

FCC Test Report

(Class II Permissive Change)

Product Name	Intel® Wireless-AC 9461
Model No.	9461D2W
FCC ID.	PD99461D2

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

Date of Receipt	Sep. 21, 2017
Issued Date	Jan. 24, 2018
Report No.	1790287R-RFUSP23V00
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 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

Issued Date: Jan. 24, 2018

Report No.: 1790287R-RFUSP23V00



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.	9461D2W
FCC ID.	PD99461D2
EUT Rated Voltage	DC 3.3V
EUT Test Voltage	AC110/60Hz
Trade Name	Intel
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2015 ANSI C63.4: 2014, ANSI C63.10: 2013
Test Result	Complied

Documented By :

Jinn Chen

(Senior Adm. Specialist / Jinn Chen)

Tested By :

Bill Lin

(Engineer / Bill Lin)

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 Equipment.....	9
2. PEAK POWER OUTPUT	10
2.1. Test Setup	10
2.2. Limit	10
2.3. Test Procedure	10
2.4. Uncertainty	10
2.5. Test Result of Peak Power Output	11
3. RADIATED EMISSION	14
3.1. Test Setup	14
3.2. Limits.....	15
3.3. Test Procedure	16
3.4. Uncertainty	16
3.5. Test Result of Radiated Emission.....	17
4. BAND EDGE	29
4.1. Test Setup	29
4.2. Limit	29
4.3. Test Procedure	30
4.4. Uncertainty	30
4.5. Test Result of Band Edge	31
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.	9461D2W
FCC ID.	PD99461D2
Frequency Range	2402-2480MHz
Channel Number	79
Type of Modulation	FHSS: GFSK(1Mbps) / π /4DQPSK(2Mbps) / 8DPSK(3Mbps)
Antenna Type	Dipole Antenna
Channel Control	Auto
Antenna Gain	Refer to the table “Antenna List”

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 conforms to FCC 15.203.

Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00:	2402 MHz	Channel 20:	2422 MHz	Channel 40:	2442 MHz	Channel 60:	2462 MHz
Channel 01:	2403 MHz	Channel 21:	2423 MHz	Channel 41:	2443 MHz	Channel 61:	2463 MHz
Channel 02:	2404 MHz	Channel 22:	2424 MHz	Channel 42:	2444 MHz	Channel 62:	2464 MHz
Channel 03:	2405 MHz	Channel 23:	2425 MHz	Channel 43:	2445 MHz	Channel 63:	2465 MHz
Channel 04:	2406 MHz	Channel 24:	2426 MHz	Channel 44:	2446 MHz	Channel 64:	2466 MHz
Channel 05:	2407 MHz	Channel 25:	2427 MHz	Channel 45:	2447 MHz	Channel 65:	2467 MHz
Channel 06:	2408 MHz	Channel 26:	2428 MHz	Channel 46:	2448 MHz	Channel 66:	2468 MHz
Channel 07:	2409 MHz	Channel 27:	2429 MHz	Channel 47:	2449 MHz	Channel 67:	2469 MHz
Channel 08:	2410 MHz	Channel 28:	2430 MHz	Channel 48:	2450 MHz	Channel 68:	2470 MHz
Channel 09:	2411 MHz	Channel 29:	2431 MHz	Channel 49:	2451 MHz	Channel 69:	2471 MHz
Channel 10:	2412 MHz	Channel 30:	2432 MHz	Channel 50:	2452 MHz	Channel 70:	2472 MHz
Channel 11:	2413 MHz	Channel 31:	2433 MHz	Channel 51:	2453 MHz	Channel 71:	2473 MHz
Channel 12:	2414 MHz	Channel 32:	2434 MHz	Channel 52:	2454 MHz	Channel 72:	2474 MHz
Channel 13:	2415 MHz	Channel 33:	2435 MHz	Channel 53:	2455 MHz	Channel 73:	2475 MHz
Channel 14:	2416 MHz	Channel 34:	2436 MHz	Channel 54:	2456 MHz	Channel 74:	2476 MHz
Channel 15:	2417 MHz	Channel 35:	2437 MHz	Channel 55:	2457 MHz	Channel 75:	2477 MHz
Channel 16:	2418 MHz	Channel 36:	2438 MHz	Channel 56:	2458 MHz	Channel 76:	2478 MHz
Channel 17:	2419 MHz	Channel 37:	2439 MHz	Channel 57:	2459 MHz	Channel 77:	2479 MHz
Channel 18:	2420 MHz	Channel 38:	2440 MHz	Channel 58:	2460 MHz	Channel 78:	2480 MHz
Channel 19:	2421 MHz	Channel 39:	2441 MHz	Channel 59:	2461 MHz		

Note:

1. The EUT is an Intel® Wireless-AC 9461 with a built-in 802.11 a/b/g/n/ac Wireless LAN + BDR/EDR 2.1 + BLE 5.0 transceiver, this report for Bluetooth BDR/EDR 2.1.
2. These tests were conducted on a sample for the purpose of demonstrating compliance of Bluetooth transmitter with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test
4. This is to request a Class II permissive change for FCC ID: PD99461D2, originally granted on 10/06/2017.

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 - 1Mbps Mode 2: Transmit - 2Mbps Mode 3: Transmit - 3Mbps
-----------	--

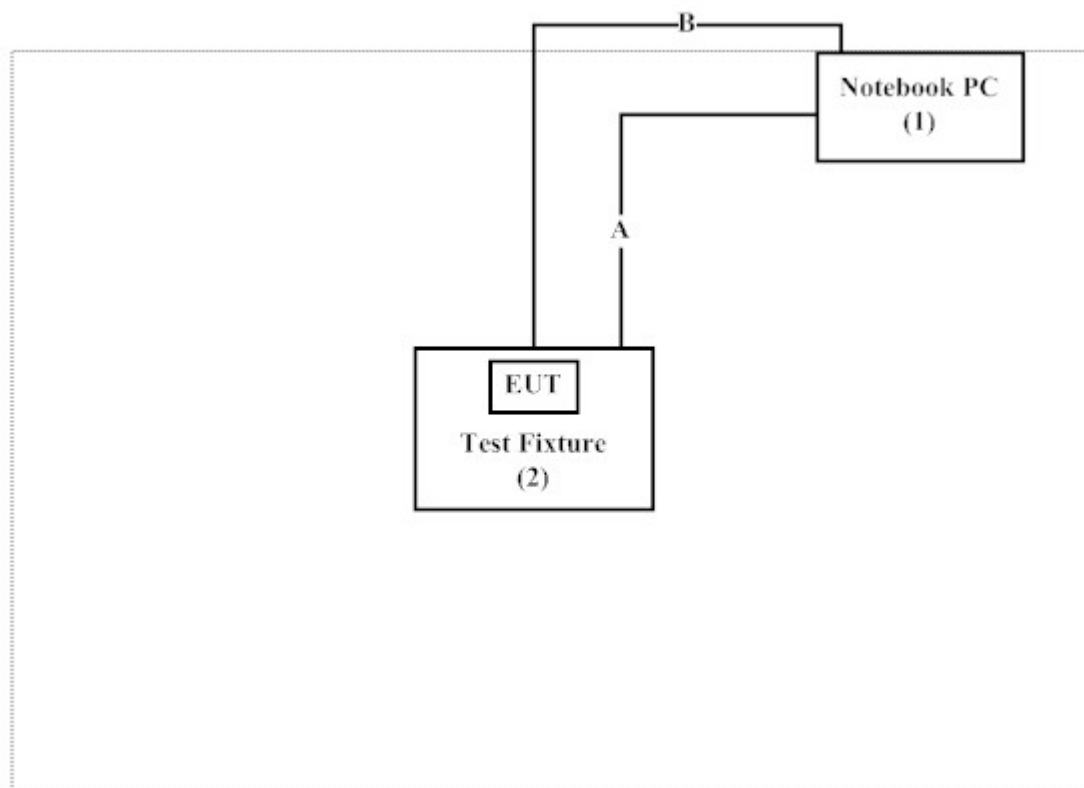
1.3. Tested System Details

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	P62G	9TSGJC2	Non-Shielded, 1.8m
2	Test Fixture	Intel	N/A	N/A	N/A

Signal Cable Type		Signal cable Description
A	USB Cable	Shielded, 1.8m
B	Single Cable	Non-Shielded, 1.0m

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 (Ver 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.aspx

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 Equipment

For Conducted measurements /ASR4

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	R&S	FSV30	103465	2017.01.24	2018.01.23
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
	Bluetooth Tester	R&S	CBT	101238	2018.01.18	2019.01.17

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

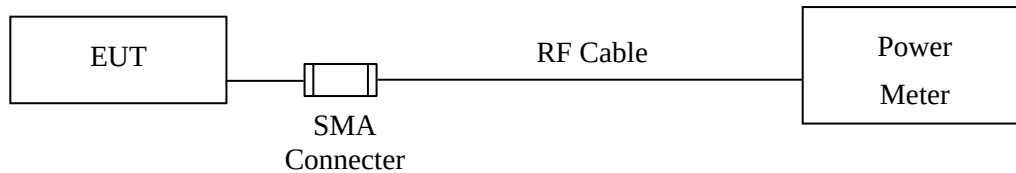
	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Loop Antenna	TESEQ	HLA6121	37133	2016.03.18	2018.03.17
X	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-674	2017.02.13	2018.02.12
X	Horn Antenna	ETS-Lindgren	3117	00203800	2017.11.10	2018.11.09
X	Horn Antenna	Com-Power	AH-840	101087	2017.05.24	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. Loop Antenna is calibrated every two year, the other 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. Limit

The maximum peak power shall be less 1Watt.

2.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

2.4. Uncertainty

± 0.86 dB

2.5. Test Result of Peak Power Output

Product : Intel® Wireless-AC 9461
Test Item : Peak Power Output
Test date : 2018/01/19
Test Mode : Mode 1: Transmit - 1Mbps

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402.00	9.96	1 Watt= 30 dBm	Pass
Channel 39	2441.00	10.35	1 Watt= 30 dBm	Pass
Channel 78	2480.00	10.52	1 Watt= 30 dBm	Pass

Product : Intel® Wireless-AC 9461
Test Item : Peak Power Output
Test date : 2018/01/19
Test Mode : Mode 2: Transmit - 2Mbps

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402.00	9.73	1 Watt= 30 dBm	Pass
Channel 39	2441.00	10.07	1 Watt= 30 dBm	Pass
Channel 78	2480.00	10.24	1 Watt= 30 dBm	Pass

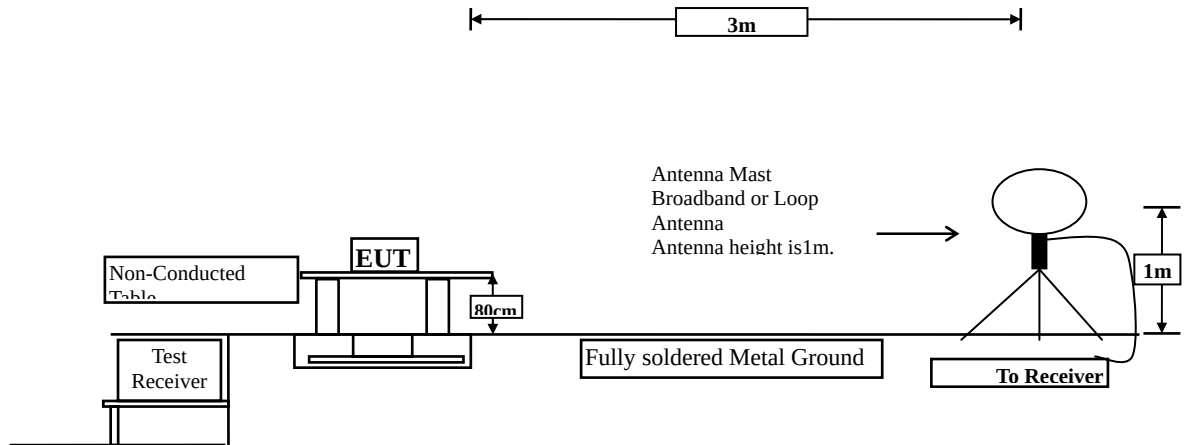
Product : Intel® Wireless-AC 9461
Test Item : Peak Power Output
Test date : 2018/01/19
Test Mode : Mode 3: Transmit - 3Mbps

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402.00	9.72	1 Watt= 30 dBm	Pass
Channel 39	2441.00	10.13	1 Watt= 30 dBm	Pass
Channel 78	2480.00	10.25	1 Watt= 30 dBm	Pass

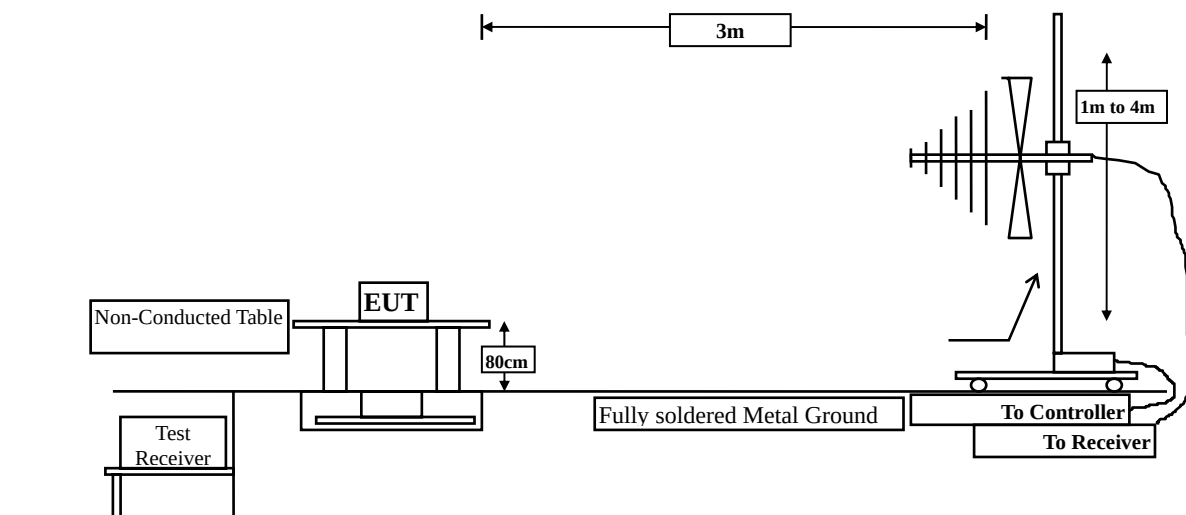
3. Radiated Emission

3.1. Test Setup

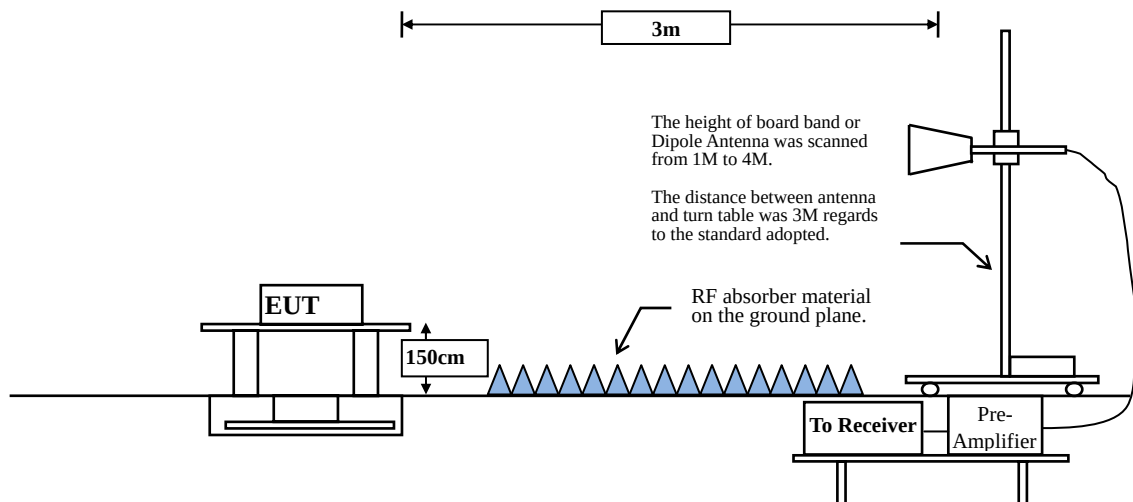
Radiated Emission Under 30MHz



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 (dBμV) = 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 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 worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

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

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
 Test date : 2018/01/17
 Test Mode : Mode 1: Transmit - 1Mbps (2402MHz)

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:					
4804.000	-2.875	45.050	42.176	-31.824	74.000
7206.000	0.384	44.380	44.764	-29.236	74.000
9608.000	2.338	43.150	45.488	-28.512	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4804.000	-2.875	45.480	42.606	-31.394	74.000
7206.000	0.384	44.220	44.604	-29.396	74.000
9608.000	2.338	43.490	45.828	-28.172	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. 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
 Test date : 2018/01/17
 Test Mode : Mode 1: Transmit - 1Mbps (2441MHz)

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:					
4882.000	-2.812	45.310	42.498	-31.502	74.000
7323.000	0.464	45.270	45.734	-28.266	74.000
9764.000	2.615	43.950	46.564	-27.436	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4882.000	-2.812	45.070	42.258	-31.742	74.000
7323.000	0.464	44.750	45.214	-28.786	74.000
9764.000	2.615	43.880	46.494	-27.506	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. 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
 Test date : 2018/01/17
 Test Mode : Mode 1: Transmit - 1Mbps (2480MHz)

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:					
4960.000	-2.791	45.350	42.559	-31.441	74.000
7440.000	0.499	44.080	44.579	-29.421	74.000
9920.000	2.917	43.670	46.587	-27.413	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4960.000	-2.791	47.340	44.549	-29.451	74.000
7440.000	0.499	47.510	48.009	-25.991	74.000
9920.000	2.917	43.290	46.207	-27.793	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. 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
 Test date : 2018/01/17
 Test Mode : Mode 2: Transmit - 2Mbps (2402MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level	dB	dBμV/m
	dB	dBμV	dBμV/m		
Horizontal					
Peak Detector:					
4804.000	-2.875	50.650	47.776	-26.224	74.000
7206.000	0.384	44.710	45.094	-28.906	74.000
9608.000	2.338	43.950	46.288	-27.712	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4804.000	-2.875	53.880	51.006	-22.994	74.000
7206.000	0.384	44.510	44.894	-29.106	74.000
9608.000	2.338	43.730	46.068	-27.932	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. 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
 Test date : 2018/01/17
 Test Mode : Mode 2: Transmit - 2Mbps (2441MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4882.000	-2.812	50.860	48.048	-25.952	74.000
7323.000	0.464	44.470	44.934	-29.066	74.000
9764.000	2.615	44.380	46.994	-27.006	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4882.000	-2.812	52.570	49.758	-24.242	74.000
7323.000	0.464	48.200	48.664	-25.336	74.000
9764.000	2.615	44.550	47.164	-26.836	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. 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
 Test date : 2018/01/17
 Test Mode : Mode 2: Transmit - 2Mbps (2480MHz)

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:					
4960.000	-2.791	50.860	48.069	-25.931	74.000
7440.000	0.499	47.140	47.639	-26.361	74.000
9920.000	2.917	43.600	46.517	-27.483	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4960.000	-2.791	52.370	49.579	-24.421	74.000
7440.000	0.499	50.520	51.019	-22.981	74.000
9920.000	2.917	44.120	47.037	-26.963	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. 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
 Test date : 2018/01/17
 Test Mode : Mode 3: Transmit - 3Mbps (2402MHz)

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:					
4804.000	-2.875	45.310	42.436	-31.564	74.000
7206.000	0.384	44.310	44.694	-29.306	74.000
9608.000	2.338	43.020	45.358	-28.642	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4804.000	-2.875	45.230	42.356	-31.644	74.000
7206.000	0.384	44.430	44.814	-29.186	74.000
9608.000	2.338	43.120	45.458	-28.542	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. 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
 Test date : 2018/01/17
 Test Mode : Mode 3: Transmit - 3Mbps (2441MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4882.000	-2.812	45.560	42.748	-31.252	74.000
7323.000	0.464	44.860	45.324	-28.676	74.000
9764.000	2.615	44.430	47.044	-26.956	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4882.000	-2.812	45.610	42.798	-31.202	74.000
7323.000	0.464	45.100	45.564	-28.436	74.000
9764.000	2.615	43.790	46.404	-27.596	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. 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
 Test date : 2018/01/17
 Test Mode : Mode 3: Transmit - 3Mbps (2480MHz)

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:					
4960.000	-2.791	45.260	42.469	-31.531	74.000
7440.000	0.499	44.070	44.569	-29.431	74.000
9920.000	2.917	43.260	46.177	-27.823	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4960.000	-2.791	45.670	42.879	-31.121	74.000
7440.000	0.499	46.710	47.209	-26.791	74.000
9920.000	2.917	43.120	46.037	-27.963	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. 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
 Test date : 2017/12/19
 Test Mode : Mode 1: Transmit - 1Mbps (2441MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
96.072	-16.412	44.873	28.461	-15.039	43.500
193.072	-13.391	50.663	37.272	-6.228	43.500
441.899	-6.370	45.351	38.981	-7.019	46.000
700.565	-1.650	38.418	36.768	-9.232	46.000
814.435	-0.153	36.606	36.453	-9.547	46.000
933.928	1.265	38.304	39.569	-6.431	46.000
Vertical					
48.275	-10.834	43.723	32.889	-7.111	40.000
183.232	-12.567	44.692	32.125	-11.375	43.500
499.536	-5.312	34.576	29.264	-16.736	46.000
701.971	-1.620	32.726	31.105	-14.895	46.000
801.783	-0.303	34.561	34.258	-11.742	46.000
940.957	1.341	31.862	33.203	-12.797	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. 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
 Test date : 2017/12/19
 Test Mode : Mode 2: Transmit - 2Mbps (2441MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
98.884	-16.030	44.372	28.342	-15.158	43.500
181.826	-12.407	49.570	37.162	-6.338	43.500
437.681	-6.466	45.573	39.107	-6.893	46.000
699.159	-1.677	38.789	37.112	-8.888	46.000
815.841	-0.137	35.655	35.519	-10.481	46.000
943.768	1.371	38.371	39.742	-6.258	46.000
Vertical					
46.870	-10.839	44.092	33.253	-6.747	40.000
174.797	-11.502	48.598	37.095	-6.405	43.500
495.319	-5.385	36.335	30.951	-15.049	46.000
699.159	-1.677	32.789	31.112	-14.888	46.000
798.971	-0.336	32.655	32.318	-13.682	46.000
939.551	1.327	30.141	31.467	-14.533	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. 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
 Test date : 2017/12/19
 Test Mode : Mode 3: Transmit - 3Mbps (2441MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
98.884	-16.030	42.763	26.733	-16.767	43.500
184.638	-12.729	48.931	36.203	-7.297	43.500
437.681	-6.466	45.273	38.807	-7.193	46.000
699.159	-1.677	37.589	35.912	-10.088	46.000
817.246	-0.114	34.808	34.694	-11.306	46.000
939.551	1.327	38.741	40.067	-5.933	46.000
Vertical					
48.275	-10.834	43.309	32.475	-7.525	40.000
174.797	-11.502	47.298	35.795	-7.705	43.500
499.536	-5.312	36.125	30.813	-15.187	46.000
700.565	-1.650	32.774	31.124	-14.876	46.000
801.783	-0.303	33.961	33.658	-12.342	46.000
940.957	1.341	30.142	31.483	-14.517	46.000

Note:

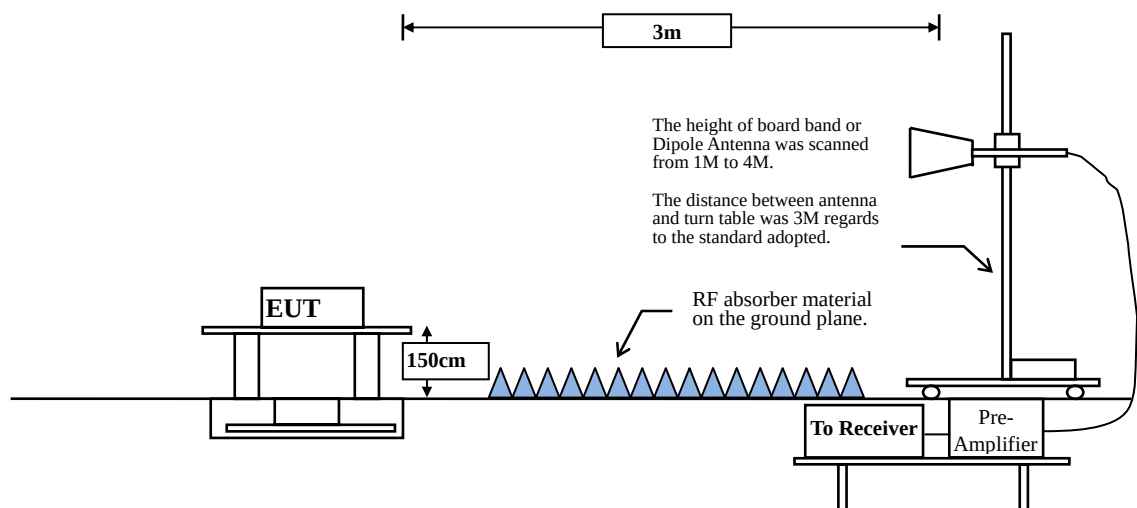
1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

4. Band Edge

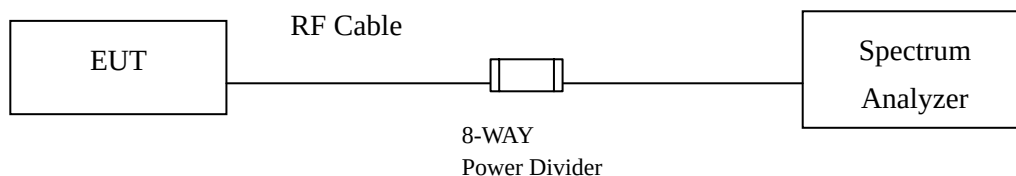
4.1. Test Setup

RF Radiated Measurement:

Above 1GHz



RF Conducted Measurement



4.2. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. 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 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 can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.

The bandwidth setting below 1GHz and above 1GHz on the field strength meter is 120 kHz and 1MHz, respectively.

4.4. Uncertainty

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
 Test date : 2018/01/15
 Test Mode : Mode 1: Transmit - 1Mbps (2402MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2386.812	12.139	37.322	49.461	74.000	54.000	Pass
00 (Peak)	2390.000	12.148	35.584	47.732	74.000	54.000	Pass
00 (Peak)	2400.000	12.176	54.880	67.056	--	--	--
00 (Peak)	2401.884	12.182	87.389	99.570	--	--	--
00 (Average)	2363.478	12.073	24.393	36.466	74.000	54.000	Pass
00 (Average)	2390.000	12.148	23.666	35.814	74.000	54.000	Pass
00 (Average)	2400.000	12.176	38.780	50.956	--	--	--
00 (Average)	2402.029	12.182	73.544	85.725	--	--	--

Figure Channel 00:

Horizontal (Peak)

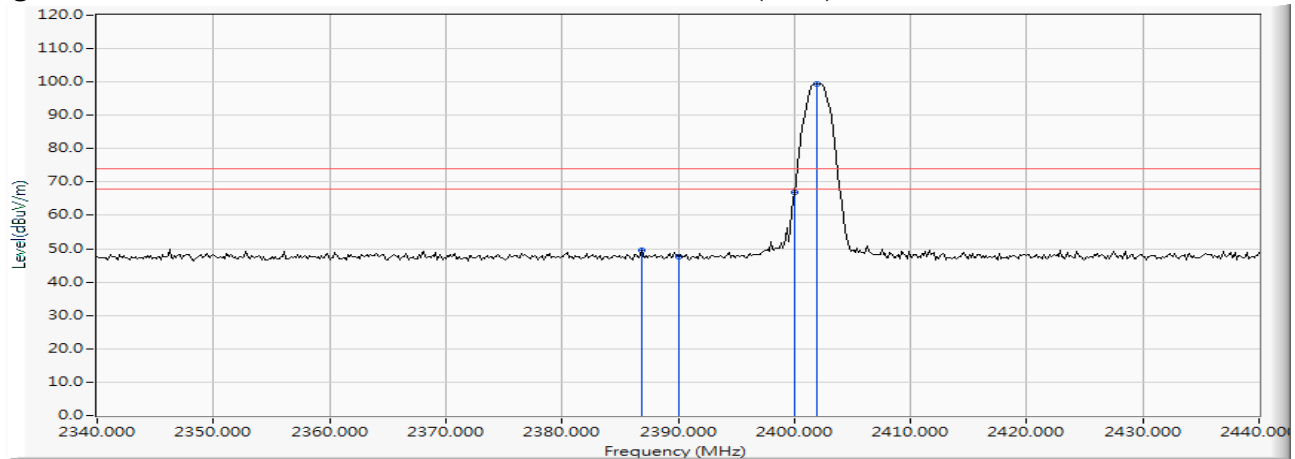
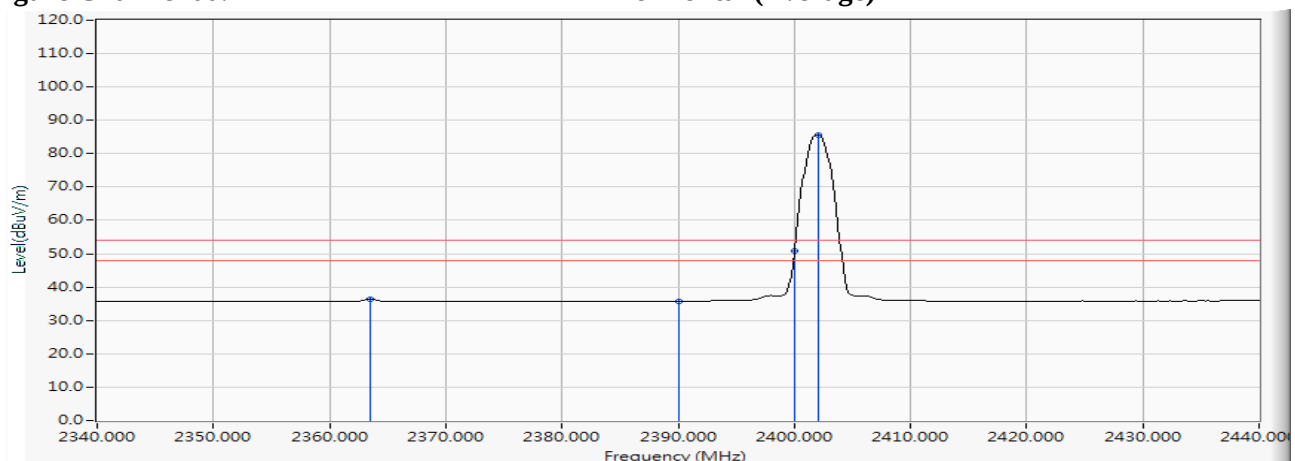


Figure Channel 00:

Horizontal (Average)



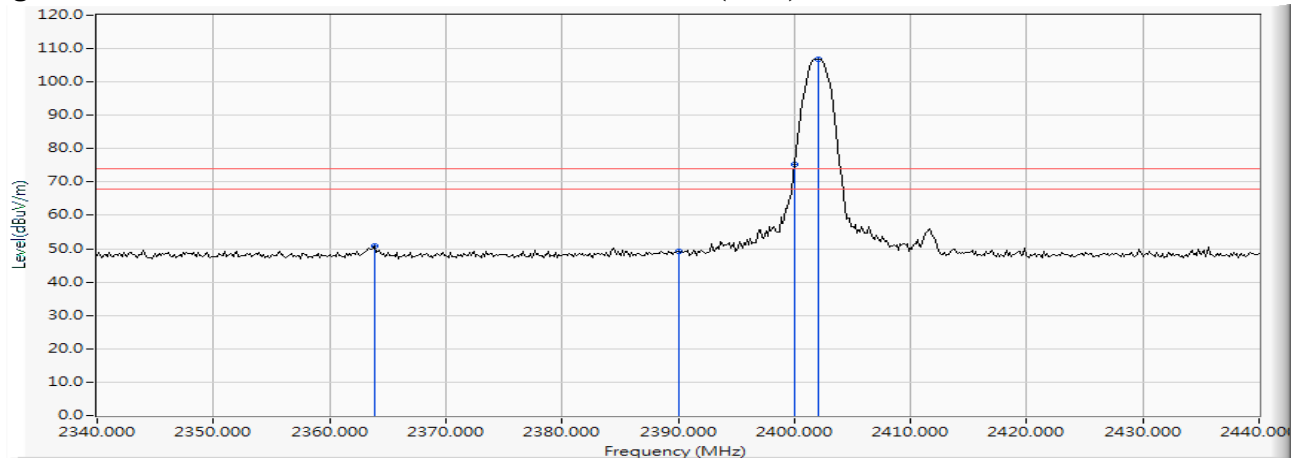
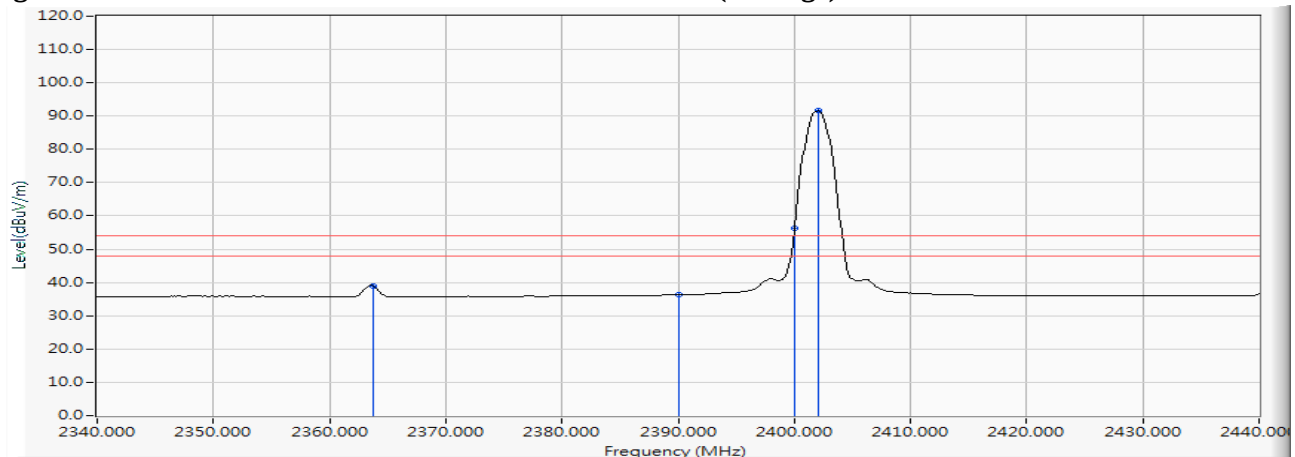
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “*” means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge
 Test date : 2018/01/15
 Test Mode : Mode 1: Transmit - 1Mbps (2402MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2363.913	12.075	38.627	50.701	74.000	54.000	Pass
00 (Peak)	2390.000	12.148	37.078	49.226	74.000	54.000	Pass
00 (Peak)	2400.000	12.176	63.247	75.423	--	--	--
00 (Peak)	2402.029	12.182	94.768	106.949	--	--	--
00 (Average)	2363.768	12.073	26.967	39.040	74.000	54.000	Pass
00 (Average)	2390.000	12.148	24.204	36.352	74.000	54.000	Pass
00 (Average)	2400.000	12.176	44.234	56.410	--	--	--
00 (Average)	2402.029	12.182	79.400	91.581	--	--	--

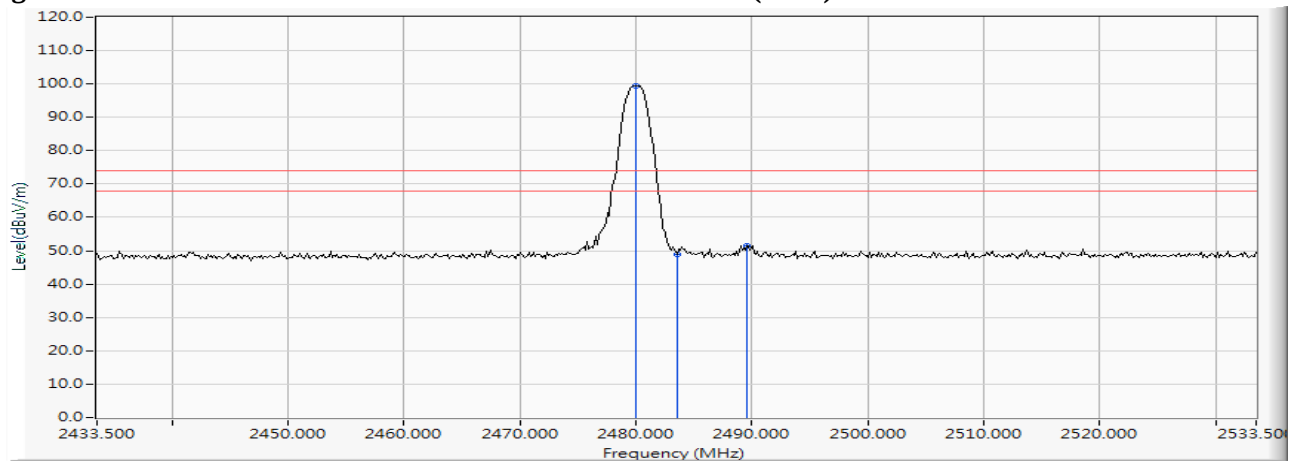
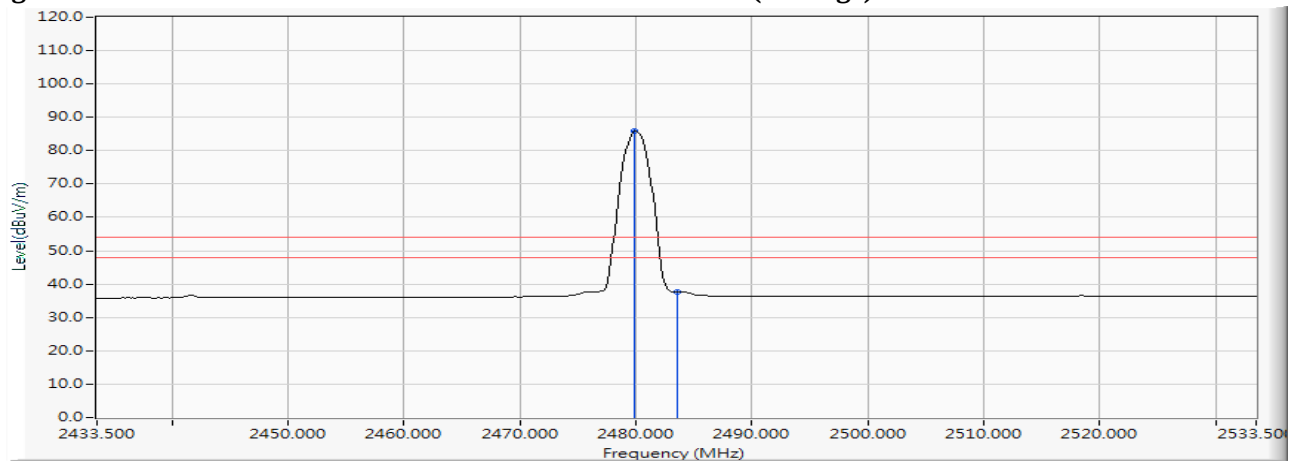
Figure Channel 00:
Vertical (Peak)

Figure Channel 00:
Vertical (Average)

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge
 Test date : 2018/01/15
 Test Mode : Mode 1: Transmit - 1Mbps (2480MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78 (Peak)	2480.022	12.393	87.139	99.532	--	--	--
78 (Peak)	2483.500	12.403	36.550	48.953	74.000	54.000	Pass
78 (Peak)	2489.587	12.419	39.066	51.485	74.000	54.000	Pass
78 (Average)	2479.877	12.393	73.397	85.790	--	--	--
78 (Average)	2483.500	12.403	25.093	37.496	74.000	54.000	Pass

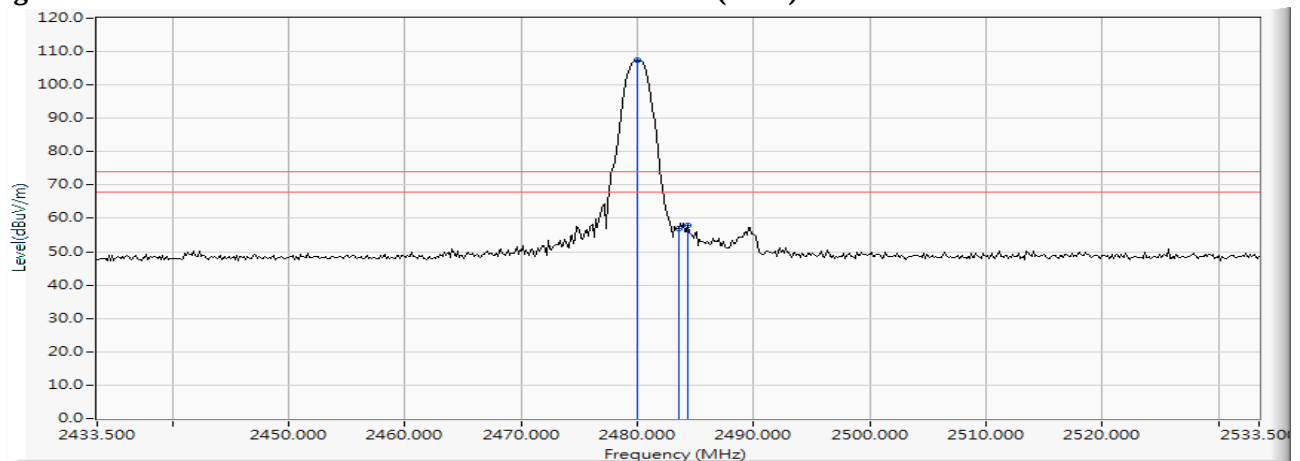
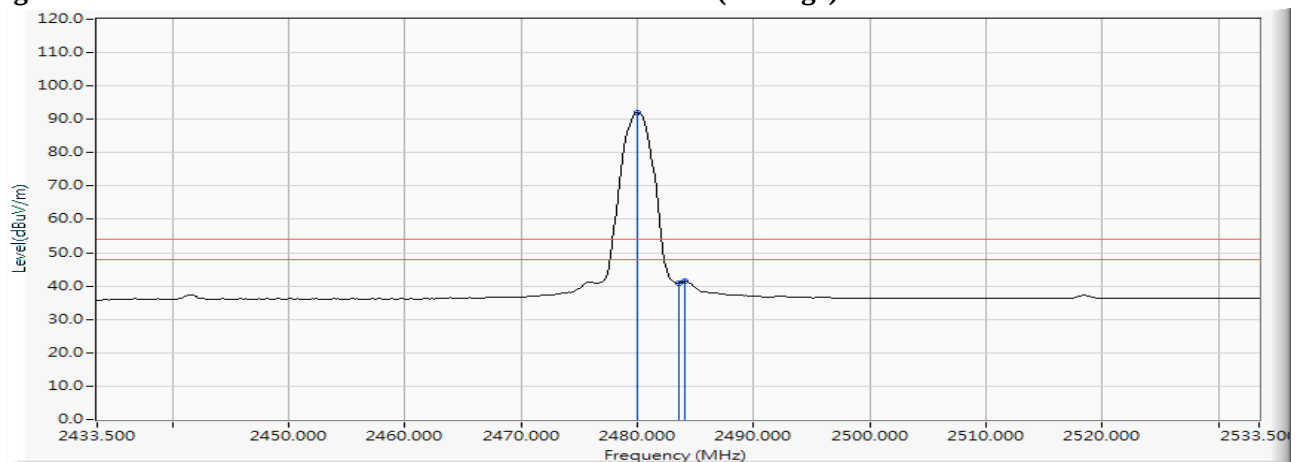
Figure Channel 78:
Horizontal (Peak)

Figure Channel 78:
Horizontal (Average)

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge
 Test date : 2018/01/15
 Test Mode : Mode 1: Transmit - 1Mbps (2480MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78 (Peak)	2480.022	12.393	94.949	107.342	--	--	--
78 (Peak)	2483.500	12.403	44.550	56.953	74.000	54.000	Pass
78 (Peak)	2484.370	12.405	45.398	57.803	74.000	54.000	Pass
78 (Average)	2480.022	12.393	79.556	91.949	--	--	--
78 (Average)	2483.500	12.403	28.541	40.944	74.000	54.000	Pass
78 (Average)	2484.080	12.404	28.986	41.390	74.000	54.000	Pass

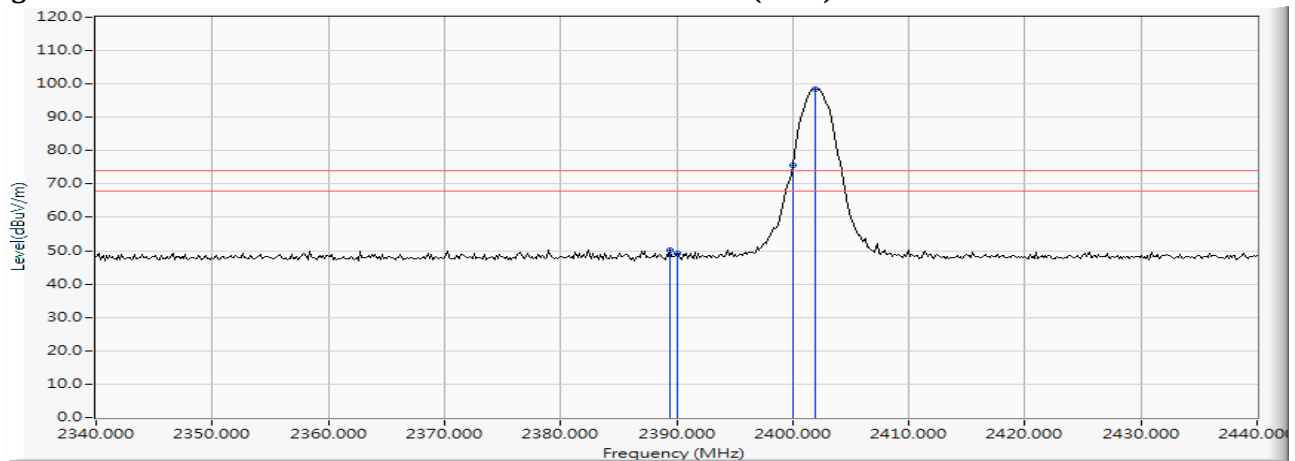
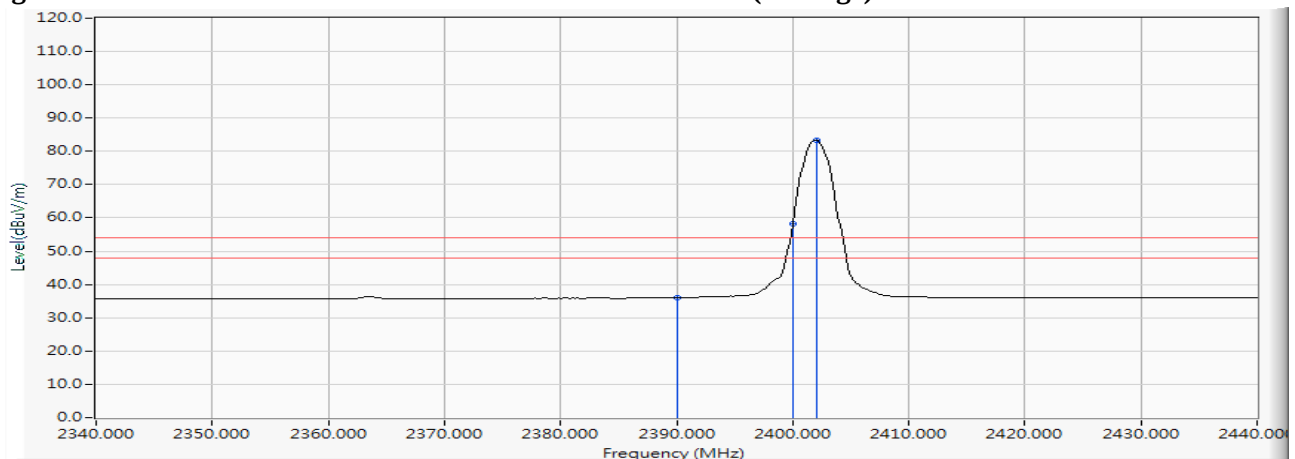
Figure Channel 78:
Vertical (Peak)

Figure Channel 78:
Vertical (Average)

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge
 Test date : 2018/01/15
 Test Mode : Mode 2: Transmit - 2Mbps (2402MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2389.420	12.147	37.912	50.058	74.000	54.000	Pass
00 (Peak)	2390.000	12.148	36.928	49.076	74.000	54.000	Pass
00 (Peak)	2400.000	12.176	63.483	75.659	--	--	--
00 (Peak)	2401.884	12.182	86.288	98.469	--	--	--
00 (Average)	2390.000	12.148	23.998	36.146	74.000	54.000	Pass
00 (Average)	2400.000	12.176	46.178	58.354	--	--	--
00 (Average)	2402.029	12.182	71.257	83.438	--	--	--

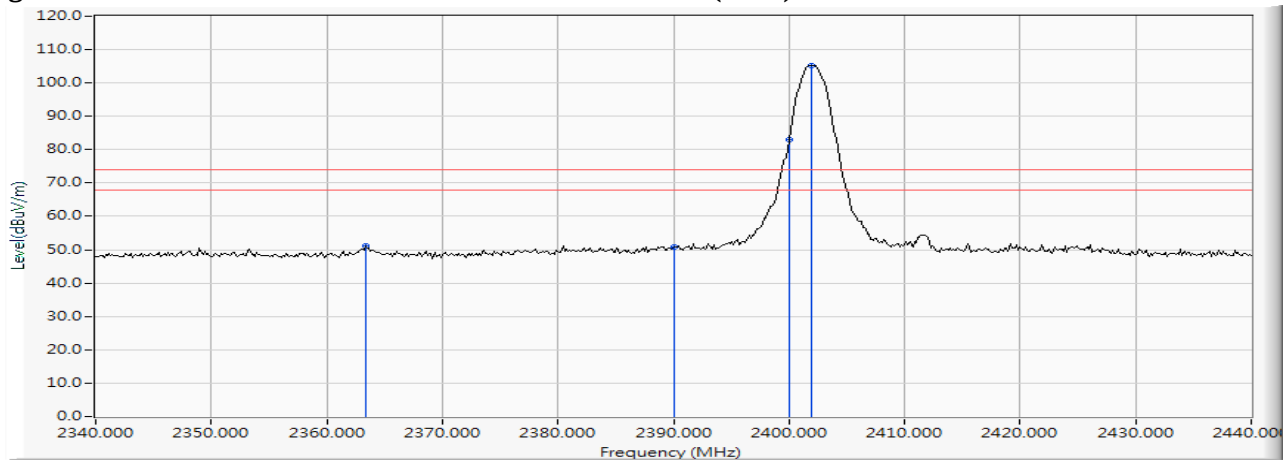
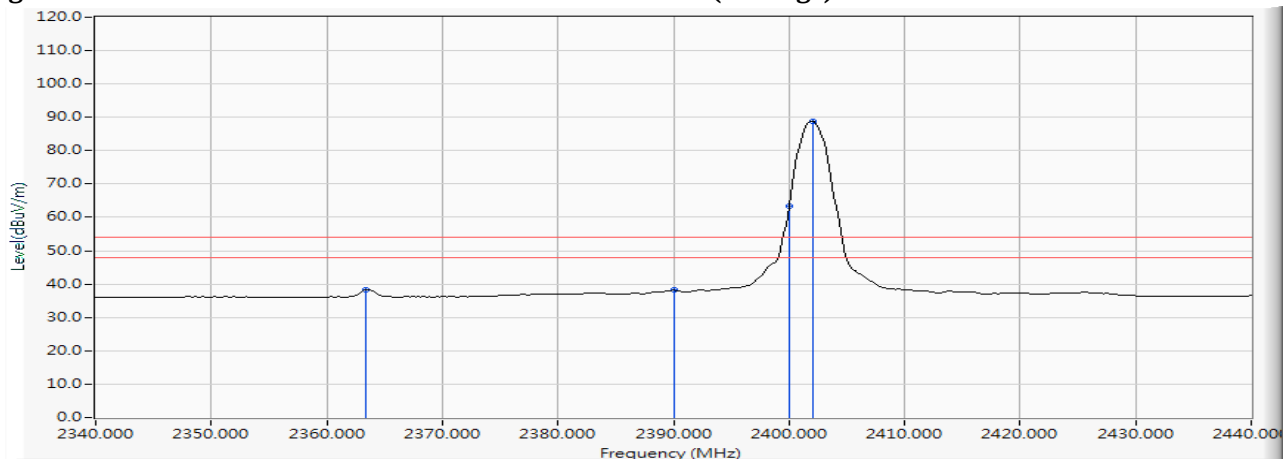
Figure Channel 00:
Horizontal (Peak)

Figure Channel 00:
Horizontal (Average)

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge
 Test date : 2018/01/15
 Test Mode : Mode 2: Transmit - 2Mbps (2402MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2363.333	12.073	39.154	51.226	74.000	54.000	Pass
00 (Peak)	2390.000	12.148	38.657	50.805	74.000	54.000	Pass
00 (Peak)	2400.000	12.176	70.747	82.923	--	--	--
00 (Peak)	2401.884	12.182	93.157	105.338	--	--	--
00 (Average)	2363.333	12.073	26.213	38.285	74.000	54.000	Pass
00 (Average)	2390.000	12.148	25.988	38.136	74.000	54.000	Pass
00 (Average)	2400.000	12.176	51.237	63.413	--	--	--
00 (Average)	2402.029	12.182	76.746	88.927	--	--	--

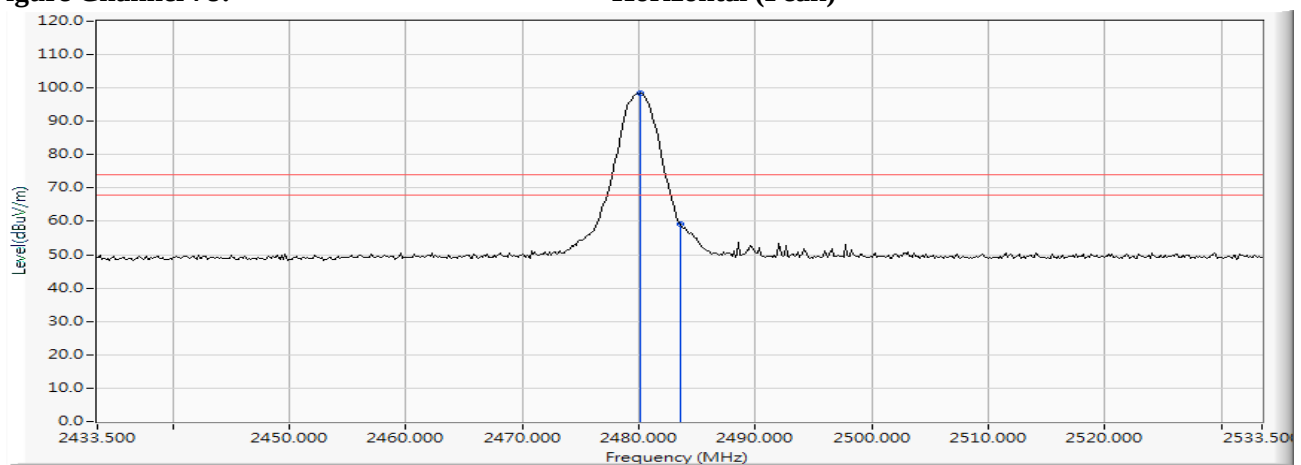
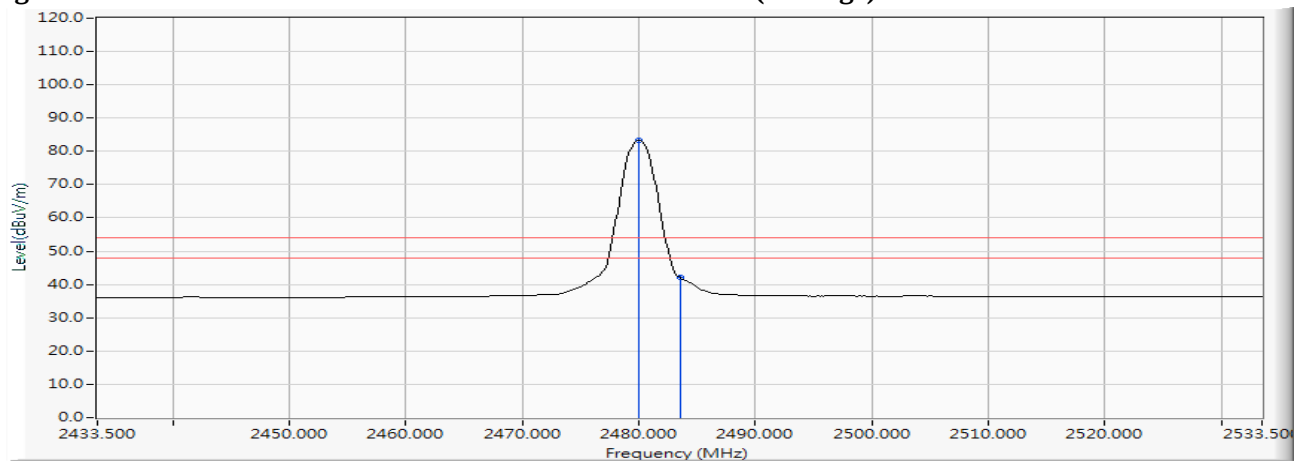
Figure Channel 00:
Vertical (Peak)

Figure Channel 00:
Vertical (Average)

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge
 Test date : 2018/01/15
 Test Mode : Mode 2: Transmit - 2Mbps (2402MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78 (Peak)	2480.167	12.394	85.908	98.301	--	--	--
78 (Peak)	2483.500	12.403	46.634	59.037	74.000	54.000	Pass
78 (Average)	2480.022	12.393	71.075	83.468	--	--	--
78 (Average)	2483.500	12.403	29.587	41.990	74.000	54.000	Pass

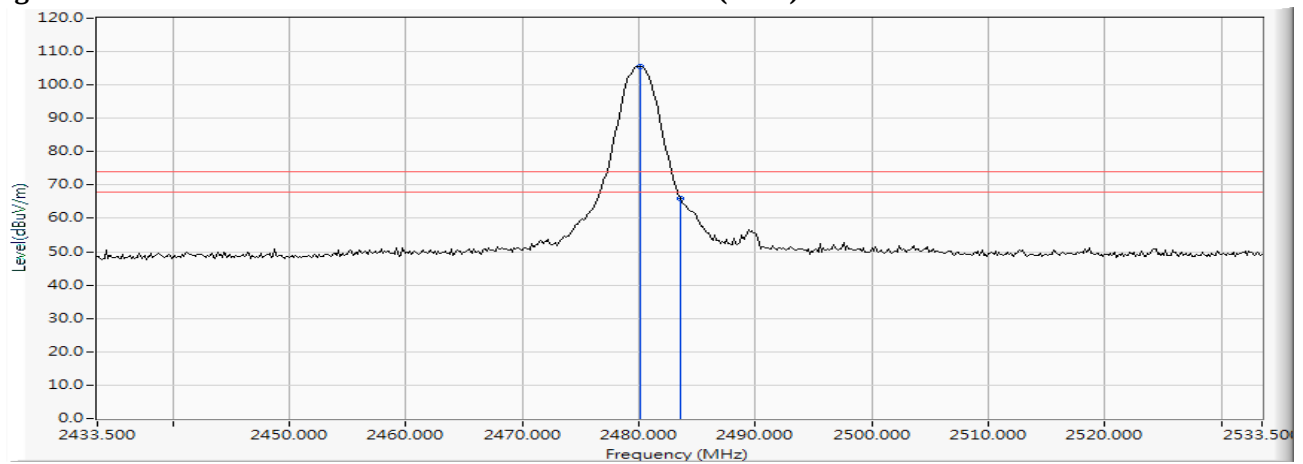
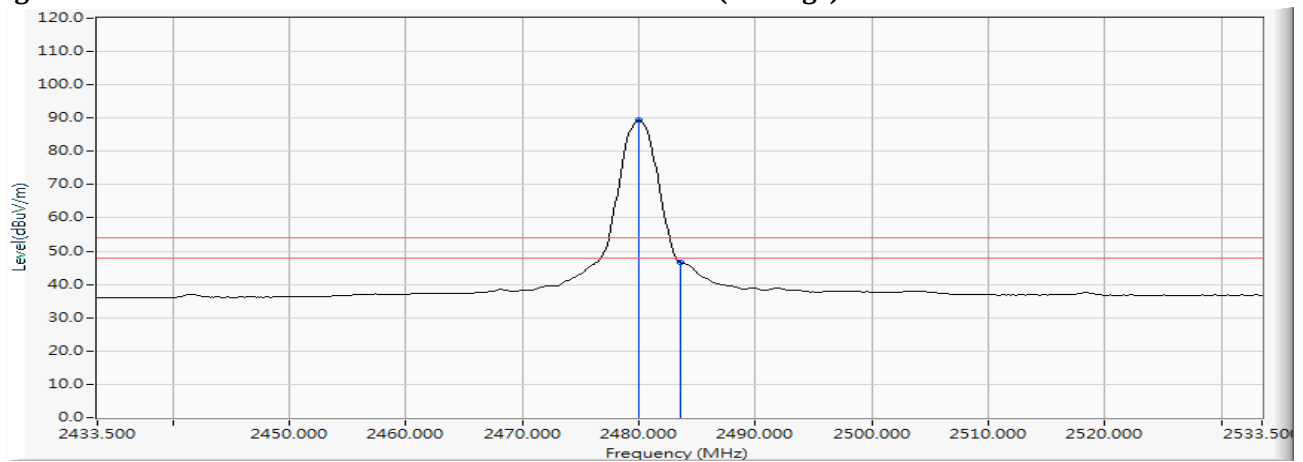
Figure Channel 78:
Horizontal (Peak)

Figure Channel 78:
Horizontal (Average)

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge
 Test date : 2018/01/15
 Test Mode : Mode 2: Transmit - 2Mbps (2402MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78 (Peak)	2480.167	12.394	93.063	105.456	--	--	--
78 (Peak)	2483.500	12.403	53.483	65.886	74.000	54.000	Pass
78 (Average)	2480.022	12.393	76.954	89.347	--	--	--
78 (Average)	2483.500	12.403	34.383	46.786	74.000	54.000	Pass

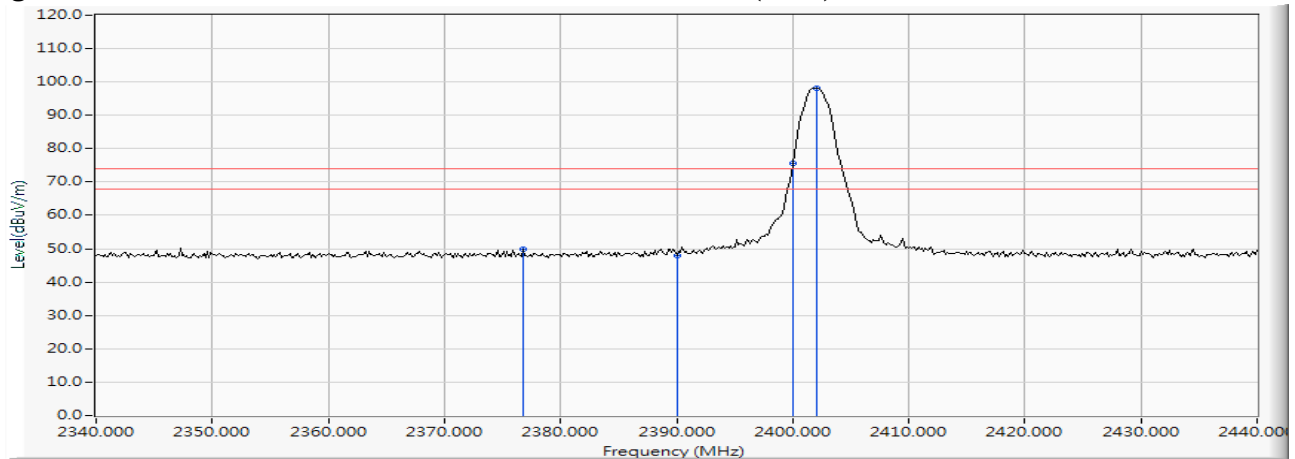
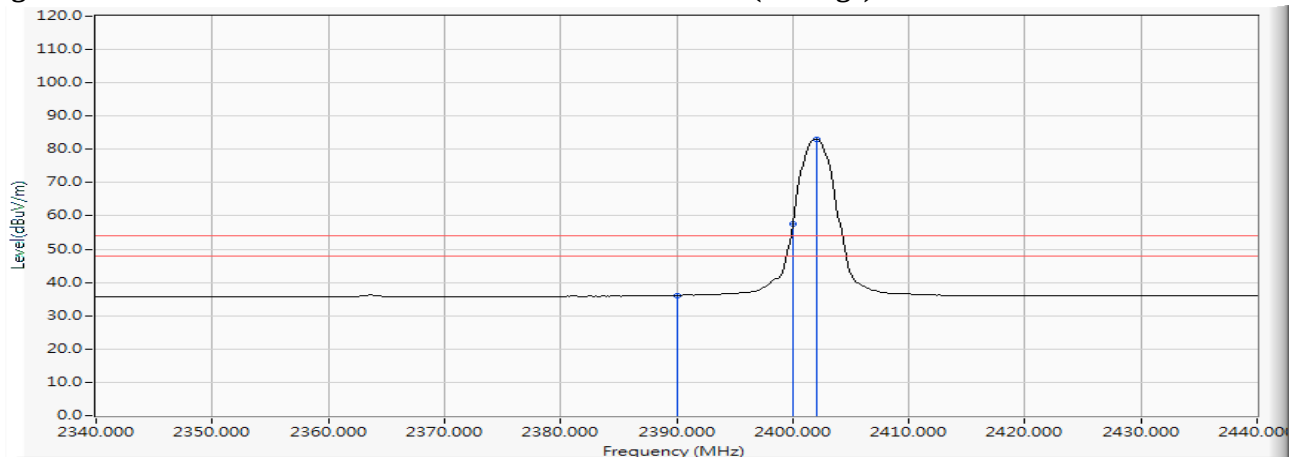
Figure Channel 78:
Vertical (Peak)

Figure Channel 78:
Vertical (Average)

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge
 Test date : 2018/01/15
 Test Mode : Mode 3: Transmit - 3Mbps (2402MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2376.812	12.110	37.668	49.778	74.000	54.000	Pass
00 (Peak)	2390.000	12.148	35.859	48.007	74.000	54.000	Pass
00 (Peak)	2400.000	12.176	63.370	75.546	--	--	--
00 (Peak)	2402.029	12.182	86.000	98.181	--	--	--
00 (Average)	2390.000	12.148	23.967	36.115	74.000	54.000	Pass
00 (Average)	2400.000	12.176	45.468	57.644	--	--	--
00 (Average)	2402.029	12.182	70.874	83.055	--	--	--

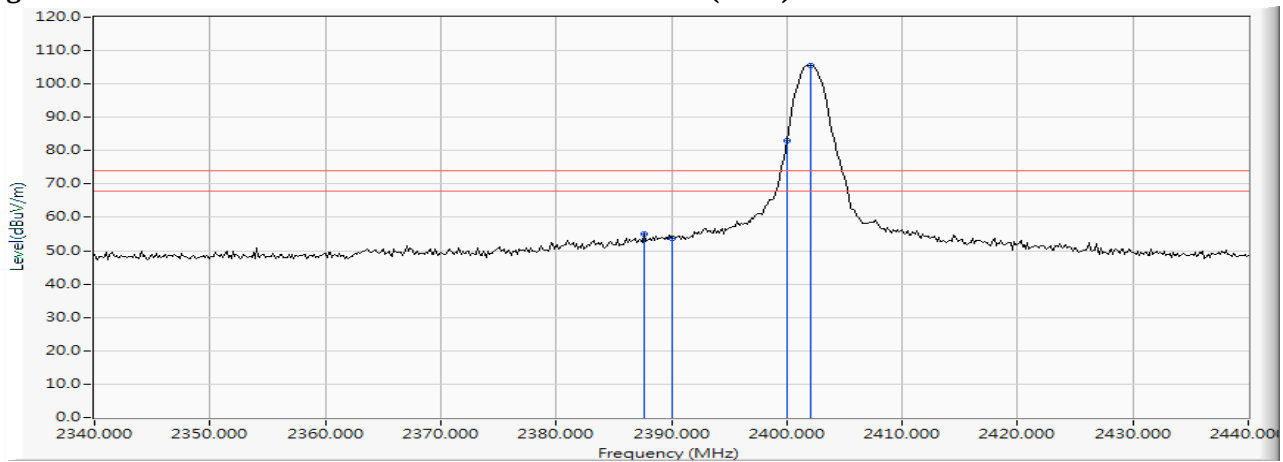
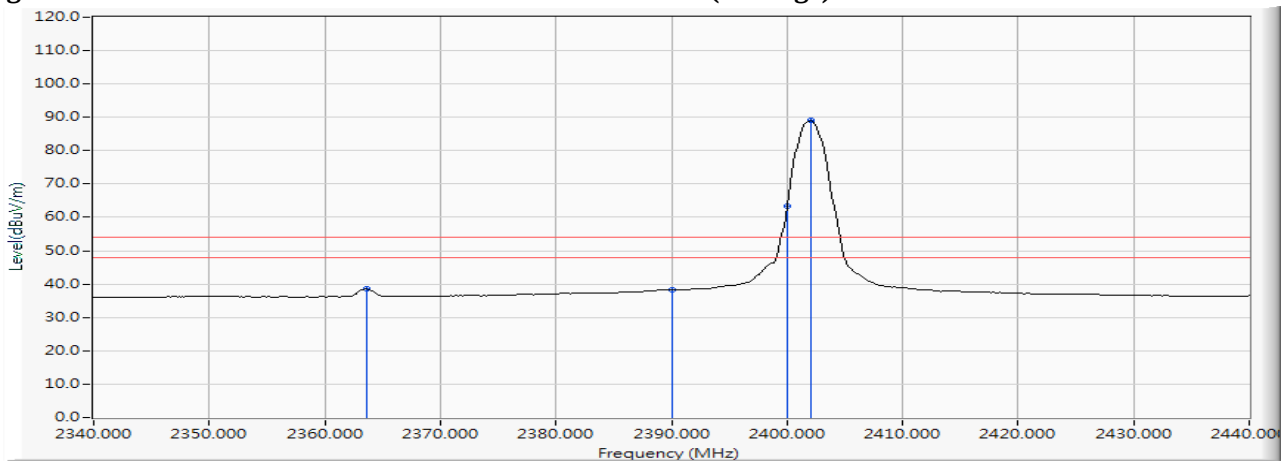
Figure Channel 00:
Horizontal (Peak)

Figure Channel 00:
Horizontal (Average)

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge
 Test date : 2018/01/15
 Test Mode : Mode 3: Transmit - 3Mbps (2402MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2387.681	12.141	42.818	54.960	74.000	54.000	Pass
00 (Peak)	2390.000	12.148	41.488	53.636	74.000	54.000	Pass
00 (Peak)	2400.000	12.176	70.887	83.063	--	--	--
00 (Peak)	2402.029	12.182	93.357	105.538	--	--	--
00 (Average)	2363.623	12.073	26.432	38.505	74.000	54.000	Pass
00 (Average)	2390.000	12.148	26.151	38.299	74.000	54.000	Pass
00 (Average)	2400.000	12.176	51.110	63.286	--	--	--
00 (Average)	2402.029	12.182	76.789	88.970	--	--	--

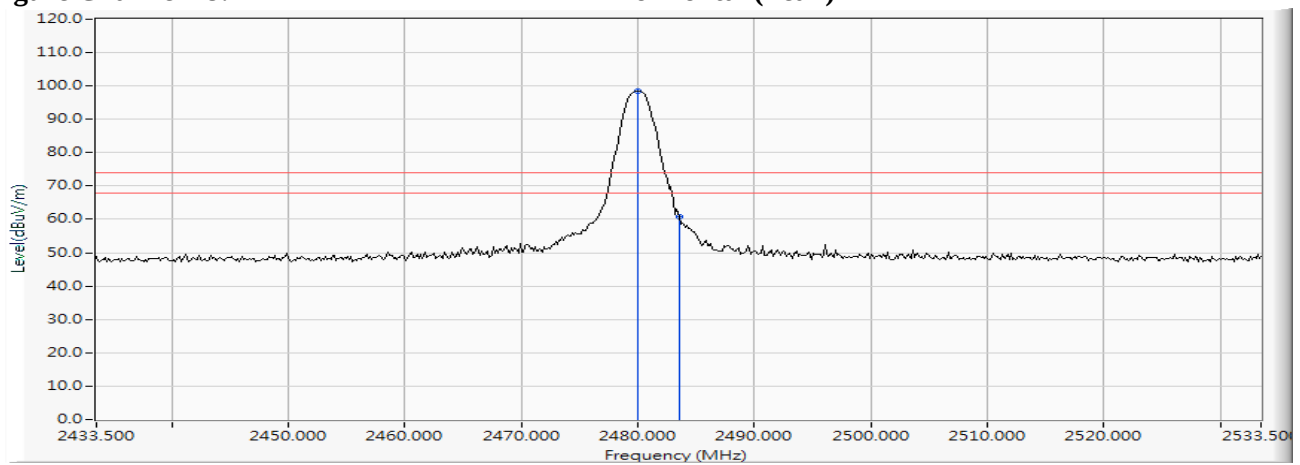
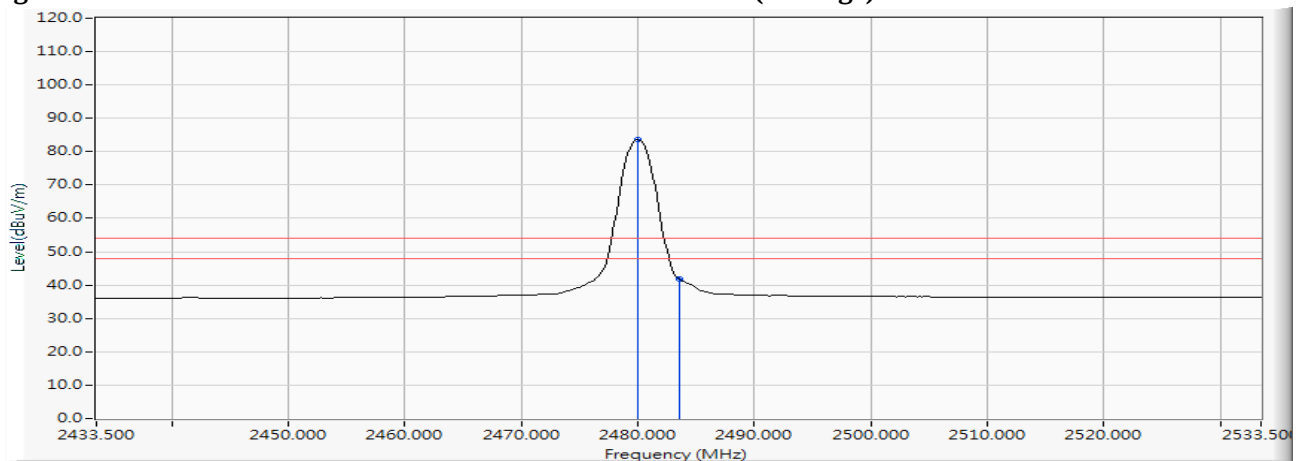
Figure Channel 00: Vertical (Peak)

Figure Channel 00: Vertical (Average)

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “*” means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge
 Test date : 2018/01/15
 Test Mode : Mode 3: Transmit - 3Mbps (2480MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78 (Peak)	2480.022	12.393	86.125	98.518	--	--	--
78 (Peak)	2483.500	12.403	48.305	60.708	74.000	54.000	Pass
78 (Average)	2480.022	12.393	71.169	83.562	--	--	--
78 (Average)	2483.500	12.403	29.441	41.844	74.000	54.000	Pass

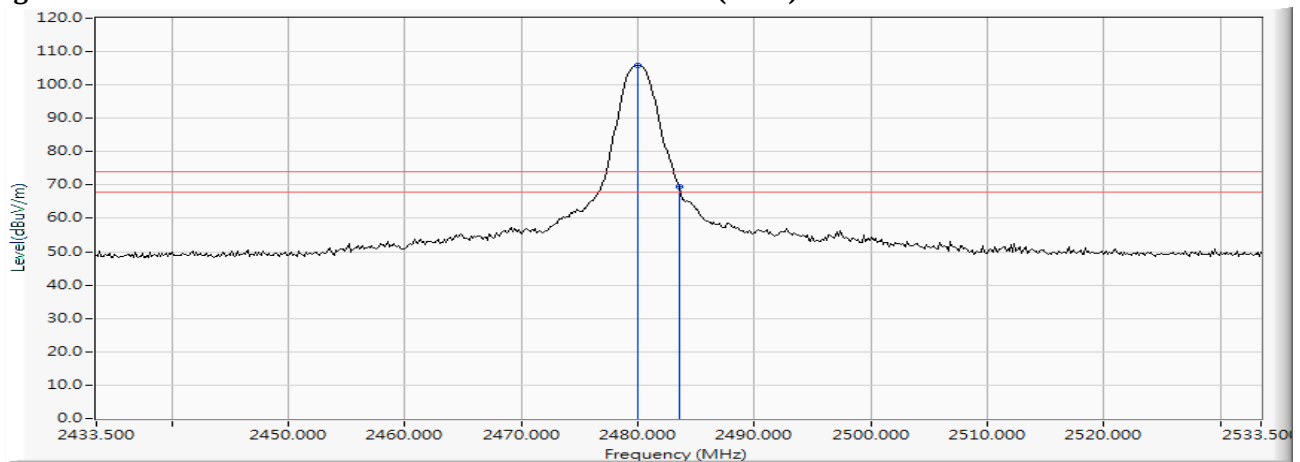
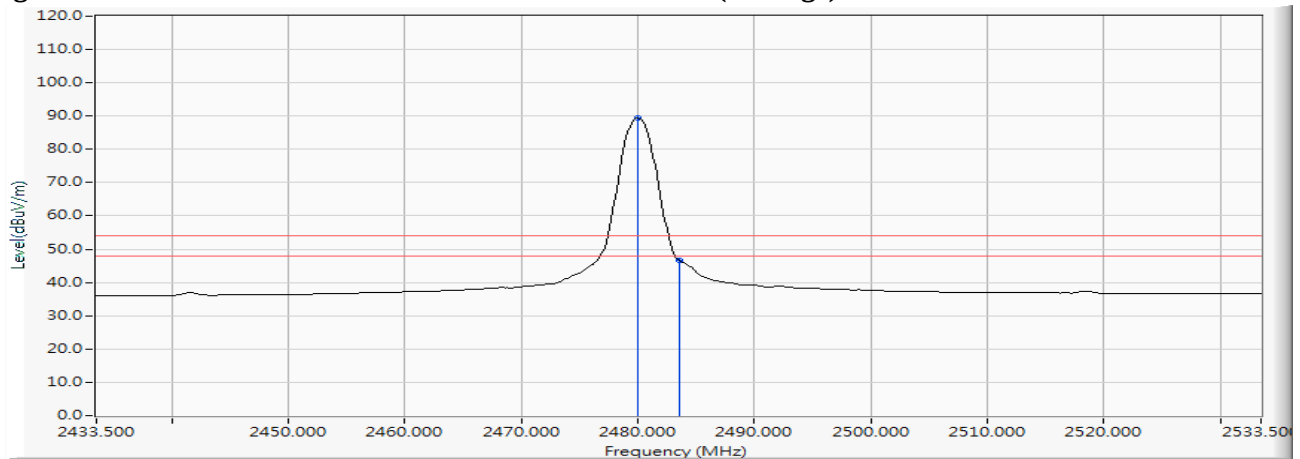
Figure Channel 78:
Horizontal (Peak)

Figure Channel 78:
Horizontal (Average)

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : Intel® Wireless-AC 9461
 Test Item : Band Edge
 Test date : 2018/01/15
 Test Mode : Mode 3: Transmit - 3Mbps (2480MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78 (Peak)	2480.022	12.393	93.397	105.790	--	--	--
78 (Peak)	2483.500	12.403	57.073	69.476	74.000	54.000	Pass
78 (Average)	2480.022	12.393	76.930	89.323	--	--	--
78 (Average)	2483.500	12.403	34.353	46.756	74.000	54.000	Pass

Figure Channel 78:
Vertical (Peak)

Figure Channel 78:
Vertical (Average)

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.