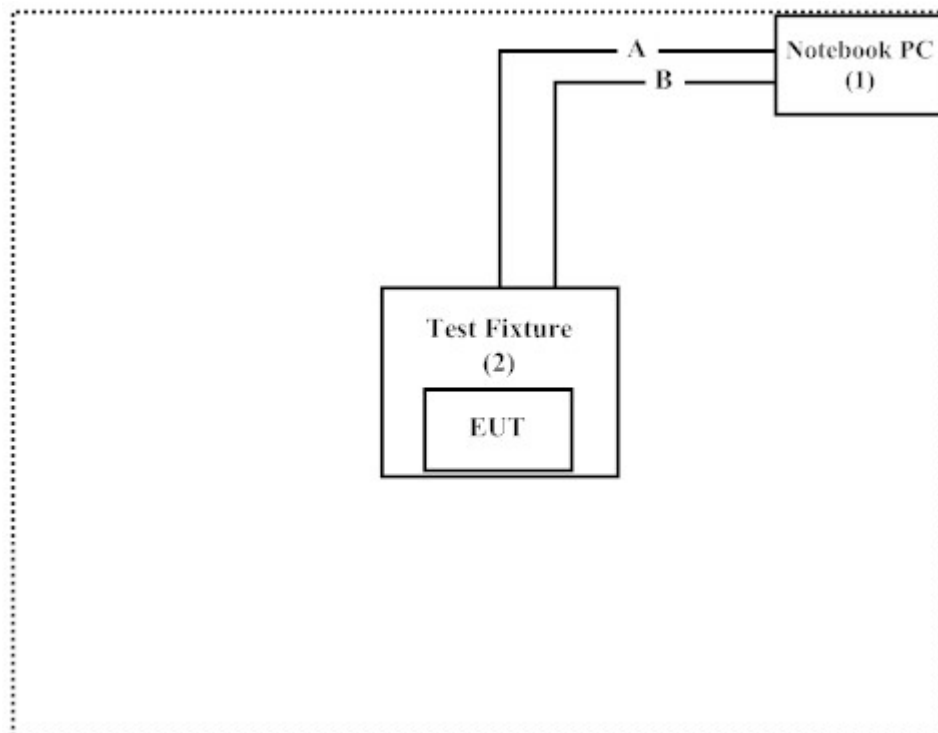
1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	DELL	E5470	N/A
2	Test Fixture	N/A	N/A	N/A

Signal Cable Type	Signal cable Description
A	Signal Cable
B	USB Cable

1.4. Configuration of Tested System



1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software “DRTU 10.1742.0-06126” on the Notebook PC.
3. Configure the test mode, the test channel, and the data rate.
4. Press “OK” to start the continuous Transmit.
5. Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from DEKRA Testing and Certification Co., Ltd. Web Site:

<http://www.dekra.com.tw/english/about/certificates.aspx?bval=5>

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: http://www.dekra.com.tw/index_en

Site Description: Accredited by TAF
Accredited Number: 3023

Site Name: DEKRA Testing and Certification Co., Ltd.
Site Address: No.159, Sec. 2, Wenhua 1st Rd., Linkou Dist.,
New Taipei City 24457, Taiwan.
TEL: 886-2-2602-7968 / FAX : 866-2-2602-3286
E-Mail : info.tw@dekra.com

FCC Accreditation Number: TW3023

1.7. List of Test Item and Equipment

For Conducted measurements /ASR4

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	R&S	FSV30	103466	2017.12.19	2018.12.18
X	Power Meter	Anritsu	ML2496A	1548003	2017.12.11	2018.12.10
X	Power Sensor	Anritsu	MA2411B	1531024	2017.12.11	2018.12.10
X	Power Sensor	Anritsu	MA2411B	1531025	2017.12.11	2018.12.10

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with “X” are used to measure the final test results.
3. Test Software version : QuieTek Conduction Test System V8.0.110

For Radiated measurements /ACB1

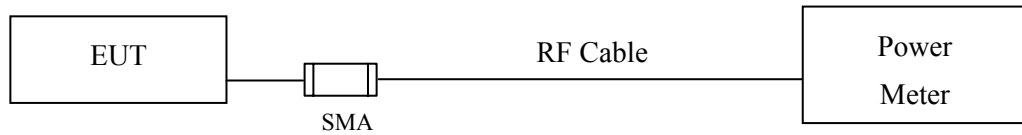
	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Loop Antenna	TESEQ	HLA6121	37133	2016.03.18	2018.03.17
X	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-674	2017.02.13	2018.02.12
X	Horn Antenna	ETS-Lindgren	3117	00203800	2017.11.10	2018.11.09
X	Horn Antenna	Com-Power	AH-840	101087	2017.05.24	2018.05.23
X	Pre-Amplifier	EMCI	EMC001330	980316	2017.05.16	2018.05.15
X	Pre-Amplifier	EMCI	EMC051835SE	980311	2017.05.17	2018.05.16
X	Pre-Amplifier	EMCI	EMC05820SE	980310	2017.05.17	2018.05.16
X	Pre-Amplifier	EMCI	EMC184045SE	980314	2017.05.17	2018.05.16
X	Filter	MICRO TRONICS	BRM50702	G251	2017.08.30	2018.08.29
	Filter	MICRO TRONICS	BRM50716	G188	2017.08.30	2018.08.29
X	EMI Test Receiver	R&S	ESR7	101602	2017.12.11	2018.12.10
X	Spectrum Analyzer	R&S	FSV40	101147	2018.01.11	2019.01.10
X	Coaxial Cable	SUHNER	SUCOFLEX 106	RF002	2017.05.25	2018.05.24
X	Mircoflex Cable	HUBER SUHNER	SUCOFLEX 102	MY3381/2	2017.08.11	2018.08.10

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with “X” are used to measure the final test results.
3. Test Software version : QuieTek EMI 2.0 V2.1.113

2. Peak Power Output

2.1. Test Setup



2.2. Limits

The maximum peak power shall be less 1 Watt.

2.3. Test Procedure

Tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements. The maximum peak conducted output power using KDB 558074 section 9.1.3 PKPM1 Peak power meter method. The maximum average conducted output power using KDB 558074 section 9.2.3.2 Method AVGPM-G (Measurement using a gated RF average-reading power meter)

2.4. Uncertainty

± 0.86 dB

2.5. Test Result of Peak Power Output

Product : Intel® Wireless-AC 9461
 Test Item : Peak Power Output Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)
 Test Date : 2018/1/11

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Peak Power	Required Limit	Result
		1	2	5.5	11	1		
		Measurement Level (dBm)						
01	2412	18.49	--	--	--	21.05	<30dBm	Pass
07	2442	20.98	20.93	20.88	20.83	22.73	<30dBm	Pass
11	2462	17.78	--	--	--	20.32	<30dBm	Pass
12	2467	16.96	--	--	--	19.45	<30dBm	Pass
13	2472	15.97	--	--	--	18.56	<30dBm	Pass

Note: Peak Power Output Value = Reading value on power meter + cable loss

Product : Intel® Wireless-AC 9461
 Test Item : Peak Power Output Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)
 Test Date : 2018/01/11

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		6	9	12	18	24	36	48	54			
		Measurement Level (dBm)										
01	2412	17.24	--	--	--	--	--	--	--	21.88	<30dBm	Pass
07	2442	19.69	19.64	19.59	19.54	19.49	19.43	19.38	19.33	22.74	<30dBm	Pass
11	2462	16.80	--	--	--	--	--	--	--	21.62	<30dBm	Pass
12	2467	14.39	--	--	--	--	--	--	--	19.23	<30dBm	Pass
13	2472	-5.63	--	--	--	--	--	--	--	0.21	<30dBm	Pass

Note: Peak Power Output Value = Reading value on power meter + cable loss

Product : Intel® Wireless-AC 9461
 Test Item : Peak Power Output Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)
 Test Date : 2018/01/11

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		7.2	14.4	21.7	28.9	43.3	57.8	65	72.2			
		Measurement Level (dBm)										
01	2412	17.09	--	--	--	--	--	--	--	21.85	<30dBm	Pass
07	2442	19.49	19.43	19.38	19.33	19.28	19.22	19.17	19.13	22.67	<30dBm	Pass
11	2462	16.81	--	--	--	--	--	--	--	21.73	<30dBm	Pass
12	2467	14.13	--	--	--	--	--	--	--	19.16	<30dBm	Pass
13	2472	-5.68	--	--	--	--	--	--	--	0.26	<30dBm	Pass

Note: Peak Power Output Value = Reading value on power meter + cable loss

Product : Intel® Wireless-AC 9461
 Test Item : Peak Power Output Data
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)
 Test Date : 2018/01/11

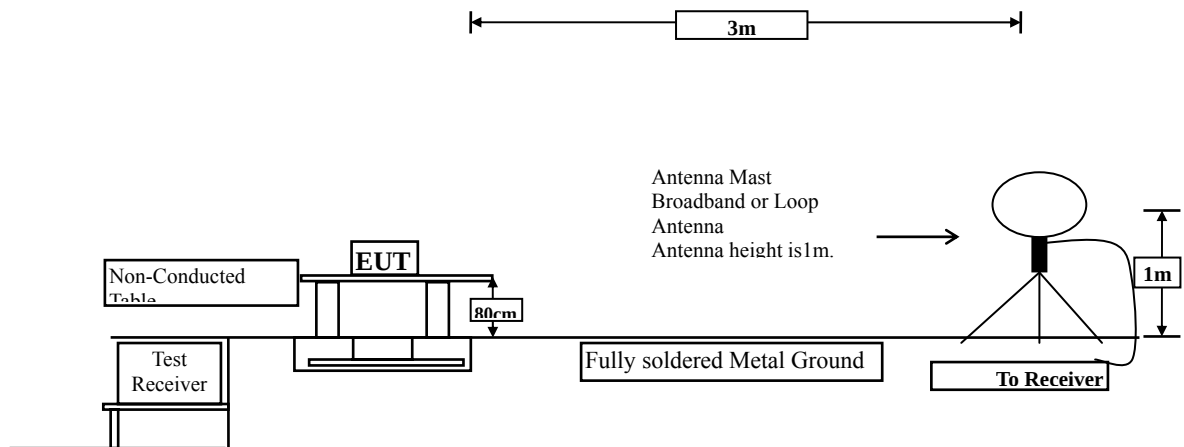
Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		15	30	45	60	90	120	135	150			
		Measurement Level (dBm)										
03	2422	14.49	--	--	--	--	--	--	--	20.09	<30dBm	Pass
07	2442	15.94	15.9	15.85	15.79	15.74	15.69	15.64	15.58	21.08	<30dBm	Pass
09	2452	14.41	--	--	--	--	--	--	--	19.75	<30dBm	Pass
10	2457	11.34	--	--	--	--	--	--	--	18.31	<30dBm	Pass
11	2462	3.56	--	--	--	--	--	--	--	11.72	<30dBm	Pass

Note: Peak Power Output Value = Reading value on power meter + cable loss

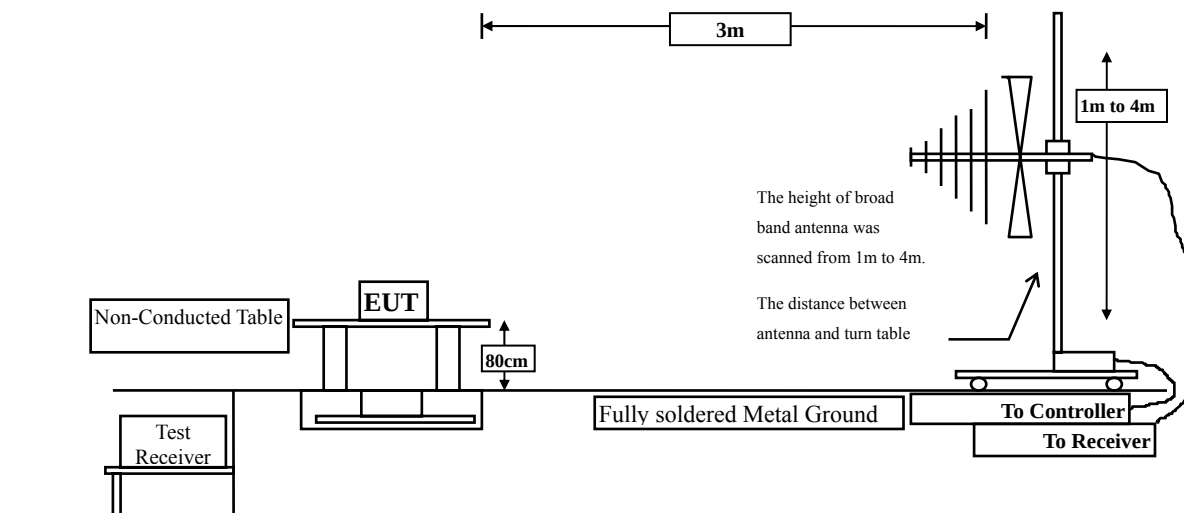
3. Radiated Emission

3.1. Test Setup

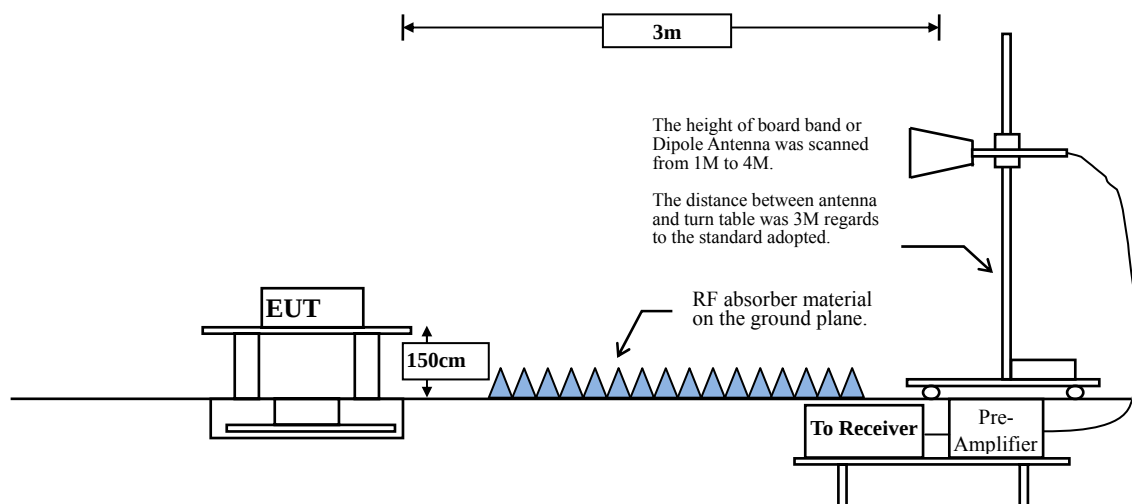
Radiated Emission Under 30MHz



Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



3.2. Limits

➤ General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	Field strength (microvolts/meter)	Measurement distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

- Remarks:
1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
 2. In the Above Table, the tighter limit applies at the band edges.
 3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

3.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground, when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The measurement frequency range from 9kHz - 10th Harmonic of fundamental was investigated.

RBW and VBW Parameter setting:

According to KDB 558074 section 12.2.4. Peak power measurement procedure

RBW = as specified in Table 1.

$VBW \geq 3 \times RBW$.

Table 1 —RBW as a function of frequency

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

According to KDB 558074 section 12.2.5. Average power measurement procedure

RBW = 1MHz.

VBW = 10Hz, when duty cycle $\geq 98 \%$

$VBW \geq 1/T$, when duty cycle $< 98 \%$

(T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.)

2.4GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11b	98.84	--	--	10
802.11g	98.12	--	--	10
802.11n20	99.70	--	--	10
802.11n40	98.98	--	--	10

Note: Duty Cycle Refer to Section 5

3.4. Uncertainty

Horizontal polarization :

30-300MHz: $\pm 4.08\text{dB}$; 300M-1GHz: $\pm 3.86\text{dB}$; 1-18GHz: $\pm 3.77\text{dB}$; 18-40GHz: $\pm 3.98\text{dB}$

Vertical polarization :

30-300MHz: $\pm 4.81\text{dB}$; 300M-1GHz: $\pm 3.87\text{dB}$; 1-18GHz : $\pm 3.83\text{dB}$; 18-40GHz: $\pm 3.98\text{dB}$

3.5. Test Result of Radiated Emission

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
 Test Date : 2017/12/21

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4824.000	-2.866	47.550	44.684	-29.316	74.000
7236.000	0.381	45.630	46.011	-27.989	74.000
9648.000	2.391	44.170	46.561	-27.439	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4824.000	-2.866	48.810	45.944	-28.056	74.000
7236.000	2.220	45.750	47.970	-6.030	74.000
9648.000	2.391	46.980	49.371	-24.629	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2442MHz)
 Test Date : 2017/12/21

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4884.000	-2.815	48.030	45.215	-28.785	74.000
7326.000	0.464	46.310	46.774	-27.226	74.000
9768.000	2.622	47.720	50.342	-23.658	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4884.000	-2.815	52.160	49.345	-24.655	74.000
7326.000	0.464	46.830	47.294	-26.706	74.000
9768.000	2.622	48.890	51.512	-22.488	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)
 Test Date : 2017/12/21

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4924.000	-2.796	47.790	44.994	-29.006	74.000
7386.000	0.489	44.930	45.419	-28.581	74.000
9848.000	2.729	43.410	46.140	-27.860	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4924.000	-2.796	49.860	47.064	-26.936	74.000
7386.000	0.489	44.830	45.319	-28.681	74.000
9848.000	2.729	44.740	47.470	-26.530	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2467MHz)
 Test Date : 2017/12/21

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
4934.000	-2.799	47.860	45.061	-28.939	74.000
7401.000	0.489	44.890	45.379	-28.621	74.000
9868.000	2.768	43.640	46.407	-27.593	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4934.000	-2.799	50.230	47.431	-26.569	74.000
7401.000	0.489	44.970	45.459	-28.541	74.000
9868.000	2.768	45.340	48.107	-25.893	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2472MHz)
 Test Date : 2017/12/21

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
4944.000	-2.793	46.340	43.547	-30.453	74.000
7416.000	0.496	44.480	44.977	-29.023	74.000
9888.000	2.822	44.520	47.343	-26.657	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4944.000	-2.793	48.390	45.597	-28.403	74.000
7416.000	0.496	44.340	44.837	-29.163	74.000
9888.000	2.822	45.360	48.183	-25.817	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
 Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
4824.000	-2.866	46.710	43.844	-30.156	74.000
7236.000	0.381	45.670	46.051	-27.949	74.000
9648.000	2.391	44.920	47.311	-26.689	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4824.000	-2.866	49.740	46.874	-27.126	74.000
7236.000	0.381	45.130	45.511	-28.489	74.000
9648.000	2.391	46.140	48.531	-25.469	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2442MHz)
 Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4884.000	-2.815	46.130	43.315	-30.685	74.000
7326.000	0.464	45.340	45.804	-28.196	74.000
9768.000	2.622	44.370	46.992	-27.008	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4884.000	-2.815	47.390	44.575	-29.425	74.000
7326.000	0.464	45.610	46.074	-27.926	74.000
9768.000	2.622	46.380	49.002	-24.998	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz)
 Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4924.000	-2.796	45.840	43.044	-30.956	74.000
7386.000	0.489	44.350	44.839	-29.161	74.000
9848.000	2.729	43.860	46.590	-27.410	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4924.000	-2.796	47.110	44.314	-29.686	74.000
7386.000	0.489	44.480	44.969	-29.031	74.000
9848.000	2.729	44.320	47.050	-26.950	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2467 MHz)
 Test Date : 2017/12/23

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4934.000	-2.799	45.710	42.911	-31.089	74.000
7401.000	0.489	44.320	44.809	-29.191	74.000
9868.000	2.768	43.850	46.617	-27.383	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4934.000	-2.799	46.540	43.741	-30.259	74.000
7401.000	0.489	44.850	45.339	-28.661	74.000
9868.000	2.768	44.880	47.647	-26.353	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2472 MHz)
 Test Date : 2017/12/23

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4944.000	-2.793	45.320	42.527	-31.473	74.000
7416.000	0.496	44.580	45.077	-28.923	74.000
9888.000	2.822	44.700	47.523	-26.477	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4944.000	-2.793	45.470	42.677	-31.323	74.000
7416.000	0.496	44.620	45.117	-28.883	74.000
9888.000	2.822	44.730	47.553	-26.447	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2412MHz)
 Test Date : 2017/12/23

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
4824.000	-2.866	45.870	43.004	-30.996	74.000
7236.000	0.381	45.140	45.521	-28.479	74.000
9648.000	2.391	43.410	45.801	-28.199	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4824.000	-2.866	48.120	45.254	-28.746	74.000
7236.000	0.381	45.260	45.641	-28.359	74.000
9648.000	2.391	45.090	47.481	-26.519	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2442 MHz)
 Test Date : 2017/12/23

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4884.000	-2.815	46.520	43.705	-30.295	74.000
7326.000	0.464	44.720	45.184	-28.816	74.000
9768.000	2.622	44.520	47.142	-26.858	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4884.000	-2.815	47.080	44.265	-29.735	74.000
7326.000	0.464	47.080	47.544	-26.456	74.000
9768.000	2.622	45.870	48.492	-25.508	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462 MHz)
 Test Date : 2017/12/23

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4924.000	-2.796	45.610	42.814	-31.186	74.000
7386.000	0.489	44.060	44.549	-29.451	74.000
9848.000	2.729	43.490	46.220	-27.780	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4924.000	-2.796	47.090	44.294	-29.706	74.000
7386.000	0.489	44.850	45.339	-28.661	74.000
9848.000	2.729	43.630	46.360	-27.640	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2467 MHz)
 Test Date : 2017/12/23

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4934.000	-2.799	46.410	43.611	-30.389	74.000
7401.000	0.489	44.230	44.719	-29.281	74.000
9868.000	2.768	44.370	47.137	-26.863	74.000
Average Detector:					
--	--	--	--	--	54.000
Vertical					
Peak Detector:					
4934.000	-2.799	46.020	43.221	-30.779	74.000
7401.000	0.489	44.690	45.179	-28.821	74.000
9868.000	2.768	44.560	47.327	-26.673	74.000
Average Detector:					
--	--	--	--	--	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2472 MHz)
 Test Date : 2017/12/23

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
4944.000	-2.793	45.510	42.717	-31.283	74.000
7416.000	0.496	44.380	44.877	-29.123	74.000
9888.000	2.822	43.520	46.343	-27.657	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
4944.000	-2.793	45.320	42.527	-31.473	74.000
7416.000	0.496	43.820	44.317	-29.683	74.000
9888.000	2.822	44.210	47.033	-26.967	74.000
Average Detector:					
--					54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2422MHz)
 Test Date : 2017/12/23

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
4844.000	-2.852	46.180	43.328	-30.672	74.000
7266.000	0.426	45.060	45.486	-28.514	74.000
9688.000	2.479	42.920	45.399	-28.601	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
4844.000	-2.852	46.220	43.368	-30.632	74.000
7266.000	0.426	44.930	45.356	-28.644	74.000
9688.000	2.479	44.900	47.379	-26.621	74.000
Average Detector:					
--					54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2442 MHz)
 Test Date : 2017/12/23

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4884.000	-2.815	45.850	43.035	-30.965	74.000
7326.000	0.464	45.730	46.194	-27.806	74.000
9768.000	2.622	44.310	46.932	-27.068	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
4884.000	-2.815	46.220	43.405	-30.595	74.000
7326.000	0.464	45.910	46.374	-27.626	74.000
9768.000	2.622	45.220	47.842	-26.158	74.000
Average Detector:					
--					54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2452 MHz)
 Test Date : 2017/12/23

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4904.000	-2.828	45.440	42.612	-31.388	74.000
7356.000	0.473	44.590	45.062	-28.938	74.000
9808.000	2.719	43.410	46.130	-27.870	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
4904.000	-2.828	45.870	43.042	-30.958	74.000
7356.000	0.473	45.100	45.572	-28.428	74.000
9808.000	2.719	44.260	46.980	-27.020	74.000
Average Detector:					
--					54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2457 MHz)
 Test Date : 2017/12/23

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4914.000	-2.803	45.690	42.887	-31.113	74.000
7371.000	0.480	44.610	45.091	-28.909	74.000
9828.000	2.766	43.640	46.406	-27.594	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
4914.000	-2.803	45.420	42.617	-31.383	74.000
7371.000	0.480	44.370	44.851	-29.149	74.000
9828.000	2.766	44.280	47.046	-26.954	74.000
Average Detector:					
--					54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2462 MHz)
 Test Date : 2017/12/23

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4924.000	-2.796	45.480	42.684	-31.316	74.000
7386.000	0.489	44.290	44.779	-29.221	74.000
9848.000	2.729	43.250	45.980	-28.020	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
4924.000	-2.796	45.750	42.954	-31.046	74.000
7386.000	0.489	44.670	45.159	-28.841	74.000
9848.000	2.729	43.920	46.650	-27.350	74.000
Average Detector:					
--					54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Intel® Wireless-AC 9461
 Test Item : General Radiated Emission Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2442 MHz)
 Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
138.246	-11.141	34.165	23.024	-20.476	43.500
240.870	-11.846	35.118	23.272	-22.728	46.000
432.058	-6.595	33.191	26.596	-19.404	46.000
669.638	-2.246	30.112	27.866	-18.134	46.000
768.043	-0.678	32.545	31.867	-14.133	46.000
900.188	0.934	33.562	34.496	-11.504	46.000
Vertical					
232.435	-12.337	41.833	29.496	-16.504	46.000
440.493	-6.401	35.519	29.118	-16.882	46.000
586.696	-3.387	31.987	28.600	-17.400	46.000
751.174	-0.869	30.106	29.236	-16.764	46.000
862.232	0.476	30.065	30.540	-15.460	46.000
984.536	1.972	28.919	30.890	-23.110	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Intel® Wireless-AC 9461
 Test Item : General Radiated Emission Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2442 MHz)
 Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
149.493	-10.620	34.571	23.950	-19.550	43.500
263.362	-11.221	39.413	28.192	-17.808	46.000
432.058	-6.595	32.422	25.827	-20.173	46.000
602.159	-3.050	29.261	26.211	-19.789	46.000
772.261	-0.641	28.249	27.608	-18.392	46.000
952.203	1.465	28.856	30.322	-15.678	46.000
Vertical					
263.362	-11.221	38.891	27.670	-18.330	46.000
360.362	-8.467	36.226	27.760	-18.240	46.000
468.609	-5.848	34.723	28.875	-17.125	46.000
624.652	-2.848	32.043	29.195	-16.805	46.000
773.667	-0.625	28.234	27.608	-18.392	46.000
897.377	0.899	31.794	32.694	-13.306	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Intel® Wireless-AC 9461
 Test Item : General Radiated Emission Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2442 MHz)
 Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
191.667	-13.371	36.273	22.901	-20.599	43.500
408.159	-7.153	35.597	28.444	-17.556	46.000
538.899	-4.498	30.599	26.100	-19.900	46.000
613.406	-2.952	29.808	26.855	-19.145	46.000
768.043	-0.678	31.796	31.118	-14.882	46.000
940.957	1.341	28.321	29.662	-16.338	46.000
Vertical					
157.928	-10.463	35.242	24.779	-18.721	43.500
344.899	-8.881	33.558	24.677	-21.323	46.000
493.913	-5.408	29.929	24.521	-21.479	46.000
641.522	-2.703	28.846	26.143	-19.857	46.000
768.043	-0.678	30.382	29.704	-16.296	46.000
959.232	1.584	28.999	30.583	-15.417	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Intel® Wireless-AC 9461
 Test Item : General Radiated Emission Data
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2442 MHz)
 Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
171.986	-11.127	38.111	26.984	-16.516	43.500
384.261	-7.783	34.807	27.024	-18.976	46.000
493.913	-5.408	30.561	25.153	-20.847	46.000
648.551	-2.643	31.355	28.712	-17.288	46.000
848.174	0.296	28.868	29.164	-16.836	46.000
935.333	1.279	29.392	30.672	-15.328	46.000
Vertical					
143.870	-10.829	35.469	24.640	-18.860	43.500
263.362	-11.221	35.510	24.289	-21.711	46.000
360.362	-8.467	37.643	29.177	-16.823	46.000
589.507	-3.320	31.040	27.720	-18.280	46.000
791.942	-0.419	29.765	29.346	-16.654	46.000
978.913	1.887	28.811	30.698	-23.302	54.000

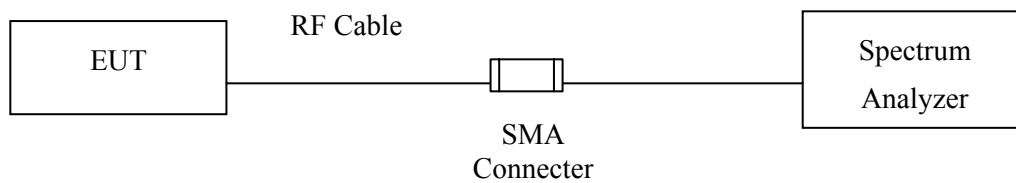
Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

4. Band Edge

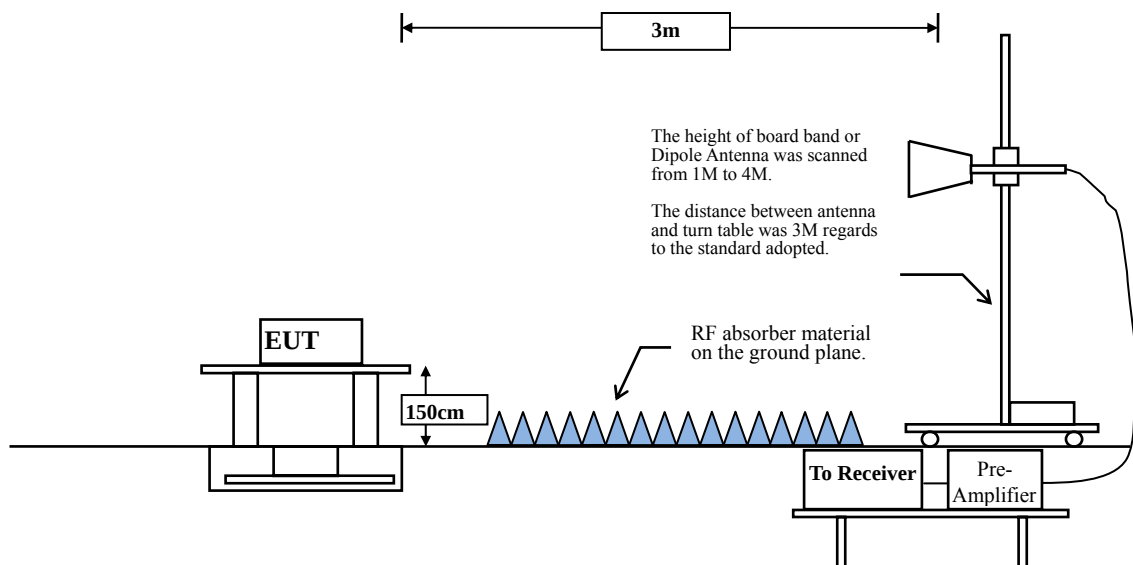
4.1. Test Setup

RF Conducted Measurement



RF Radiated Measurement:

Above 1GHz



4.2. Limits

According to FCC Section 15.247(d). In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

4.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.

RBW and VBW Parameter setting:

According to KDB 558074 section 12.2.4. Peak power measurement procedure

RBW = as specified in Table 1.

$VBW \geq 3 \times RBW$.

Table 1 —RBW as a function of frequency

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

According to KDB 558074 section 12.2.5. Average power measurement procedure

RBW = 1MHz.

VBW = 10Hz, when duty cycle $\geq 98 \%$

$VBW \geq 1/T$, when duty cycle $< 98 \%$

(T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.)

2.4GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11b	98.84	--	--	10
802.11g	98.12	--	--	10
802.11n20	99.70	--	--	10
802.11n40	98.98	--	--	10

Note: Duty Cycle Refer to Section 5

4.4. Uncertainty

Conducted: $\pm 1.23\text{dB}$

Radiated:

Horizontal polarization : 1-18GHz: $\pm 3.77\text{dB}$

Vertical polarization : 1-18GHz : $\pm 3.83\text{dB}$

4.5. Test Result of Band Edge

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
01 (Peak)	2386.087	12.137	41.853	53.990	74.00	54.00	Pass
01 (Peak)	2390.000	12.148	39.436	51.584	74.00	54.00	Pass
01 (Peak)	2396.957	12.167	49.795	61.962	--	--	Pass
01 (Peak)	2400.000	12.176	44.472	56.648	--	--	Pass
01 (Peak)	2413.043	12.206	91.850	104.056	--	--	--
01 (Average)	2385.942	12.137	31.659	43.796	74.00	54.00	Pass
01 (Average)	2390.000	12.148	28.688	40.836	74.00	54.00	Pass
01 (Average)	2397.246	12.168	43.599	55.767	--	--	Pass
01 (Average)	2400.000	12.176	35.547	47.723	--	--	Pass
01 (Average)	2411.304	12.201	88.304	100.506	--	--	--

Figure Channel 01:

Horizontal (Peak)

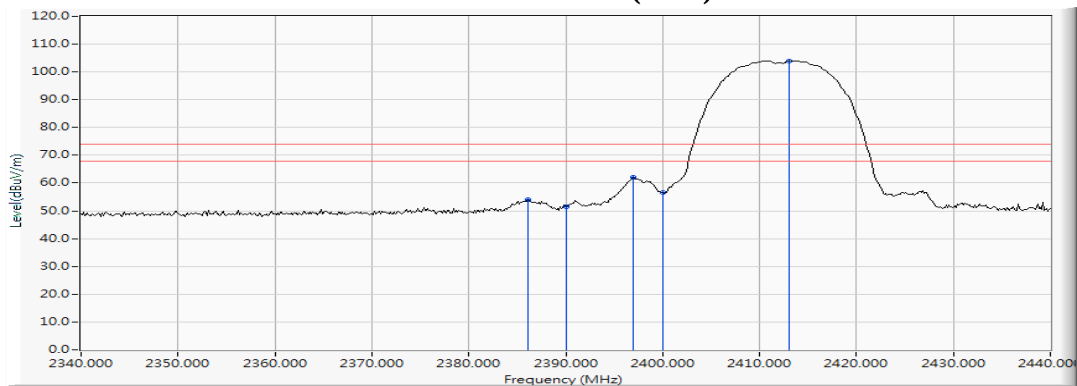
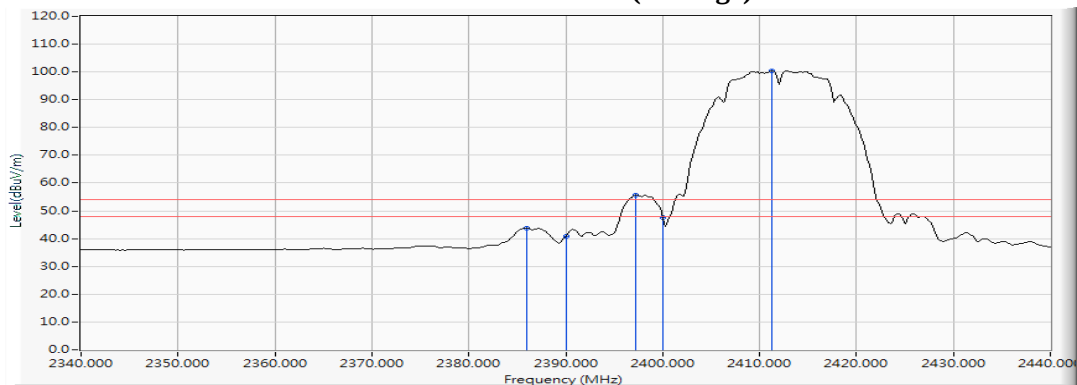


Figure Channel 01:

Horizontal (Average)



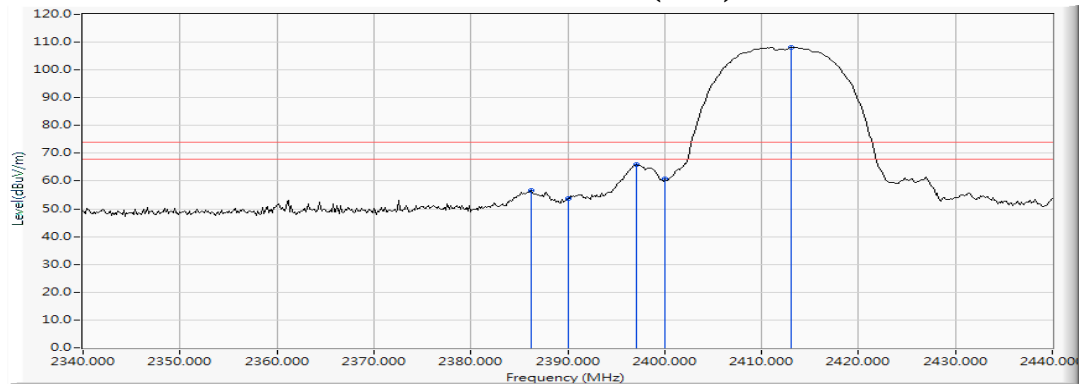
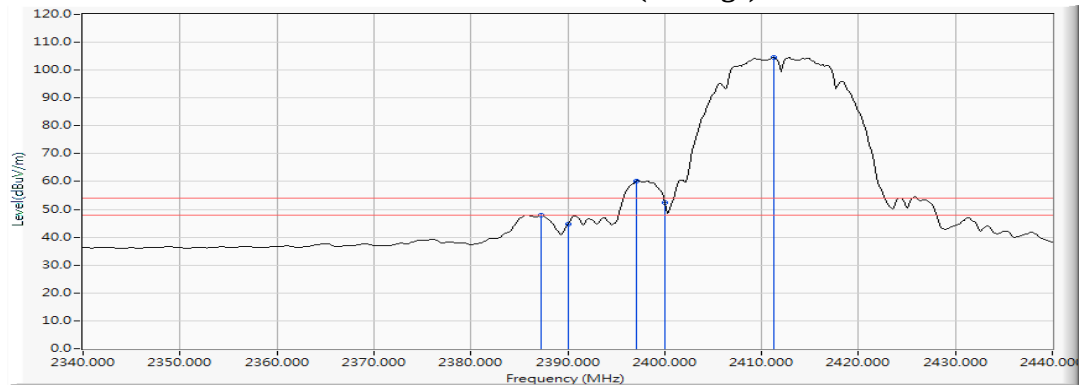
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
01 (Peak)	2386.232	12.137	44.642	56.780	74.00	54.00	Pass
01 (Peak)	2390.000	12.148	41.689	53.837	74.00	54.00	Pass
01 (Peak)	2397.101	12.168	53.769	65.937	--	--	Pass
01 (Peak)	2400.000	12.176	48.544	60.720	--	--	Pass
01 (Peak)	2413.043	12.206	95.859	108.065	--	--	--
01 (Average)	2387.246	12.140	35.811	47.951	74.00	54.00	Pass
01 (Average)	2390.000	12.148	32.444	44.592	74.00	54.00	Pass
01 (Average)	2397.101	12.168	48.142	60.310	--	--	Pass
01 (Average)	2400.000	12.176	40.139	52.315	--	--	Pass
01 (Average)	2411.304	12.201	92.298	104.500	--	--	--

Figure Channel 01:
VERTICAL (Peak)

Figure Channel 01:
VERTICAL (Average)


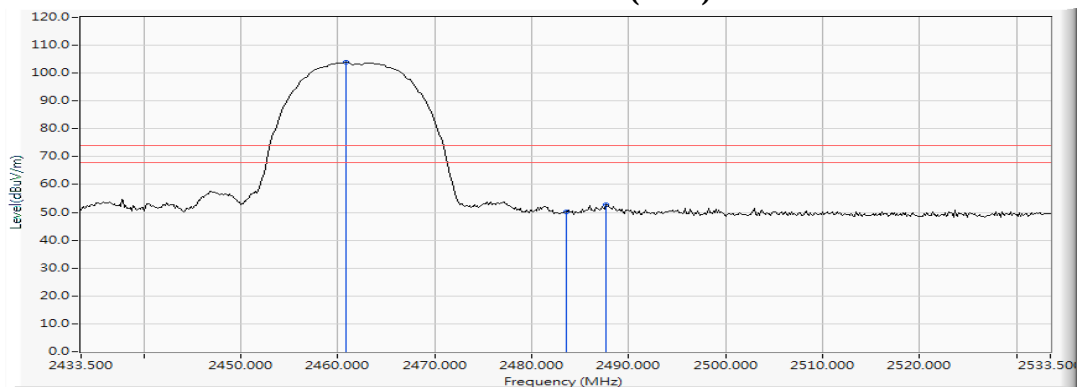
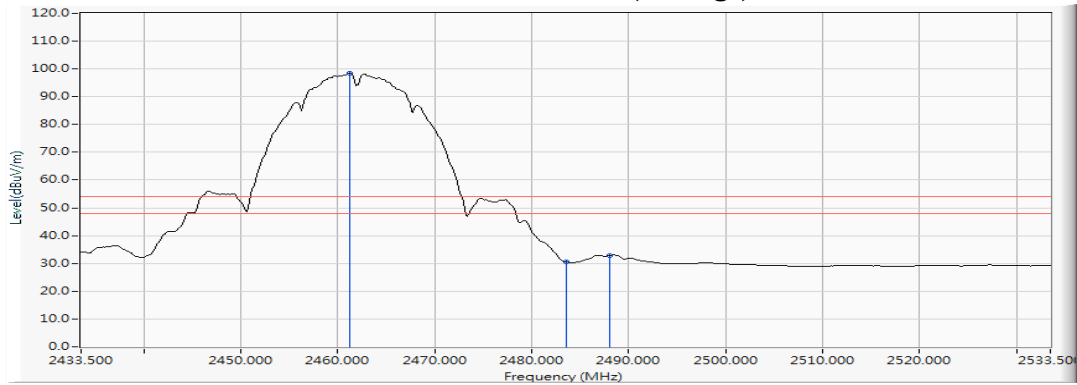
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
11 (Peak)	2460.891	12.337	91.499	103.837	--	--	--
11 (Peak)	2483.500	12.403	37.936	50.339	74.00	54.00	Pass
11 (Peak)	2487.703	12.414	40.208	52.622	74.00	54.00	Pass
11 (Average)	2461.181	12.339	87.958	100.297	--	--	--
11 (Average)	2483.500	12.403	25.461	37.864	74.00	54.00	Pass
11 (Average)	2487.703	12.414	28.400	40.814	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)

Figure Channel 11: Horizontal (Average)


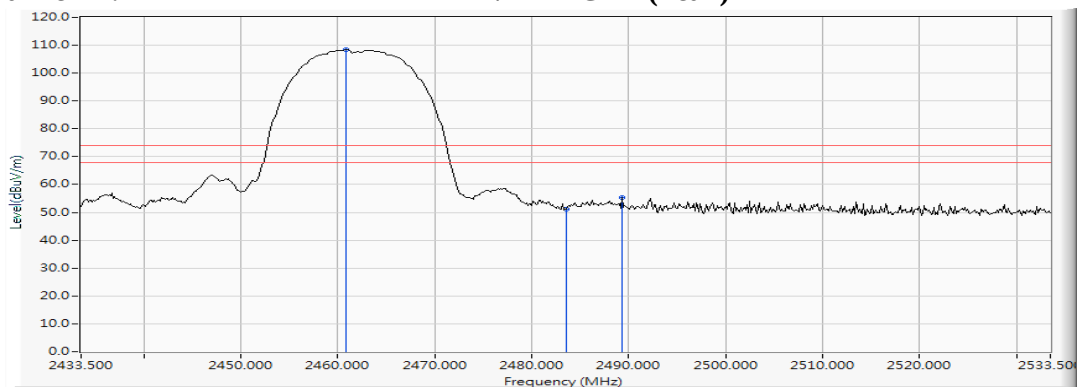
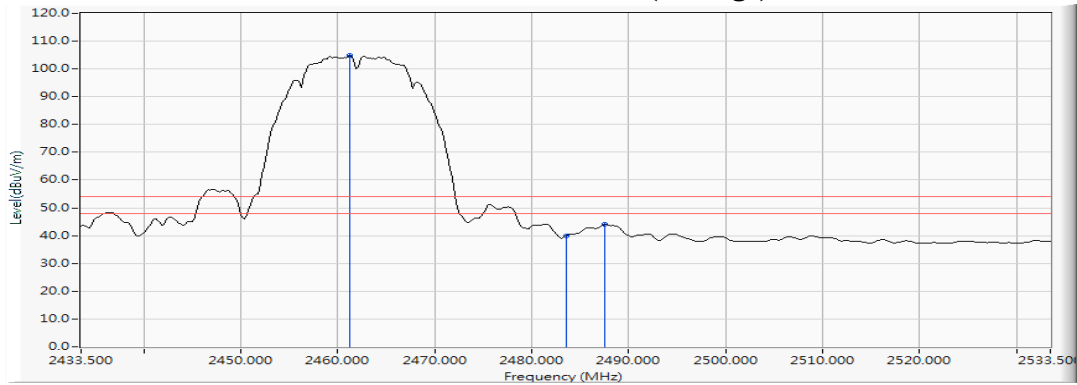
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
11 (Peak)	2460.891	12.337	95.967	108.305	--	--	--
11 (Peak)	2483.500	12.403	38.807	51.210	74.00	54.00	Pass
11 (Peak)	2489.297	12.419	43.028	55.447	74.00	54.00	Pass
11 (Average)	2461.181	12.339	92.387	104.726	--	--	--
11 (Average)	2483.500	12.403	27.463	39.866	74.00	54.00	Pass
11 (Average)	2487.558	12.414	31.516	43.930	74.00	54.00	Pass

Figure Channel 11: VERTICAL (Peak)

Figure Channel 11: VERTICAL (Average)


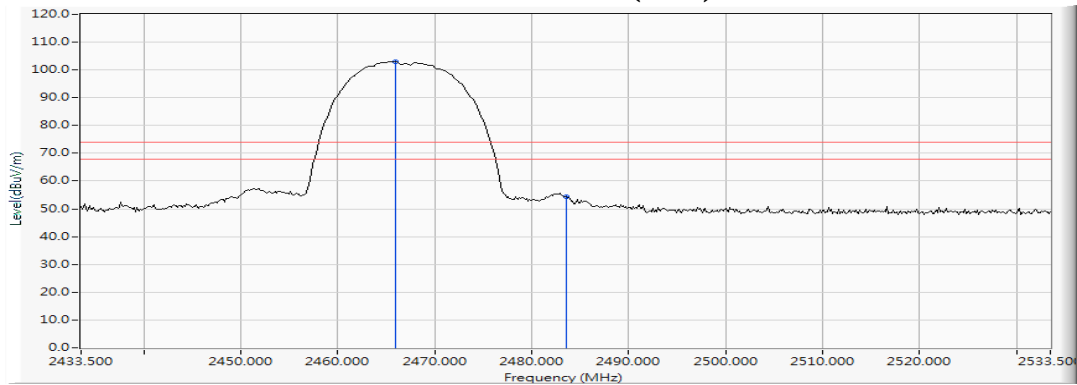
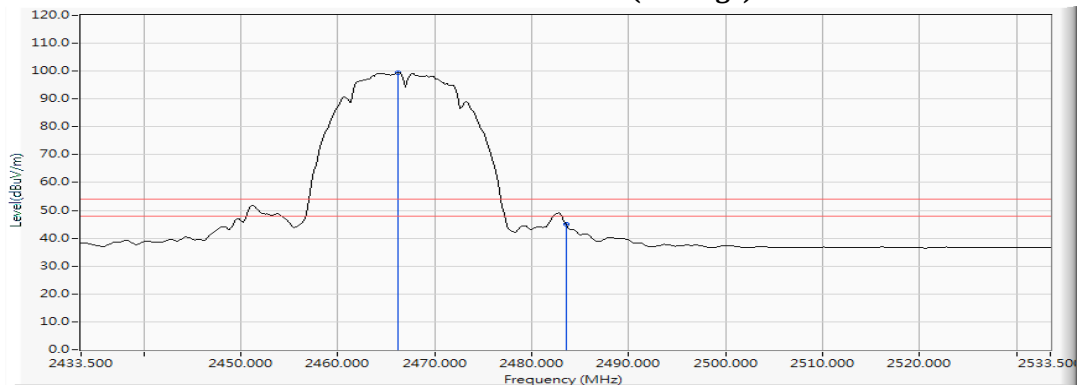
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2467MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
12 (Peak)	2465.964	12.353	90.641	102.994	--	--	--
12 (Peak)	2483.500	12.403	41.998	54.401	74.00	54.00	Pass
12 (Average)	2466.254	12.353	87.056	99.409	--	--	--
12 (Average)	2483.500	12.403	32.615	45.018	74.00	54.00	Pass

Figure Channel 12: Horizontal (Peak)**Figure Channel 12: Horizontal (Average)**

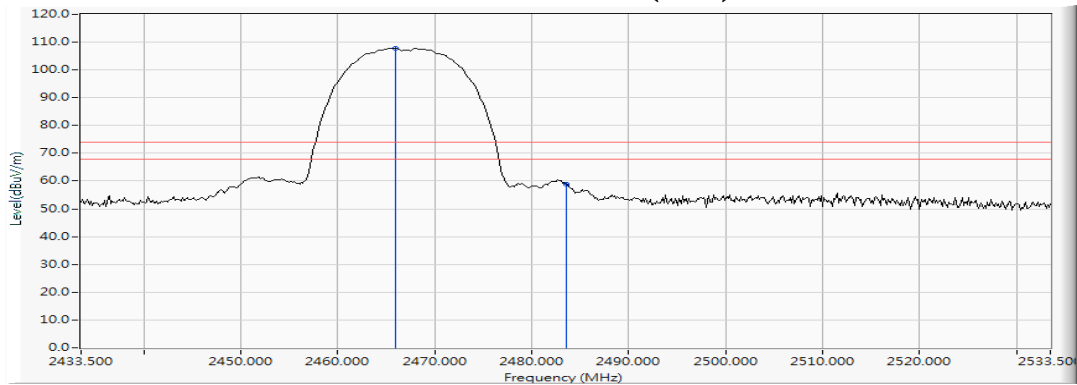
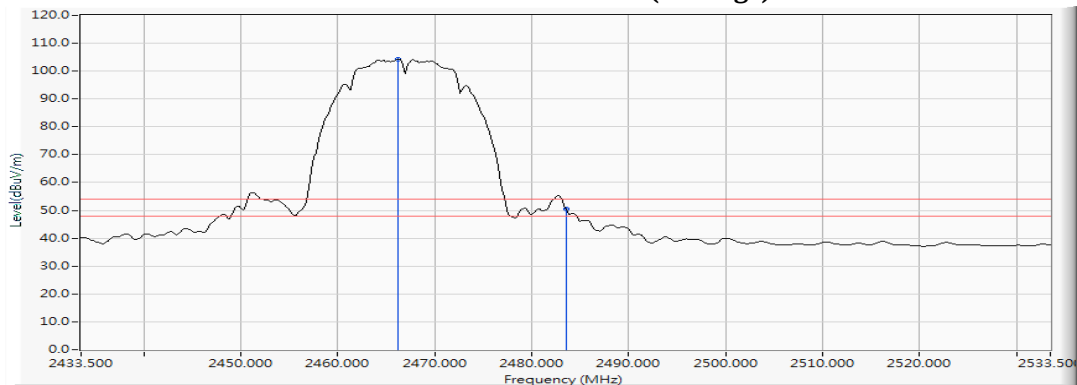
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2467MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
12 (Peak)	2465.964	12.353	95.502	107.855	--	--	--
12 (Peak)	2483.500	12.403	46.542	58.945	74.00	54.00	Pass
12 (Average)	2466.254	12.353	91.919	104.272	--	--	--
12 (Average)	2483.500	12.403	38.177	50.580	74.00	54.00	Pass

Figure Channel 12: VERTICAL (Peak)

Figure Channel 12: VERTICAL (Average)


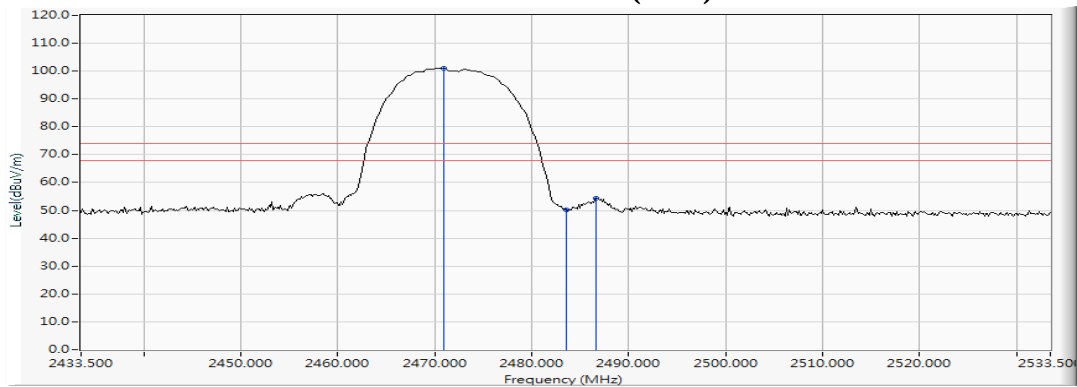
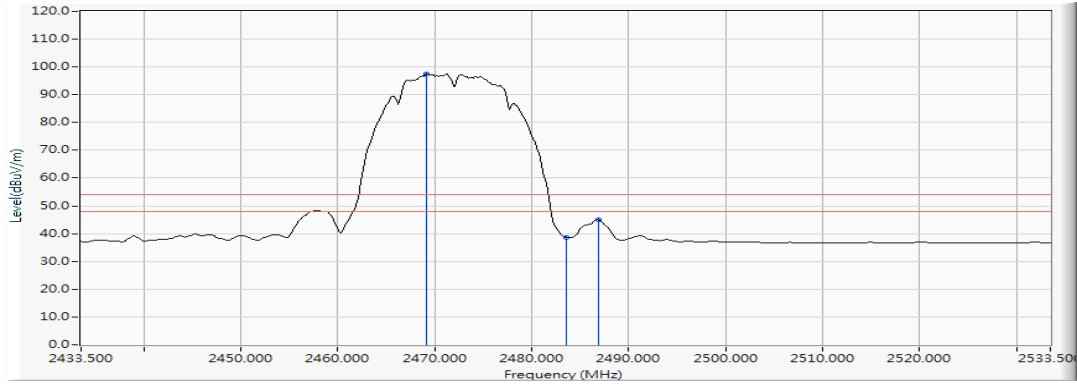
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2472MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
13 (Peak)	2470.891	12.367	88.617	100.984	--	--	--
13 (Peak)	2483.500	12.403	37.935	50.338	74.00	54.00	Pass
13 (Peak)	2486.688	12.411	41.872	54.283	74.00	54.00	Pass
13 (Average)	2469.152	12.362	85.090	97.452	--	--	--
13 (Average)	2483.500	12.403	26.324	38.727	74.00	54.00	Pass
13 (Average)	2486.833	12.412	32.520	44.932	74.00	54.00	Pass

Figure Channel 13: Horizontal (Peak)

Figure Channel 13: Horizontal (Average)


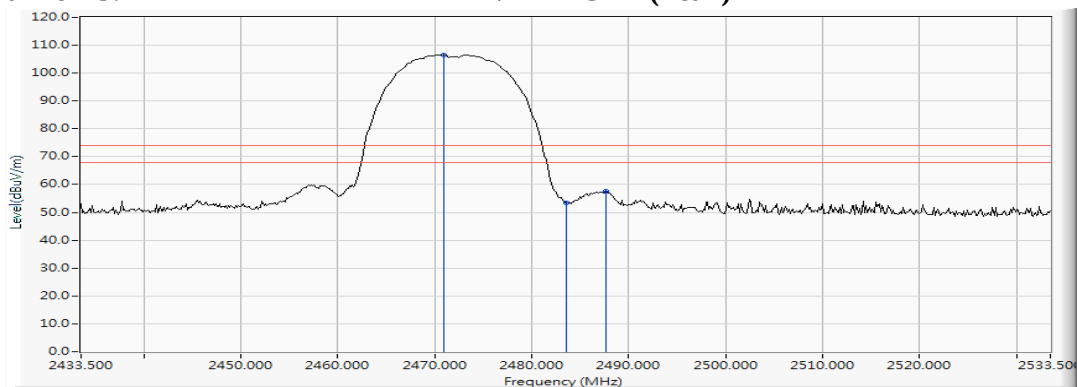
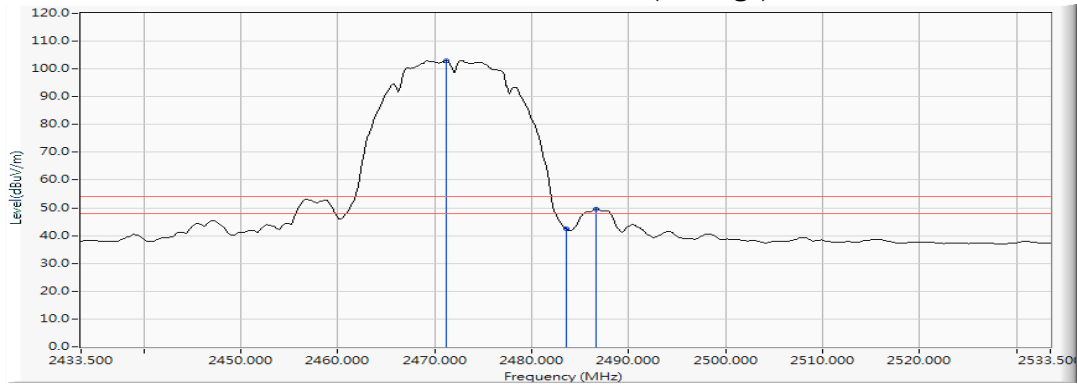
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2472MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
13 (Peak)	2470.891	12.367	94.235	106.602	--	--	--
13 (Peak)	2483.500	12.403	41.003	53.406	74.00	54.00	Pass
13 (Peak)	2487.703	12.414	45.137	57.551	74.00	54.00	Pass
13 (Average)	2471.181	12.368	90.710	103.077	--	--	--
13 (Average)	2483.500	12.403	30.209	42.612	74.00	54.00	Pass
13 (Average)	2486.688	12.411	37.181	49.592	74.00	54.00	Pass

Figure Channel 13: VERTICAL (Peak)

Figure Channel 13: VERTICAL (Average)


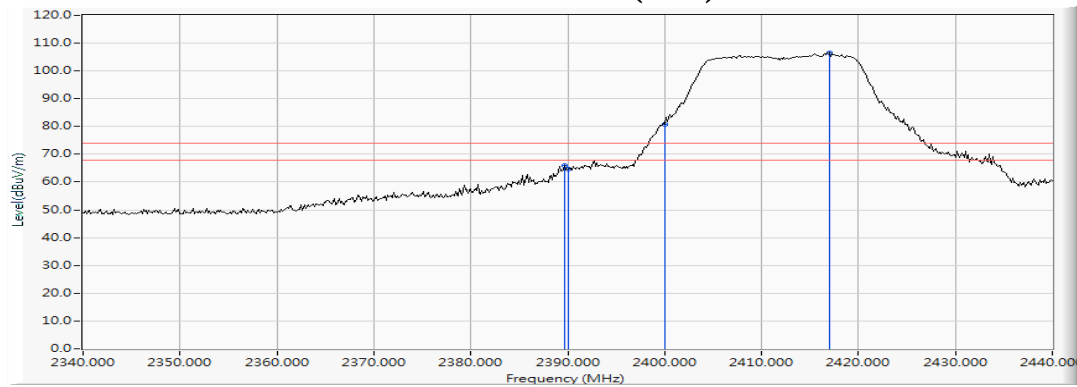
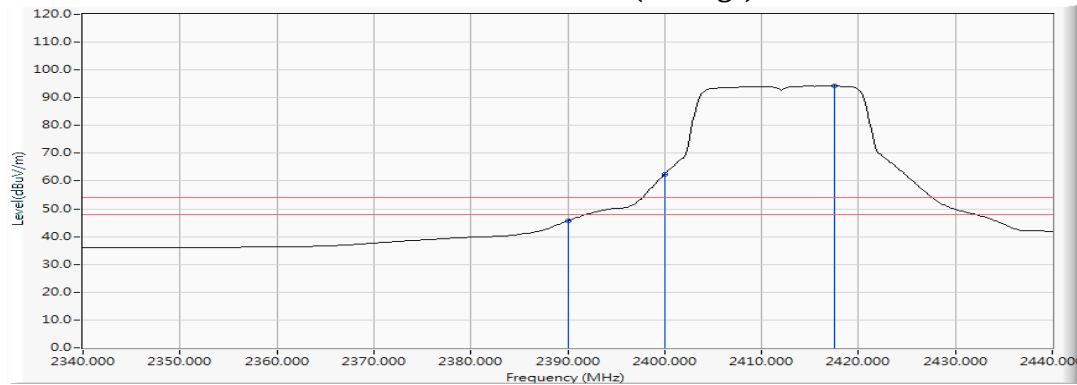
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
01 (Peak)	2389.710	12.147	53.712	65.859	74.00	54.00	Pass
01 (Peak)	2390.000	12.148	52.432	64.580	74.00	54.00	Pass
01 (Peak)	2400.000	12.176	68.617	80.793	--	--	Pass
01 (Peak)	2416.957	12.214	94.321	106.536	--	--	--
01 (Average)	2390.000	12.148	33.519	45.667	74.00	54.00	Pass
01 (Average)	2400.000	12.176	50.272	62.448	--	--	Pass
01 (Average)	2417.536	12.217	81.998	94.214	--	--	--

Figure Channel 01: Horizontal (Peak)**Figure Channel 01: Horizontal (Average)**

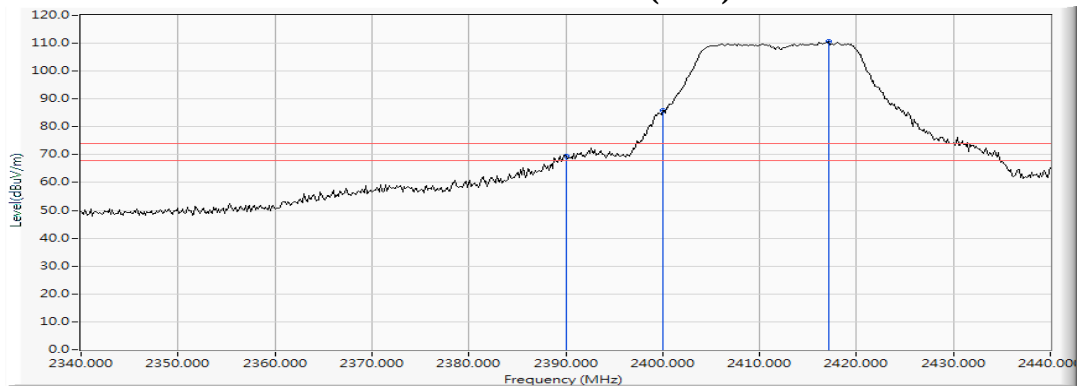
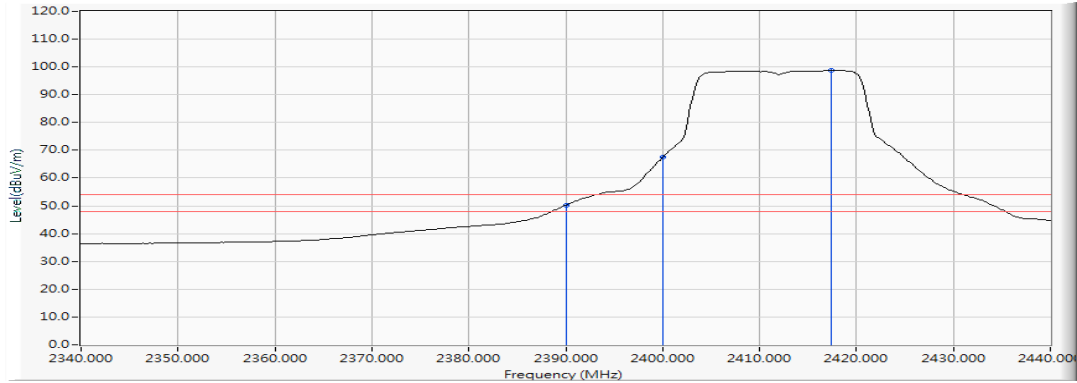
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
01 (Peak)	2390.000	12.148	57.498	69.646	74.00	54.00	Pass
01 (Peak)	2400.000	12.176	73.569	85.745	--	--	Pass
01 (Peak)	2417.102	12.215	98.437	110.652	--	--	Pass
01 (Average)	2390.000	12.148	38.127	50.275	74.00	54.00	Pass
01 (Average)	2400.000	12.176	55.267	67.443	--	--	Pass
01 (Average)	2417.391	12.216	86.462	98.678	--	--	--

Figure Channel 01: VERTICAL (Peak)

Figure Channel 01: VERTICAL (Average)


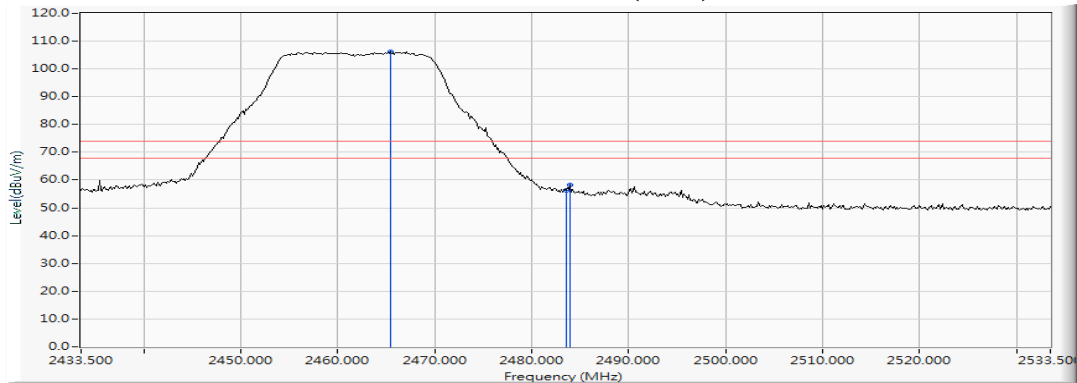
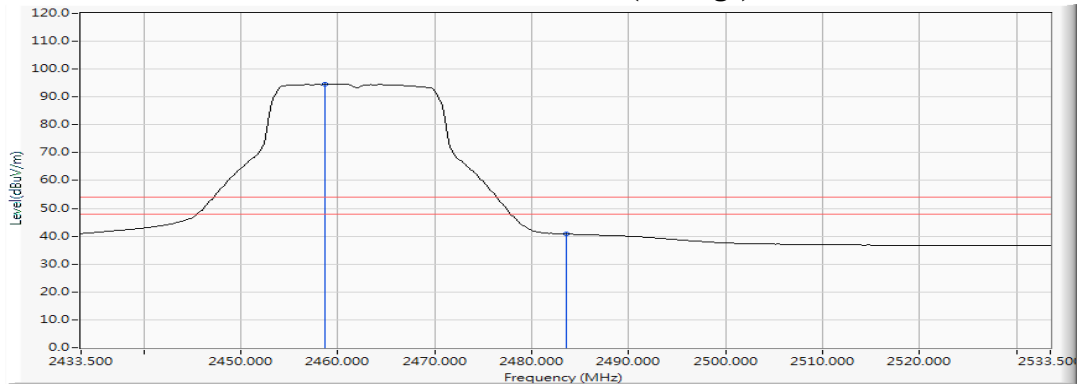
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
11 (Peak)	2465.384	12.351	93.817	106.168	--	--	--
11 (Peak)	2483.500	12.403	43.766	56.169	74.00	54.00	Pass
11 (Peak)	2483.935	12.404	45.671	58.075	74.00	54.00	Pass
11 (Average)	2458.717	12.332	82.180	94.512	--	--	--
11 (Average)	2483.500	12.403	28.395	40.798	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)

Figure Channel 11: Horizontal (Average)


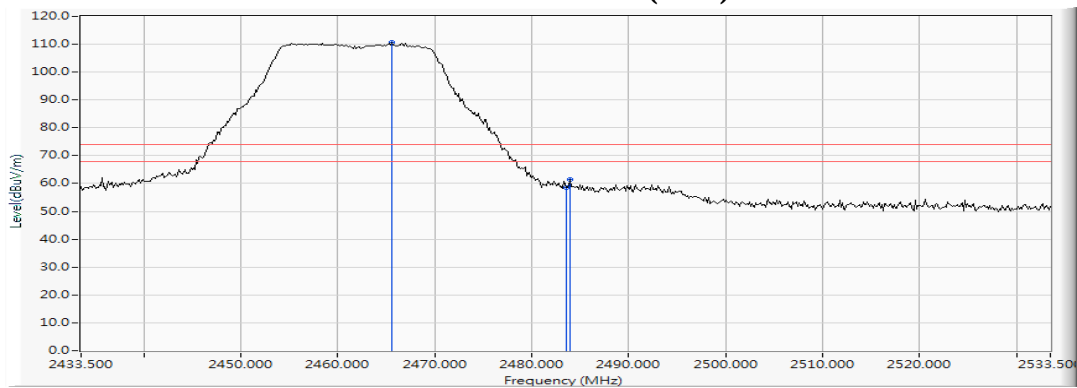
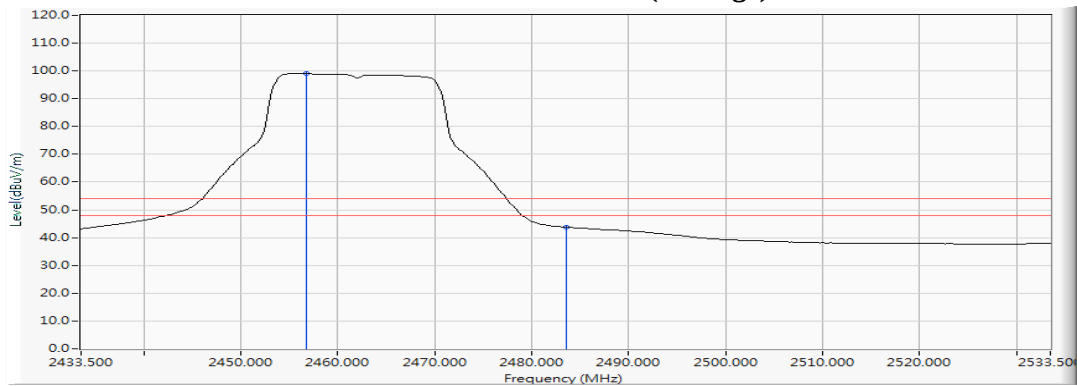
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
11 (Peak)	2465.529	12.352	98.178	110.529	--	--	--
11 (Peak)	2483.500	12.403	46.157	58.560	74.00	54.00	Pass
11 (Peak)	2483.935	12.404	48.989	61.393	74.00	54.00	Pass
11 (Average)	2456.688	12.327	86.706	99.033	--	--	--
11 (Average)	2483.500	12.403	31.444	43.847	74.00	54.00	Pass

Figure Channel 11: VERTICAL (Peak)

Figure Channel 11: VERTICAL (Average)


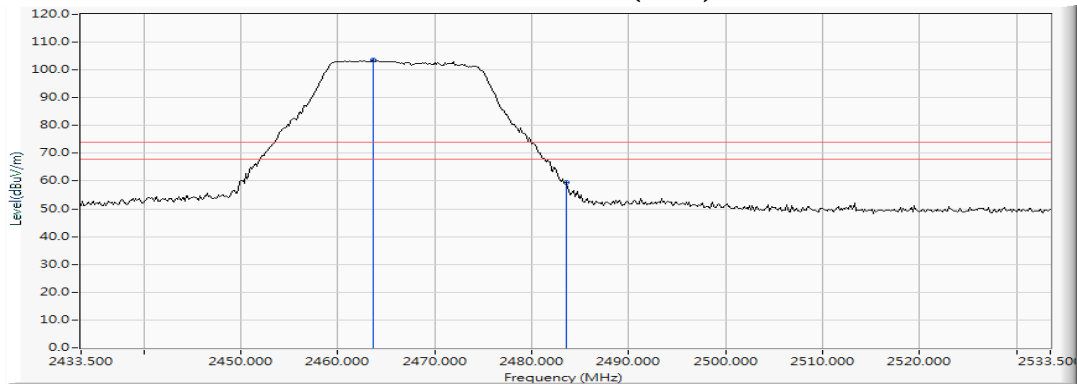
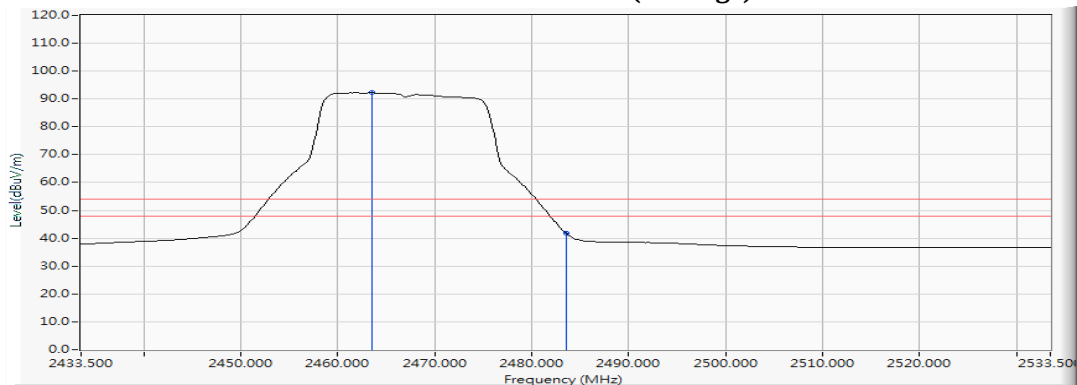
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2467MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
12 (Peak)	2463.645	12.346	91.105	103.451	--	--	--
12 (Peak)	2483.500	12.403	47.266	59.669	74.00	54.00	Pass
12 (Average)	2463.500	12.345	79.885	92.231	--	--	--
12 (Average)	2483.500	12.403	29.459	41.862	74.00	54.00	Pass

Figure Channel 12: Horizontal (Peak)**Figure Channel 12: Horizontal (Average)**

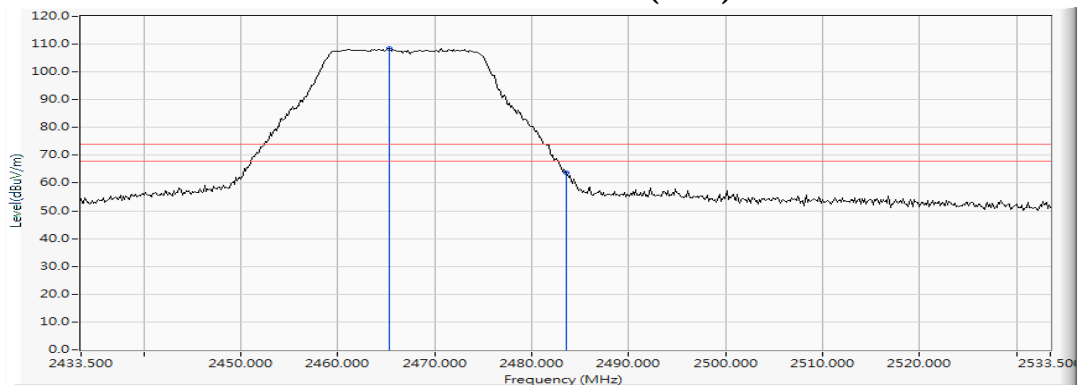
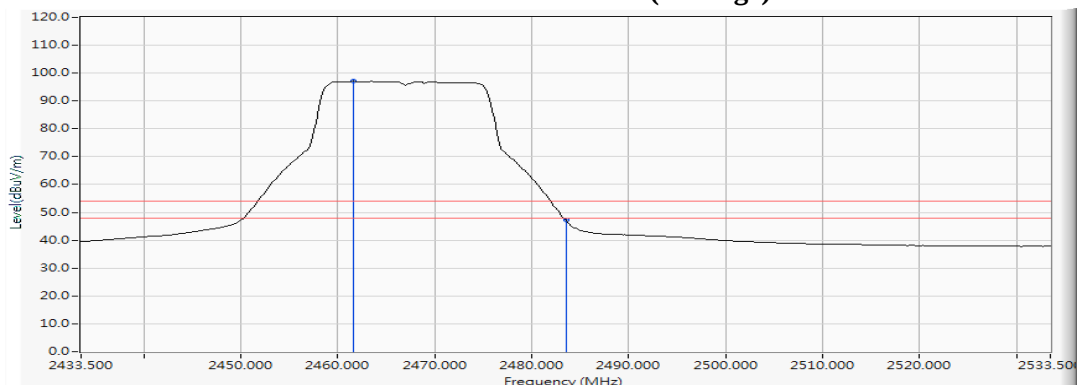
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2467MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
12 (Peak)	2465.239	12.351	95.940	108.291	--	--	--
12 (Peak)	2483.500	12.403	51.350	63.753	74.00	54.00	Pass
12 (Average)	2461.616	12.340	84.696	97.036	--	--	--
12 (Average)	2483.500	12.403	34.773	47.176	74.00	54.00	Pass

Figure Channel 12: VERTICAL (Peak)

Figure Channel 12: VERTICAL (Average)


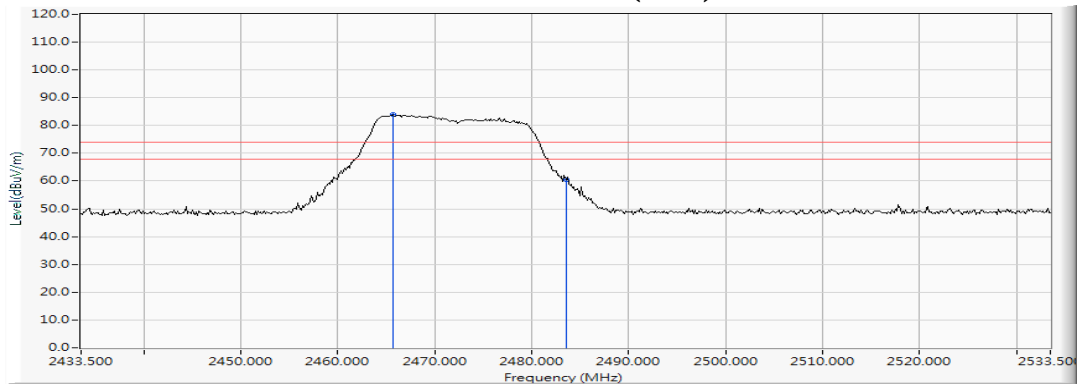
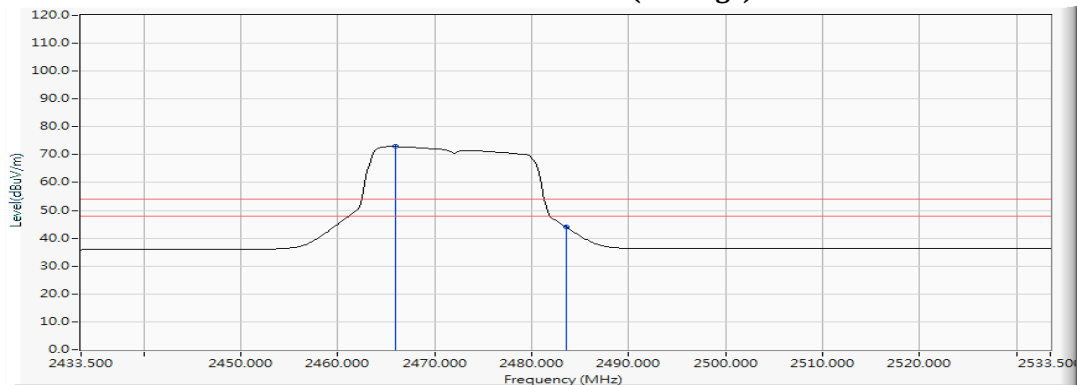
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2472MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
13 (Peak)	2465.674	12.352	71.551	83.903	--	--	--
13 (Peak)	2483.500	12.403	47.984	60.387	74.00	54.00	Pass
13 (Average)	2465.964	12.353	60.560	72.913	--	--	--
13 (Average)	2483.500	12.403	31.530	43.933	74.00	54.00	Pass

Figure Channel 13: Horizontal (Peak)**Figure Channel 13: Horizontal (Average)**

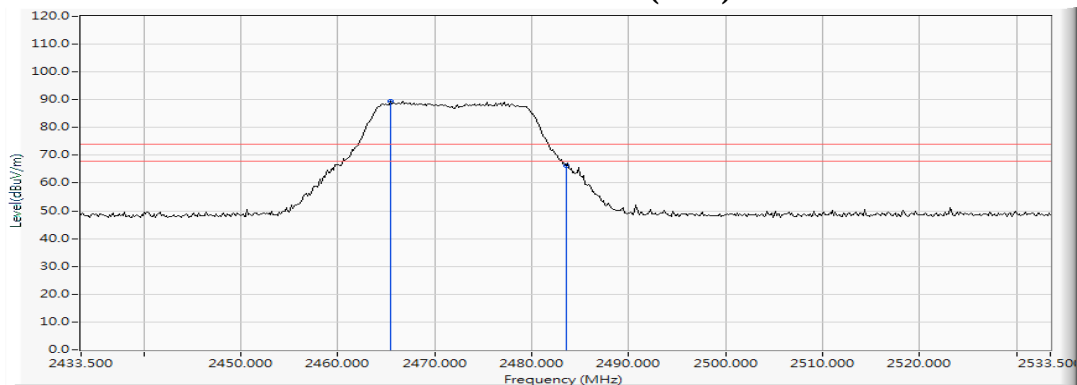
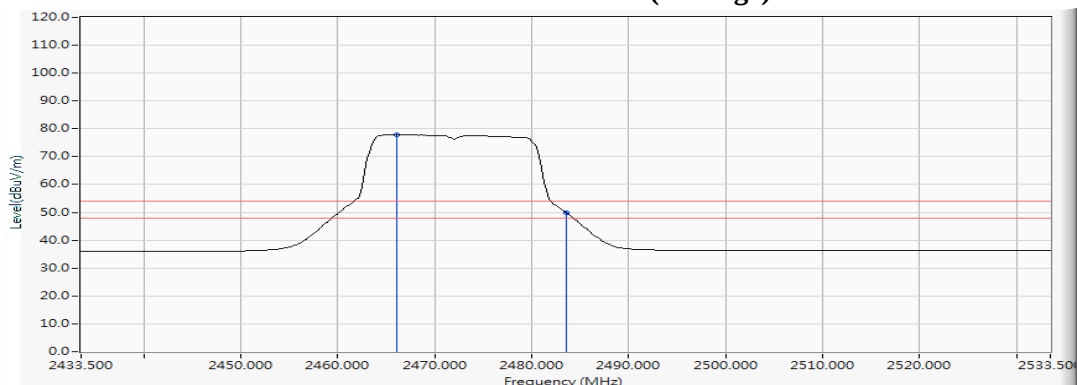
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2472MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
13 (Peak)	2465.384	12.351	76.967	89.318	--	--	--
13 (Peak)	2483.500	12.403	53.979	66.382	74.00	54.00	Pass
13 (Average)	2466.109	12.353	65.587	77.940	--	--	--
13 (Average)	2483.500	12.403	37.599	50.002	74.00	54.00	Pass

Figure Channel 12: VERTICAL (Peak)

Figure Channel 12: VERTICAL (Average)


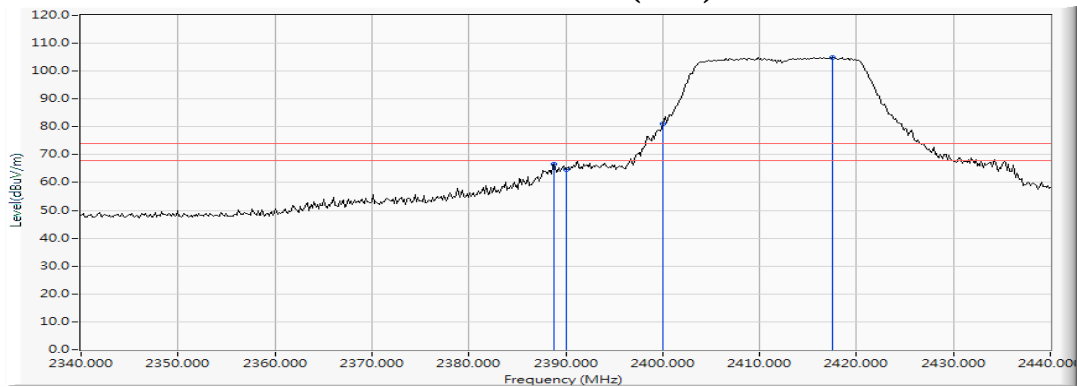
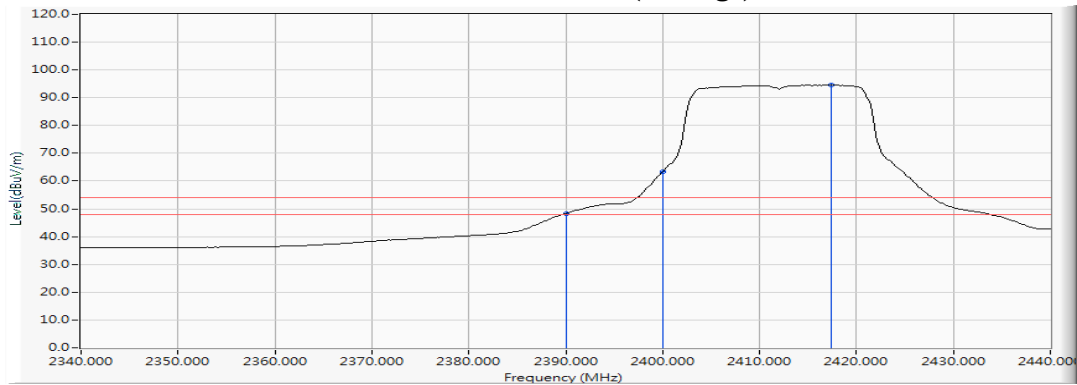
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
01 (Peak)	2388.841	12.145	54.493	66.638	74.00	54.00	Pass
01 (Peak)	2390.000	12.148	52.561	64.709	74.00	54.00	Pass
01 (Peak)	2400.000	12.176	69.010	81.186	--	--	Pass
01 (Peak)	2417.536	12.217	92.620	104.836	--	--	--
01 (Average)	2390.000	12.148	36.238	48.386	74.00	54.00	Pass
01 (Average)	2400.000	12.176	51.187	63.363	--	--	Pass
01 (Average)	2417.391	12.216	82.369	94.585	--	--	--

Figure Channel 01: Horizontal (Peak)

Figure Channel 01: Horizontal (Average)


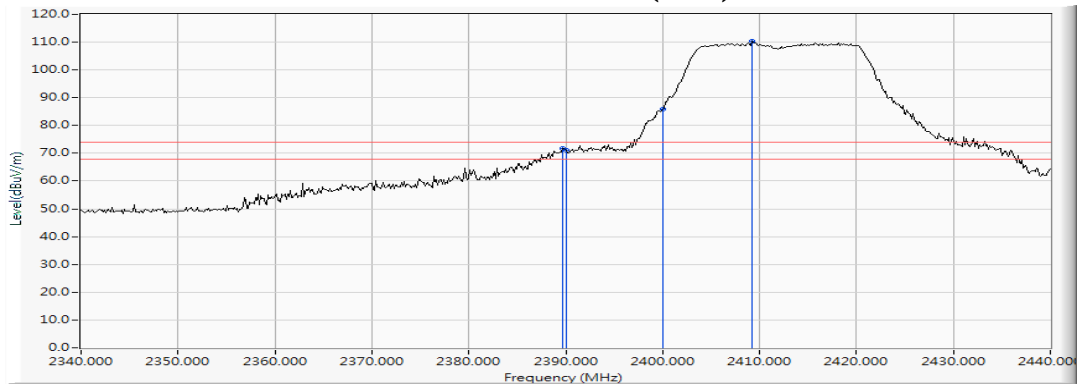
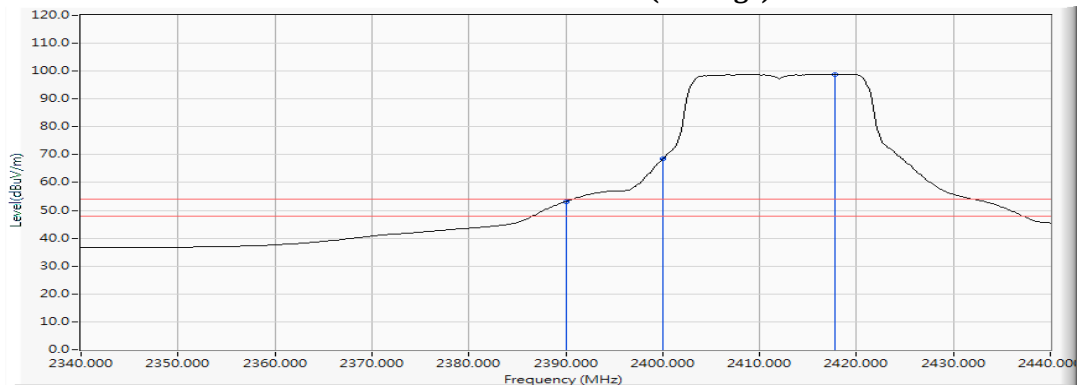
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
01 (Peak)	2389.710	12.147	59.637	71.784	74.00	54.00	Pass
01 (Peak)	2390.000	12.148	59.086	71.234	74.00	54.00	Pass
01 (Peak)	2400.000	12.176	73.756	85.932	--	--	Pass
01 (Peak)	2409.275	12.198	98.278	110.475	--	--	--
01 (Average)	2390.000	12.148	41.080	53.228	74.00	54.00	Pass
01 (Average)	2400.000	12.176	56.282	68.458	--	--	Pass
01 (Average)	2417.826	12.218	86.710	98.927	--	--	--

Figure Channel 01:
VERTICAL (Peak)

Figure Channel 01:
VERTICAL (Average)


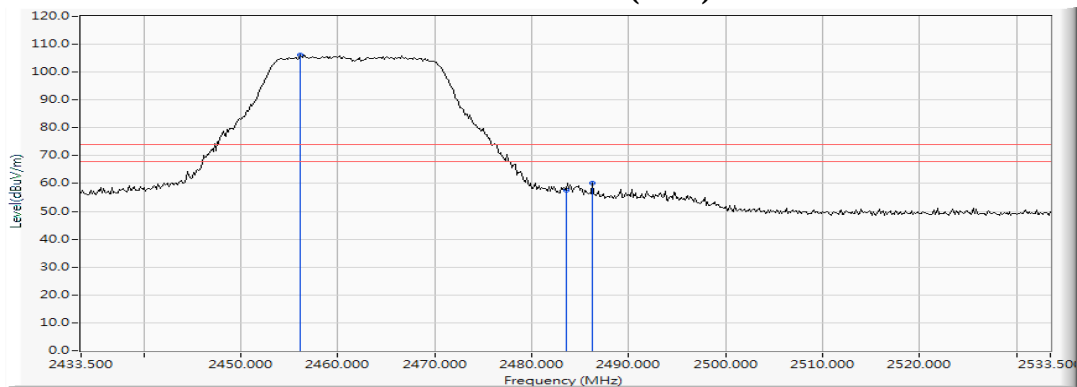
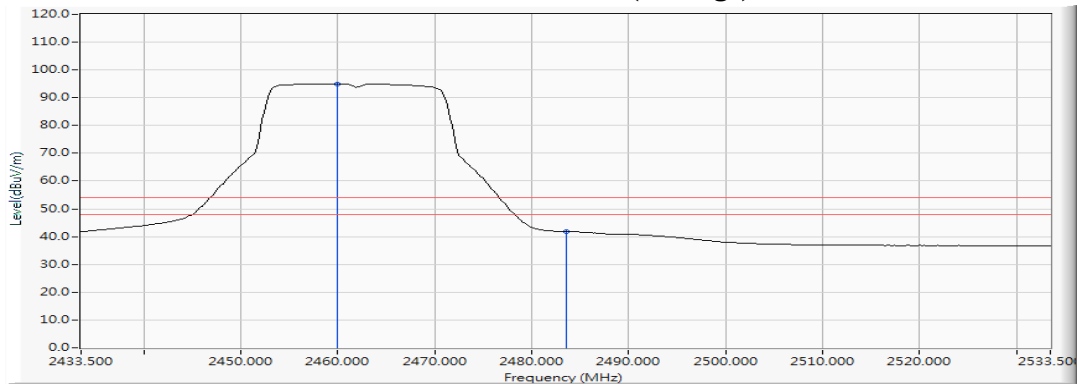
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
11 (Peak)	2456.109	12.325	93.758	106.083	--	--	--
11 (Peak)	2483.500	12.403	45.123	57.526	74.00	54.00	Pass
11 (Peak)	2486.254	12.411	47.671	60.081	74.00	54.00	Pass
11 (Average)	2459.877	12.335	82.688	95.023	--	--	--
11 (Average)	2483.500	12.403	29.451	41.854	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)**Figure Channel 11: Horizontal (Average)**

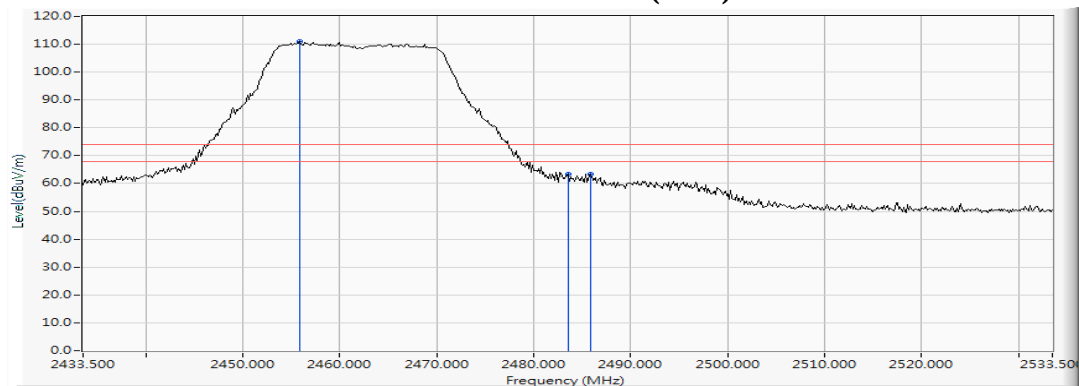
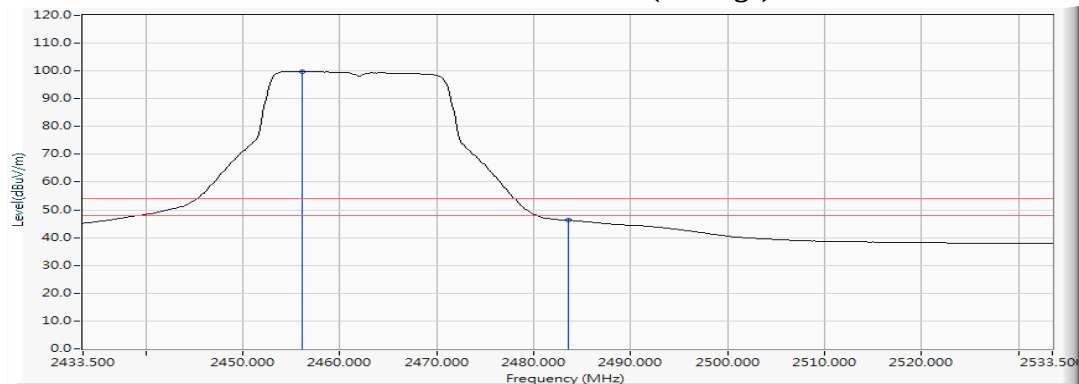
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
11 (Peak)	2455.819	12.324	98.571	110.895	--	--	--
11 (Peak)	2483.500	12.403	51.004	63.407	74.00	54.00	Pass
11 (Peak)	2485.819	12.409	51.018	63.427	74.00	54.00	Pass
11 (Average)	2456.109	12.325	87.472	99.797	--	--	--
11 (Average)	2483.500	12.403	33.832	46.235	74.00	54.00	Pass

Figure Channel 11: VERTICAL (Peak)**Figure Channel 11: VERTICAL (Average)**

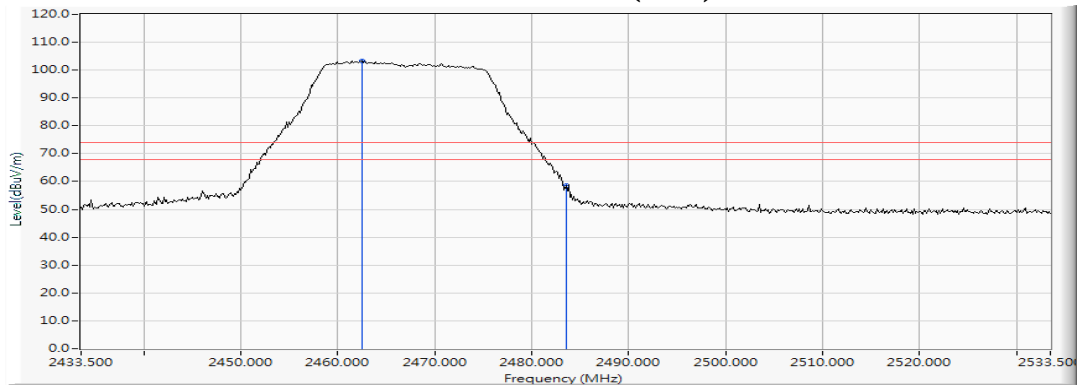
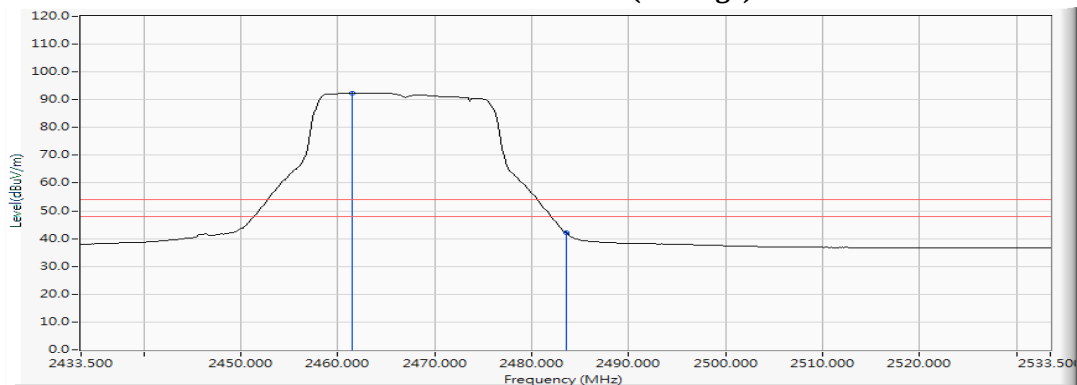
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2467MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
12 (Peak)	2462.486	12.343	90.903	103.246	--	--	--
12 (Peak)	2483.500	12.403	46.112	58.515	74.00	54.00	Pass
12 (Average)	2461.471	12.340	80.027	92.367	--	--	--
12 (Average)	2483.500	12.403	29.741	42.144	74.00	54.00	Pass

Figure Channel 12:**Horizontal (Peak)****Figure Channel 12:****Horizontal (Average)**

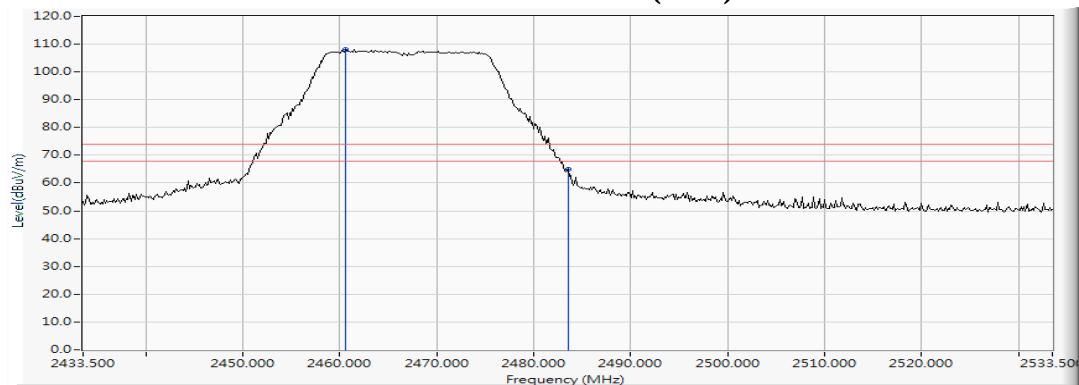
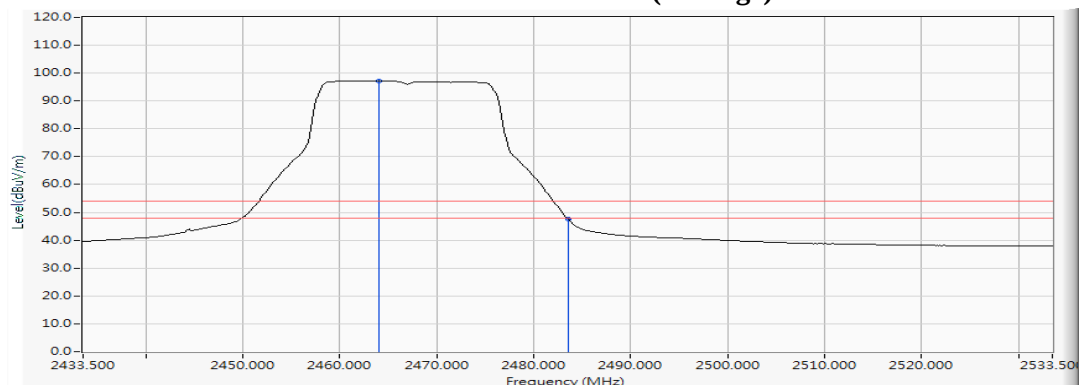
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2467MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
12 (Peak)	2460.601	12.337	95.821	108.159	--	--	--
12 (Peak)	2483.500	12.403	52.710	65.113	74.00	54.00	Pass
12 (Average)	2464.080	12.347	84.842	97.189	--	--	--
12 (Average)	2483.500	12.403	35.265	47.668	74.00	54.00	Pass

Figure Channel 12: VERTICAL (Peak)**Figure Channel 12: VERTICAL (Average)**

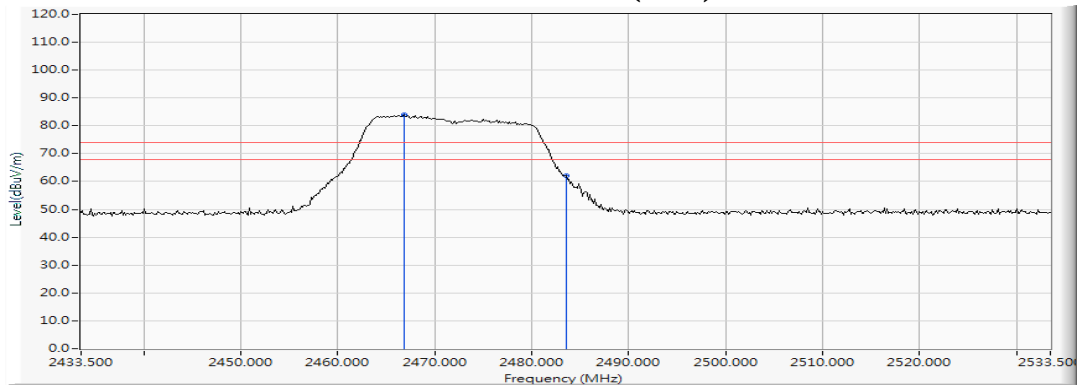
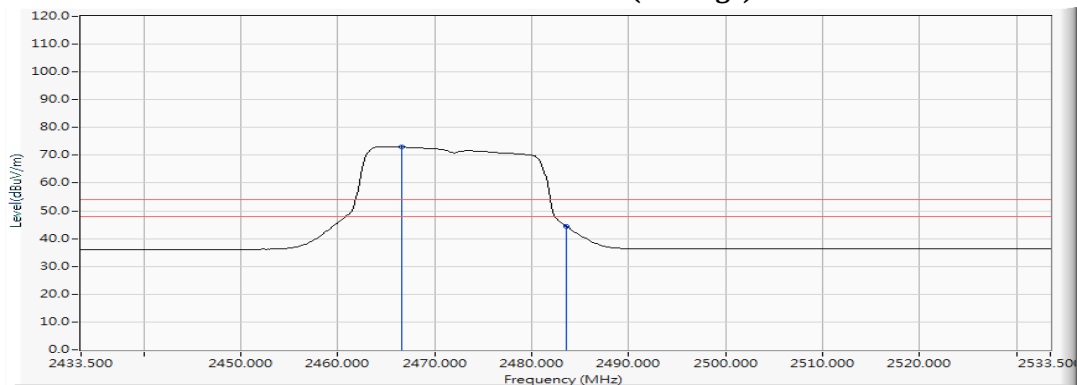
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2472MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
12 (Peak)	2466.833	12.355	71.576	83.931	--	--	--
12 (Peak)	2483.500	12.403	49.714	62.117	74.00	54.00	Pass
12 (Average)	2466.543	12.354	60.702	73.056	--	--	--
12 (Average)	2483.500	12.403	32.152	44.555	74.00	54.00	Pass

Figure Channel 12: Horizontal (Peak)

Figure Channel 12: Horizontal (Average)


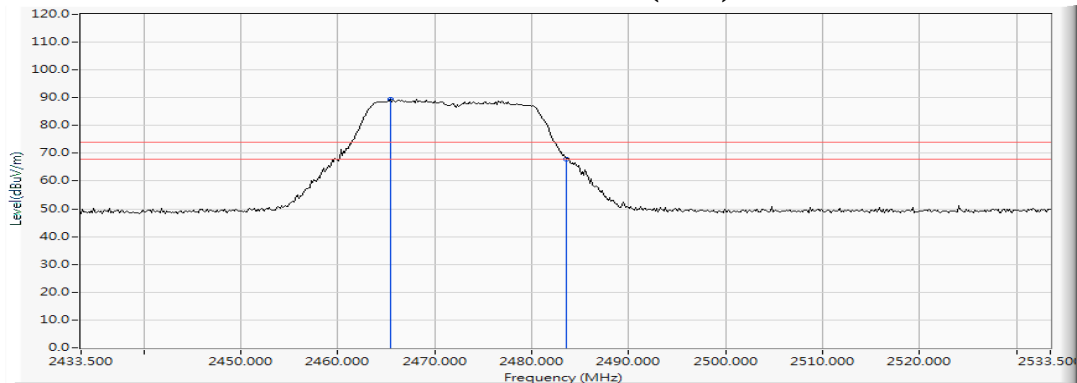
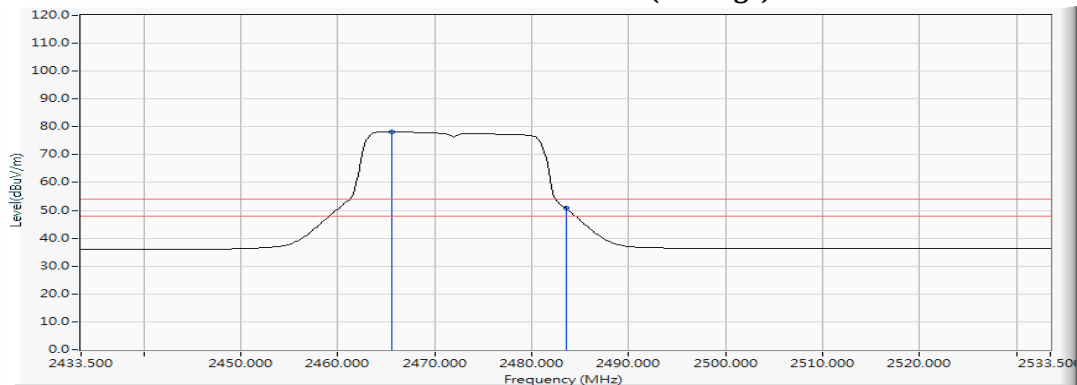
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2472MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
12 (Peak)	2465.384	12.351	77.184	89.535	--	--	--
12 (Peak)	2483.500	12.403	55.466	67.869	74.00	54.00	Pass
12 (Average)	2465.529	12.352	65.830	78.181	--	--	--
12 (Average)	2483.500	12.403	38.295	50.698	74.00	54.00	Pass

Figure Channel 12: VERTICAL (Peak)

Figure Channel 12: VERTICAL (Average)


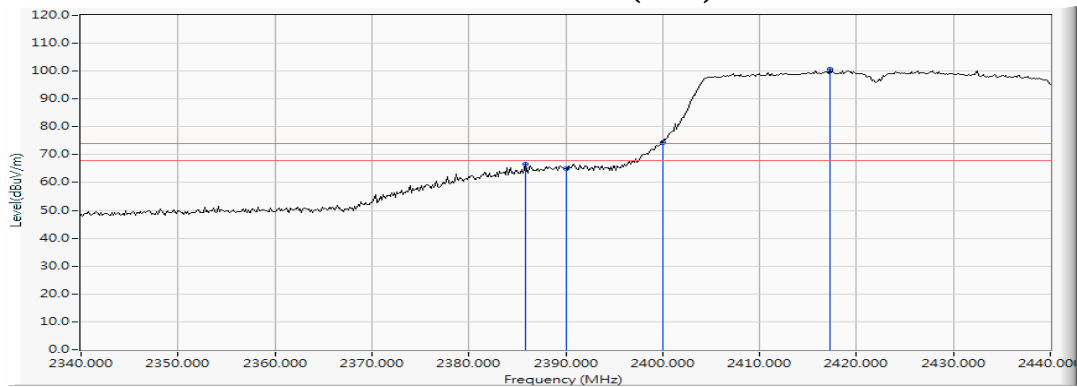
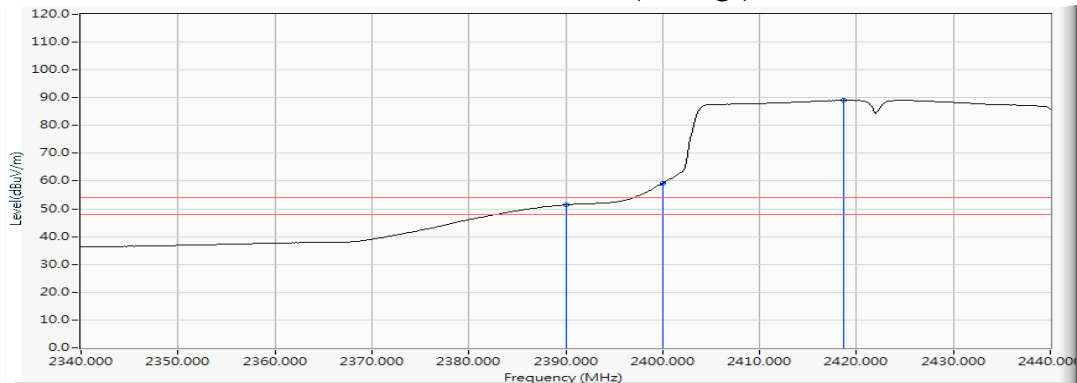
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2422MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
03 (Peak)	2385.797	12.136	54.570	66.706	74.00	54.00	Pass
03 (Peak)	2390.000	12.148	52.838	64.986	74.00	54.00	Pass
03 (Peak)	2400.000	12.176	62.171	74.347	--	--	Pass
03 (Peak)	2417.246	12.215	88.554	100.770	--	--	--
03 (Average)	2390.000	12.148	39.284	51.432	74.00	54.00	Pass
03 (Average)	2400.000	12.176	47.054	59.230	--	--	Pass
03 (Average)	2418.696	12.219	76.817	89.036	--	--	--

Figure Channel 03: Horizontal (Peak)

Figure Channel 03: Horizontal (Average)


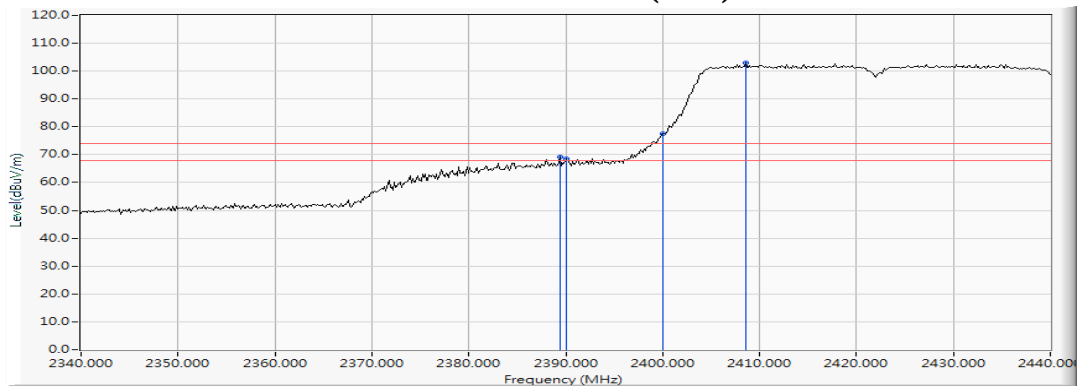
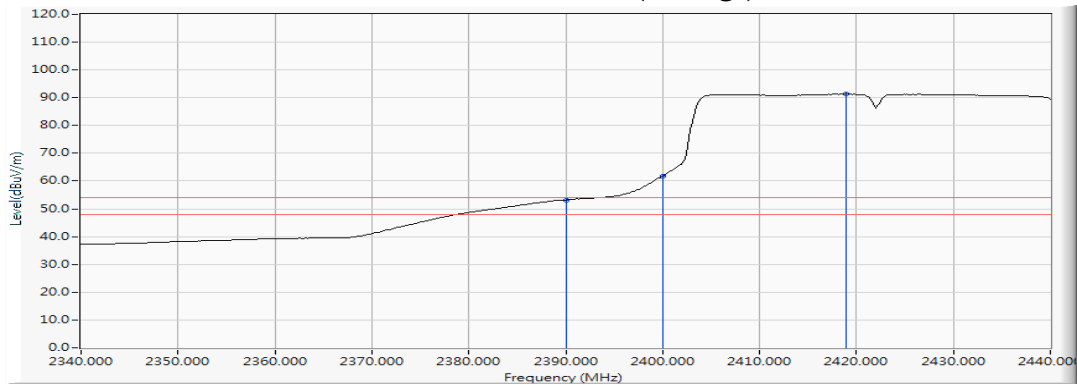
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2422MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
03 (Peak)	2389.420	12.147	57.007	69.153	74.00	54.00	Pass
03 (Peak)	2390.000	12.148	56.239	68.387	74.00	54.00	Pass
03 (Peak)	2400.000	12.176	65.229	77.405	--	--	Pass
03 (Peak)	2408.551	12.196	90.815	103.011	--	--	--
03 (Average)	2390.000	12.148	41.092	53.240	74.00	54.00	Pass
03 (Average)	2400.000	12.176	49.690	61.866	--	--	Pass
03 (Average)	2418.986	12.219	79.052	91.272	--	--	--

Figure Channel 03:
VERTICAL (Peak)

Figure Channel 03:
VERTICAL (Average)


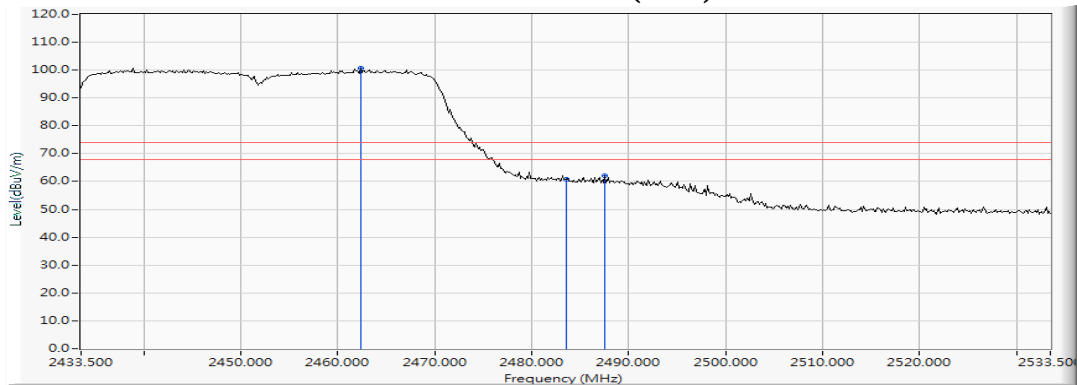
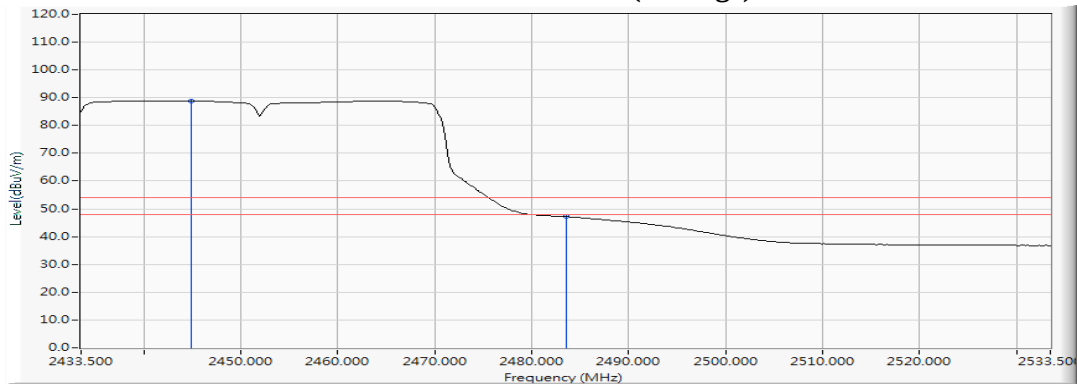
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2452MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
09 (Peak)	2462.341	12.342	88.228	100.570	--	--	--
09 (Peak)	2483.500	12.403	48.465	60.868	74.00	54.00	Pass
09 (Peak)	2487.558	12.414	49.619	62.033	74.00	54.00	Pass
09 (Average)	2444.804	12.293	76.532	88.825	--	--	--
09 (Average)	2483.500	12.403	34.807	47.210	74.00	54.00	Pass

Figure Channel 09:**Horizontal (Peak)****Figure Channel 09:****Horizontal (Average)**

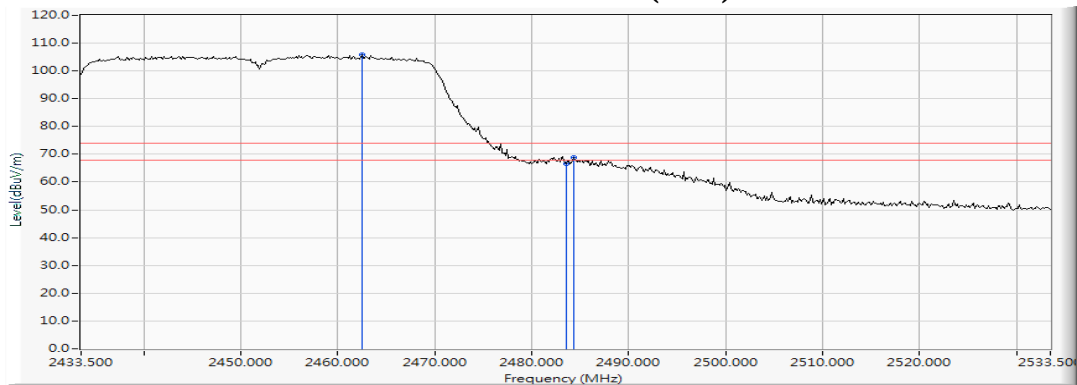
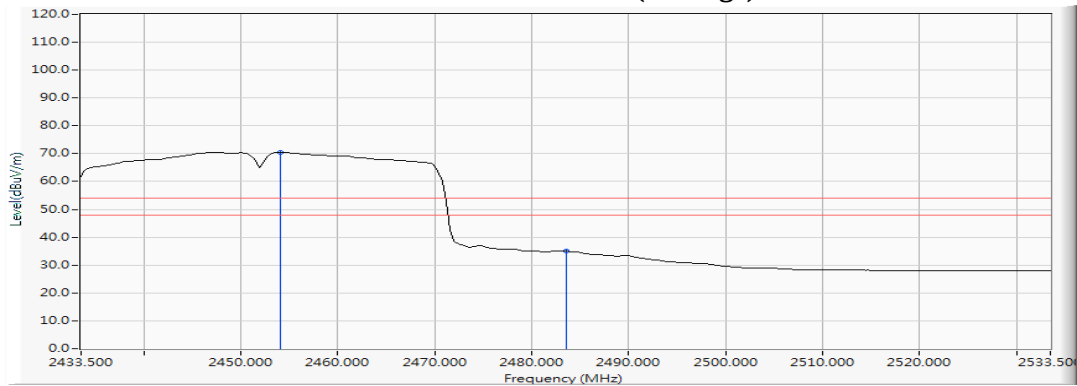
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2452MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
09 (Peak)	2462.486	12.343	93.519	105.862	--	--	--
09 (Peak)	2483.500	12.403	54.304	66.707	74.00	54.00	Pass
09 (Peak)	2484.370	12.405	56.544	68.949	74.00	54.00	Pass
09 (Average)	2455.529	12.324	81.940	94.263	--	--	--
09 (Average)	2483.500	12.403	40.812	53.215	74.00	54.00	Pass

Figure Channel 09: VERTICAL (Peak)

Figure Channel 09: VERTICAL (Average)


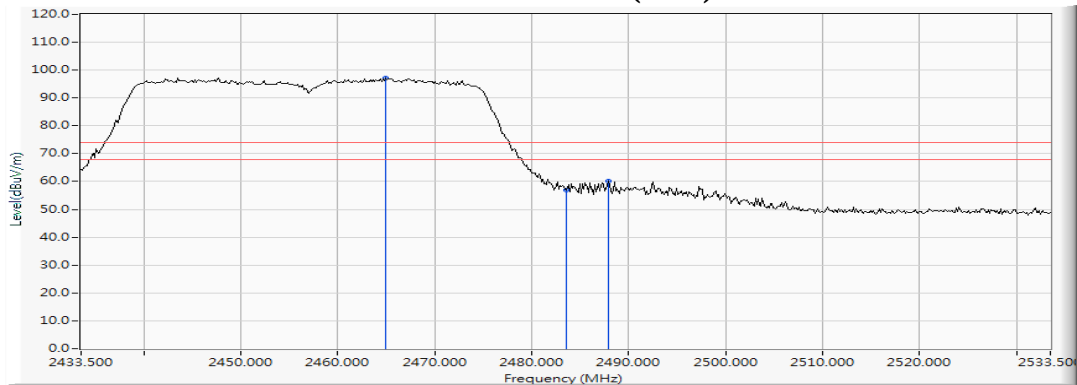
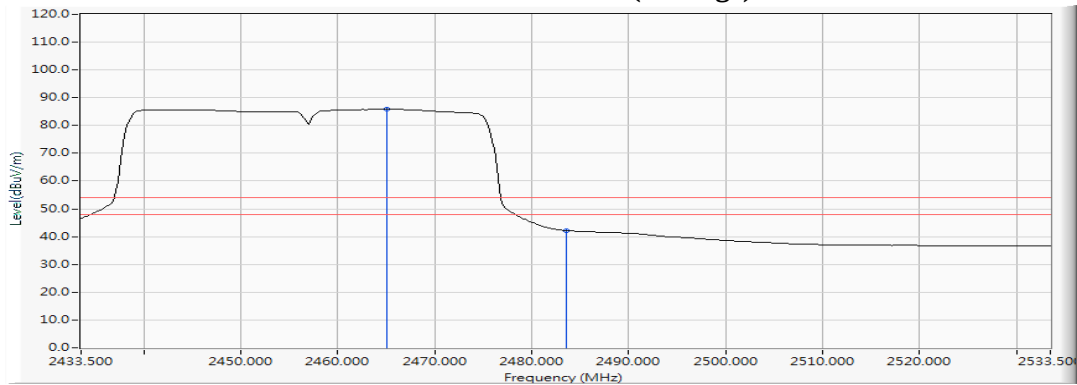
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2457MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
10 (Peak)	2464.949	12.350	84.861	97.211	--	--	--
10 (Peak)	2483.500	12.403	44.605	57.008	74.00	54.00	Pass
10 (Peak)	2487.848	12.415	47.801	60.216	74.00	54.00	Pass
10 (Average)	2465.094	12.350	73.542	85.892	--	--	--
10 (Average)	2483.500	12.403	29.822	42.225	74.00	54.00	Pass

Figure Channel 10:**Horizontal (Peak)****Figure Channel 10:****Horizontal (Average)**

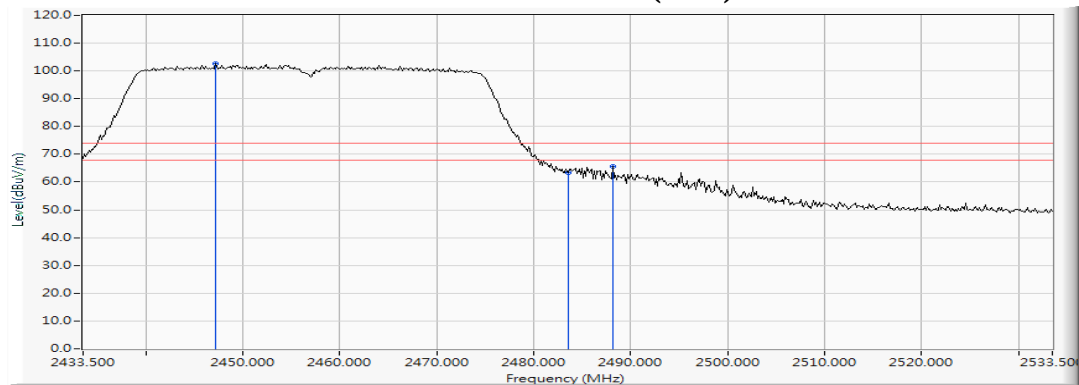
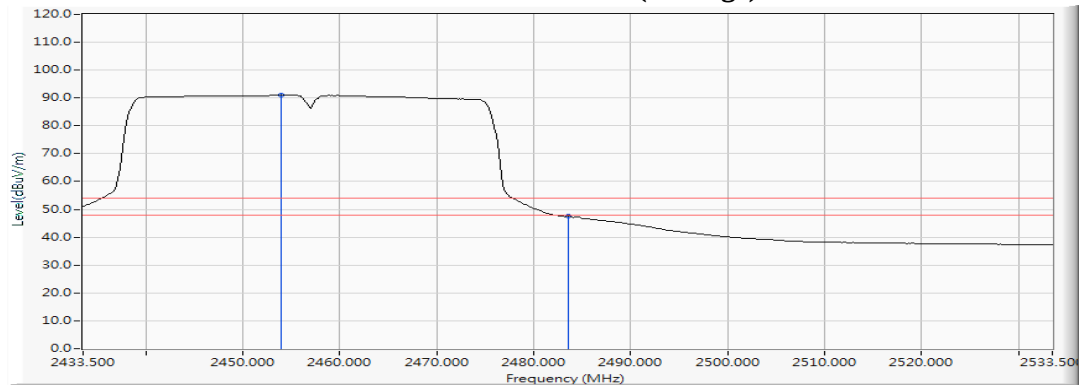
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2457MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
10 (Peak)	2447.123	12.299	90.376	102.675	--	--	--
10 (Peak)	2483.500	12.403	50.910	63.313	74.00	54.00	Pass
10 (Peak)	2488.138	12.415	53.218	65.633	74.00	54.00	Pass
10 (Average)	2453.935	12.319	78.674	90.993	--	--	--
10 (Average)	2483.500	12.403	35.173	47.576	74.00	54.00	Pass

Figure Channel 10: VERTICAL (Peak)

Figure Channel 10: VERTICAL (Average)


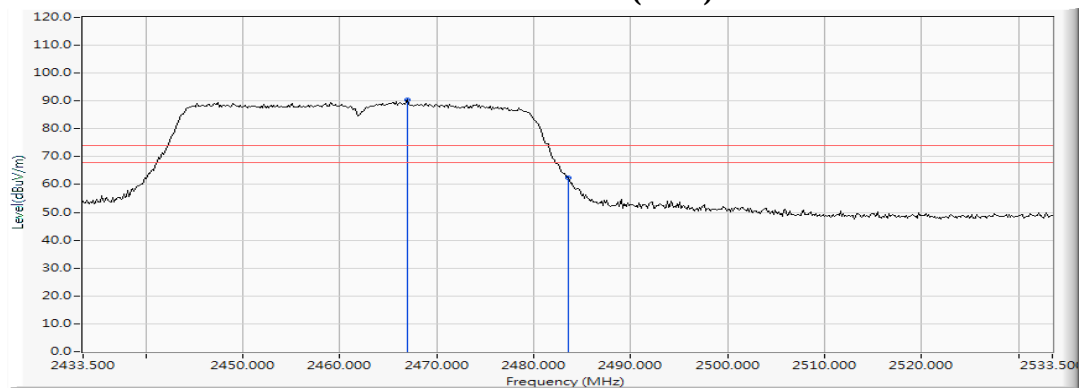
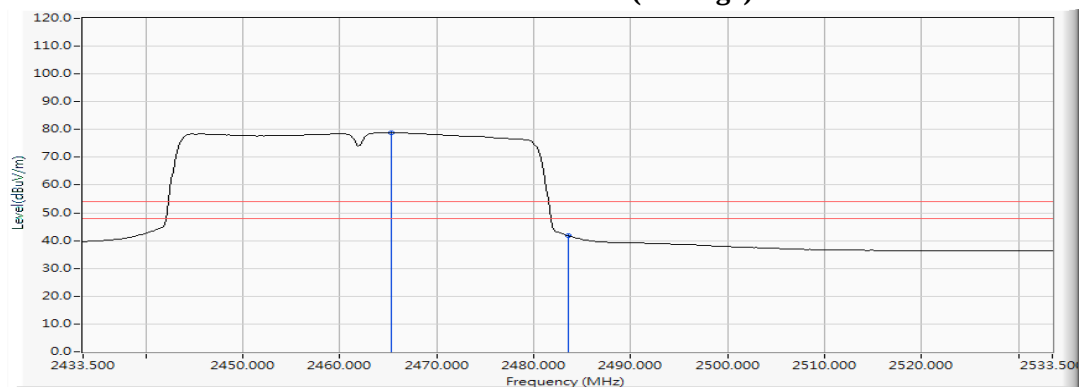
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2462MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
11 (Peak)	2466.978	12.355	77.898	90.253	--	--	--
11 (Peak)	2483.500	12.403	50.167	62.570	74.00	54.00	Pass
11 (Average)	2465.239	12.351	66.454	78.805	--	--	--
11 (Average)	2483.500	12.403	29.386	41.789	74.00	54.00	Pass

Figure Channel 11:**Horizontal (Peak)****Figure Channel 11:****Horizontal (Average)**

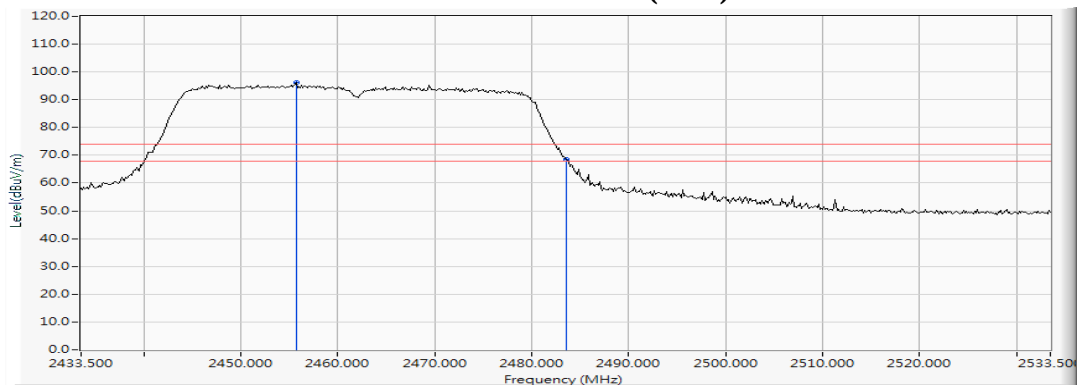
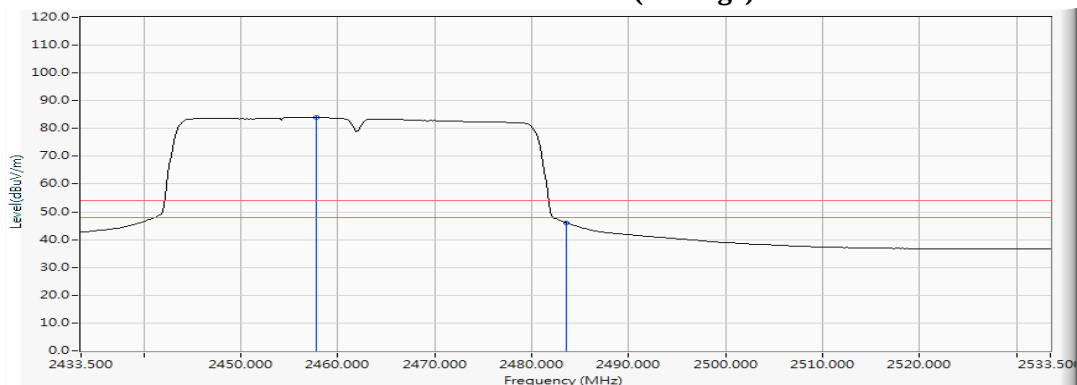
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge Data
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2462MHz)
 Test Date : 2017/12/26

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
11 (Peak)	2455.674	12.324	84.004	96.328	--	--	--
11 (Peak)	2483.500	12.403	55.964	68.367	74.00	54.00	Pass
11 (Average)	2457.703	12.329	71.667	83.996	--	--	--
11 (Average)	2483.500	12.403	33.634	46.037	74.00	54.00	Pass

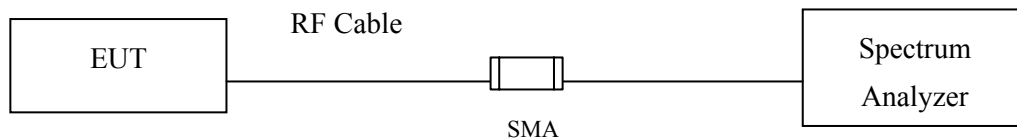
Figure Channel 11: VERTICAL (Peak)

Figure Channel 11: VERTICAL (Average)


Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

5. Duty Cycle

5.1. Test Setup



5.2. Test Procedure

The EUT was setup according to ANSI C63.10 2013; tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

5.3. Uncertainty

$\pm 2.31\text{msec}$

5.4. Test Result of Duty Cycle

Product : Intel® Wireless-AC 9461
 Test Item : Duty Cycle
 Test Mode : Transmit

Duty Cycle Formula:

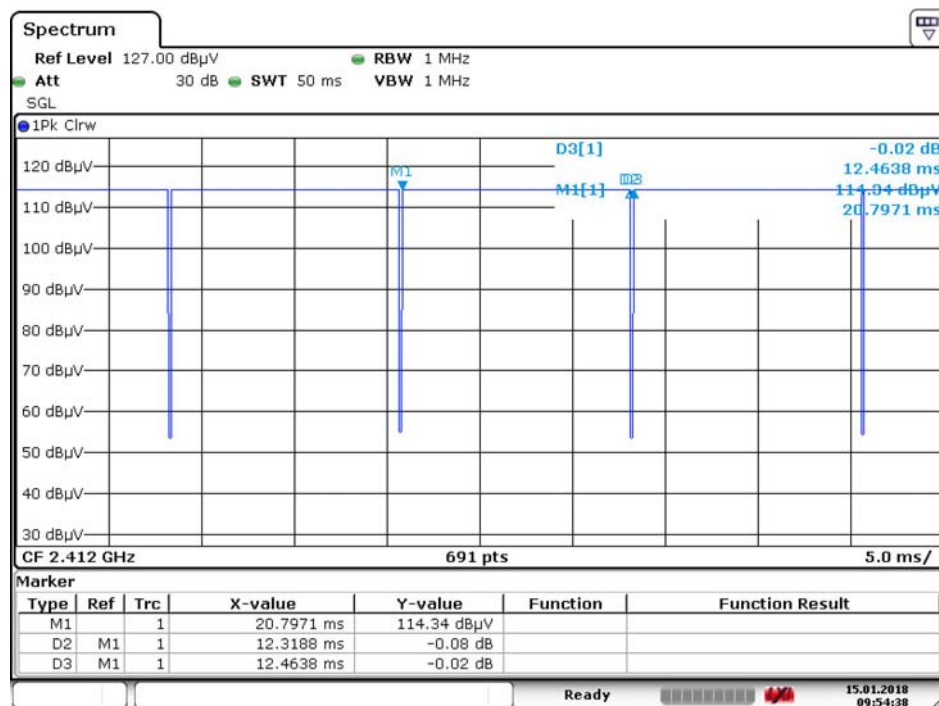
Duty Cycle = $T_{on} / (T_{on} + T_{off})$

Duty Factor = 10 Log (1/Duty Cycle)

Results:

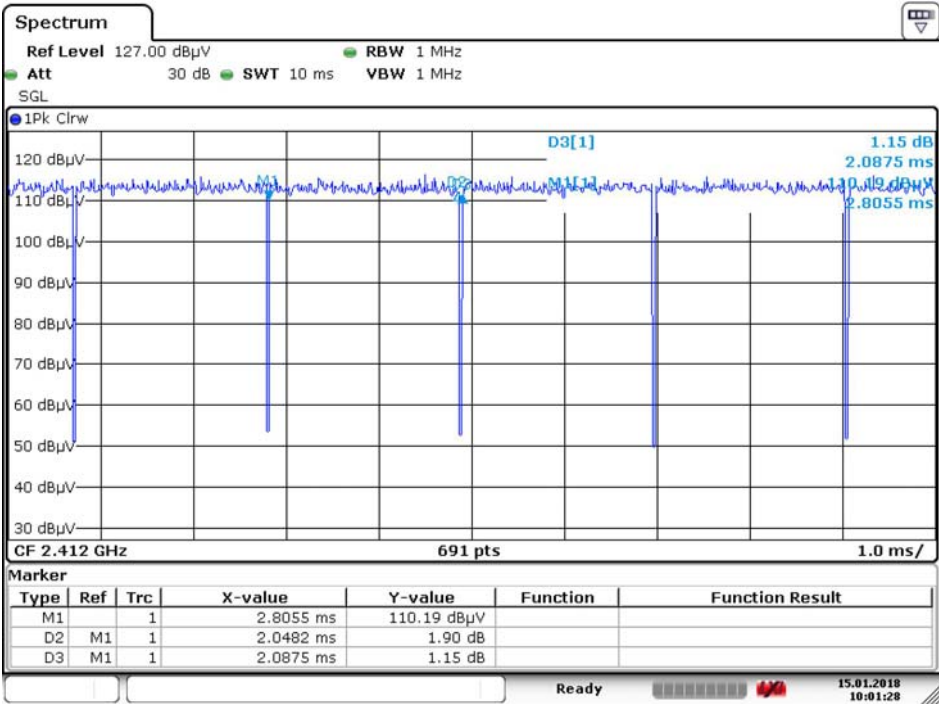
2.4GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11b	12.3188	12.4638	98.84	0.05
802.11g	2.0482	2.0875	98.12	0.08
802.11n20	37.0482	37.1600	99.70	0.01
802.11n40	17.8453	18.0295	98.98	0.04

802.11b



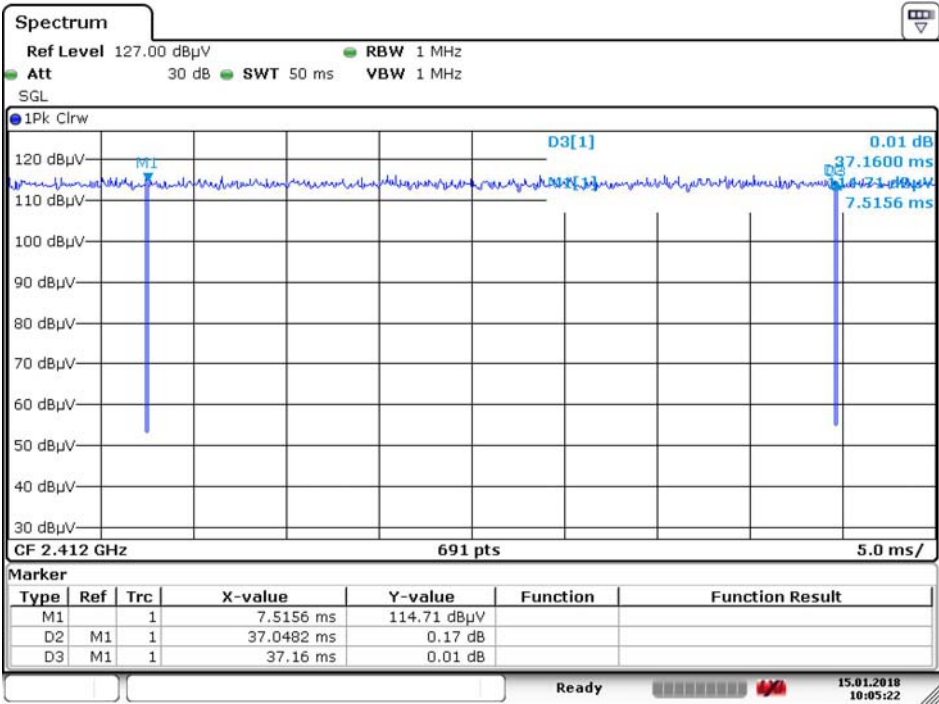
Date: 15. JAN. 2018 09:54:38

802.11g



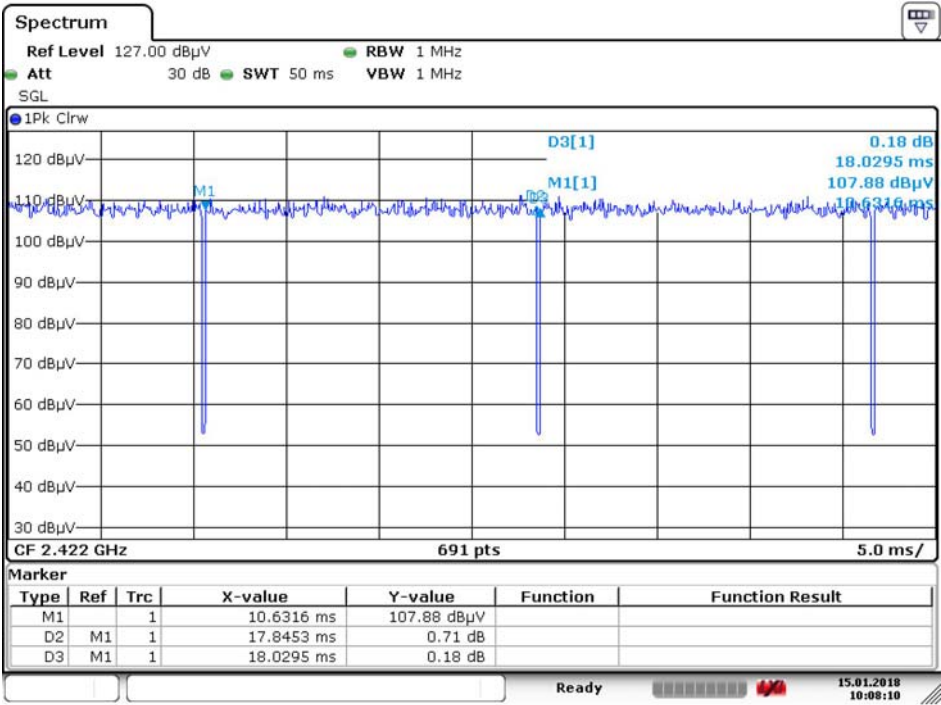
Date: 15.JAN.2018 10:01:28

802.11n20



Date: 15.JAN.2018 10:05:22

802.11n40



Date: 15 JAN 2018 10:08:11

6. EMI Reduction Method During Compliance Testing

No modification was made during testing.