# 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 |

Testing Laboratory
3023

# 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<br>ANSI C63.4: 2014, ANSI C63.10: 2013<br>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 )

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# 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)<br>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) |

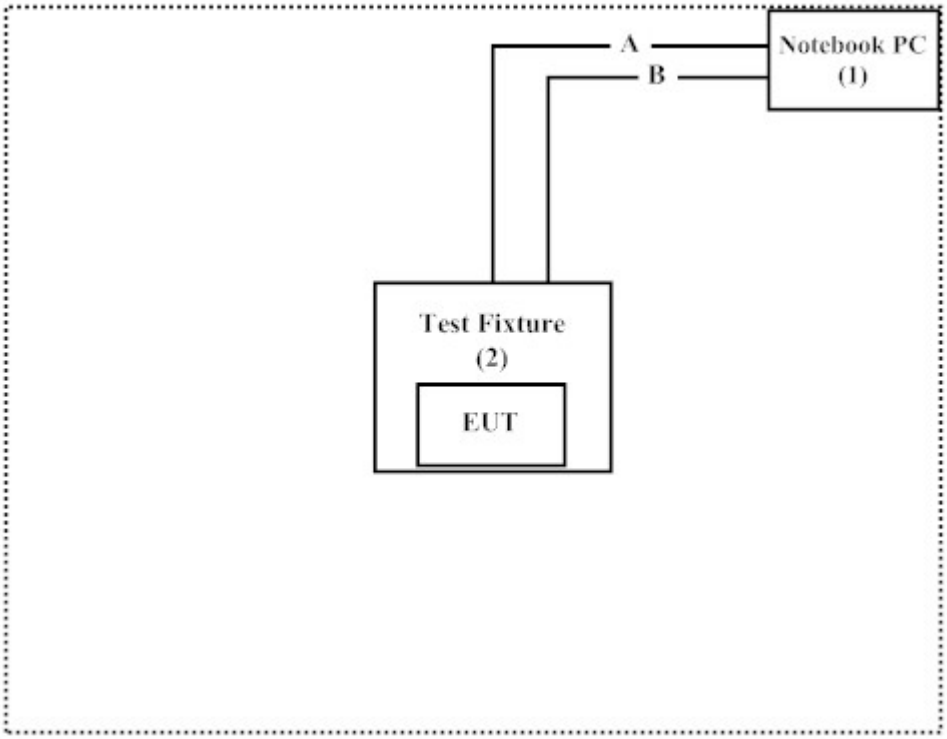
## 1.3. Tested System Details

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 | Non-Shielded, 0.8m |
| 2 | Test Fixture | N/A | N/A | N/A | N/A |

| Signal Cable Type | | Signal cable Description |
|---|---|---|
| A | Signal Cable | Non-Shielded, 1m |
| B | USB Cable | Shielded, 1.8m |

## 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 | 6 | | |
| | | 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 | 7.2 | | |
| | | 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

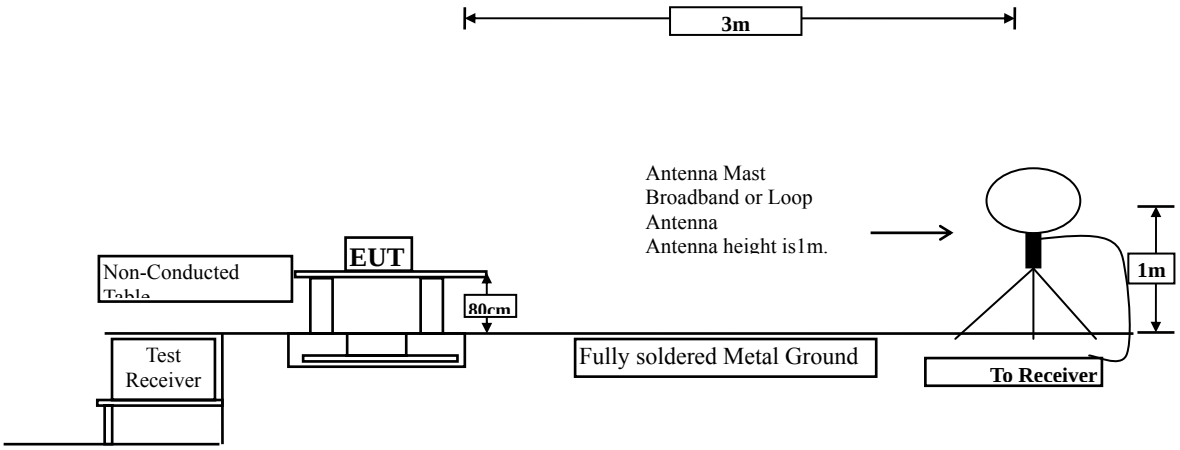
| Channel No | Frequency (MHz) | Average Power For different Data Rate (Mbps) | | | | | | | | Peak Power | Required Limit | Result |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 15 | 30 | 45 | 60 | 90 | 120 | 135 | 150 | 15 | | |
| | | Measurement Level (dBm) | | | | | | | | | | |
| 03 | 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

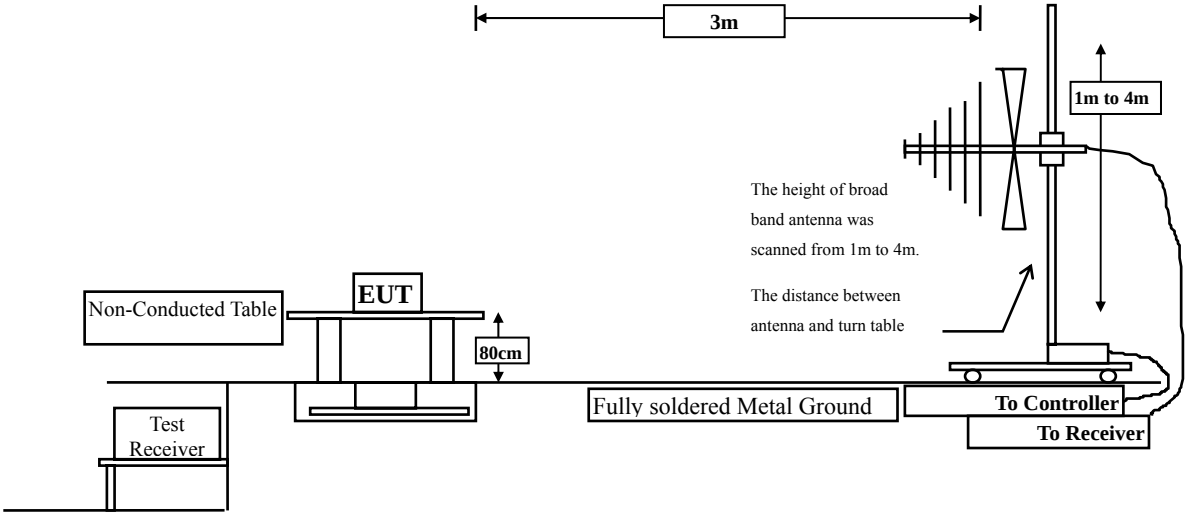
# 3. Radiated Emission

## 3.1. Test Setup

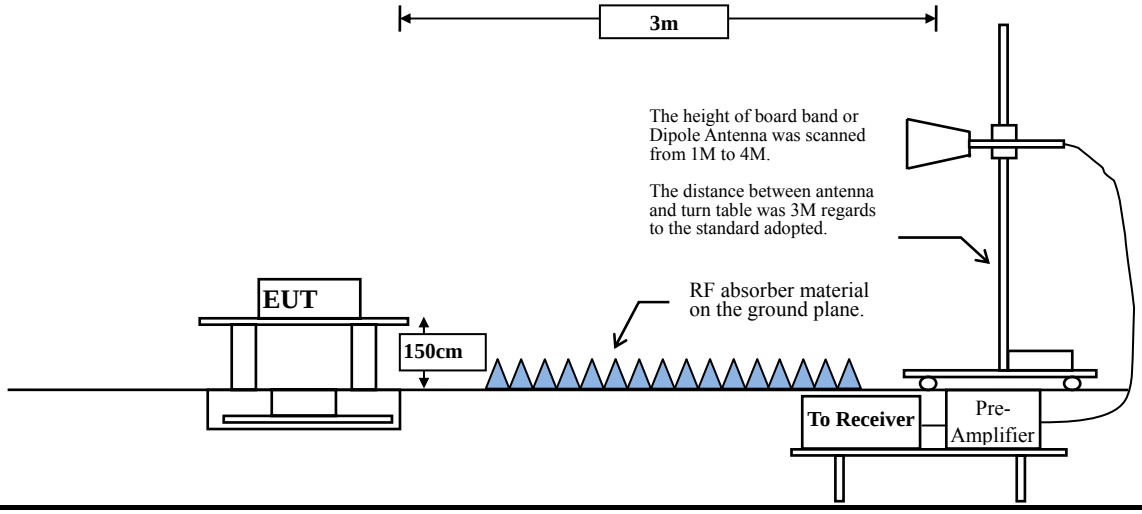
Radiated Emission Under 30MHz




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 form 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 ≥ 3 x 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 ≥ 98 %

VBW ≥ 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: ±4.08dB；300M-1GHz: ±3.86dB；1-18GHz: ±3.77dB；18-40GHz: ±3.98dB

Vertical polarization：

30-300MHz: ±4.81dB；300M-1GHz: ±3.87dB；1-18GHz : ±3.83dB；18-40GHz: ±3.98dB

## 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 | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBμV | dBμV/m | dB | 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 | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | 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 | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | dBµV/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 Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | dBµV/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 Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | dBµV/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 Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | 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 Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | 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 | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | 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 | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | 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 | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | dBµV/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 | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | 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 | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | 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 | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | dBµV/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 | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | dBµV/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 | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | 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 | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | 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 | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | 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 Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | 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 Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | dBµV/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 Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| 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 Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | 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 |

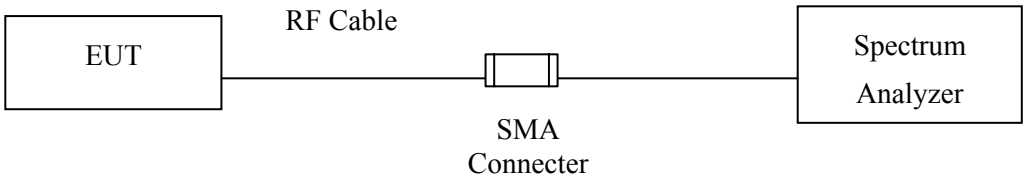
Note:

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

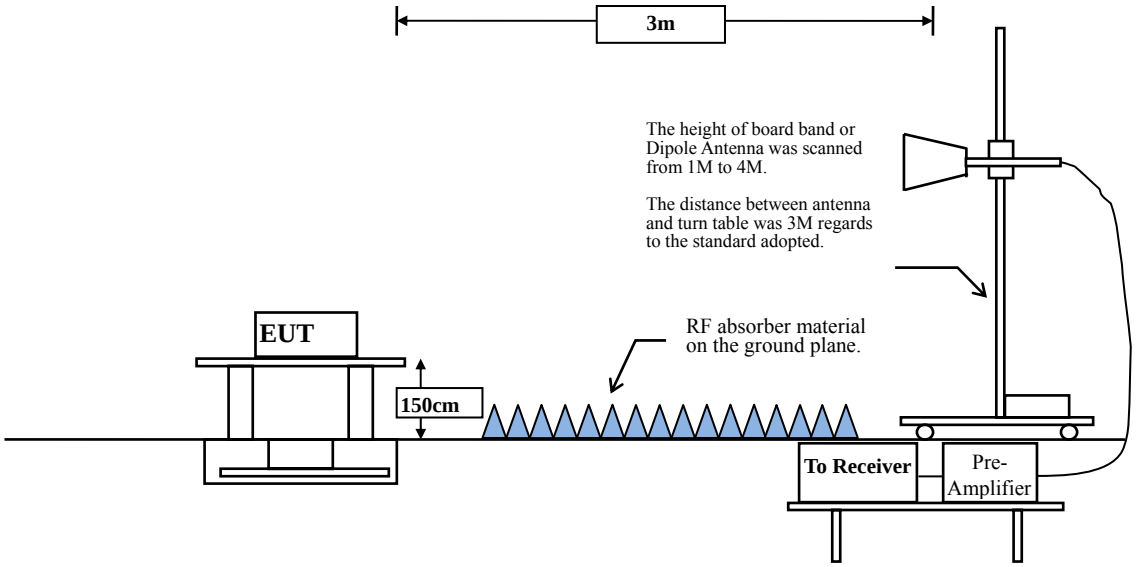
## 4.1. Test Setup

**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 ≥ 3 x 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 ≥ 98 %

VBW ≥ 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: ±1.23dB

Radiated:

Horizontal polarization：1-18GHz: ±3.77dB

Vertical polarization：1-18GHz : ±3.83dB

## 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)**

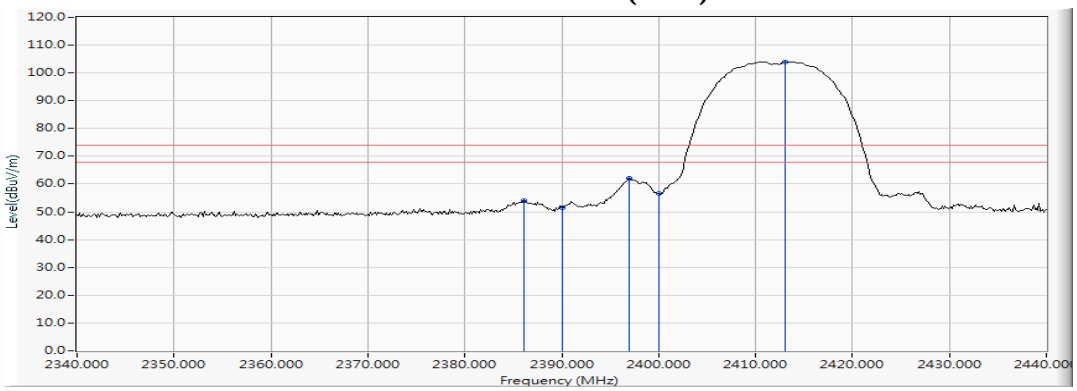
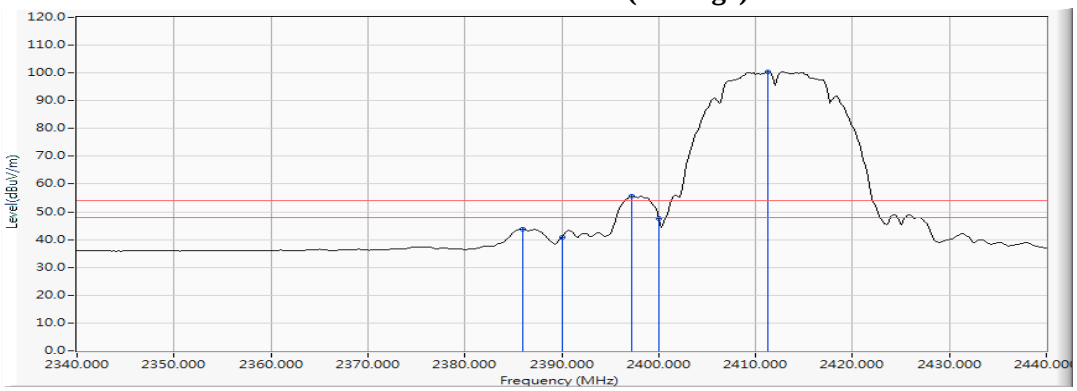



**Figure Channel 01: Horizontal (Average)**




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)**

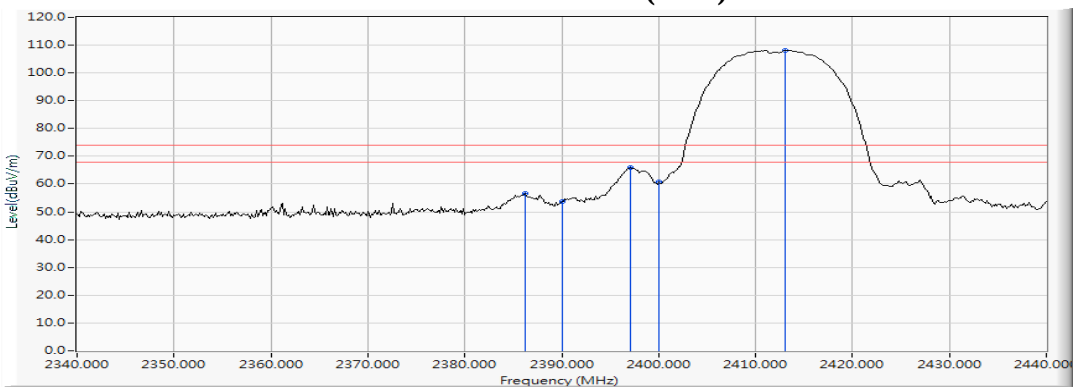
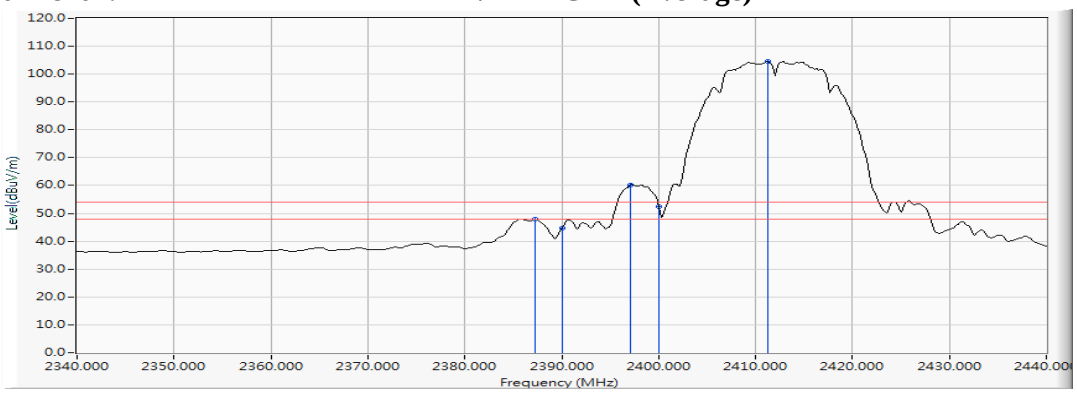



**Figure Channel 01: VERTICAL (Average)**




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)**

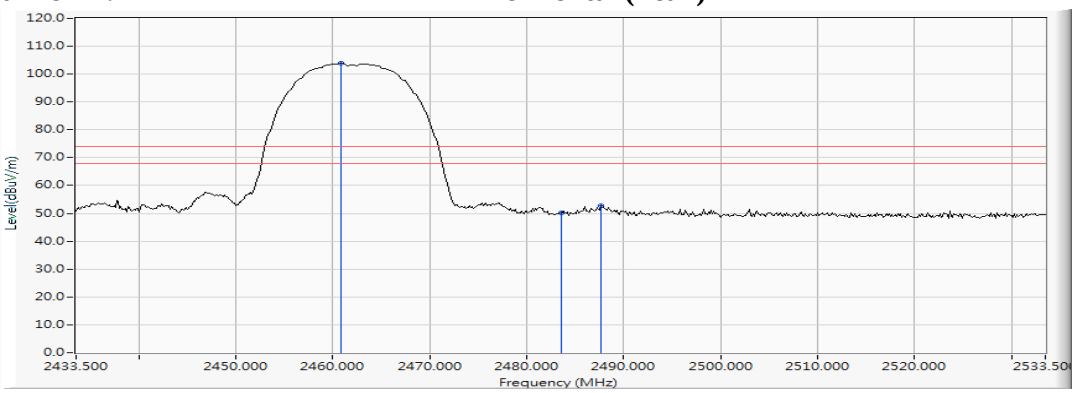
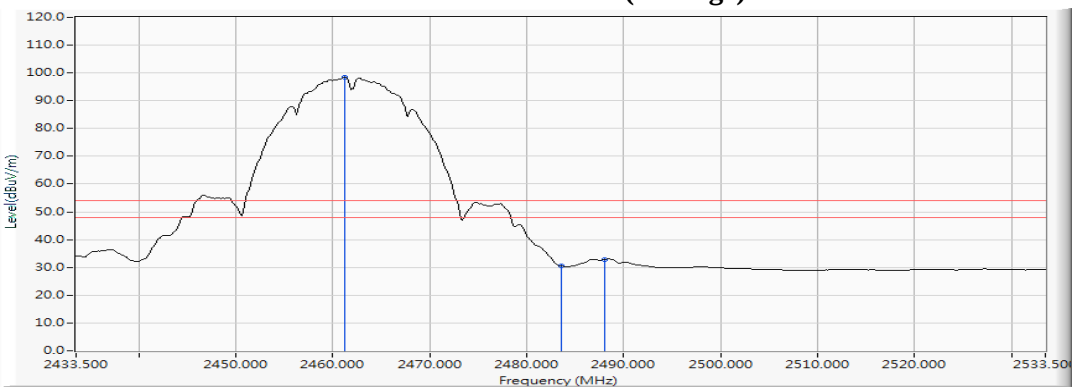



**Figure Channel 11: Horizontal (Average)**




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)**

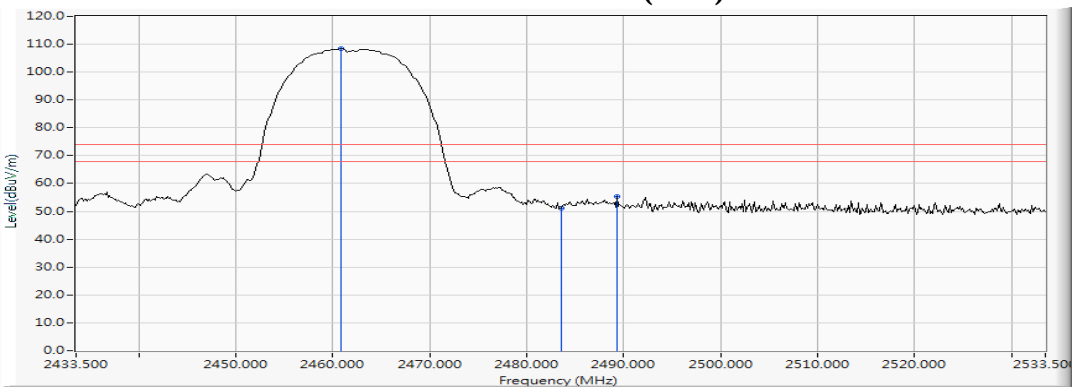
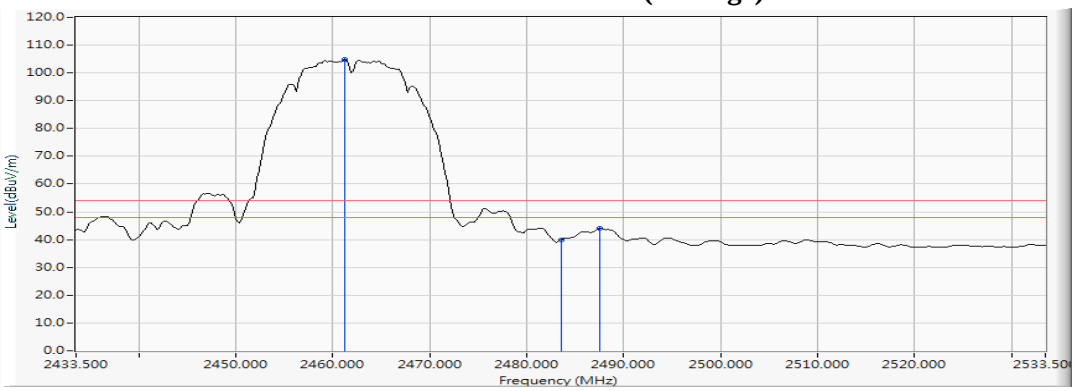



**Figure Channel 11: VERTICAL (Average)**




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)**

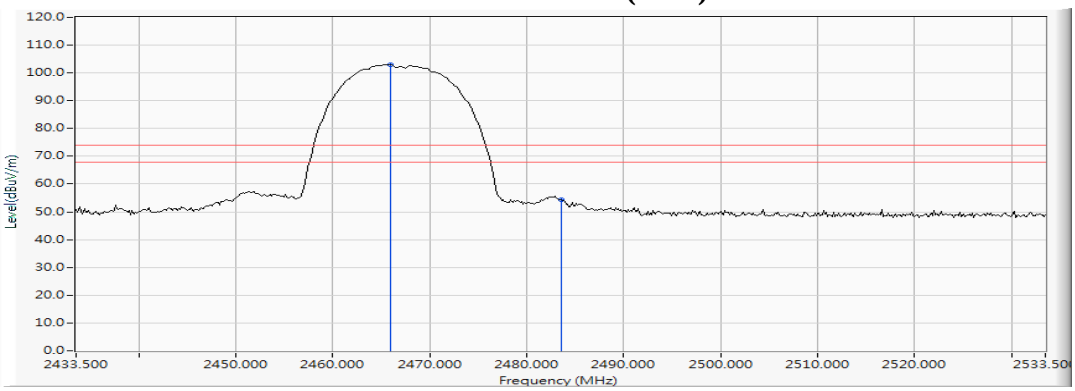
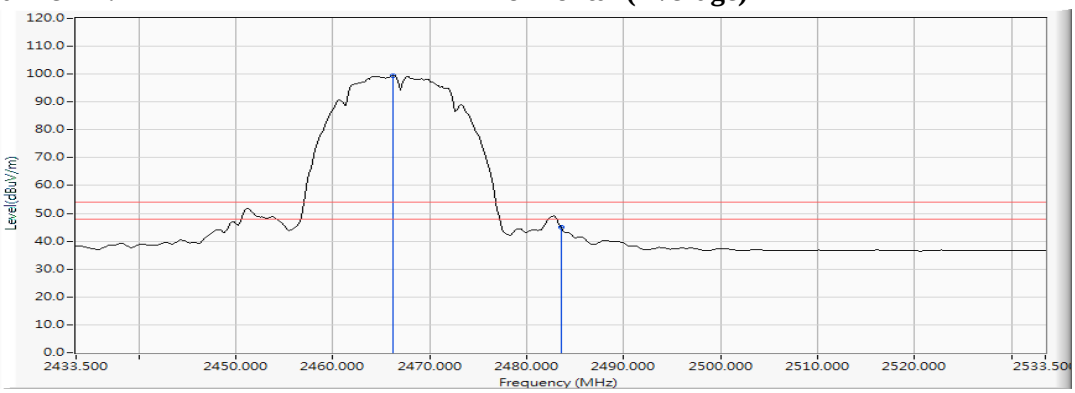



**Figure Channel 12: Horizontal (Average)**




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)**

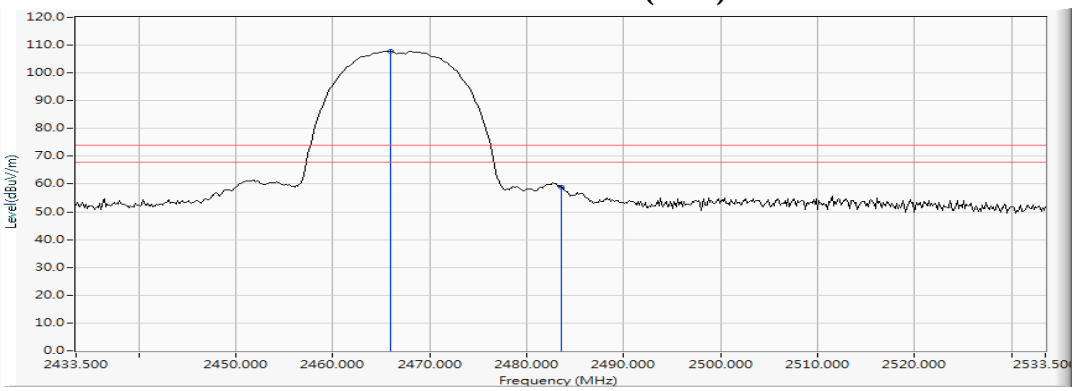
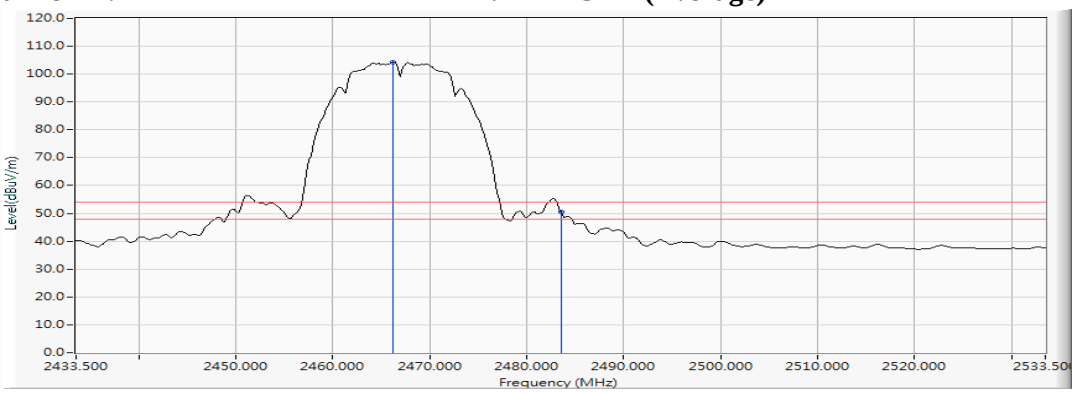



**Figure Channel 12: VERTICAL (Average)**




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)**

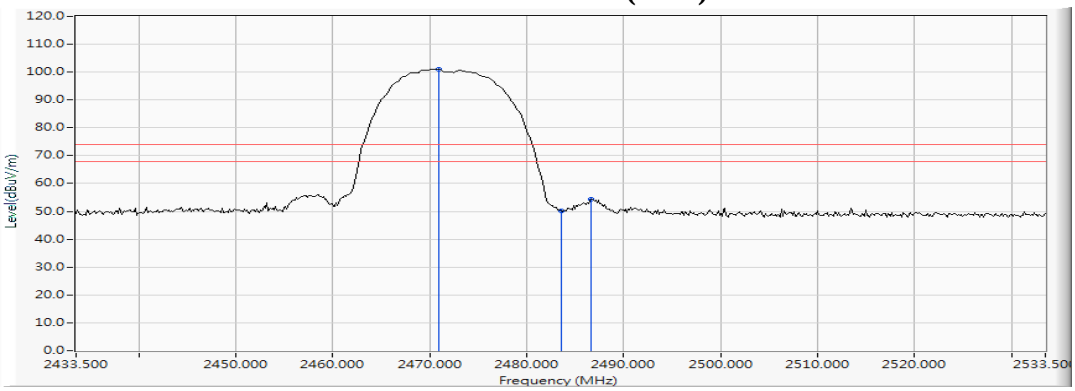
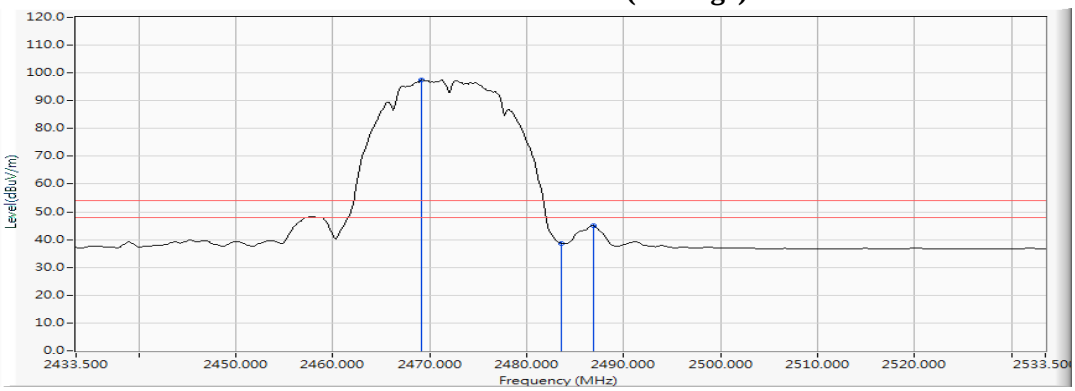



**Figure Channel 13: Horizontal (Average)**




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)**

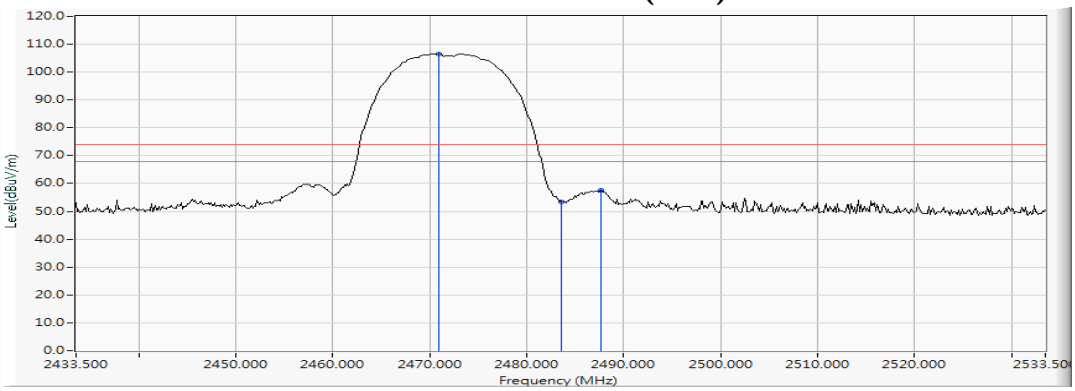
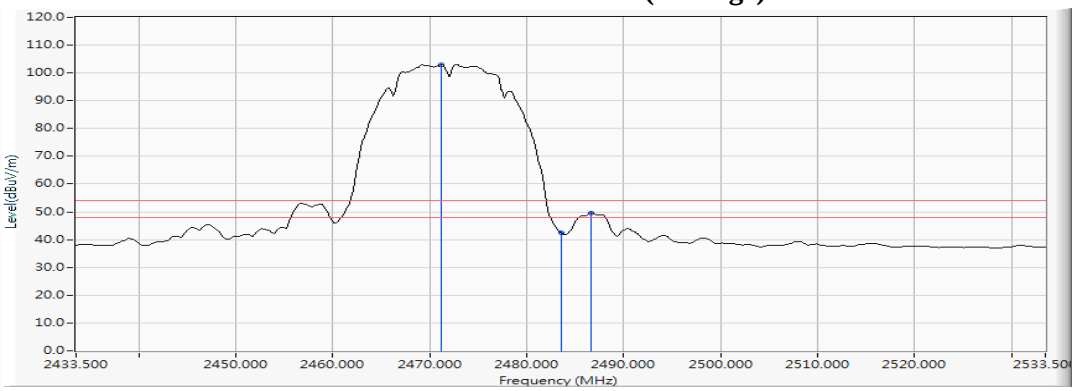



**Figure Channel 13: VERTICAL (Average)**




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)**

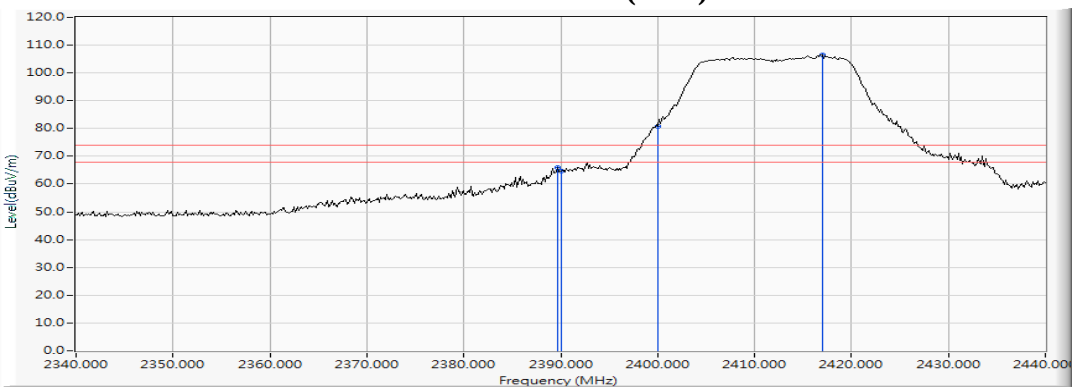
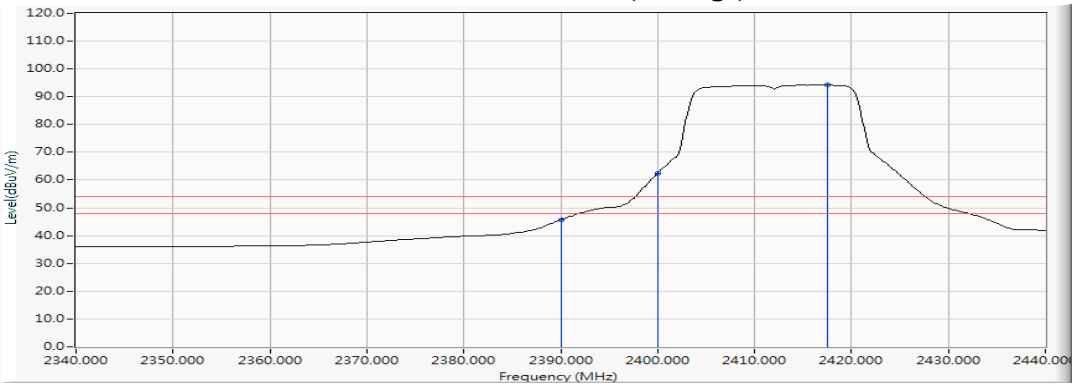



**Figure Channel 01: Horizontal (Average)**




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 (dBµV) | Emission Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/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)**

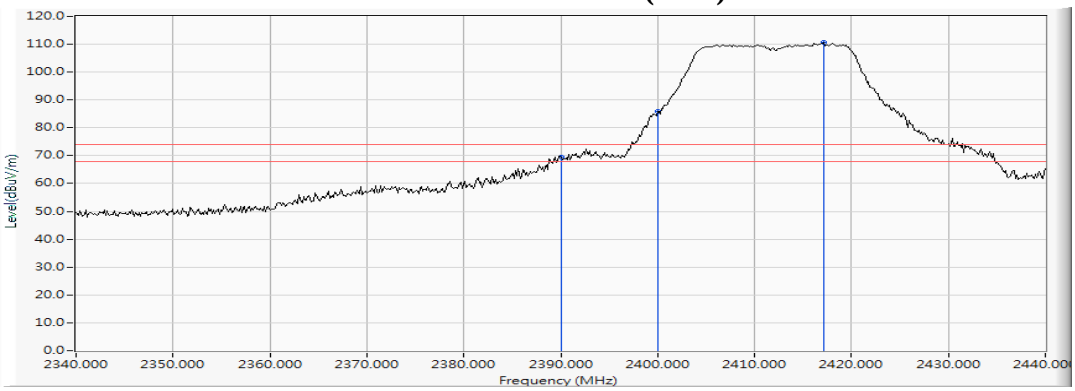
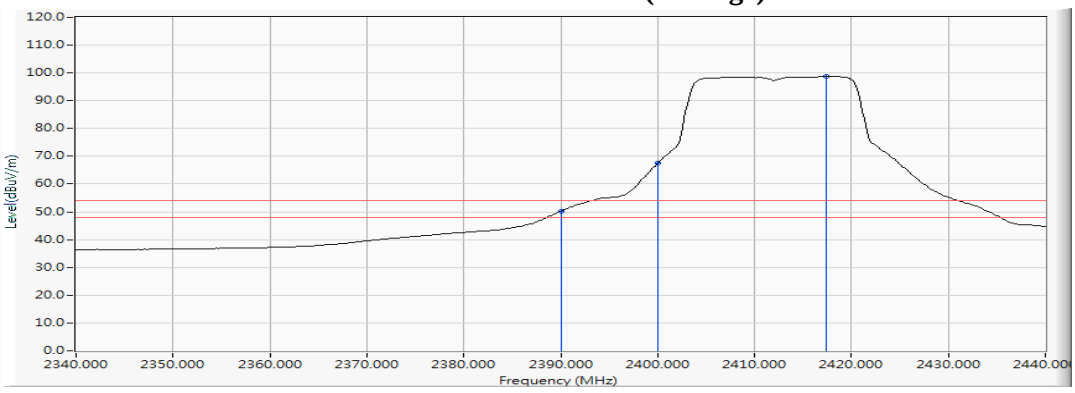



**Figure Channel 01: VERTICAL (Average)**




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)**

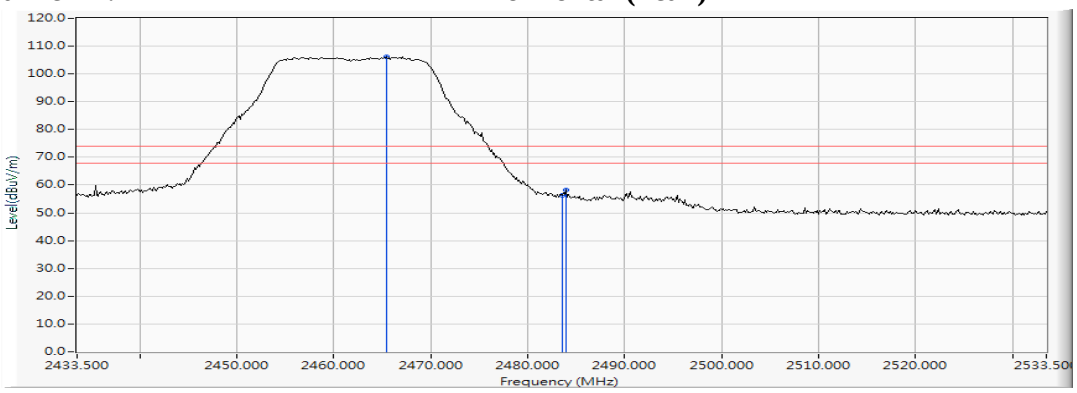
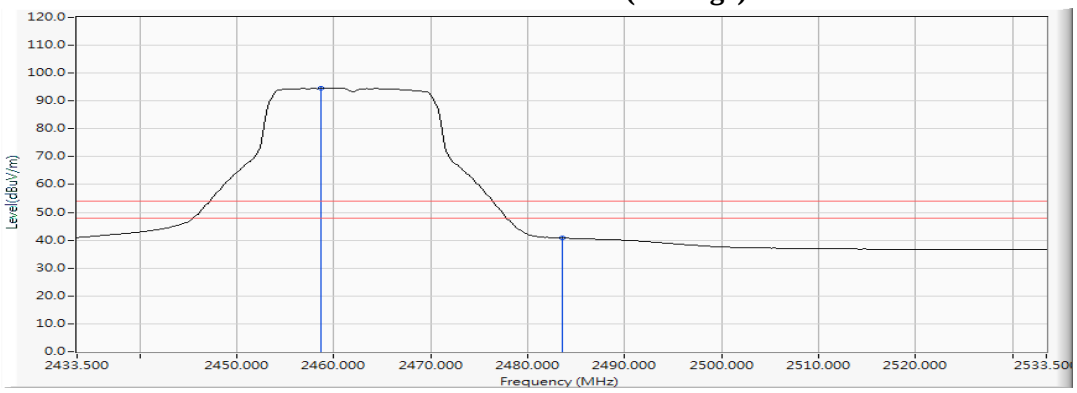



**Figure Channel 11: Horizontal (Average)**




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)**

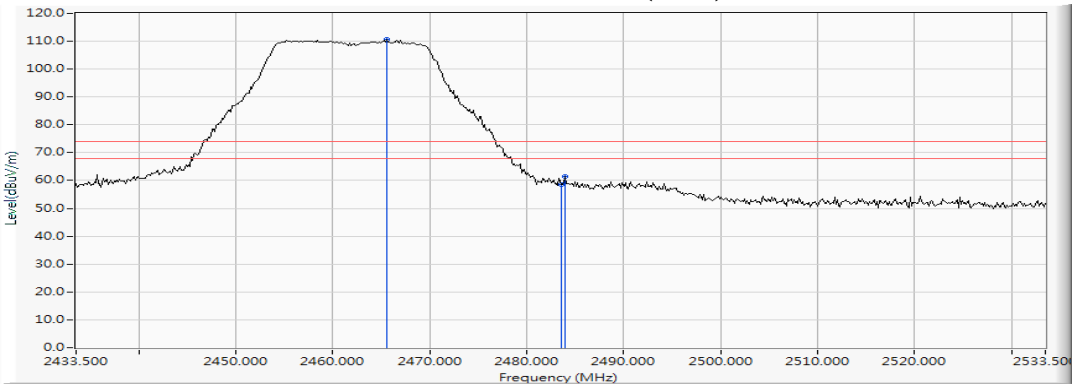
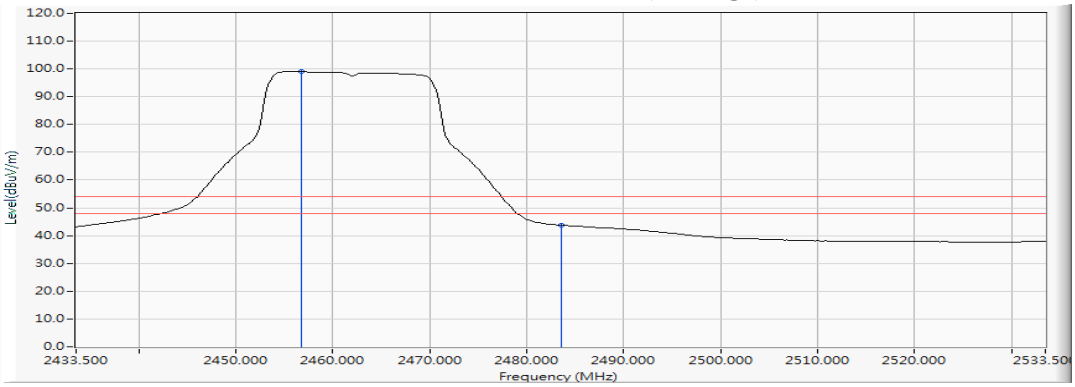



**Figure Channel 11: VERTICAL (Average)**




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)**

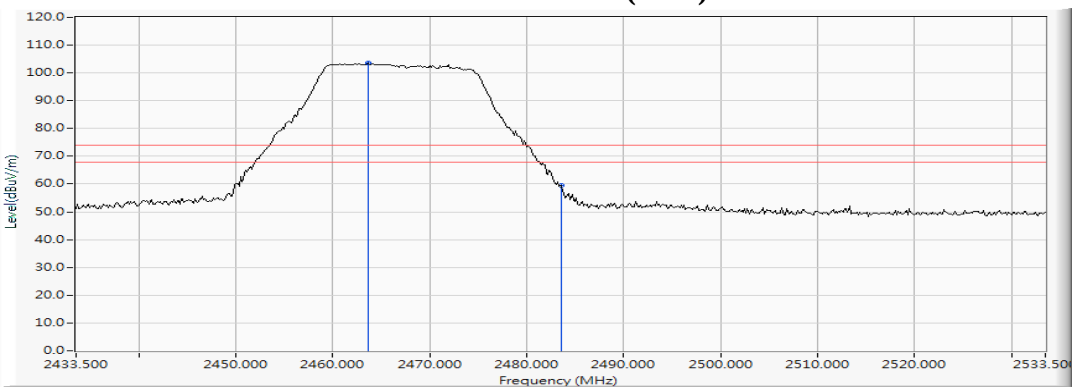
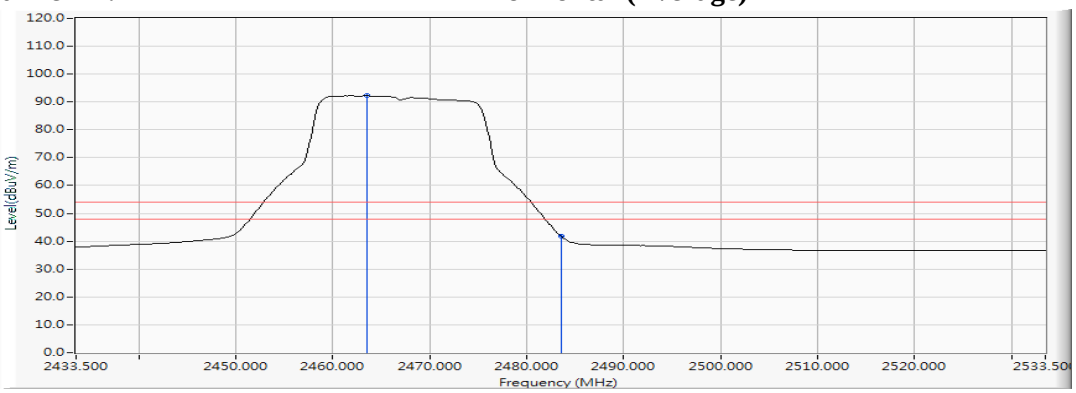



**Figure Channel 12: Horizontal (Average)**




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)**

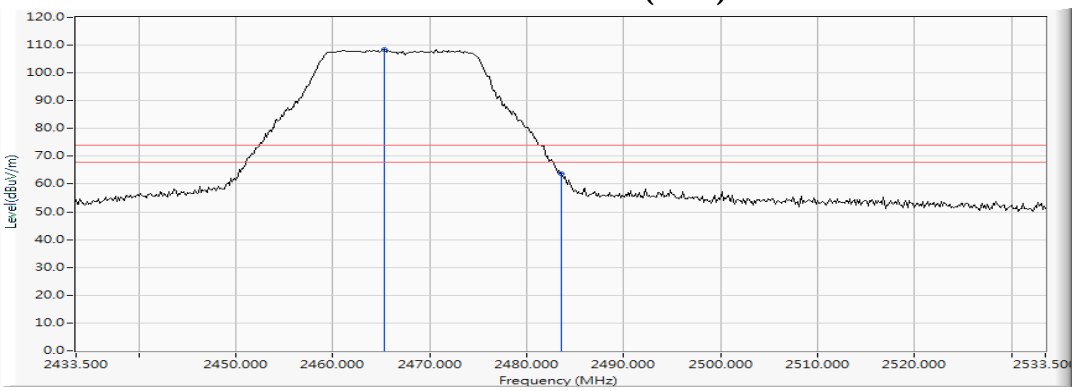
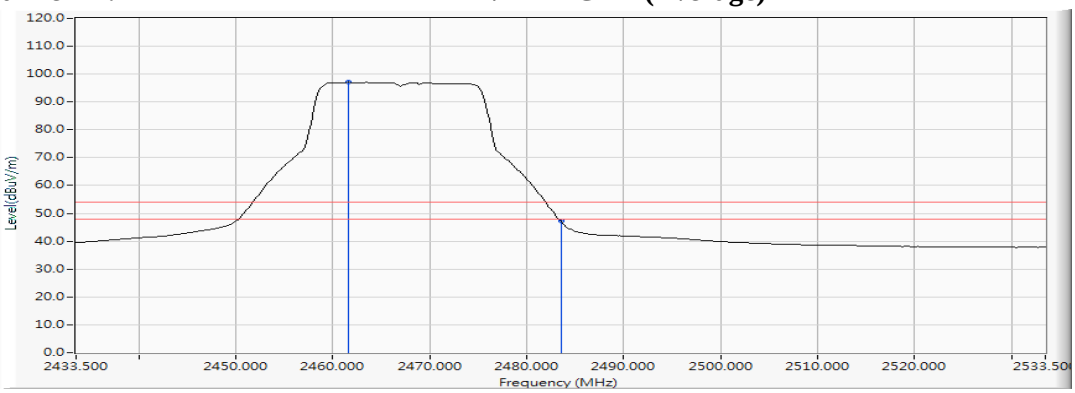



**Figure Channel 12: VERTICAL (Average)**




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)**

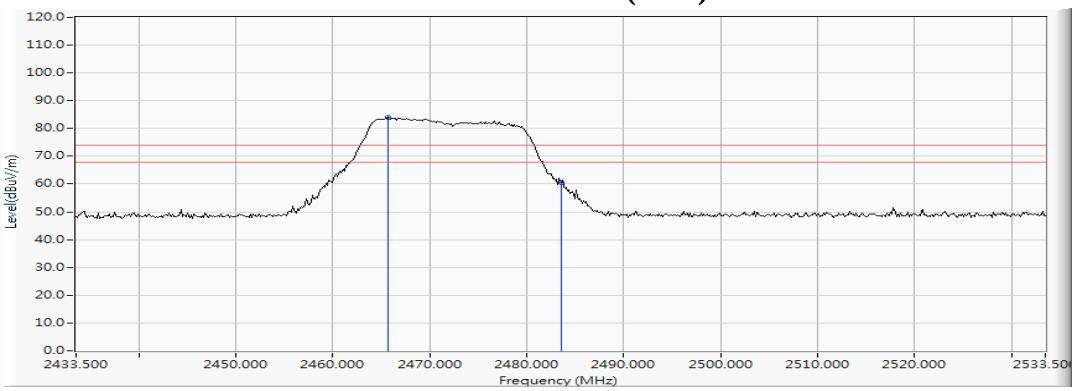
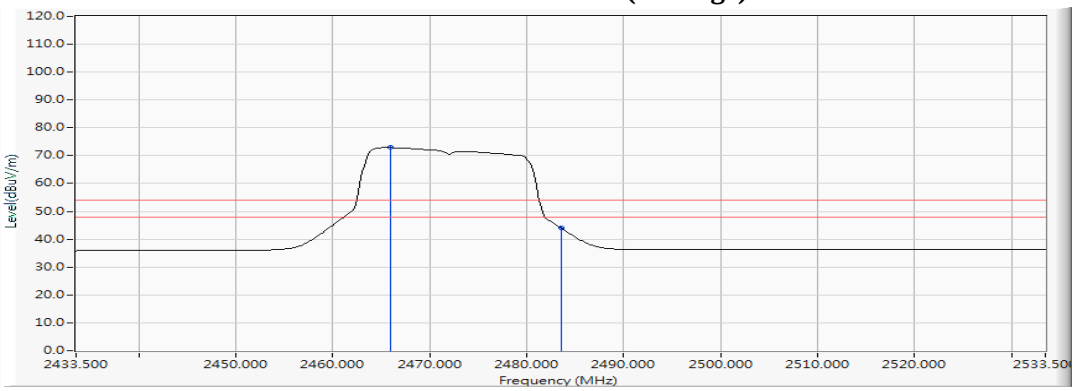



**Figure Channel 13: Horizontal (Average)**




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)**

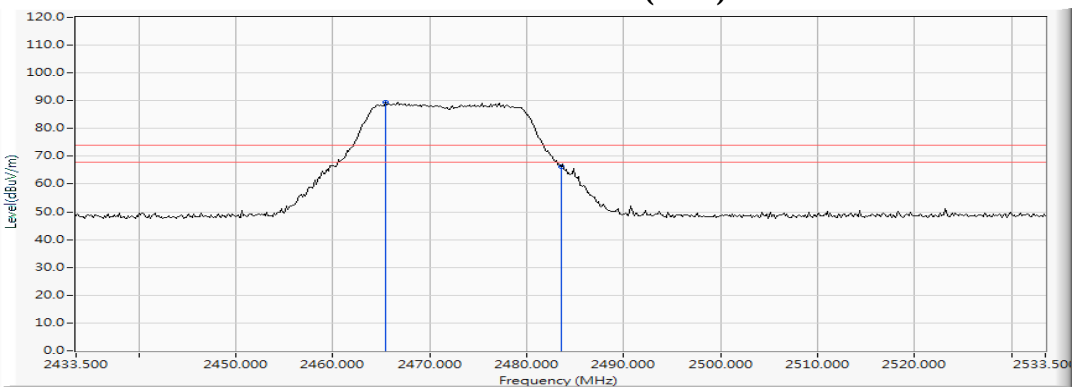
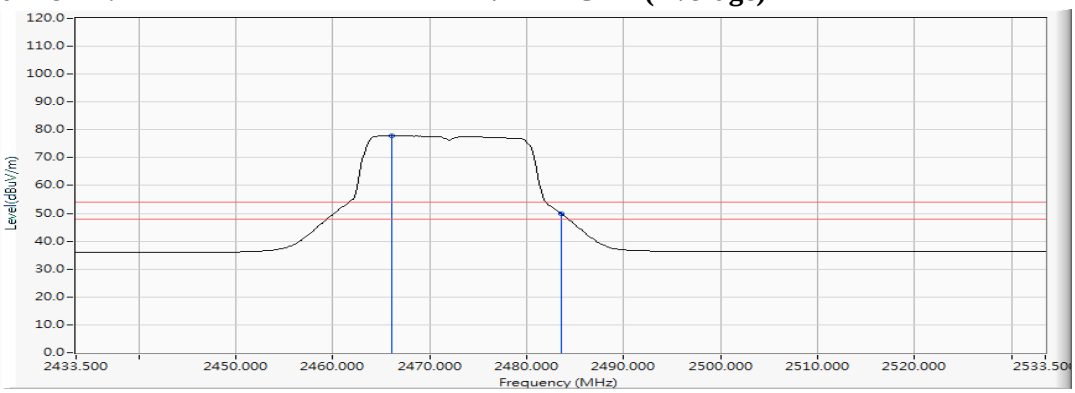



**Figure Channel 12: VERTICAL (Average)**




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)**

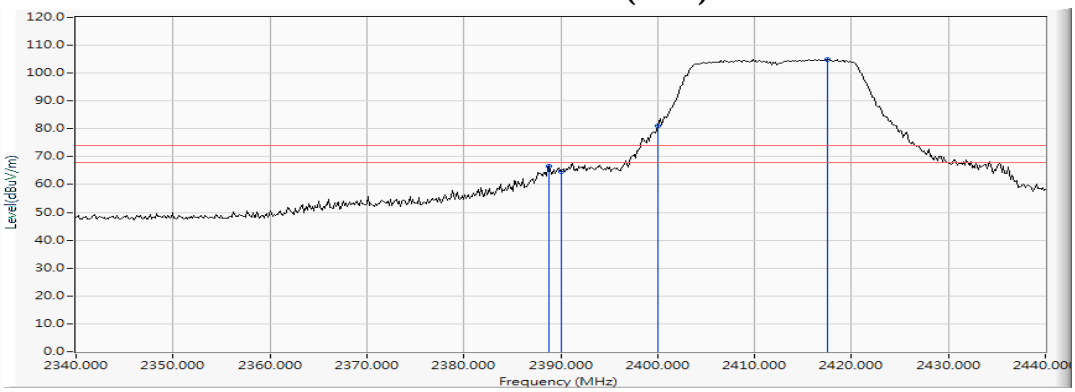
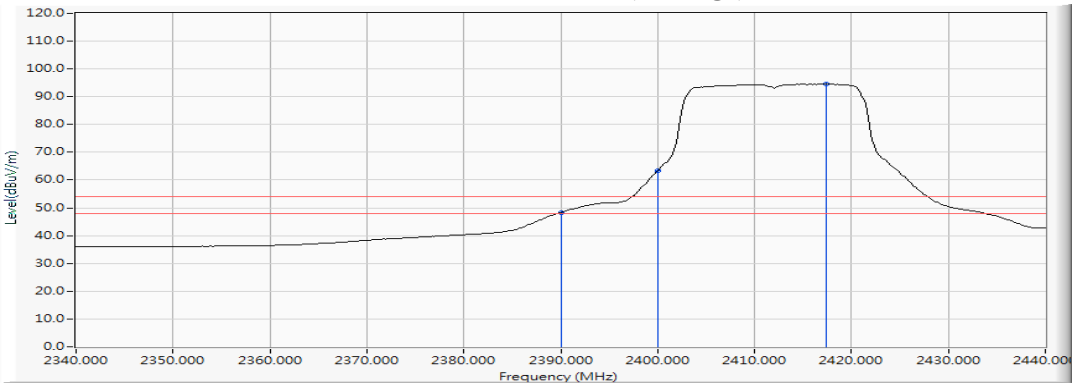



**Figure Channel 01: Horizontal (Average)**




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)**

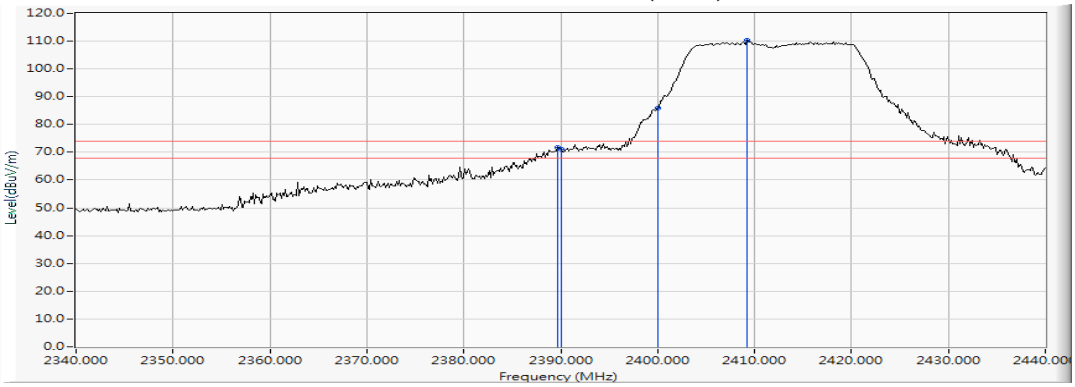
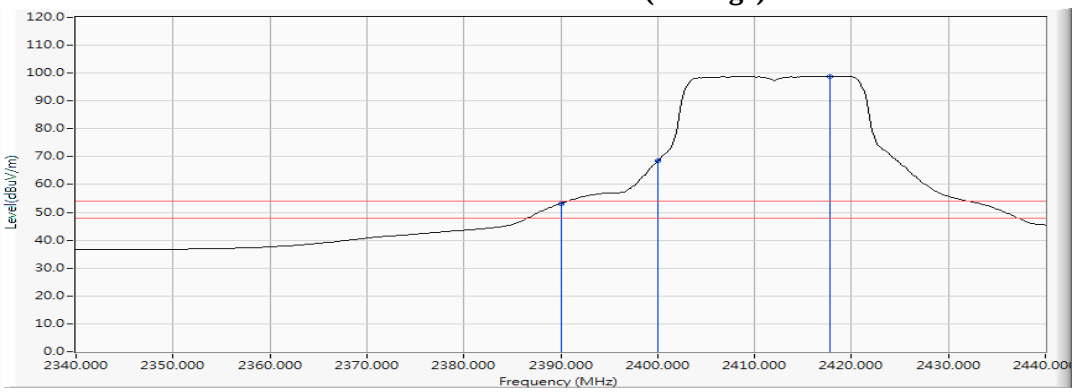



**Figure Channel 01: VERTICAL (Average)**




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 (dBµV) | Emission Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/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)**

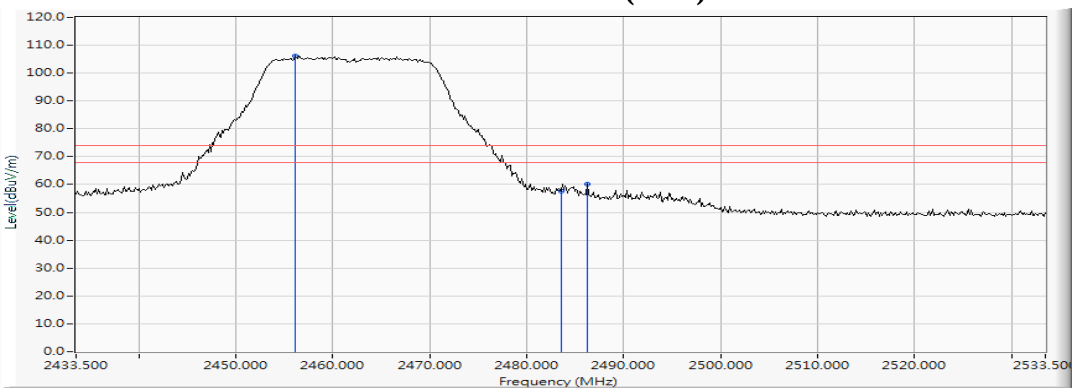
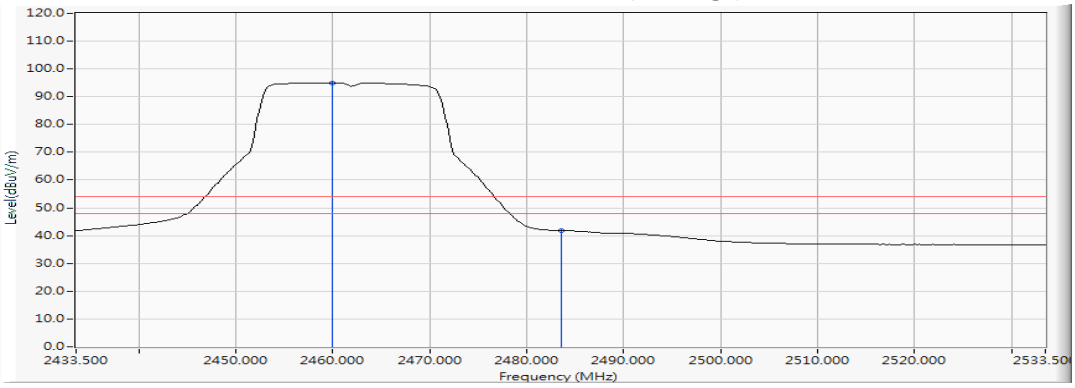



**Figure Channel 11: Horizontal (Average)**




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)**

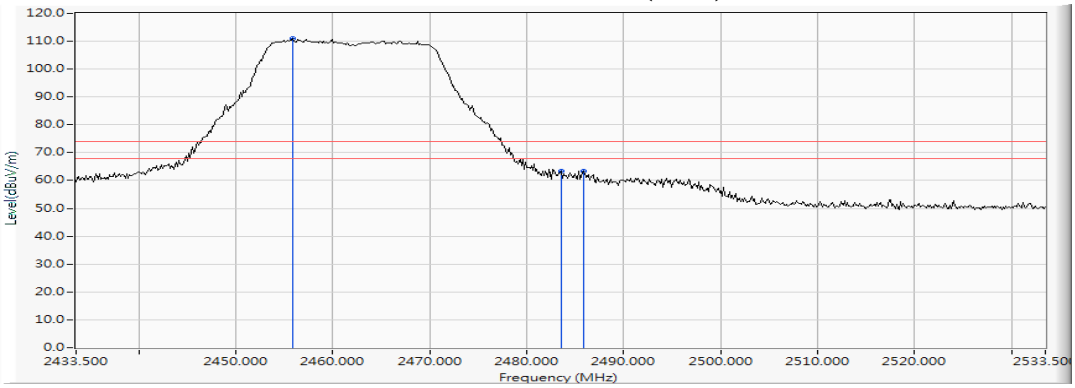
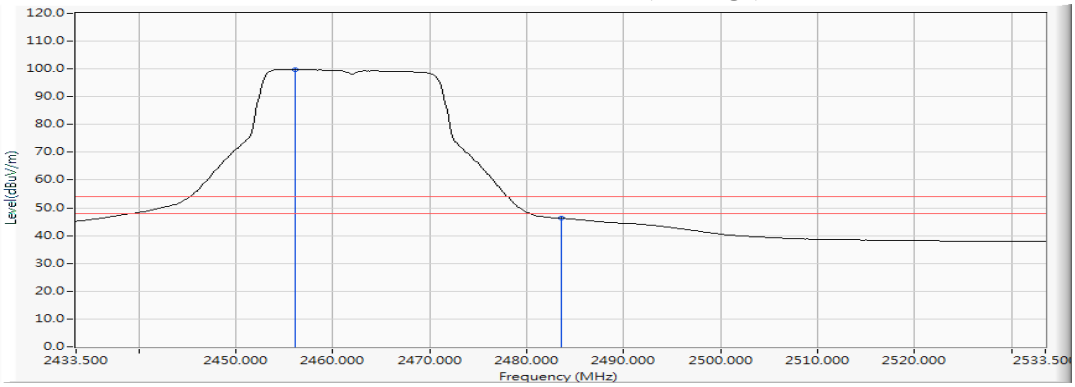



**Figure Channel 11: VERTICAL (Average)**




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)**

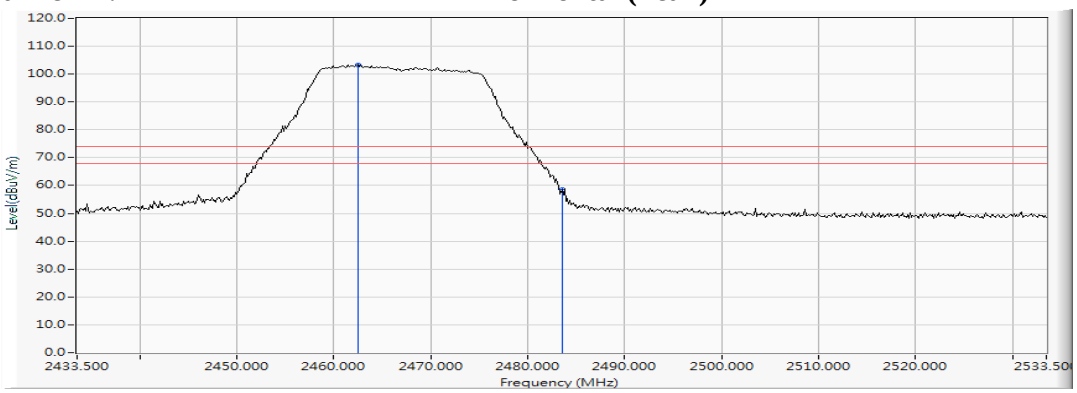
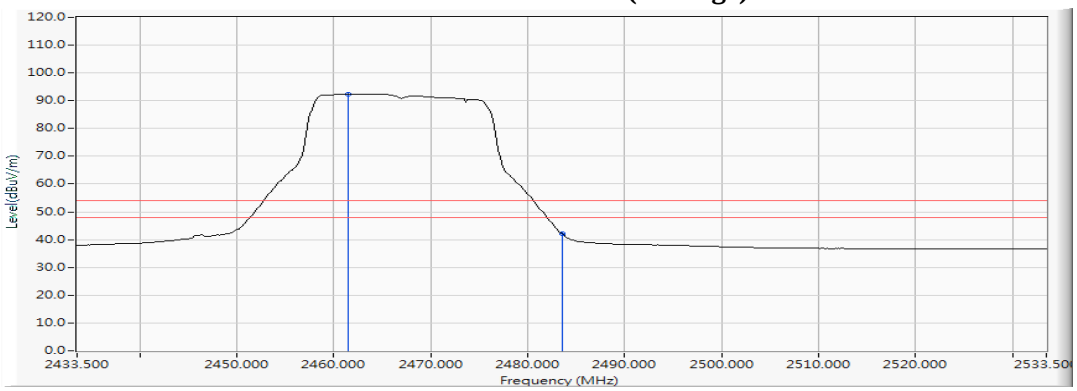



**Figure Channel 12: Horizontal (Average)**




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)**

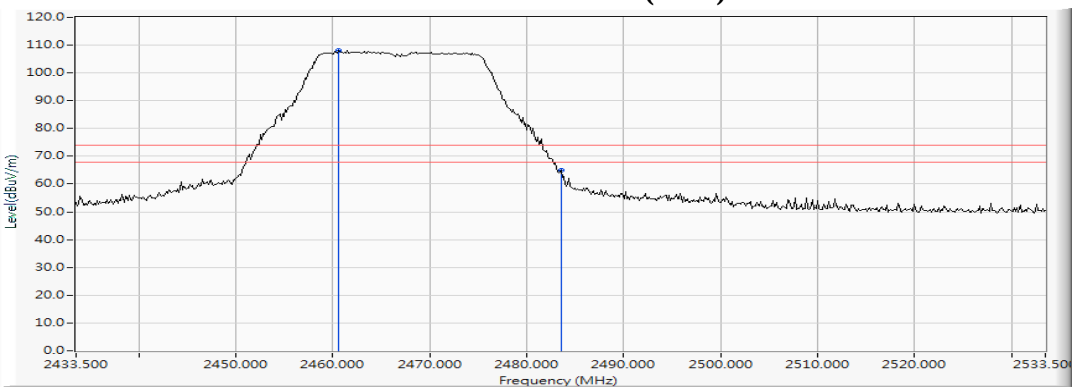
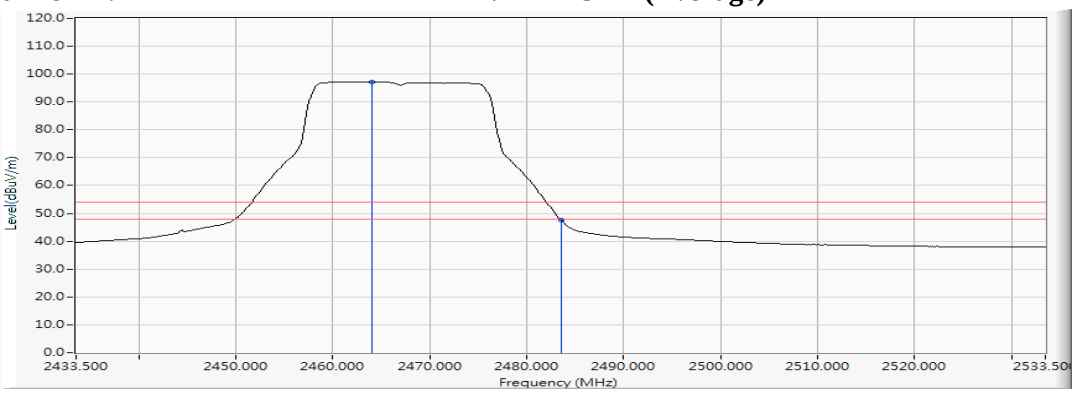



**Figure Channel 12: VERTICAL (Average)**




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 (dBµV) | Emission Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/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)**

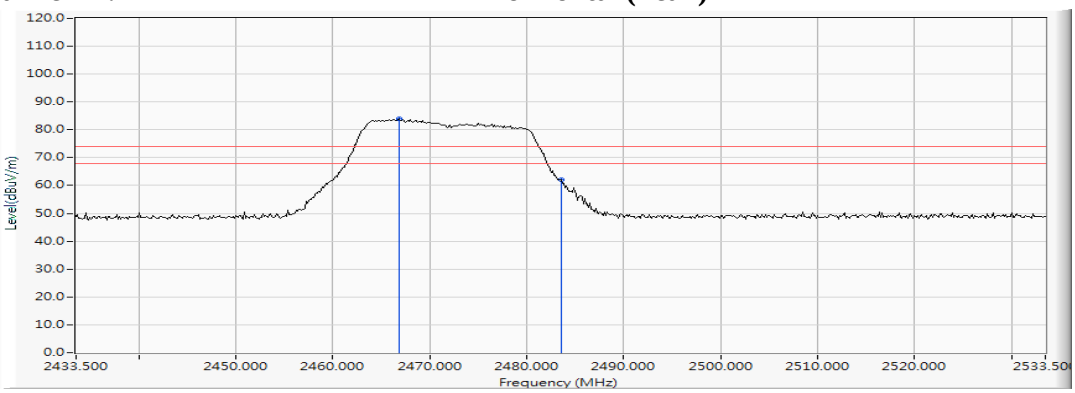
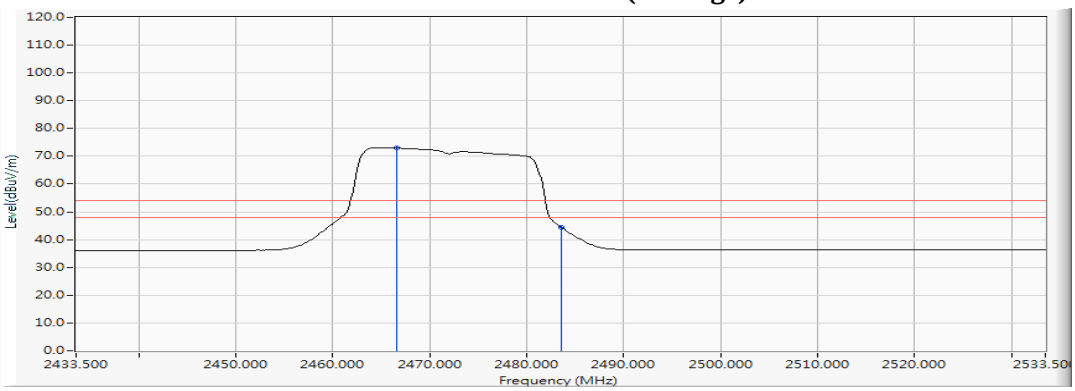



**Figure Channel 12: Horizontal (Average)**




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)**

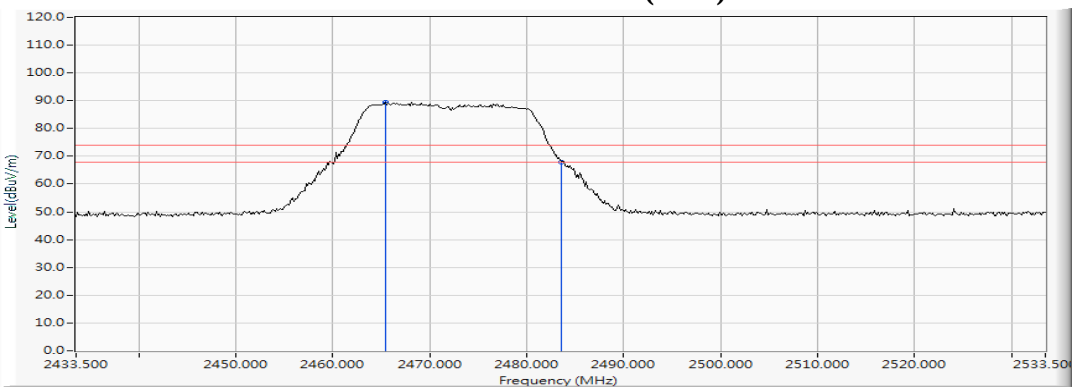
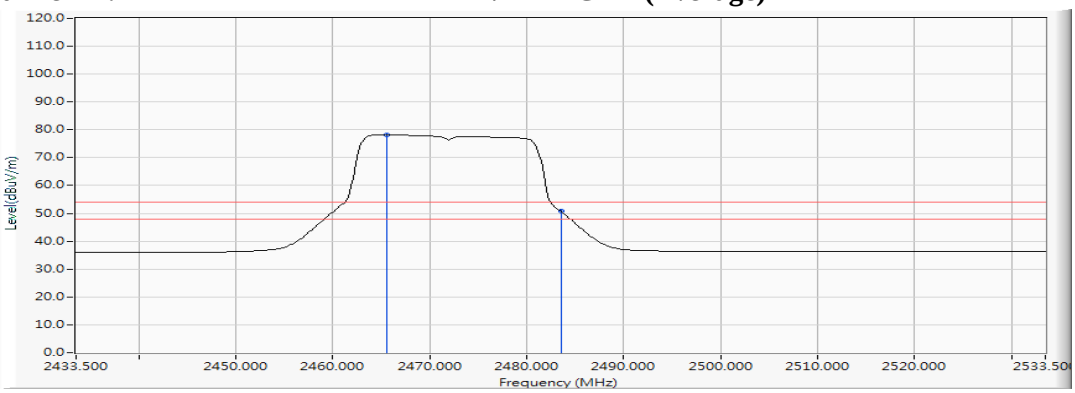



**Figure Channel 12: VERTICAL (Average)**




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 (dBµV) | Emission Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/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)**

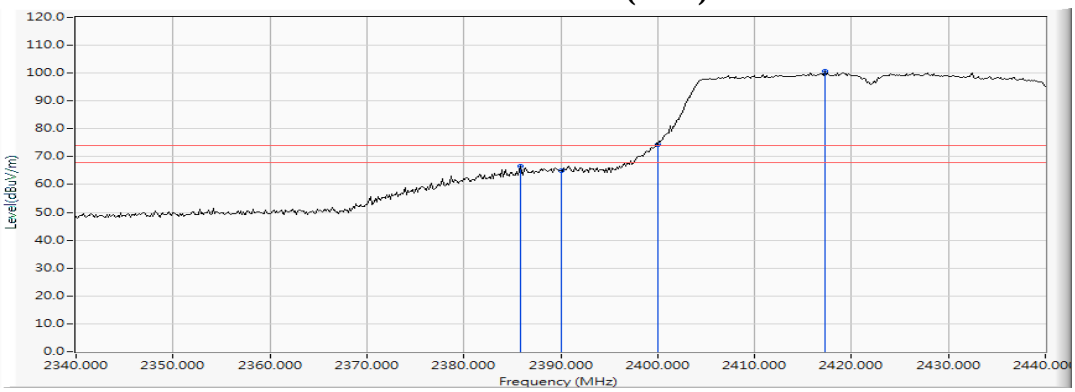
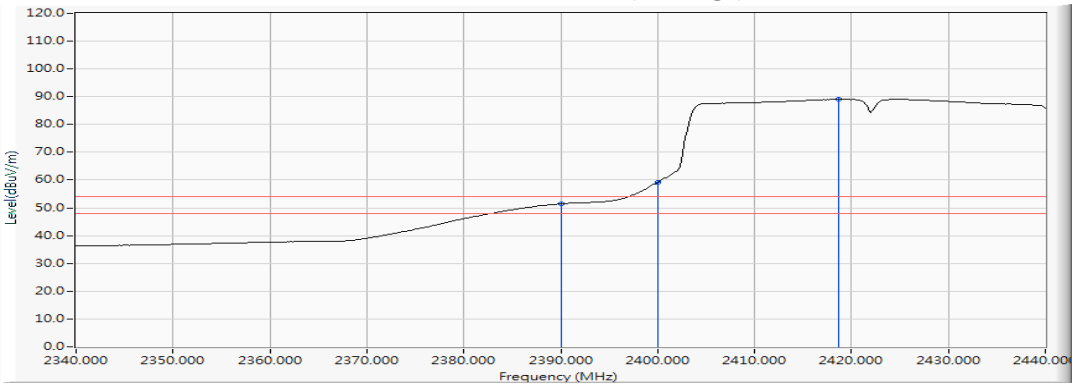



**Figure Channel 03: Horizontal (Average)**




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)**

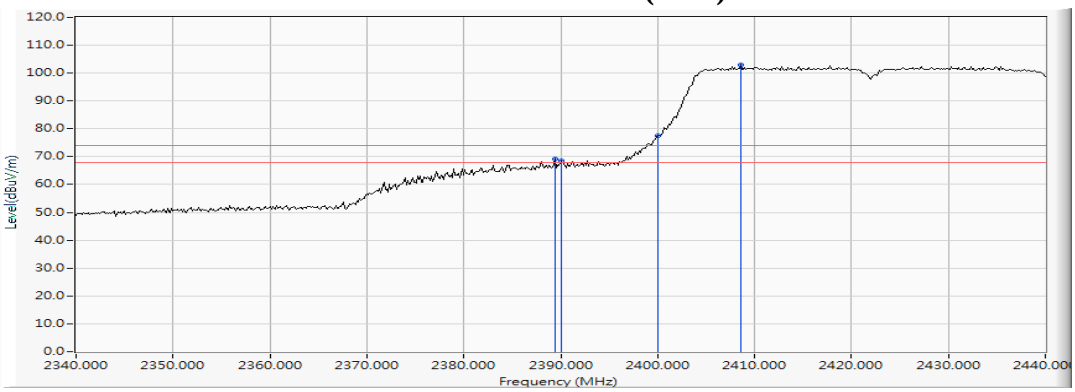
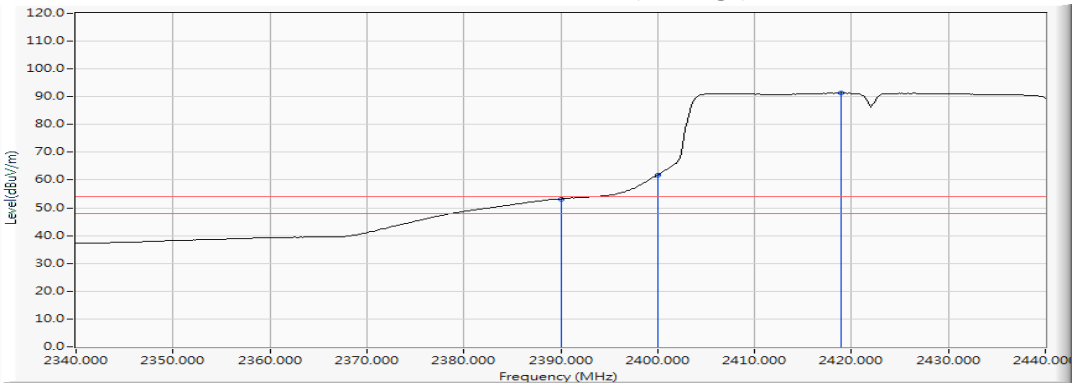



**Figure Channel 03: VERTICAL (Average)**




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)**

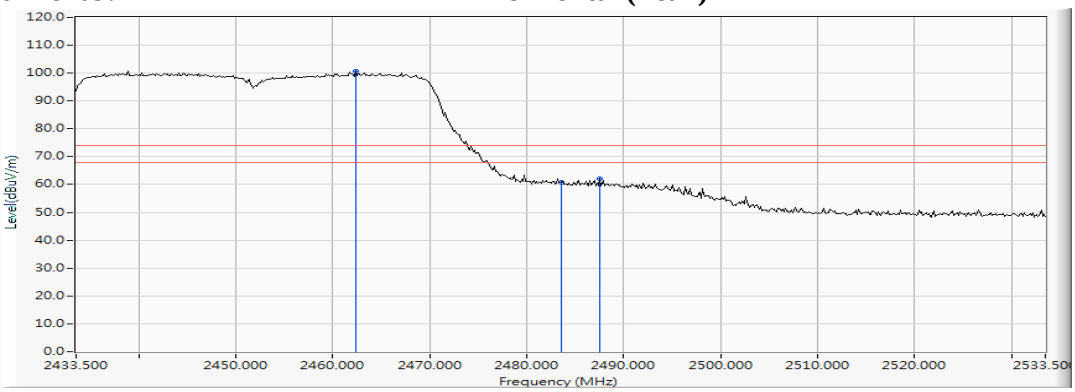
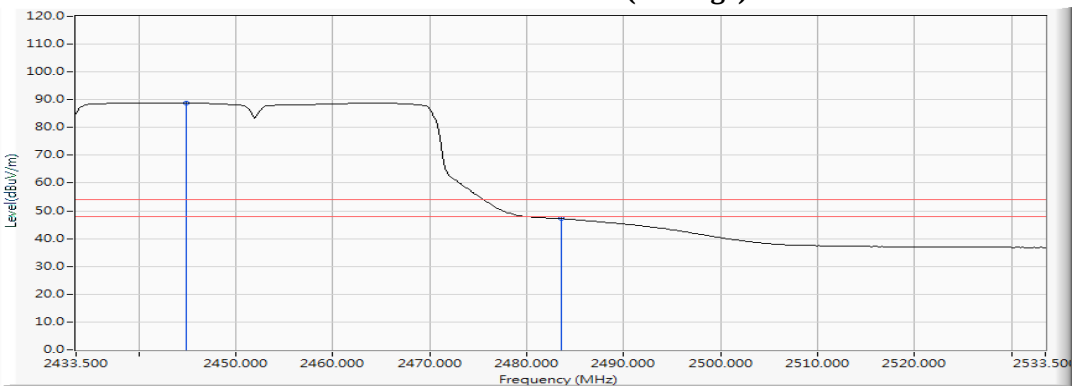



**Figure Channel 09: Horizontal (Average)**




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)**

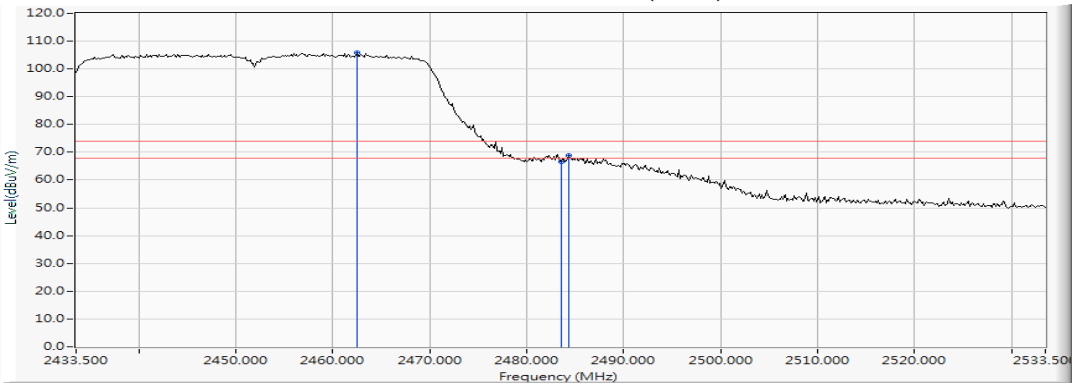
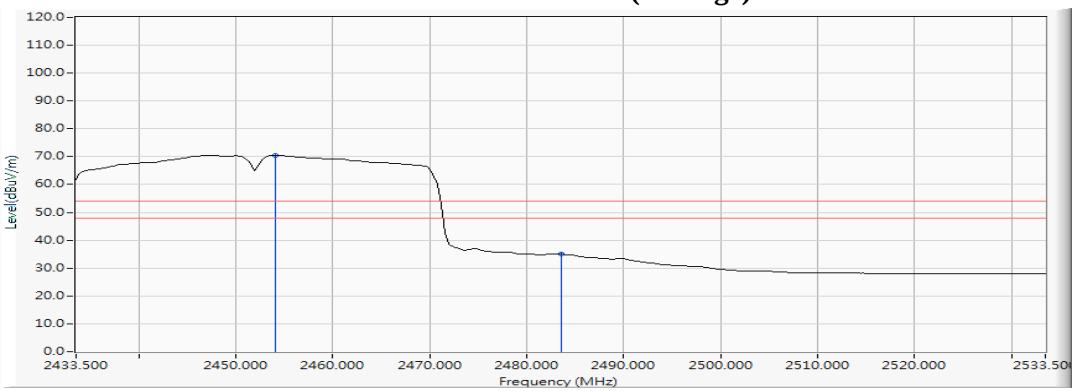



**Figure Channel 09: VERTICAL (Average)**




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 (dBµV) | Emission Level (dBµV/m) | Peak Limit (dBµV/m) | Average Limit (dBµV/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)**

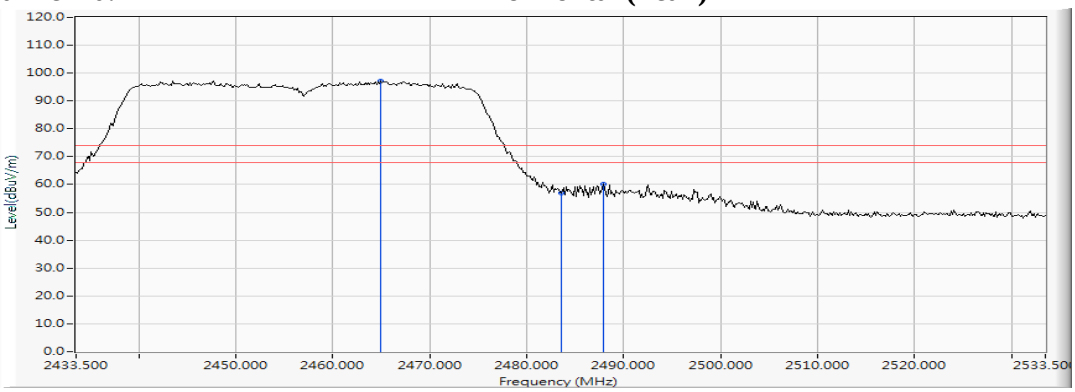
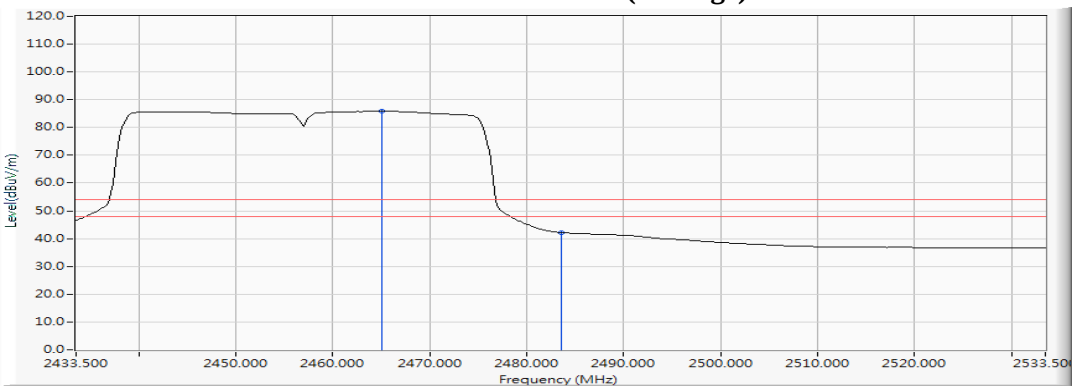



**Figure Channel 10: Horizontal (Average)**




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)**

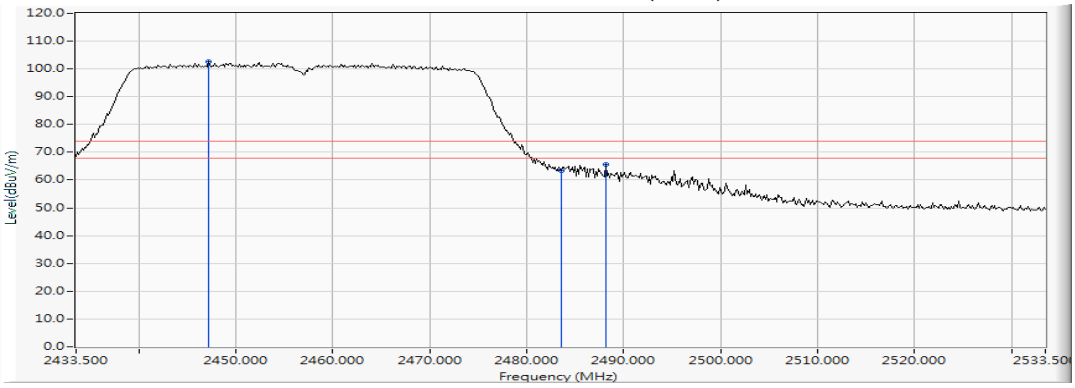
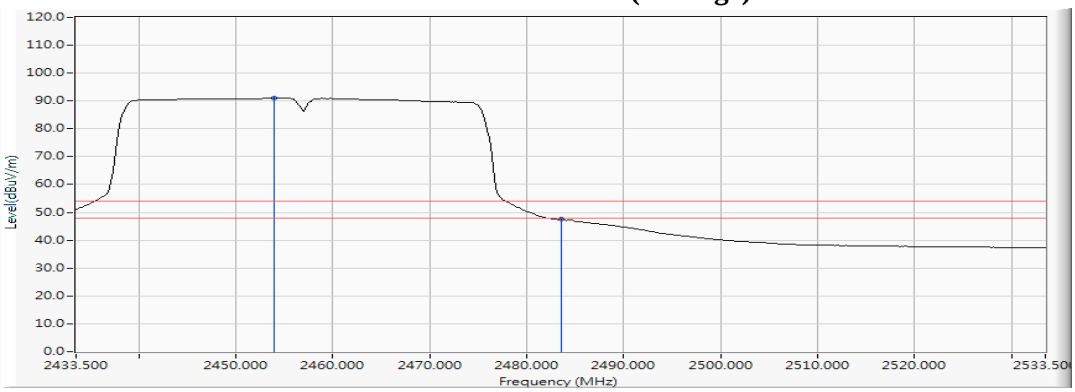



**Figure Channel 10: VERTICAL (Average)**




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)**

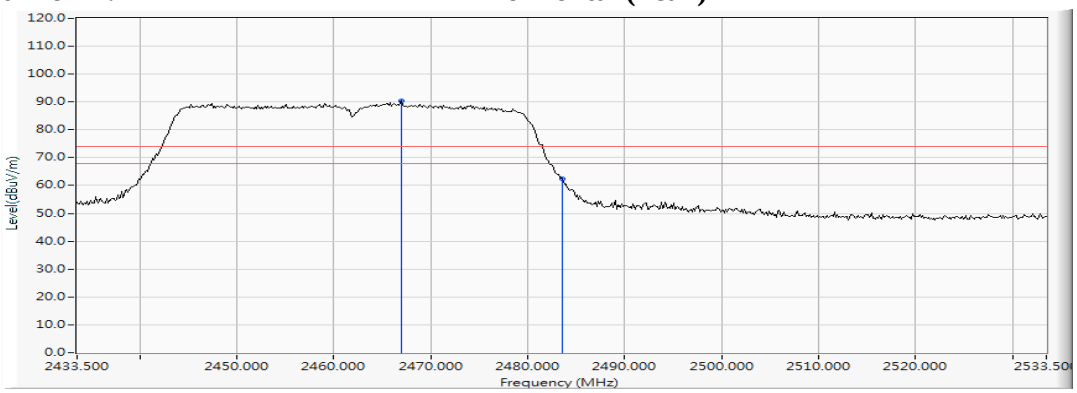
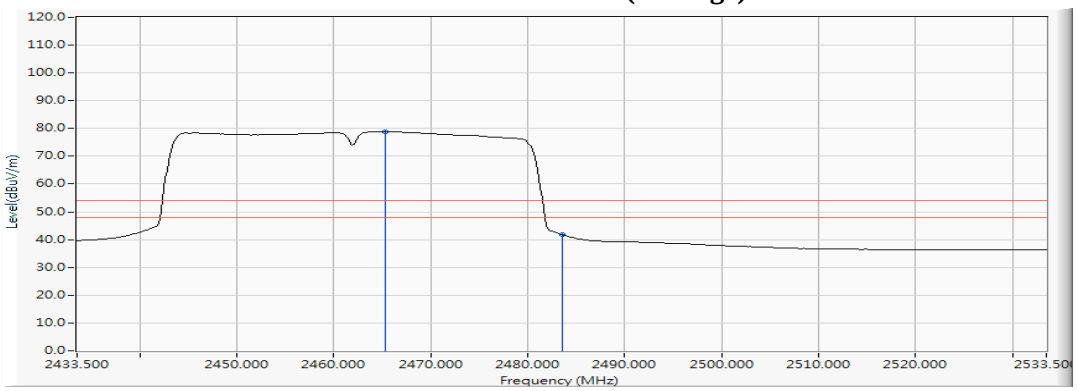



**Figure Channel 11: Horizontal (Average)**




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)**

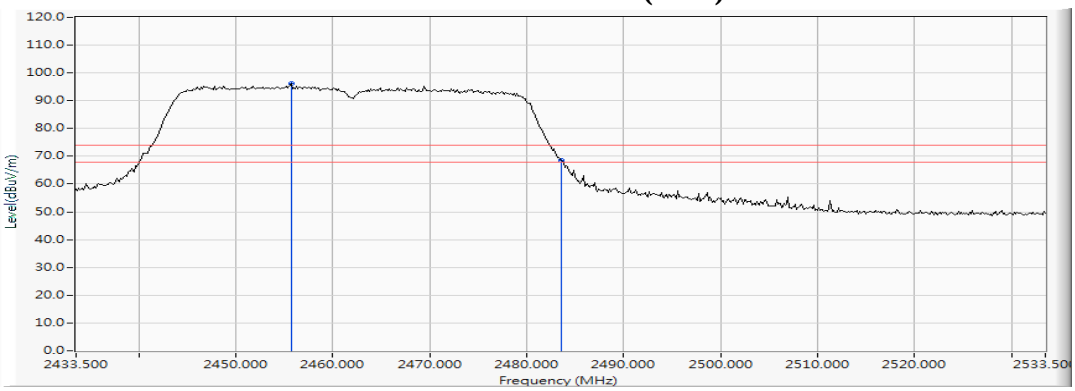
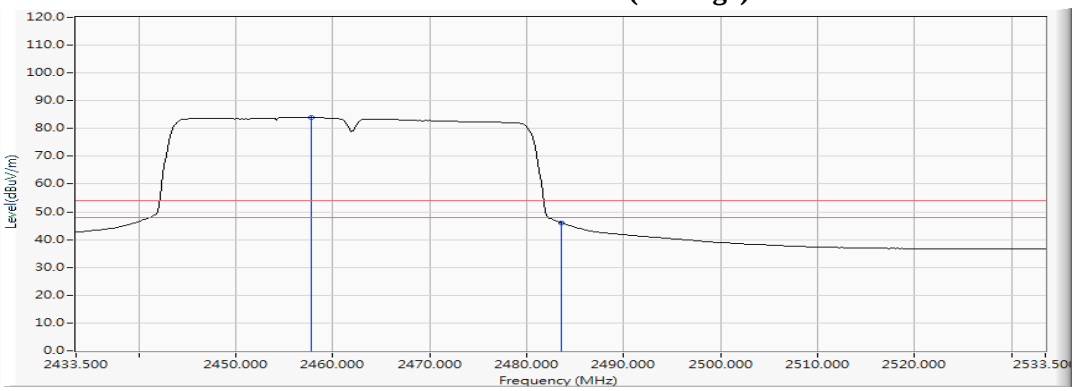



**Figure Channel 11: VERTICAL (Average)**

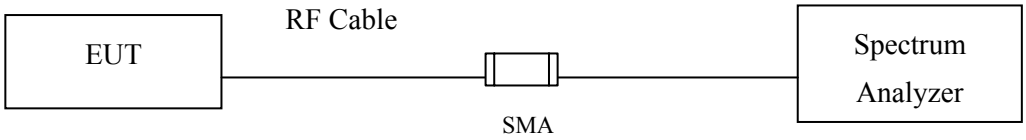



Note:

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

± 2.31msec

## 5.4. Test Result of Duty Cycle

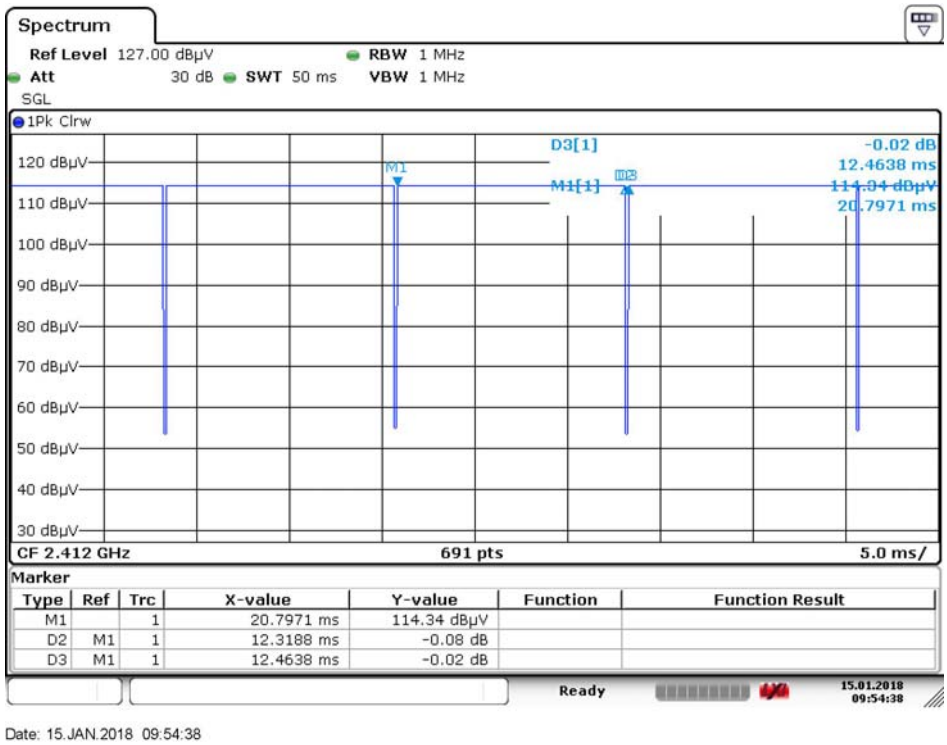
Product : Intel® Wireless-AC 9461
Test Item : Duty Cycle
Test Mode : Transmit

Duty Cycle Formula:
Duty Cycle = Ton / (Ton + Toff)
Duty Factor = 10 Log (1/Duty Cycle)

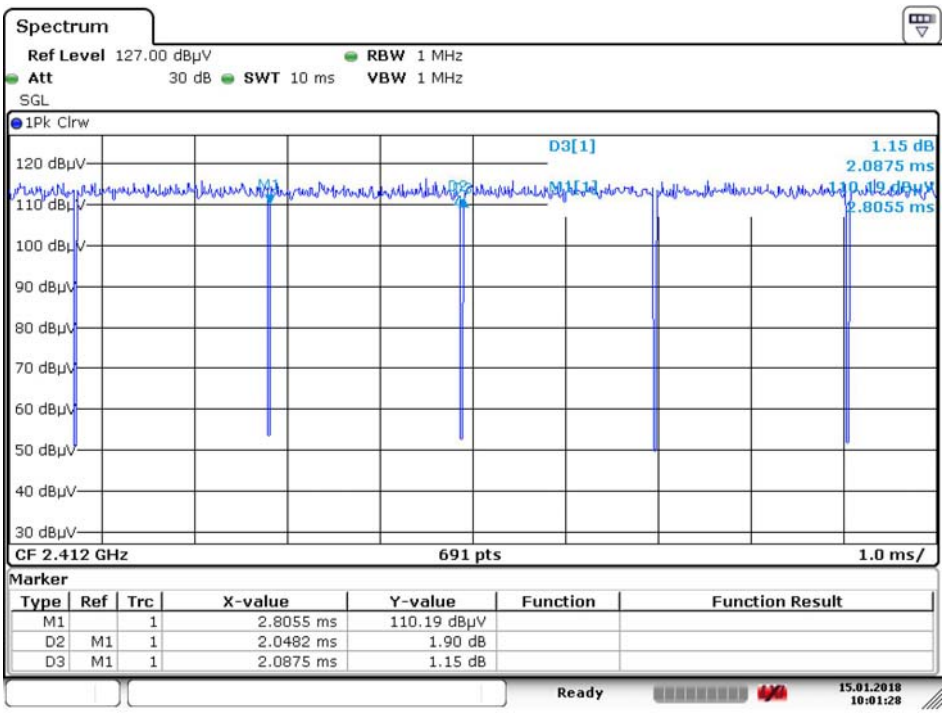
Results:

| 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

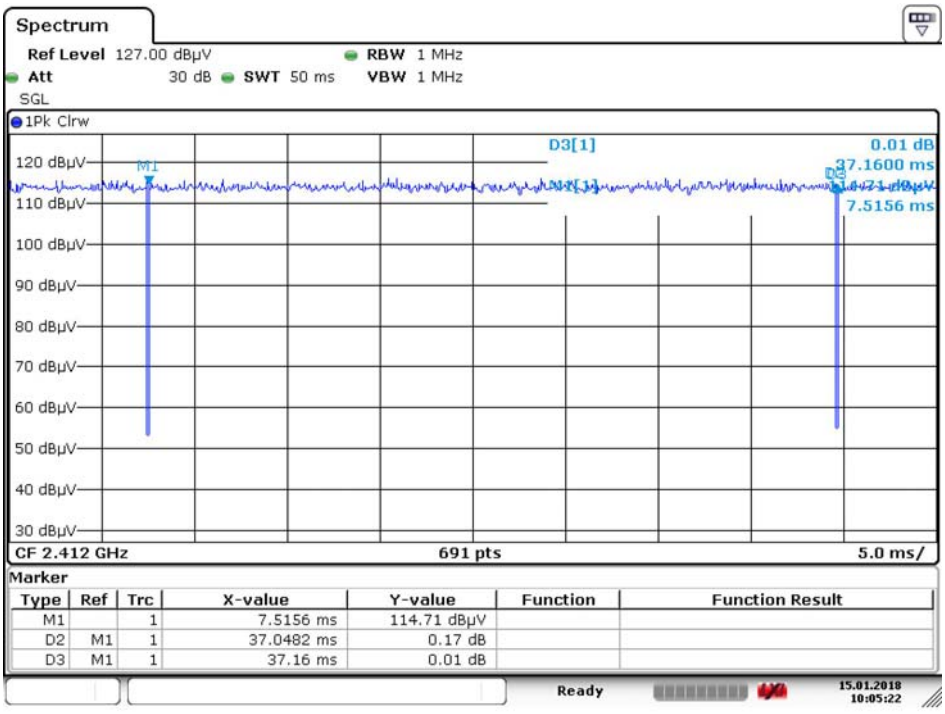


802.11g



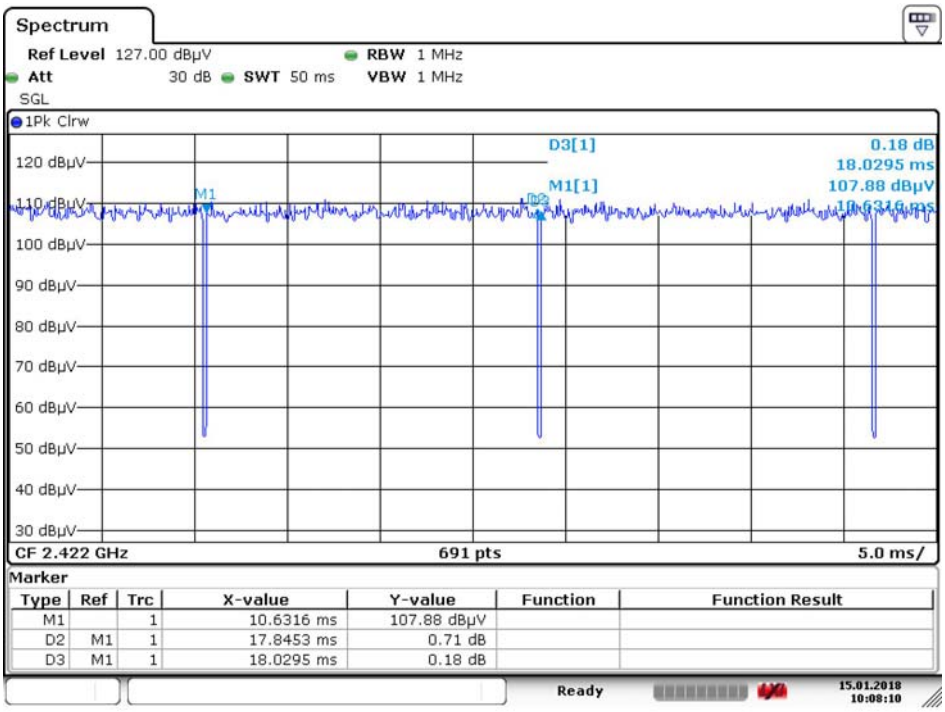

Date: 15.JAN.2018 10:01:28

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.