# FCC Test Report

| | |
|---|---|
| Product Name | Tablet PC |
| Model No | TU10MK, TF10MK1, Ty10MKx(y=0~9, A~Z or blank or “-”, x=0~9, A~Z or blank or “-”) |
| FCC ID. | WL6-TU1MT63MK1 |

| | |
|---|---|
| Applicant | ELITEGROUP COMPUTER SYSTEMS CO., LTD |
| Address | No.239, Sec. 2, Ti Ding Blvd., Taipei, Taiwan |

| | |
|---|---|
| Date of Receipt | Dec. 15, 2017 |
| Issue Date | Jan. 26, 2018 |
| Report No. | 17C0206R-RFUSP26V00 |
| Report Version | V1.0 |

Testing Laboratory
3023

# Test Report

Issue Date: Jan. 26, 2018
Report No.: 17C0206R-RFUSP26V00

| | |
|---|---|
| Product Name | Tablet PC |
| Applicant | ELITEGROUP COMPUTER SYSTEMS CO., LTD |
| Address | No.239, Sec. 2, Ti Ding Blvd., Taipei, Taiwan |
| Manufacturer | ELITEGROUP COMPUTER SYSTEMS CO., LTD |
| Model No. | TU10MK, TF10MK1, Ty10MKx(y=0~9, A~Z or blank or "-", x=0~9, A~Z or blank or "-") |
| FCC ID. | WL6-TU1MT63MK1 |
| EUT Rated Voltage | AC 100-240V, 50-60Hz or DC 3.7V(Power by battery) |
| EUT Test Voltage | AC 120V/60Hz |
| Trade Name | ECS ELITEGROUP |
| 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 : Jinn Chen

( Senior Adm. Specialist / Jinn Chen )

Tested By : Steven Tsai

( Assistant Engineer / Steven Tsai )

Approved By :

( Director / Vincent Lin )

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Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs

# 1. GENERAL INFORMATION

## 1.1. EUT Description

| | |
|---|---|
| Product Name | Tablet PC |
| Trade Name | ECS ELITEGROUP |
| Model No. | TU10MK, TF10MK1, Ty10MKx(y=0~9, A~Z or blank or "-", x=0~9, A~Z or blank or "-") |
| FCC ID. | WL6-TU1MT63MK1 |
| Frequency Range | 2412-2462MHz for 802.11b/g/n-20BW, 2422-2452MHz for 802.11n-40BW |
| Number of Channels | 802.11b/g/n-20MHz: 11, n-40MHz: 7 |
| 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 | PIFA Antenna |
| Antenna Gain | Refer to the table "Antenna List" |
| Channel Control | Auto |
| Power Adapter | MFR: Asian, M/N:WB-10E05R<br>Input:100-240V~50-60Hz, 0.4A<br>Output:5V⎓, 2A<br>Cable Out Non-shielded, 1.5m |

**Antenna List**

| No. | Manufacturer | Part No. | Antenna Type | Peak Gain |
|---|---|---|---|---|
| 1 | WGT | 13-130-JL5050 | PIFA Antenna | 2.98 dBi 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 | | |

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 | | |

Note:

1. The EUT is a Tablet PC with a built-in WLAN and Bluetooth V4.0、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. (802.11b is 1Mbps、802.11g is 6Mbps、802.11n(20M-BW) is 7.2Mbps and 802.11n(40M-BW) is 15Mbps)
4. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11b/g/n transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.
5. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

| | |
|---|---|
| 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) |

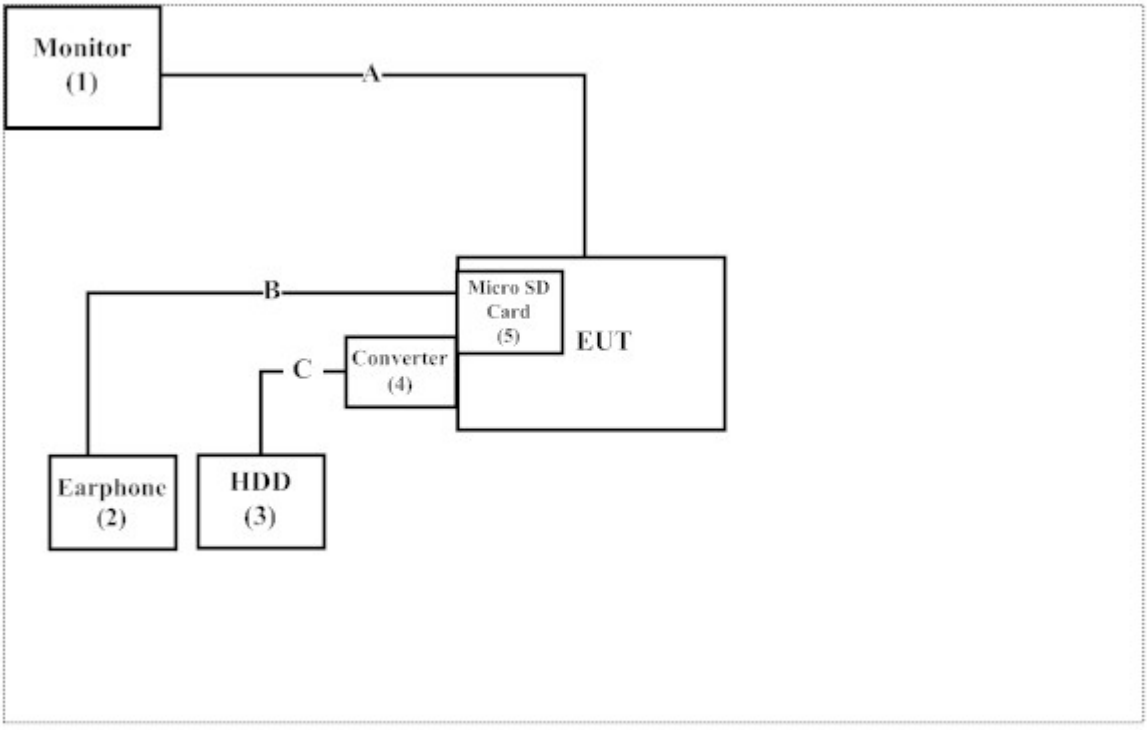
## 1.3. Tested System Details

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 | Monitor | DELL | U2415 | CN-01RMGX-74261-63H-09UL-A02 | Non-shielded, 1.8m |
| 2 | Earphone | Verbatim | N/A | N/A | N/A |
| 3 | USB 3.0 | WD | WDBUZG0010BBK-PESN | WX11A166S2Y3 | N/A |
| 4 | Converter (MicorUSB to USB) | N/A | N/A | N/A | N/A |
| 5 | Micro SD Card | Sandisk | 32GB | N/A | N/A |

| Signal Cable Type | | Signal cable Description |
|---|---|---|
| A | Micro HDMI to HDMI Cable | Shielded, 1.8m |
| B | Earphone Cable | Non-shielded, 1m |
| C | USB Cable | Shielded, 0.3m |

## 1.4. Configuration of Tested System



## 1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software “MT6571 va.6C.2” on the EUT.
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

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Accredited Number: 3023

Site Name: DEKRA Testing and Certification Co., Ltd.
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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 Conduction measurements /ASR1**

| | Equipment | Manufacturer | Model No. | Serial No. | Cali. Data | Due. Data |
|---|---|---|---|---|---|---|
| X | EMI Test Receiver | R&S | ESR7 | 101602 | 2017.12.11 | 2018.12.10 |
| X | Two-Line V-Network | R&S | ENV216 | 101306 | 2017.02.16 | 2018.02.15 |
| X | Two-Line V-Network | R&S | ENV216 | 101307 | 2017.03.17 | 2018.03.16 |
| X | Coaxial Cable | Quietek | RG400_BNC | RF001 | 2017.05.24 | 2018.05.23 |

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

**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

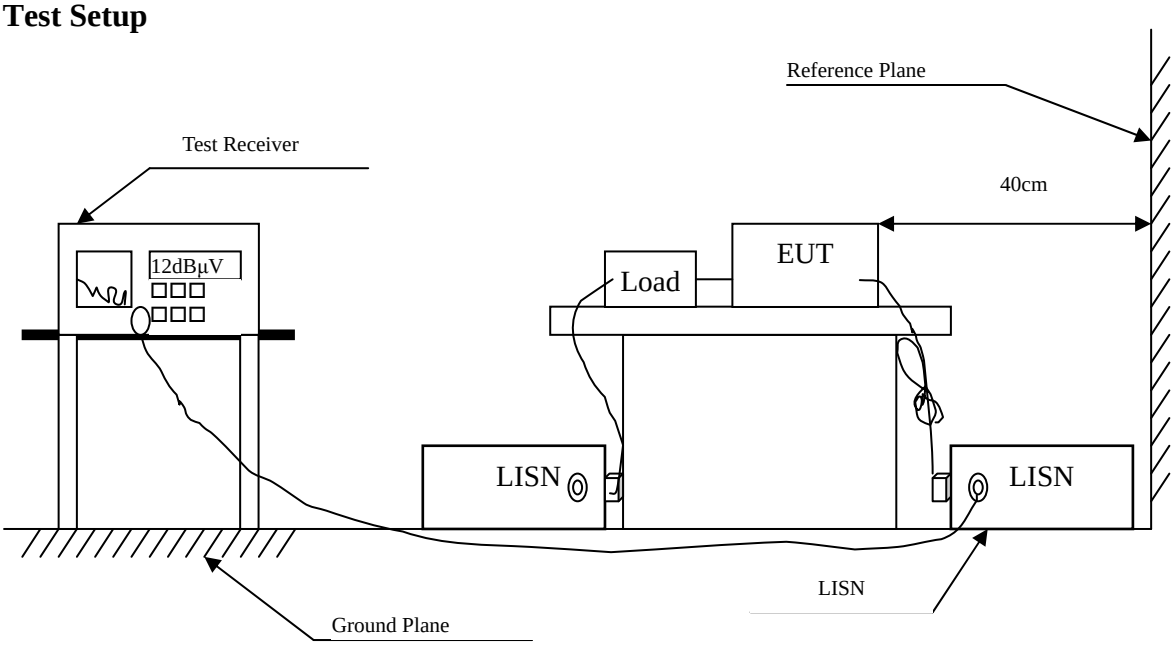
**For Radiated measurements /ACB1**

| | 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. Loop Antenna is calibrated every two year, the other equipments are calibrated every one year.
2. The test instruments marked with “X” are used to measure the final test results.
3. Test Software version : QuieTek EMI 2.0 V2.1.113

# 2. Conducted Emission

## 2.1. Test Setup




## 2.2. Limits

| FCC Part 15 Subpart C Paragraph 15.207 (dBµV) Limit | | |
|---|---|---|
| Frequency MHz | Limits | |
| | QP | AVG |
| 0.15 - 0.50 | 66-56 | 56-46 |
| 0.50-5.0 | 56 | 46 |
| 5.0 - 30 | 60 | 50 |

## 2.3. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)
Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

## 2.4. Uncertainty

± 2.35 dB

## 2.5. Test Result of Conducted Emission

Product : Tablet PC
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437MHz)
Test Date : 2018/01/18

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV | dB | dBµV |
| **Line 1** | | | | | |
| **Quasi-Peak** | | | | | |
| 0.154 | 9.622 | 32.808 | 42.429 | -23.457 | 65.886 |
| 0.427 | 9.695 | 27.263 | 36.958 | -21.128 | 58.086 |
| 2.366 | 9.764 | 31.854 | 41.617 | -14.383 | 56.000 |
| 2.605 | 9.766 | 36.083 | 45.849 | -10.151 | 56.000 |
| 11.089 | 9.956 | 37.956 | 47.912 | -12.088 | 60.000 |
| 24.576 | 10.100 | 28.914 | 39.014 | -20.986 | 60.000 |
| **Average** | | | | | |
| 0.154 | 9.622 | 15.593 | 25.215 | -30.671 | 55.886 |
| 0.427 | 9.695 | 15.861 | 25.556 | -22.530 | 48.086 |
| 2.366 | 9.764 | 24.645 | 34.409 | -11.591 | 46.000 |
| 2.605 | 9.766 | 26.704 | 36.470 | -9.530 | 46.000 |
| 11.089 | 9.956 | 29.311 | 39.267 | -10.733 | 50.000 |
| 24.576 | 10.100 | 25.716 | 35.816 | -14.184 | 50.000 |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Tablet PC
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437MHz)
Test Date : 2018/01/18

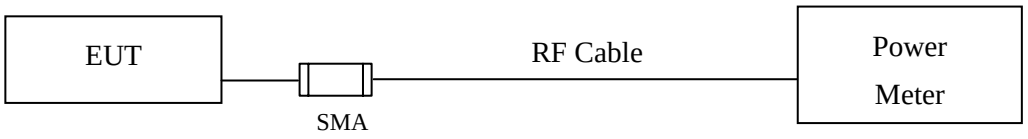
| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV | dB | dBµV |
| **Line 2** | | | | | |
| **Quasi-Peak** | | | | | |
| 0.154 | 9.613 | 33.571 | 43.183 | -22.703 | 65.886 |
| 0.431 | 9.688 | 28.233 | 37.921 | -20.050 | 57.971 |
| 2.683 | 9.777 | 33.673 | 43.450 | -12.550 | 56.000 |
| 9.503 | 9.927 | 31.306 | 41.233 | -18.767 | 60.000 |
| 11.186 | 9.962 | 36.574 | 46.536 | -13.464 | 60.000 |
| 24.576 | 10.140 | 28.102 | 38.242 | -21.758 | 60.000 |
| **Average** | | | | | |
| 0.154 | 9.613 | 18.294 | 27.907 | -27.979 | 55.886 |
| 0.431 | 9.688 | 18.353 | 28.041 | -19.930 | 47.971 |
| 2.683 | 9.777 | 26.748 | 36.525 | -9.475 | 46.000 |
| 9.503 | 9.927 | 22.529 | 32.456 | -17.544 | 50.000 |
| 11.186 | 9.962 | 27.854 | 37.816 | -12.184 | 50.000 |
| 24.576 | 10.140 | 24.382 | 34.522 | -15.478 | 50.000 |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

# 3. Peak Power Output

## 3.1. Test Setup




## 3.2. Limits

The maximum peak power shall be less 1 Watt.

## 3.3. 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)

## 3.4. Uncertainty

±0.86 dB

## 3.5. Test Result of Peak Power Output

Product : Tablet PC
Test Item : Peak Power Output Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps)
Test Date : 2018/01/18

| 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 | 13.31 | - | - | - | 16.34 | <30dBm | Pass |
| 06 | 2437 | 13.39 | 13.34 | 13.27 | 13.22 | 16.55 | <30dBm | Pass |
| 11 | 2462 | 13.34 | - | - | - | 16.32 | <30dBm | Pass |

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

Product : Tablet PC
Test Item : Peak Power Output Data
Test Mode : Mode 2: Transmit (802.11g 6Mbps)
Test Date : 2018/01/18

| 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 | 13.36 | - | - | - | - | - | - | - | 22.10 | <30dBm | Pass |
| 06 | 2437 | 12.89 | 12.83 | 12.78 | 12.74 | 12.68 | 12.64 | 12.58 | 12.52 | 21.94 | <30dBm | Pass |
| 11 | 2462 | 13.33 | - | - | - | - | - | - | - | 22.03 | <30dBm | Pass |

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

Product : Tablet PC
Test Item : Peak Power Output Data
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)
Test Date : 2018/01/18

| 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 | 13.21 | - | - | - | - | - | - | - | 21.84 | <30dBm | Pass |
| 06 | 2437 | 13.14 | 13.09 | 13.04 | 12.98 | 12.93 | 12.86 | 12.81 | 12.76 | 21.86 | <30dBm | Pass |
| 11 | 2462 | 13.27 | - | - | - | - | - | - | - | 22.13 | <30dBm | Pass |

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

Product : Tablet PC
Test Item : Peak Power Output Data
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)
Test Date : 2018/01/18

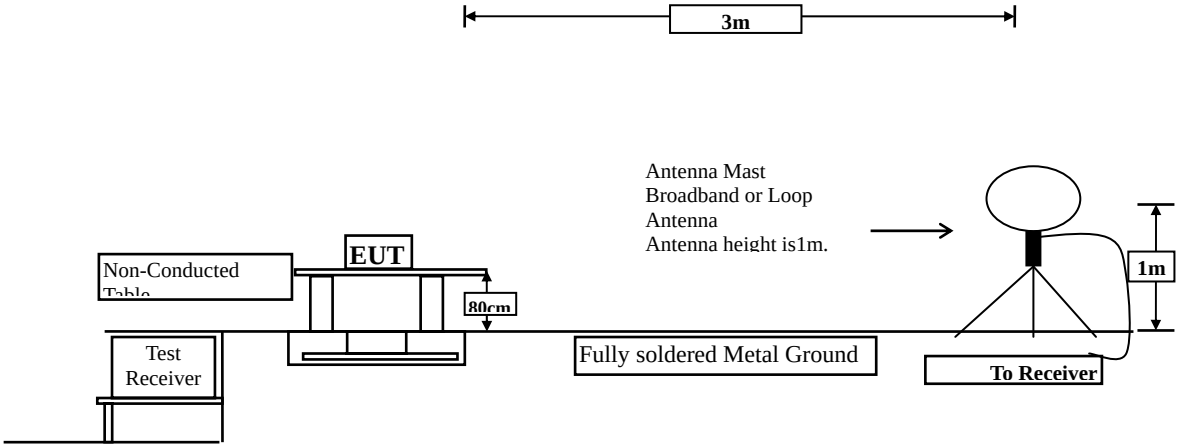
| Channel No | Frequency (MHz) | Average Power For different Data Rate (Mbps) | | | | | | | | Peak Power | Required Limit | Result |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 15 | 30 | 45 | 60 | 90 | 120 | 135 | 150 | 15 | | |
| | | Measurement Level (dBm) | | | | | | | | | | |
| 03 | 2422 | 13.24 | - | - | - | - | - | - | - | 21.17 | <30dBm | Pass |
| 06 | 2437 | 13.16 | 13.11 | 13.07 | 13.01 | 12.97 | 12.93 | 12.88 | 12.83 | 22.54 | <30dBm | Pass |
| 09 | 2452 | 13.09 | - | - | - | - | - | - | - | 21.21 | <30dBm | Pass |

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

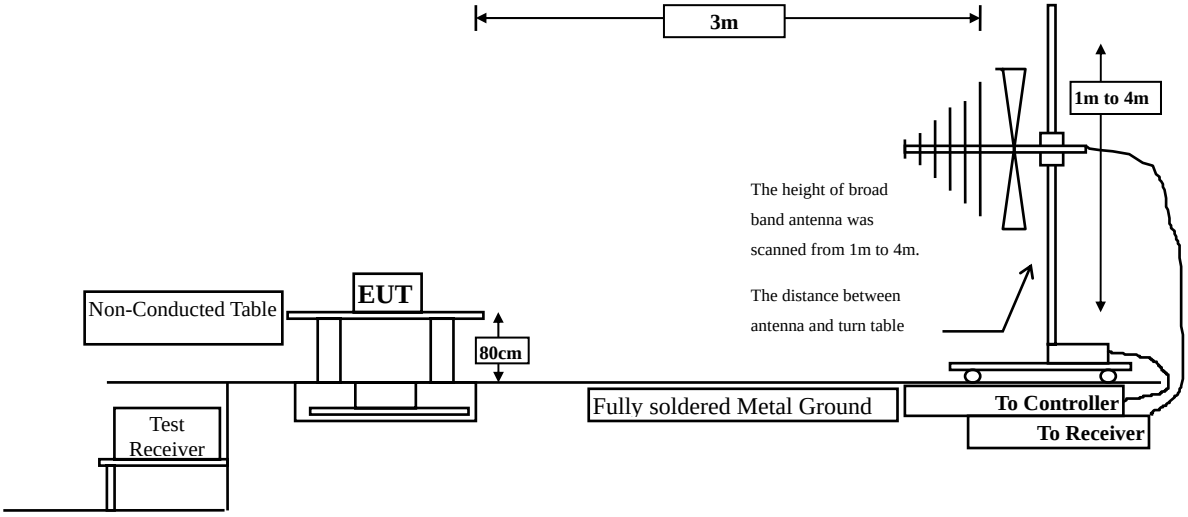
# 4. Radiated Emission

## 4.1. Test Setup

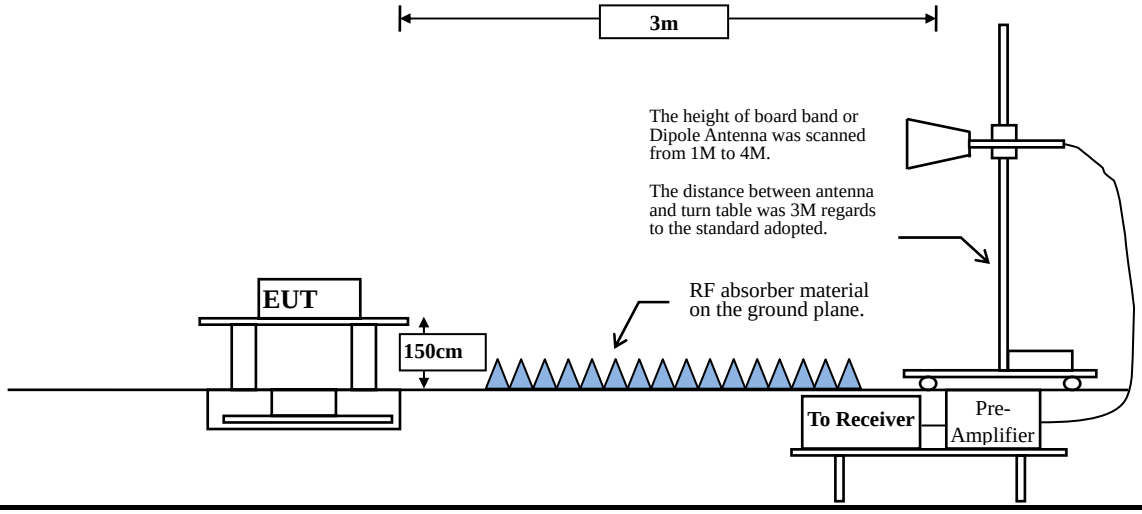
Radiated Emission Under 30MHz




Radiated Emission Below 1GHz




Radiated Emission Above 1GHz



## 4.2. 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.

## 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.

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 | 100.00 | -- | -- | 10 |
| 802.11g | 100.00 | -- | -- | 10 |
| 802.11n20 | 100.00 | -- | -- | 10 |
| 802.11n40 | 100.00 | -- | -- | 10 |

Note: Duty Cycle Refer to Section 9

## 4.4. 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

## 4.5. Test Result of Radiated Emission

Product : Tablet PC
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
Test Date : 2018/01/16

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBμV | dBμV/m | dB | dBμV/m |
| **Horizontal** | | | | | |
| **Peak Detector:** | | | | | |
| 4824.000 | -2.866 | 56.830 | 53.964 | -20.036 | 74.000 |
| 7236.000 | 0.381 | 44.750 | 45.131 | -28.869 | 74.000 |
| 9648.000 | 2.391 | 42.930 | 45.321 | -28.679 | 74.000 |
| **Average Detector:** | | | | | |
| -- | -- | -- | -- | -- | 54.000 |
| **Vertical** | | | | | |
| **Peak Detector:** | | | | | |
| 4824.000 | -2.866 | 53.640 | 50.774 | -23.226 | 74.000 |
| 7236.000 | 0.381 | 44.690 | 45.071 | -28.929 | 74.000 |
| 9648.000 | 2.391 | 42.860 | 45.251 | -28.749 | 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 : Tablet PC
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)
Test Date : 2018/01/16

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBμV | dBμV/m | dB | dBμV/m |
| **Horizontal** | | | | | |
| **Peak Detector:** | | | | | |
| 4874.000 | -2.835 | 49.830 | 46.994 | -27.006 | 74.000 |
| 7311.000 | 0.465 | 44.990 | 45.455 | -28.545 | 74.000 |
| 9748.000 | 2.590 | 43.820 | 46.409 | -27.591 | 74.000 |
| **Average Detector:** | | | | | |
| -- | -- | -- | -- | -- | 54.000 |
| **Vertical** | | | | | |
| **Peak Detector:** | | | | | |
| 4874.000 | -2.835 | 48.340 | 45.504 | -28.496 | 74.000 |
| 7311.000 | 0.465 | 45.150 | 45.615 | -28.385 | 74.000 |
| 9748.000 | 2.590 | 43.870 | 46.459 | -27.541 | 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 : Tablet PC
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz)
Test Date : 2018/01/16

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBμV | dBμV/m | dB | dBμV/m |
| **Horizontal** | | | | | |
| **Peak Detector:** | | | | | |
| 4924.000 | -2.796 | 54.590 | 51.794 | -22.206 | 74.000 |
| 7386.000 | 0.489 | 44.520 | 45.009 | -28.991 | 74.000 |
| 9848.000 | 2.729 | 43.380 | 46.110 | -27.890 | 74.000 |
| **Average Detector:** | | | | | |
| -- | -- | -- | -- | -- | 54.000 |
| **Vertical** | | | | | |
| **Peak Detector:** | | | | | |
| 4924.000 | -2.796 | 52.280 | 49.484 | -24.516 | 74.000 |
| 7386.000 | 0.489 | 44.910 | 45.399 | -28.601 | 74.000 |
| 9848.000 | 2.729 | 43.270 | 46.000 | -28.000 | 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 : Tablet PC
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
Test Date : 2018/01/16

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBμV | dBμV/m | dB | dBμV/m |
| **Horizontal** | | | | | |
| **Peak Detector:** | | | | | |
| 4824.000 | -2.866 | 55.800 | 52.934 | -21.066 | 74.000 |
| 7236.000 | 0.381 | 45.350 | 45.731 | -28.269 | 74.000 |
| 9648.000 | 2.391 | 43.930 | 46.321 | -27.679 | 74.000 |
| **Average Detector:** | | | | | |
| -- | -- | -- | -- | -- | 54.000 |
| **Vertical** | | | | | |
| **Peak Detector:** | | | | | |
| 4824.000 | -2.866 | 52.400 | 49.534 | -24.466 | 74.000 |
| 7236.000 | 0.381 | 44.770 | 45.151 | -28.849 | 74.000 |
| 9648.000 | 2.391 | 43.280 | 45.671 | -28.329 | 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 : Tablet PC
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)
Test Date : 2018/01/16

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBμV | dBμV/m | dB | dBμV/m |
| **Horizontal** | | | | | |
| **Peak Detector:** | | | | | |
| 4874.000 | -2.835 | 49.620 | 46.784 | -27.216 | 74.000 |
| 7311.000 | 0.465 | 46.080 | 46.545 | -27.455 | 74.000 |
| 9748.000 | 2.590 | 44.230 | 46.819 | -27.181 | 74.000 |
| **Average Detector:** | | | | | |
| -- | -- | -- | -- | -- | 54.000 |
| **Vertical** | | | | | |
| **Peak Detector:** | | | | | |
| 4874.000 | -2.835 | 46.910 | 44.074 | -29.926 | 74.000 |
| 7311.000 | 0.465 | 45.810 | 46.275 | -27.725 | 74.000 |
| 9748.000 | 2.590 | 43.920 | 46.509 | -27.491 | 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 : Tablet PC
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz)
Test Date : 2018/01/16

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBμV | dBμV/m | dB | dBμV/m |
| **Horizontal** | | | | | |
| **Peak Detector:** | | | | | |
| 4924.000 | -2.796 | 53.610 | 50.814 | -23.186 | 74.000 |
| 7386.000 | 0.489 | 44.520 | 45.009 | -28.991 | 74.000 |
| 9848.000 | 2.729 | 43.350 | 46.080 | -27.920 | 74.000 |
| **Average Detector:** | | | | | |
| -- | -- | -- | -- | -- | 54.000 |
| **Vertical** | | | | | |
| **Peak Detector:** | | | | | |
| 4924.000 | -2.796 | 51.850 | 49.054 | -24.946 | 74.000 |
| 7386.000 | 0.489 | 44.790 | 45.279 | -28.721 | 74.000 |
| 9848.000 | 2.729 | 43.440 | 46.170 | -27.830 | 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 : Tablet PC
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2412MHz)
Test Date : 2018/01/16

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBμV | dBμV/m | dB | dBμV/m |
| **Horizontal** | | | | | |
| **Peak Detector:** | | | | | |
| 4824.000 | -2.866 | 56.340 | 53.474 | -20.526 | 74.000 |
| 7236.000 | 0.381 | 44.970 | 45.351 | -28.649 | 74.000 |
| 9648.000 | 2.391 | 43.670 | 46.061 | -27.939 | 74.000 |
| **Average Detector:** | | | | | |
| -- | -- | -- | -- | -- | 54.000 |
| **Vertical** | | | | | |
| **Peak Detector:** | | | | | |
| 4824.000 | -2.866 | 53.160 | 50.294 | -23.706 | 74.000 |
| 7236.000 | 0.381 | 44.760 | 45.141 | -28.859 | 74.000 |
| 9648.000 | 2.391 | 42.690 | 45.081 | -28.919 | 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 | : | Tablet PC |
| Test Item | : | Harmonic Radiated Emission Data |
| Test Mode | : | Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437 MHz) |
| Test Date | : | 2018/01/16 |

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBμV | dBμV/m | dB | dBμV/m |
| **Horizontal** | | | | | |
| **Peak Detector:** | | | | | |
| 4874.000 | -2.835 | 50.730 | 47.894 | -26.106 | 74.000 |
| 7311.000 | 0.465 | 45.780 | 46.245 | -27.755 | 74.000 |
| 9748.000 | 2.590 | 44.760 | 47.349 | -26.651 | 74.000 |
| **Average Detector:** | | | | | |
| -- | -- | -- | -- | -- | 54.000 |
| **Vertical** | | | | | |
| **Peak Detector:** | | | | | |
| 4874.000 | -2.835 | 47.480 | 44.644 | -29.356 | 74.000 |
| 7311.000 | 0.465 | 45.210 | 45.675 | -28.325 | 74.000 |
| 9748.000 | 2.590 | 44.710 | 47.299 | -26.701 | 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 : Tablet PC
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462 MHz)
Test Date : 2018/01/16

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBμV | dBμV/m | dB | dBμV/m |
| **Horizontal** | | | | | |
| **Peak Detector:** | | | | | |
| 4924.000 | -2.796 | 53.760 | 50.964 | -23.036 | 74.000 |
| 7386.000 | 0.489 | 45.110 | 45.599 | -28.401 | 74.000 |
| 9848.000 | 2.729 | 43.980 | 46.710 | -27.290 | 74.000 |
| **Average Detector:** | | | | | |
| -- | -- | -- | -- | -- | 54.000 |
| **Vertical** | | | | | |
| **Peak Detector:** | | | | | |
| 4924.000 | -2.796 | 51.780 | 48.984 | -25.016 | 74.000 |
| 7386.000 | 0.489 | 44.240 | 44.729 | -29.271 | 74.000 |
| 9848.000 | 2.729 | 43.560 | 46.290 | -27.710 | 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 : Tablet PC
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2422MHz)
Test Date : 2018/01/16

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBμV | dBμV/m | dB | dBμV/m |
| **Horizontal** | | | | | |
| **Peak Detector:** | | | | | |
| 4844.000 | -2.852 | 50.370 | 47.518 | -26.482 | 74.000 |
| 7266.000 | 0.426 | 45.140 | 45.566 | -28.434 | 74.000 |
| 9688.000 | 2.479 | 43.980 | 46.459 | -27.541 | 74.000 |
| **Average Detector:** | | | | | |
| -- | -- | -- | -- | -- | 54.000 |
| **Vertical** | | | | | |
| **Peak Detector:** | | | | | |
| 4844.000 | -2.852 | 47.350 | 44.498 | -29.502 | 74.000 |
| 7266.000 | 0.426 | 45.180 | 45.606 | -28.394 | 74.000 |
| 9688.000 | 2.479 | 43.110 | 45.589 | -28.411 | 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 | : | Tablet PC |
| Test Item | : | Harmonic Radiated Emission Data |
| Test Mode | : | Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437 MHz) |
| Test Date | : | 2018/01/16 |

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBμV | dBμV/m | dB | dBμV/m |
| **Horizontal** | | | | | |
| **Peak Detector:** | | | | | |
| 4874.000 | -2.835 | 48.910 | 46.074 | -27.926 | 74.000 |
| 7311.000 | 0.465 | 45.400 | 45.865 | -28.135 | 74.000 |
| 9748.000 | 2.590 | 44.210 | 46.799 | -27.201 | 74.000 |
| **Average Detector:** | | | | | |
| -- | -- | -- | -- | -- | 54.000 |
| **Vertical** | | | | | |
| **Peak Detector:** | | | | | |
| 4874.000 | -2.835 | 46.810 | 43.974 | -30.026 | 74.000 |
| 7311.000 | 0.465 | 44.810 | 45.275 | -28.725 | 74.000 |
| 9748.000 | 2.590 | 44.230 | 46.819 | -27.181 | 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 : Tablet PC
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2452 MHz)
Test Date : 2018/01/16

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBμV | dBμV/m | dB | dBμV/m |
| **Horizontal** | | | | | |
| **Peak Detector:** | | | | | |
| 4904.000 | -2.828 | 48.930 | 46.102 | -27.898 | 74.000 |
| 7356.000 | 0.473 | 45.120 | 45.592 | -28.408 | 74.000 |
| 9808.000 | 2.719 | 44.030 | 46.750 | -27.250 | 74.000 |
| **Average Detector:** | | | | | |
| -- | -- | -- | -- | -- | 54.000 |
| **Vertical** | | | | | |
| **Peak Detector:** | | | | | |
| 4904.000 | -2.828 | 47.710 | 44.882 | -29.118 | 74.000 |
| 7356.000 | 0.473 | 44.870 | 45.342 | -28.658 | 74.000 |
| 9808.000 | 2.719 | 43.760 | 46.480 | -27.520 | 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 : Tablet PC
Test Item : General Radiated Emission Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps)(2437 MHz)
Test Date : 2018/01/18

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | dBµV/m |
| **Horizontal** | | | | | |
| 63.739 | -12.434 | 37.606 | 25.172 | -14.828 | 40.000 |
| 146.681 | -10.722 | 37.917 | 27.195 | -16.305 | 43.500 |
| 351.928 | -8.702 | 38.548 | 29.846 | -16.154 | 46.000 |
| 408.159 | -7.153 | 38.123 | 30.970 | -15.030 | 46.000 |
| 824.275 | -0.024 | 30.598 | 30.573 | -15.427 | 46.000 |
| 962.043 | 1.626 | 30.469 | 32.095 | -21.905 | 54.000 |
| **Vertical** | | | | | |
| 48.275 | -10.834 | 42.936 | 32.102 | -7.898 | 40.000 |
| 195.884 | -13.430 | 42.724 | 29.294 | -14.206 | 43.500 |
| 405.348 | -7.219 | 35.102 | 27.883 | -18.117 | 46.000 |
| 606.377 | -3.015 | 30.817 | 27.803 | -18.197 | 46.000 |
| 746.957 | -0.924 | 34.693 | 33.769 | -12.231 | 46.000 |
| 924.087 | 1.169 | 30.983 | 32.151 | -13.849 | 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 : Tablet PC
Test Item : General Radiated Emission Data
Test Mode : Mode 2: Transmit (802.11g 6Mbps)(2437 MHz)
Test Date : 2018/01/18

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBμV | dBμV/m | dB | dBμV/m |
| **Horizontal** | | | | | |
| 129.812 | -11.968 | 37.469 | 25.501 | -17.999 | 43.500 |
| 198.696 | -13.469 | 39.198 | 25.728 | -17.772 | 43.500 |
| 406.754 | -7.186 | 37.055 | 29.869 | -16.131 | 46.000 |
| 742.739 | -0.989 | 30.841 | 29.852 | -16.148 | 46.000 |
| 839.739 | 0.186 | 31.778 | 31.964 | -14.036 | 46.000 |
| 988.754 | 2.043 | 29.427 | 31.470 | -22.530 | 54.000 |
| **Vertical** | | | | | |
| 46.870 | -10.839 | 42.798 | 31.959 | -8.041 | 40.000 |
| 194.478 | -13.411 | 41.742 | 28.331 | -15.169 | 43.500 |
| 399.725 | -7.349 | 34.415 | 27.066 | -18.934 | 46.000 |
| 592.319 | -3.252 | 31.225 | 27.973 | -18.027 | 46.000 |
| 887.536 | 0.781 | 30.494 | 31.275 | -14.725 | 46.000 |
| 977.507 | 1.867 | 29.666 | 31.533 | -22.467 | 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 : Tablet PC
Test Item : General Radiated Emission Data
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2437 MHz)
Test Date : 2018/01/18

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | dBµV/m |
| **Horizontal** | | | | | |
| 48.275 | -10.834 | 33.729 | 22.895 | -17.105 | 40.000 |
| 163.551 | -10.584 | 35.439 | 24.856 | -18.644 | 43.500 |
| 406.754 | -7.186 | 36.972 | 29.786 | -16.214 | 46.000 |
| 634.493 | -2.769 | 30.355 | 27.586 | -18.414 | 46.000 |
| 808.812 | -0.219 | 31.228 | 31.009 | -14.991 | 46.000 |
| 991.565 | 2.085 | 29.466 | 31.551 | -22.449 | 54.000 |
| **Vertical** | | | | | |
| 46.870 | -10.839 | 42.011 | 31.172 | -8.828 | 40.000 |
| 194.478 | -13.411 | 39.002 | 25.591 | -17.909 | 43.500 |
| 403.942 | -7.251 | 33.818 | 26.567 | -19.433 | 46.000 |
| 610.594 | -2.978 | 31.328 | 28.350 | -17.650 | 46.000 |
| 886.130 | 0.764 | 31.612 | 32.376 | -13.624 | 46.000 |
| 997.188 | 2.178 | 29.896 | 32.075 | -21.925 | 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 : Tablet PC
Test Item : General Radiated Emission Data
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2437 MHz)
Test Date : 2018/01/18

| Frequency | Correct Factor | Reading Level | Measurement Level | Margin | Limit |
|---|---|---|---|---|---|
| MHz | dB | dBµV | dBµV/m | dB | dBµV/m |
| **Horizontal** | | | | | |
| 128.406 | -12.117 | 37.702 | 25.585 | -17.915 | 43.500 |
| 354.739 | -8.623 | 37.497 | 28.874 | -17.126 | 46.000 |
| 409.565 | -7.121 | 35.643 | 28.522 | -17.478 | 46.000 |
| 633.087 | -2.782 | 30.531 | 27.750 | -18.250 | 46.000 |
| 818.652 | -0.094 | 31.065 | 30.971 | -15.029 | 46.000 |
| 983.130 | 1.951 | 29.680 | 31.631 | -22.369 | 54.000 |
| **Vertical** | | | | | |
| 46.870 | -10.839 | 42.978 | 32.139 | -7.861 | 40.000 |
| 197.290 | -13.451 | 39.777 | 26.326 | -17.174 | 43.500 |
| 403.942 | -7.251 | 34.237 | 26.986 | -19.014 | 46.000 |
| 592.319 | -3.252 | 31.122 | 27.870 | -18.130 | 46.000 |
| 843.957 | 0.235 | 31.105 | 31.340 | -14.660 | 46.000 |
| 994.377 | 2.128 | 29.342 | 31.470 | -22.530 | 54.000 |

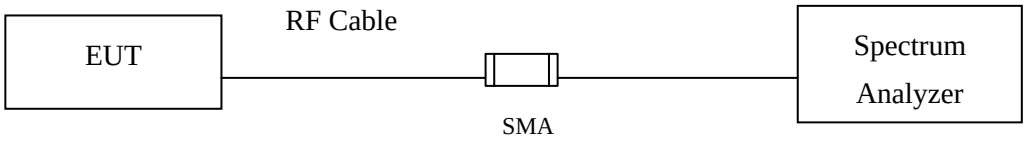
Note:

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.

# 5. RF antenna conducted test

## 5.1. Test Setup

**RF antenna Conducted Measurement:**




## 5.2. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

## 5.3. Test Procedure

The EUT was tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

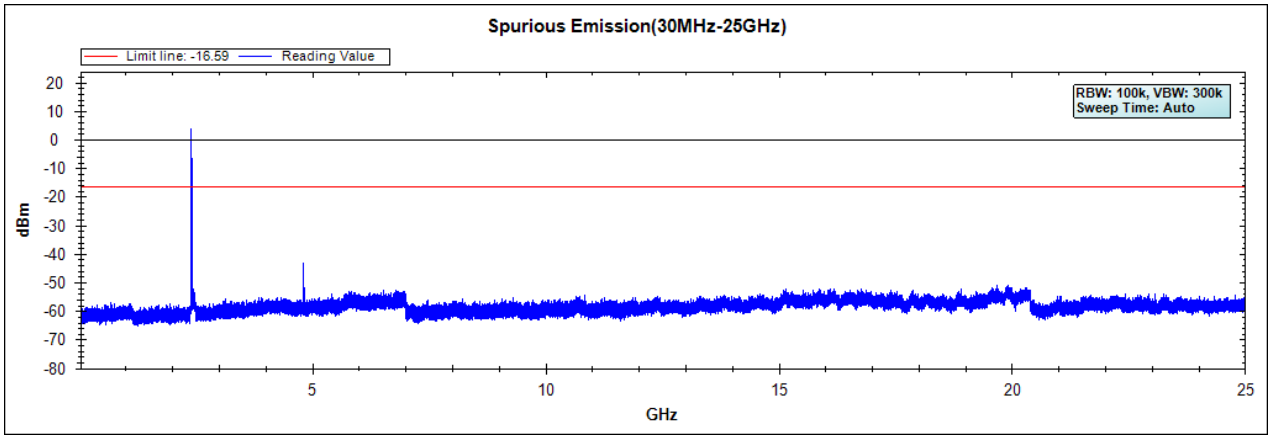
## 5.4. Uncertainty

±1.23dB

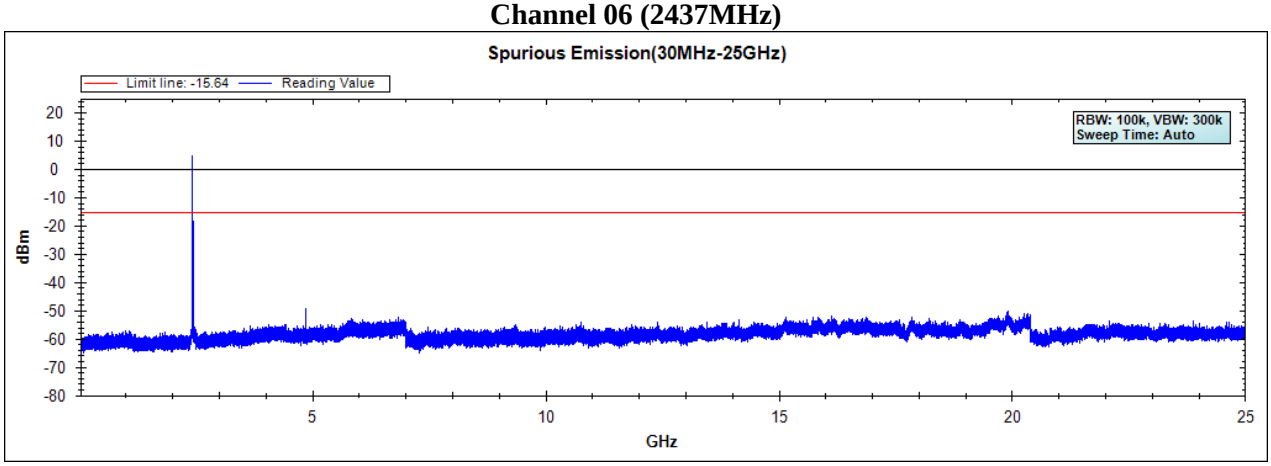
## 5.5. Test Result of RF antenna conducted test

Product : Tablet PC
Test Item : RF antenna conducted test
Test Mode : Mode 1: Transmit (802.11b 1Mbps)
Test Date : 2018/01/15

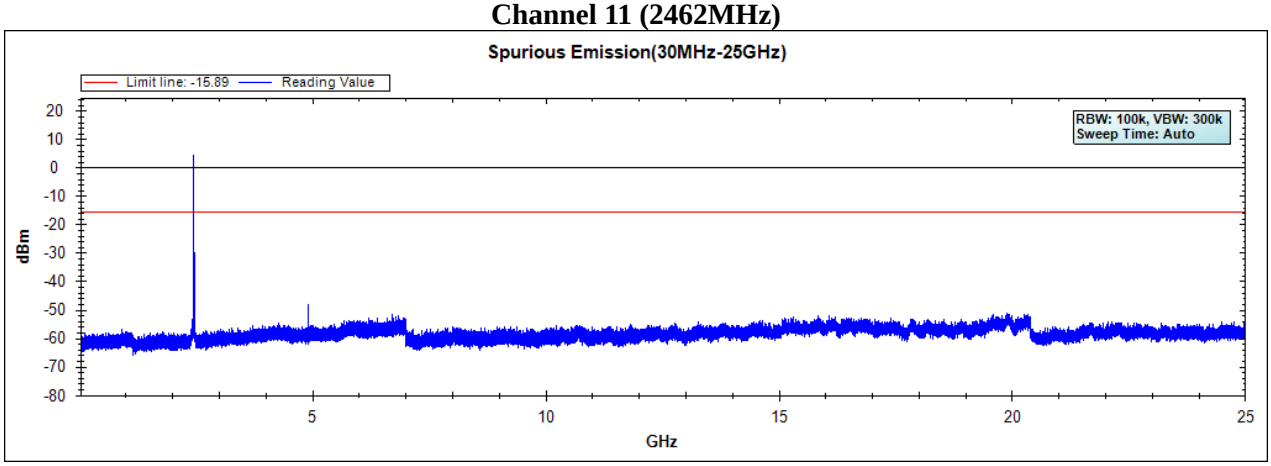
**Channel 01 (2412MHz)**




**Channel 06 (2437MHz)**



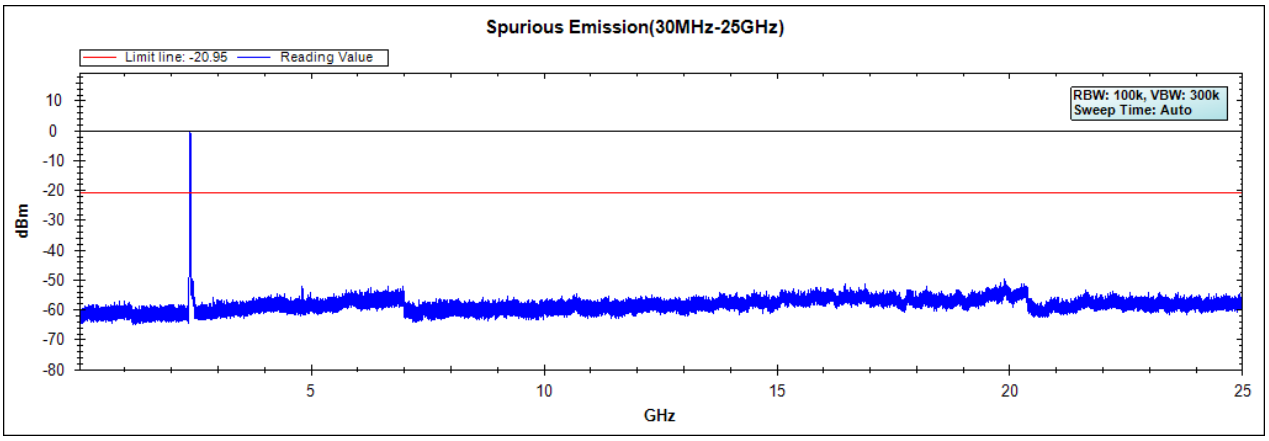

**Channel 11 (2462MHz)**



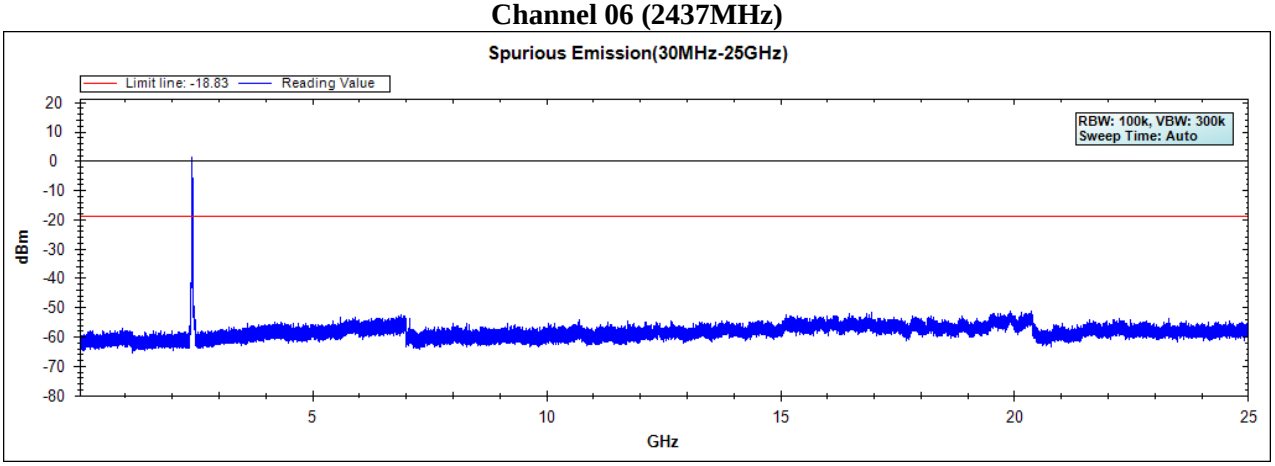

Note: The above test pattern is synthesized by multiple of the frequency range.

| | | |
|---|---|---|
| Product | : | Tablet PC |
| Test Item | : | RF Antenna Conducted Spurious |
| Test Mode | : | Mode 2: Transmit (802.11g 6Mbps) |
| Test Date | : | 2018/01/15 |

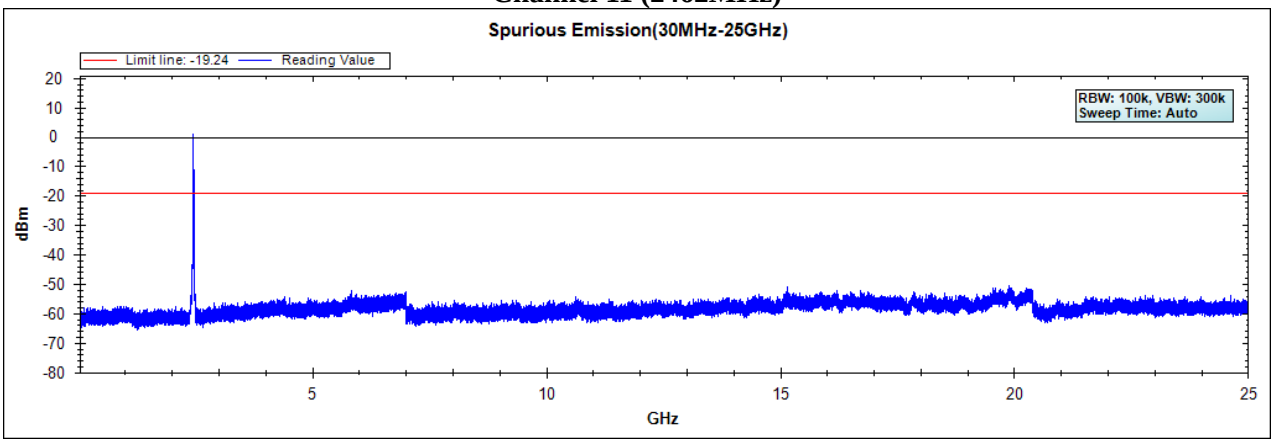
**Channel 01 (2412MHz)**




**Channel 06 (2437MHz)**



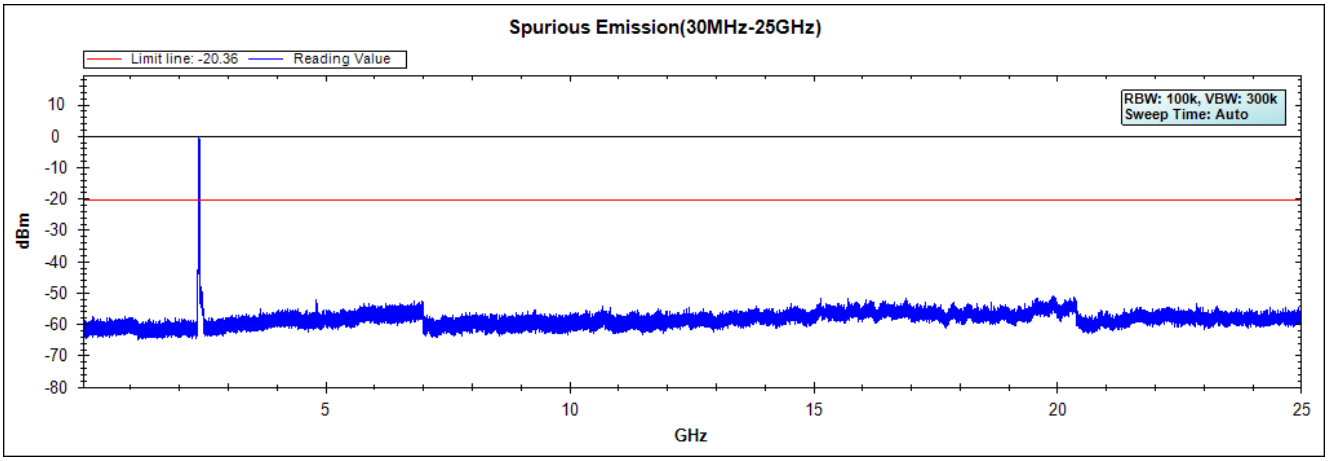

**Channel 11 (2462MHz)**



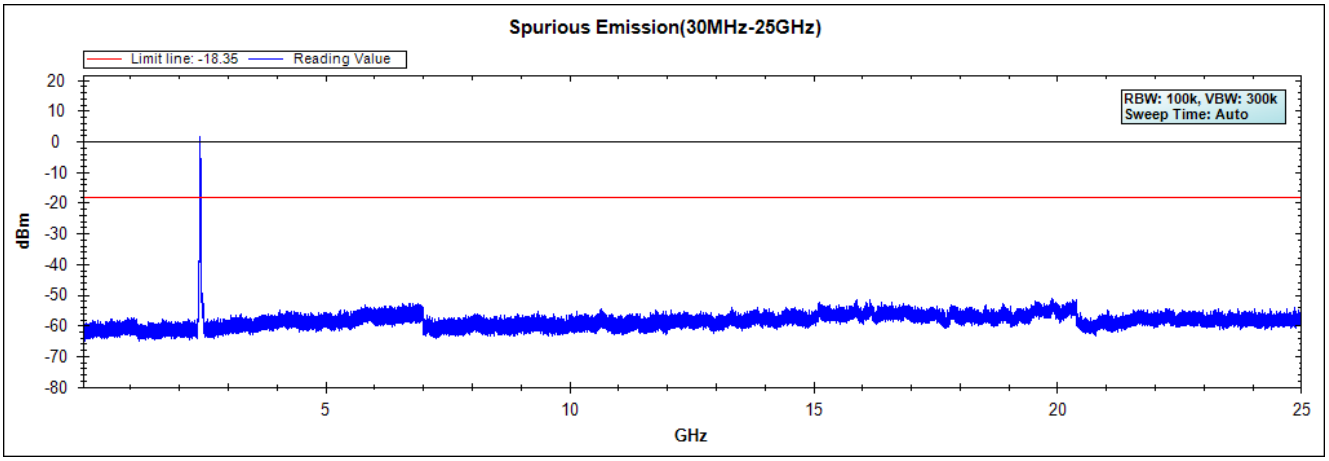

Note: The above test pattern is synthesized by multiple of the frequency range.

| | | |
|---|---|---|
| Product | : | Tablet PC |
| Test Item | : | RF Antenna Conducted Spurious |
| Test Mode | : | Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) |
| Test Date | : | 2018/01/15 |

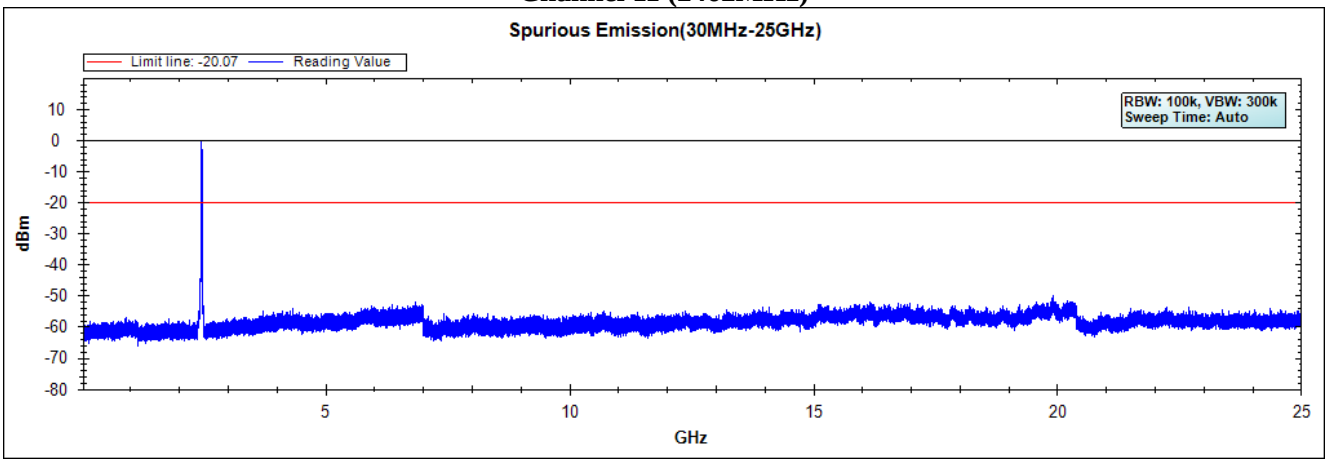
**Channel 01 (2412MHz)**




**Channel 06 (2437MHz)**



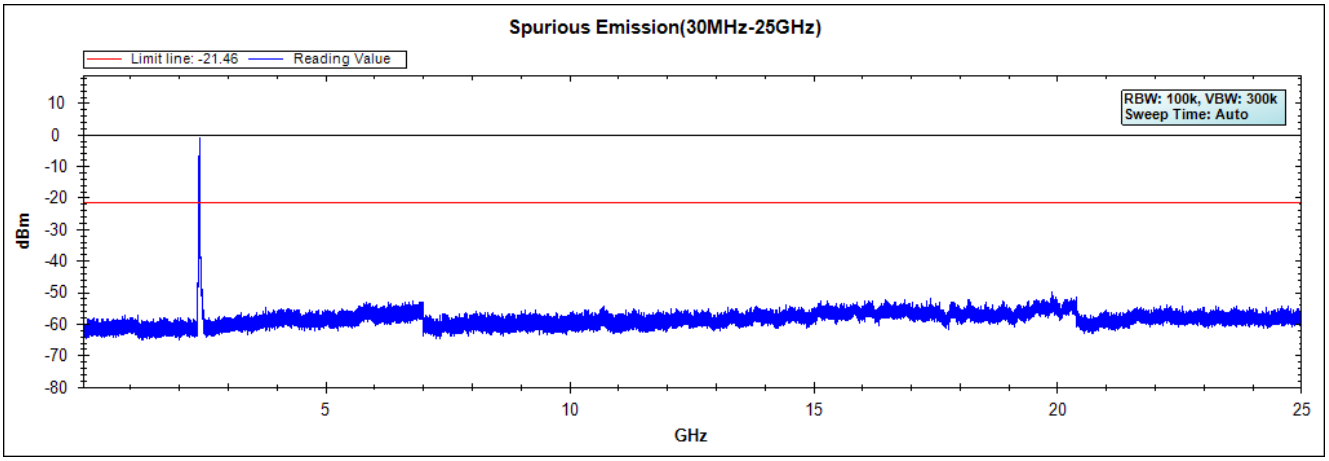

**Channel 11 (2462MHz)**



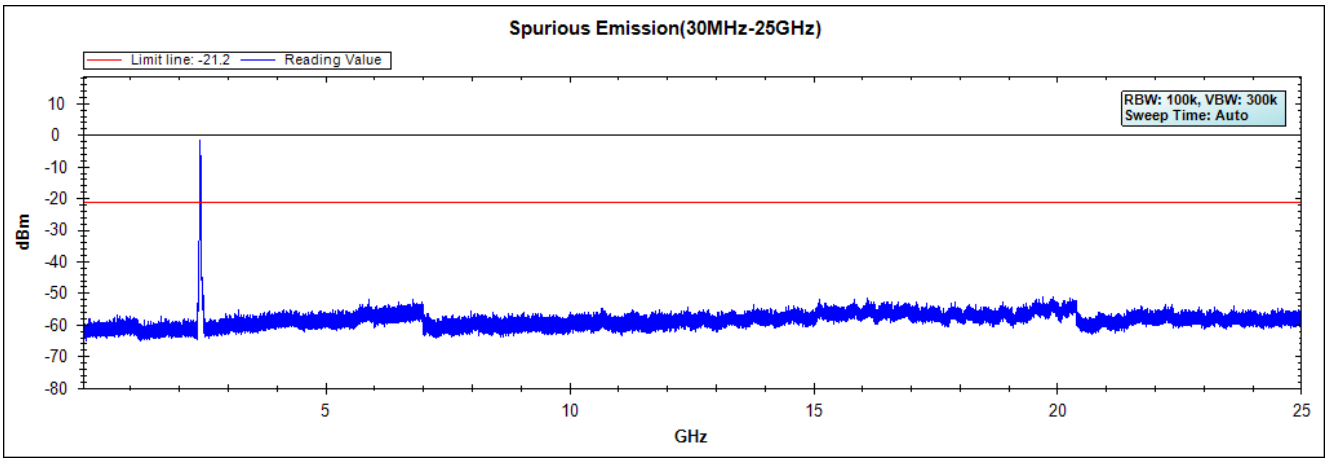

Note: The above test pattern is synthesized by multiple of the frequency range.

| | | |
|---|---|---|
| Product | : | Tablet PC |
| Test Item | : | RF Antenna Conducted Spurious |
| Test Mode | : | Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) |
| Test Date | : | 2018/01/15 |

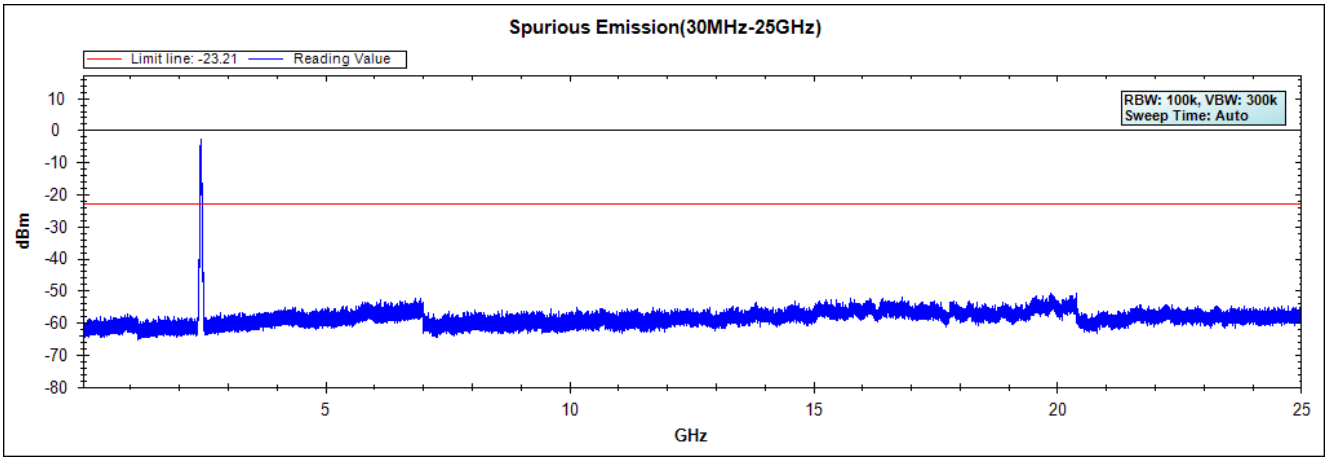
**Channel 03 (2422MHz)**




**Channel 06 (2437MHz)**




**Channel 09 (2452MHz)**

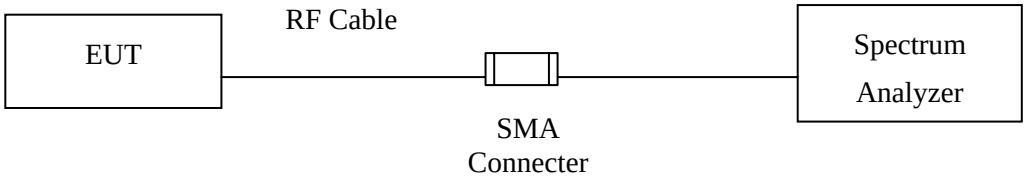



Note: The above test pattern is synthesized by multiple of the frequency range.

# 6. Band Edge

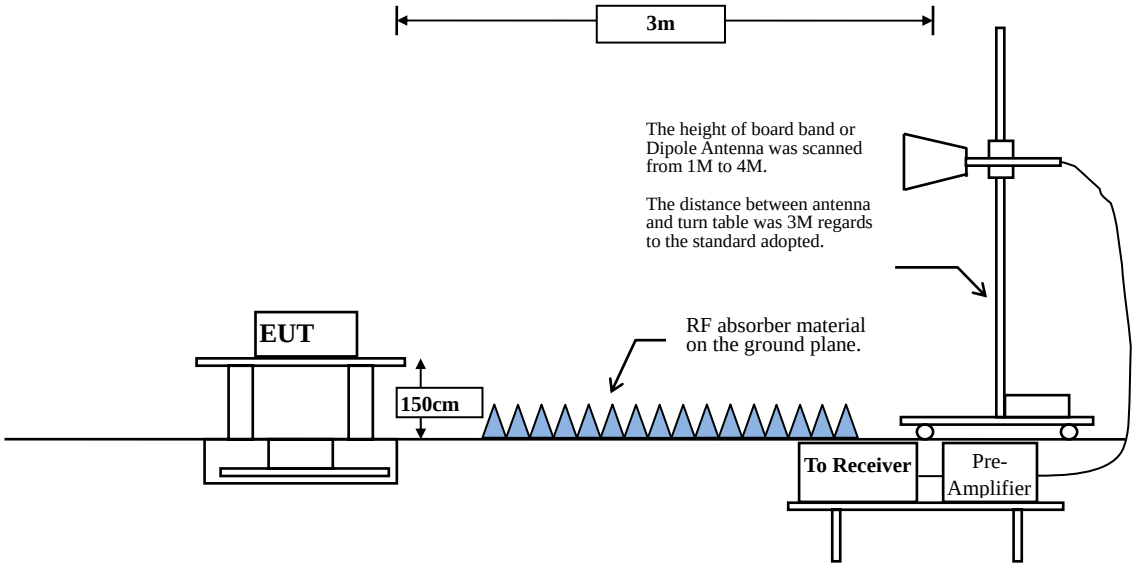
## 6.1. Test Setup

**RF Conducted Measurement**




**RF Radiated Measurement:**

Above 1GHz



## 6.2. 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)).

## 6.3. 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 | 100.00 | -- | -- | 10 |
| 802.11g | 100.00 | -- | -- | 10 |
| 802.11n20 | 100.00 | -- | -- | 10 |
| 802.11n40 | 100.00 | -- | -- | 10 |

Note: Duty Cycle Refer to Section 9

## 6.4. Uncertainty

Conducted: ±1.23dB

Radiated:

Horizontal polarization：1-18GHz: ±3.77dB

Vertical polarization：1-18GHz : ±3.83dB

## 6.5. Test Result of Band Edge

Product : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
Test Date : 2018/01/16

**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) | 2390.000 | 12.148 | 32.908 | 45.056 | 74.00 | 54.00 | Pass |
| 01 (Peak) | 2400.000 | 12.176 | 45.179 | 57.355 | -- | -- | Pass |
| 01 (Peak) | 2410.870 | 12.201 | 90.039 | 102.240 | -- | -- | -- |
| 01 (Average) | 2390.000 | 12.148 | 20.466 | 32.614 | 74.00 | 54.00 | Pass |
| 01 (Average) | 2399.130 | 12.174 | 38.230 | 50.403 | -- | -- | Pass |
| 01 (Average) | 2400.000 | 12.176 | 36.513 | 48.689 | -- | -- | Pass |
| 01 (Average) | 2411.304 | 12.201 | 86.978 | 99.180 | -- | -- | -- |

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

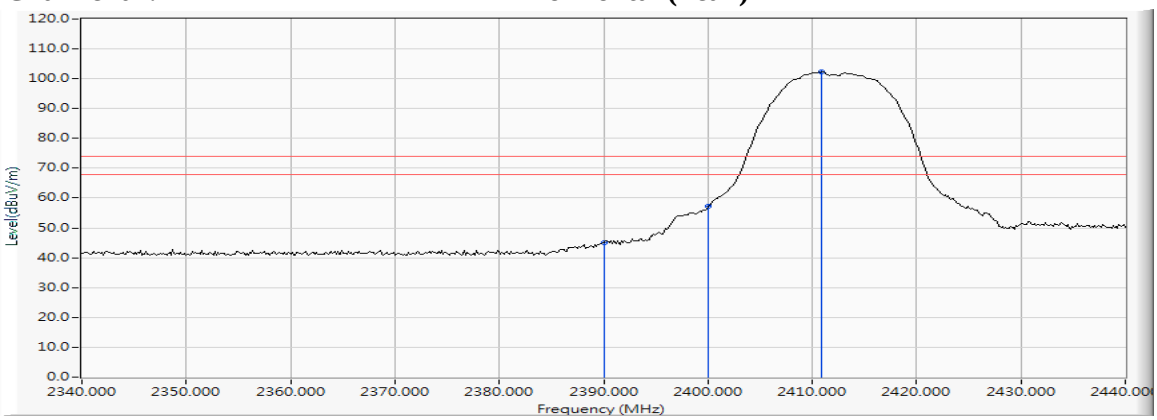
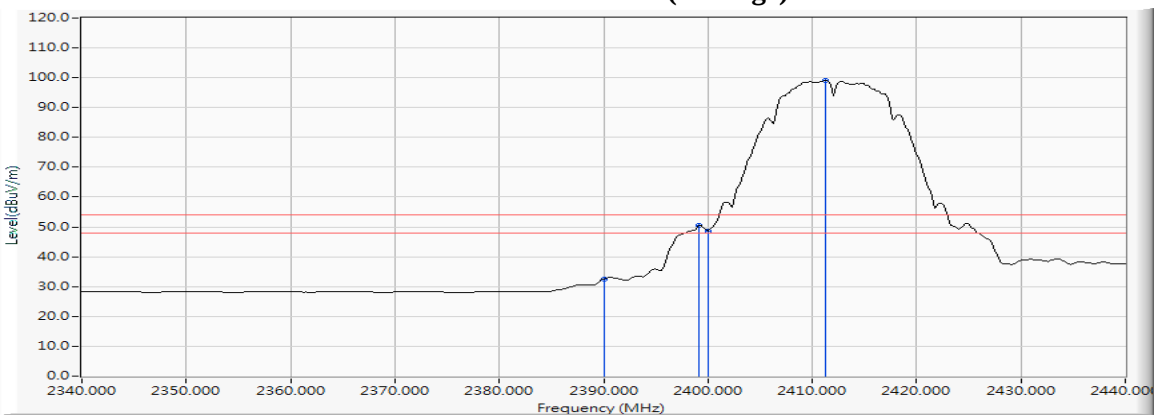



**Figure Channel 01: Horizontal (Average)**




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 : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
Test Date : 2018/01/16

**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 | 34.422 | 46.570 | 74.00 | 54.00 | Pass |
| 01 (Peak) | 2400.000 | 12.176 | 47.575 | 59.751 | -- | -- | Pass |
| 01 (Peak) | 2411.014 | 12.201 | 92.041 | 104.242 | -- | -- | -- |
| 01 (Average) | 2390.000 | 12.148 | 21.610 | 33.758 | 74.00 | 54.00 | Pass |
| 01 (Average) | 2399.420 | 12.174 | 41.093 | 53.267 | -- | -- | Pass |
| 01 (Average) | 2400.000 | 12.176 | 39.454 | 51.630 | -- | -- | Pass |
| 01 (Average) | 2411.304 | 12.201 | 88.922 | 101.124 | -- | -- | -- |

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

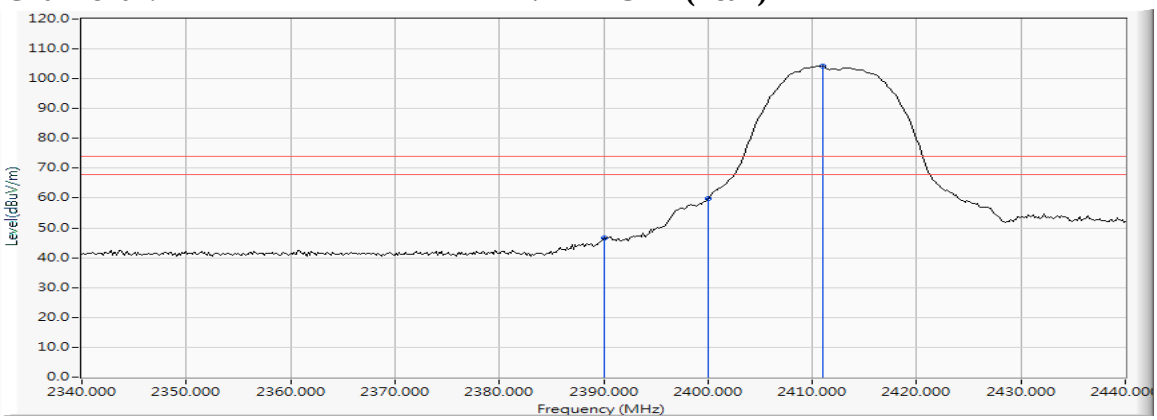
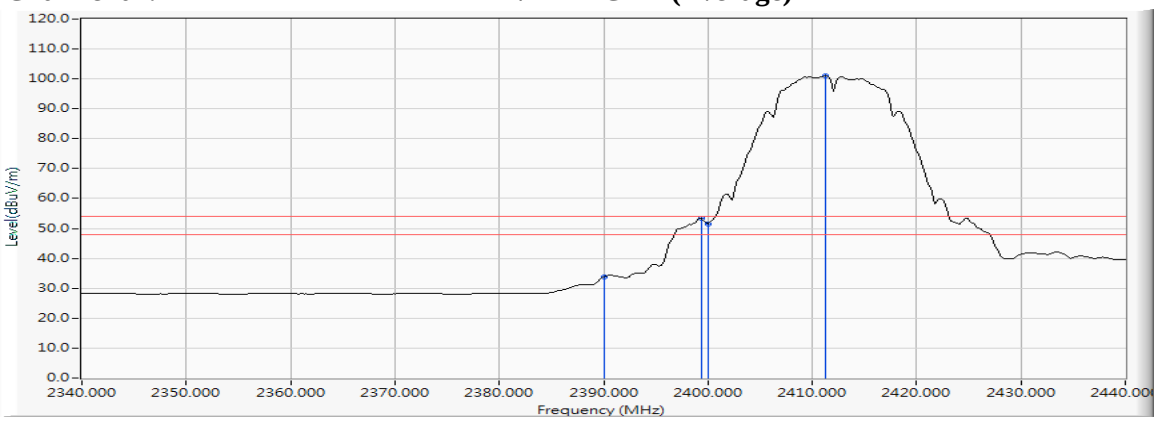



**Figure Channel 01: VERTICAL (Average)**




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 : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)
Test Date : 2018/01/16

**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) | 2463.065 | 12.345 | 90.253 | 102.597 | -- | -- | -- |
| 11 (Peak) | 2483.500 | 12.403 | 34.536 | 46.939 | 74.00 | 54.00 | Pass |
| 11 (Peak) | 2499.007 | 12.442 | 35.593 | 48.034 | 74.00 | 54.00 | Pass |
| 11 (Average) | 2462.775 | 12.344 | 87.177 | 99.521 | -- | -- | -- |
| 11 (Average) | 2483.500 | 12.403 | 22.399 | 34.802 | 74.00 | 54.00 | Pass |
| 11 (Average) | 2484.225 | 12.404 | 22.429 | 34.834 | 74.00 | 54.00 | Pass |

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

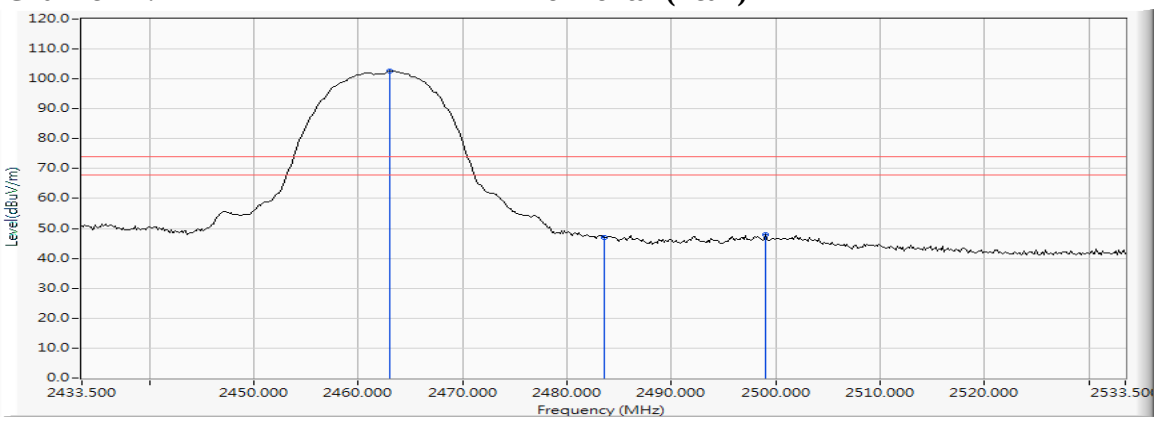
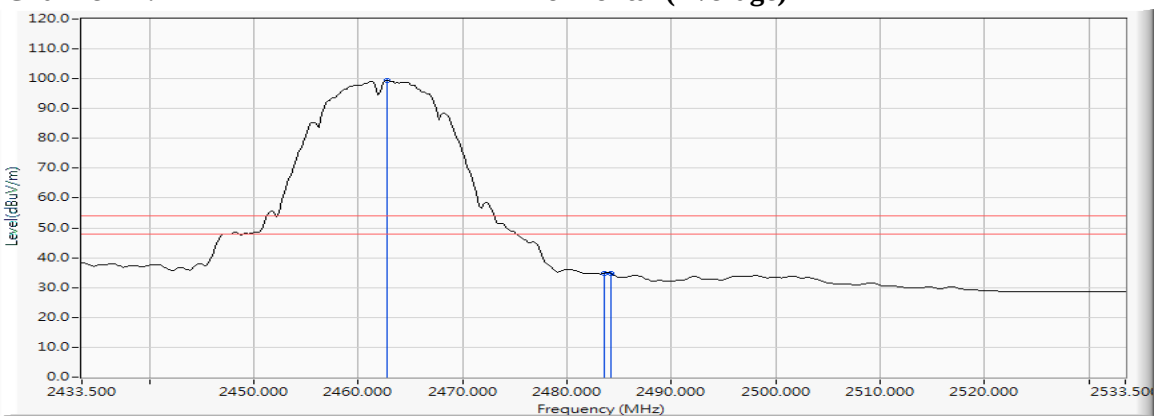



**Figure Channel 11: Horizontal (Average)**




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 : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)
Test Date : 2018/01/16

**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) | 2463.065 | 12.345 | 92.950 | 105.294 | -- | -- | -- |
| 11 (Peak) | 2483.500 | 12.403 | 37.210 | 49.613 | 74.00 | 54.00 | Pass |
| 11 (Peak) | 2499.007 | 12.442 | 37.285 | 49.726 | 74.00 | 54.00 | Pass |
| 11 (Average) | 2462.775 | 12.344 | 89.873 | 102.217 | -- | -- | -- |
| 11 (Average) | 2483.500 | 12.403 | 24.720 | 37.123 | 74.00 | 54.00 | Pass |
| 11 (Average) | 2483.790 | 12.403 | 24.980 | 37.383 | 74.00 | 54.00 | Pass |

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

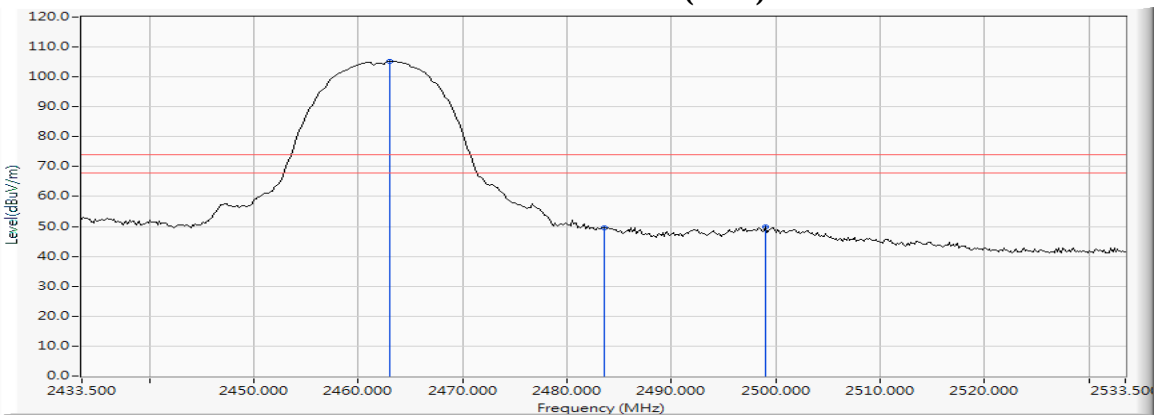
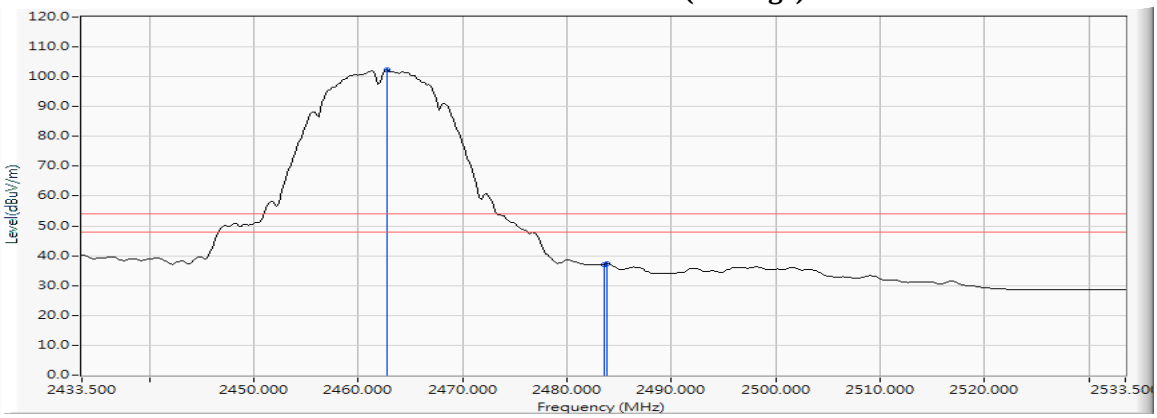



**Figure Channel 11: VERTICAL (Average)**




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 : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
Test Date : 2018/01/16

**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) | 2390.000 | 12.148 | 48.675 | 60.823 | 74.00 | 54.00 | Pass |
| 01 (Peak) | 2400.000 | 12.176 | 65.304 | 77.480 | -- | -- | Pass |
| 01 (Peak) | 2410.870 | 12.201 | 93.803 | 106.004 | -- | -- | -- |
| 01 (Average) | 2390.000 | 12.148 | 31.368 | 43.516 | 74.00 | 54.00 | Pass |
| 01 (Average) | 2400.000 | 12.176 | 49.982 | 62.158 | -- | -- | Pass |
| 01 (Average) | 2411.014 | 12.201 | 84.750 | 96.951 | -- | -- | -- |

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

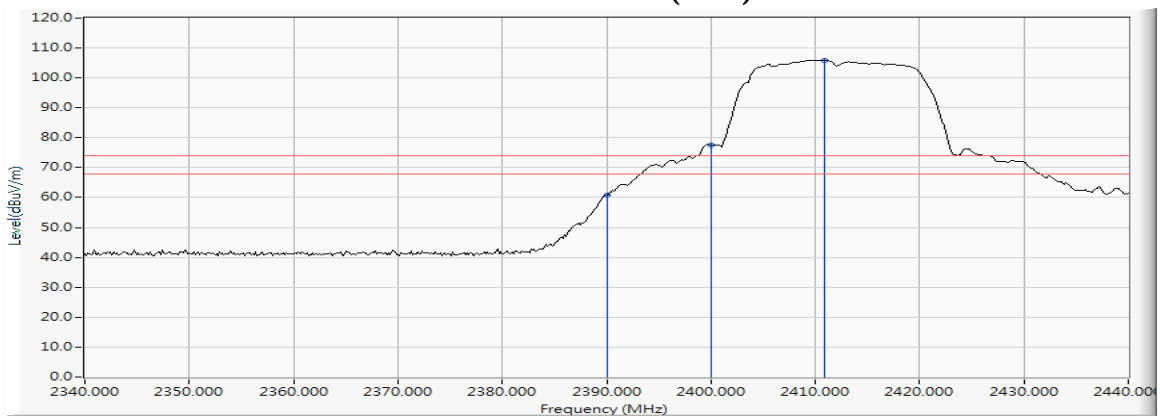
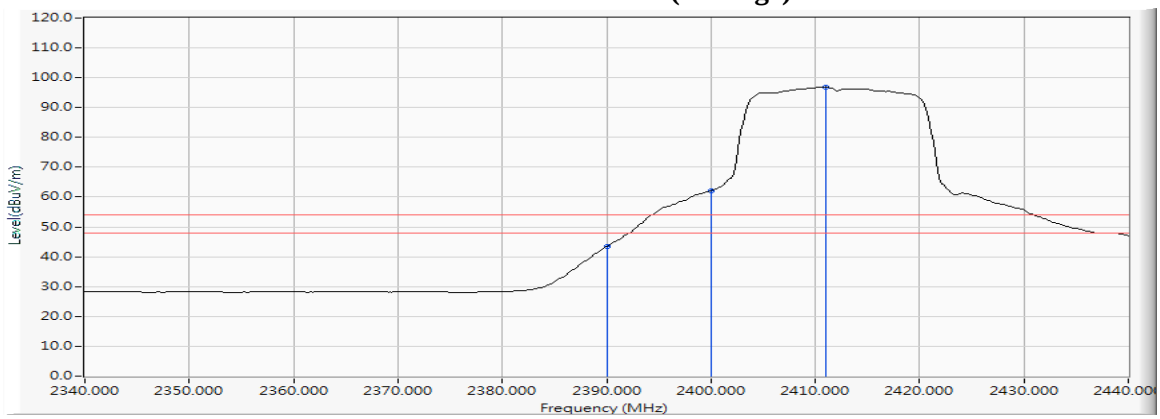



**Figure Channel 01: Horizontal (Average)**




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 : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
Test Date : 2018/01/16

**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 | 47.160 | 59.308 | 74.00 | 54.00 | Pass |
| 01 (Peak) | 2400.000 | 12.176 | 64.894 | 77.070 | -- | -- | Pass |
| 01 (Peak) | 2410.870 | 12.201 | 93.615 | 105.816 | -- | -- | -- |
| 01 (Average) | 2390.000 | 12.148 | 29.934 | 42.082 | 74.00 | 54.00 | Pass |
| 01 (Average) | 2400.000 | 12.176 | 49.614 | 61.790 | -- | -- | Pass |
| 01 (Average) | 2411.014 | 12.201 | 84.615 | 96.816 | -- | -- | -- |

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

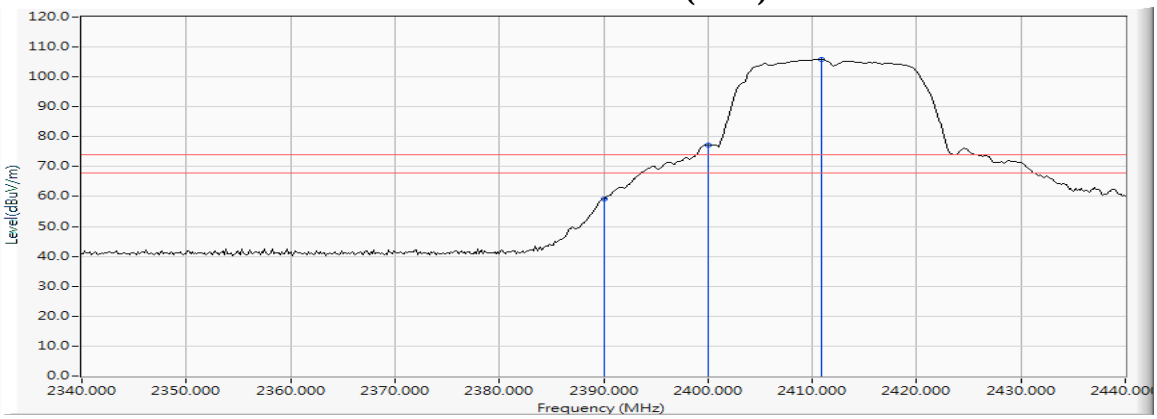
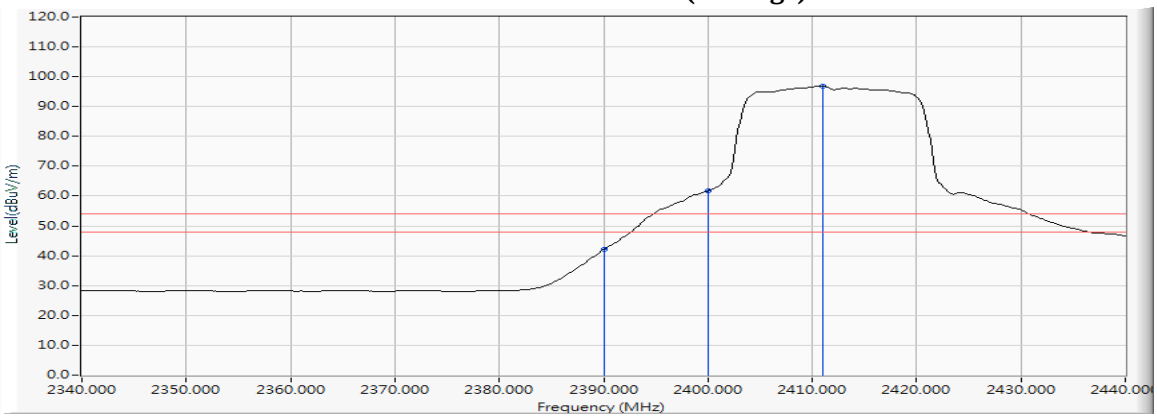



**Figure Channel 01: VERTICAL (Average)**




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 : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)
Test Date : 2018/01/16

**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) | 2463.065 | 12.345 | 92.295 | 104.639 | -- | -- | -- |
| 11 (Peak) | 2483.500 | 12.403 | 47.103 | 59.506 | 74.00 | 54.00 | Pass |
| 11 (Average) | 2463.065 | 12.345 | 83.116 | 95.460 | -- | -- | -- |
| 11 (Average) | 2483.500 | 12.403 | 30.105 | 42.508 | 74.00 | 54.00 | Pass |

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

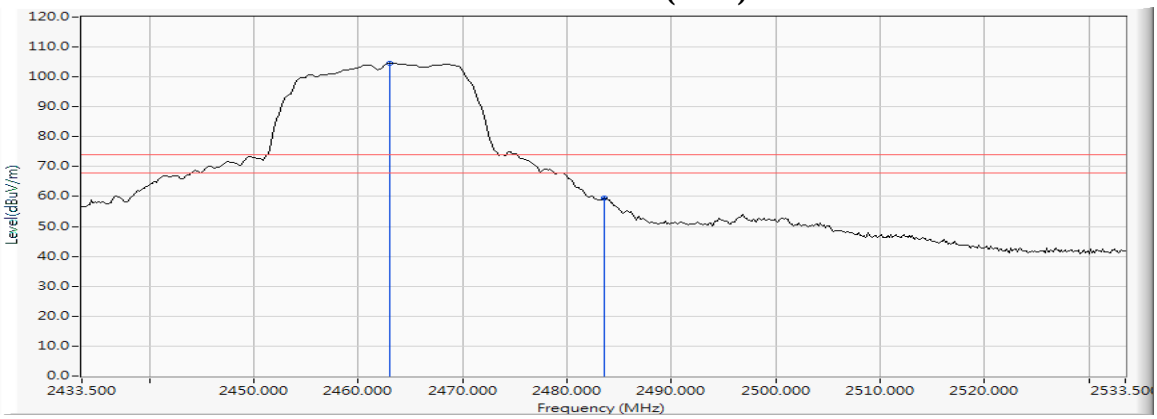
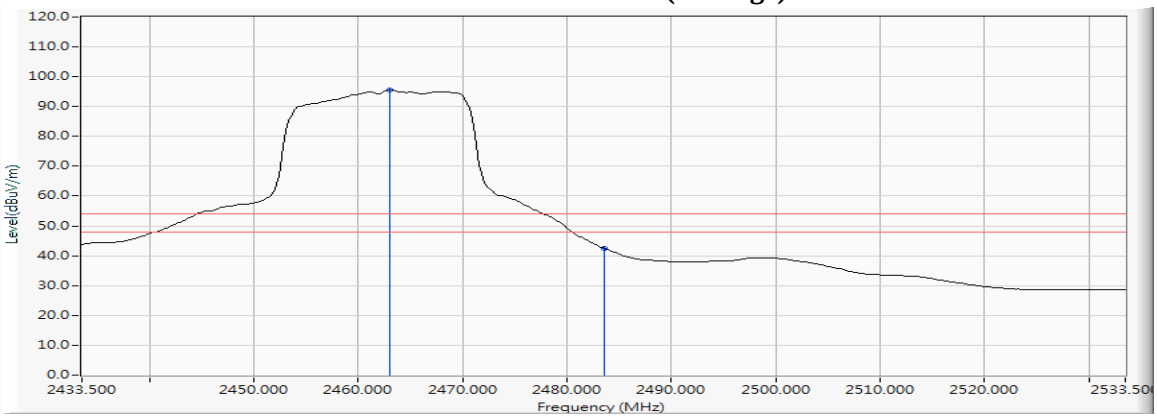



**Figure Channel 11: Horizontal (Average)**




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 : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)
Test Date : 2018/01/16

**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) | 2463.065 | 12.345 | 95.402 | 107.746 | -- | -- | -- |
| 11 (Peak) | 2483.500 | 12.403 | 49.744 | 62.147 | 74.00 | 54.00 | Pass |
| 11 (Peak) | 2483.790 | 12.403 | 49.880 | 62.283 | 74.00 | 54.00 | Pass |
| 11 (Average) | 2463.065 | 12.345 | 86.218 | 98.562 | -- | -- | -- |
| 11 (Average) | 2483.500 | 12.403 | 33.157 | 45.560 | 74.00 | 54.00 | Pass |

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

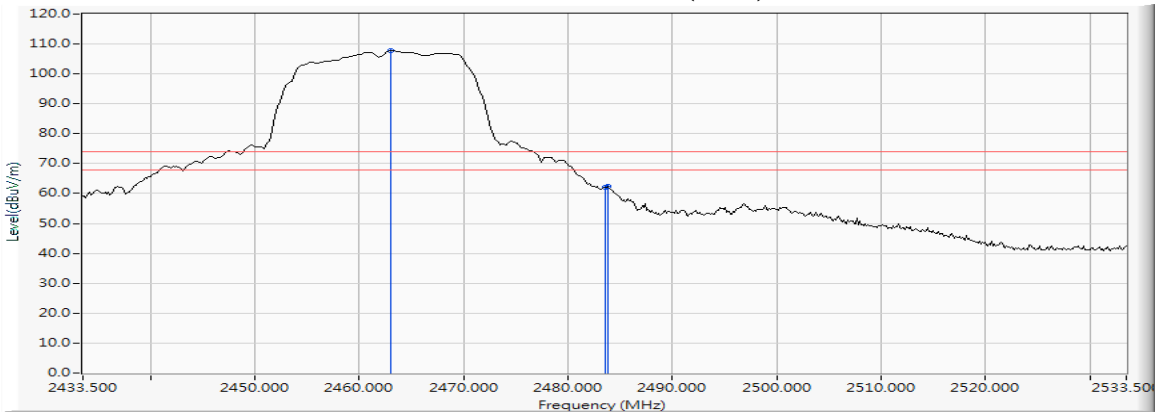
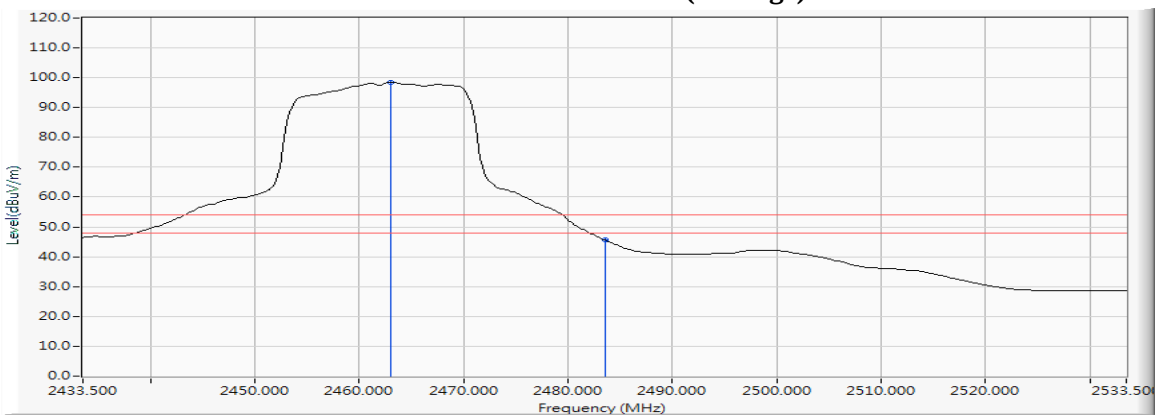



**Figure Channel 11: VERTICAL (Average)**




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 : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
Test Date : 2018/01/16

**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) | 2390.000 | 12.148 | 53.677 | 65.825 | 74.00 | 54.00 | Pass |
| 01 (Peak) | 2400.000 | 12.176 | 65.708 | 77.884 | -- | -- | Pass |
| 01 (Peak) | 2410.870 | 12.201 | 93.420 | 105.621 | -- | -- | -- |
| 01 (Average) | 2390.000 | 12.148 | 32.207 | 44.355 | 74.00 | 54.00 | Pass |
| 01 (Average) | 2400.000 | 12.176 | 48.543 | 60.719 | -- | -- | Pass |
| 01 (Average) | 2410.580 | 12.200 | 83.768 | 95.968 | -- | -- | -- |

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

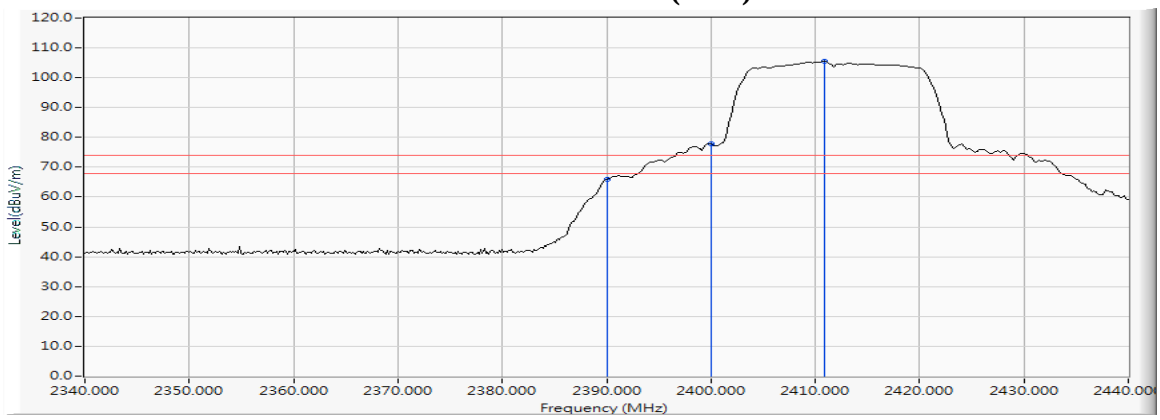
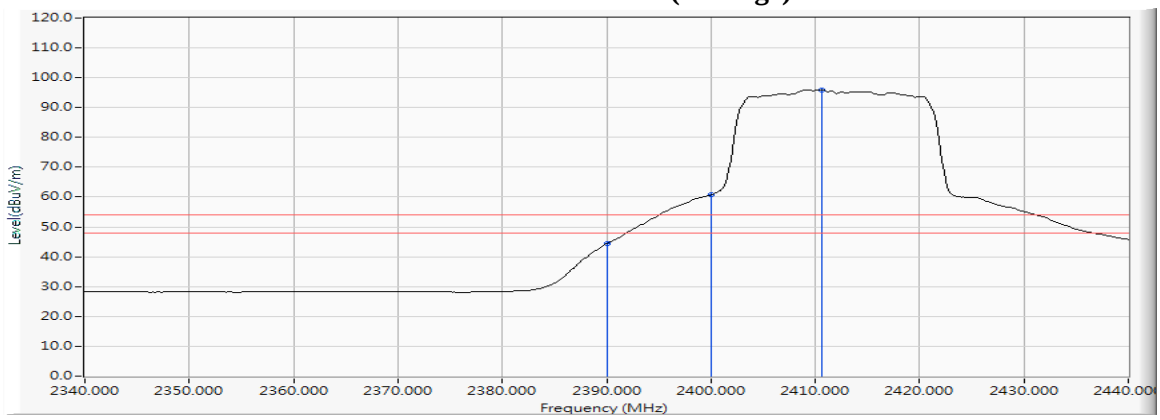



**Figure Channel 01: Horizontal (Average)**




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 : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
Test Date : 2018/01/16

**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 | 53.088 | 65.236 | 74.00 | 54.00 | Pass |
| 01 (Peak) | 2400.000 | 12.176 | 65.891 | 78.067 | -- | -- | Pass |
| 01 (Peak) | 2410.725 | 12.201 | 93.678 | 105.879 | -- | -- | Pass |
| 01 (Average) | 2390.000 | 12.148 | 31.706 | 43.854 | 74.00 | 54.00 | Pass |
| 01 (Average) | 2400.000 | 12.176 | 48.797 | 60.973 | -- | -- | Pass |
| 01 (Average) | 2410.580 | 12.200 | 84.027 | 96.227 | -- | -- | -- |

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

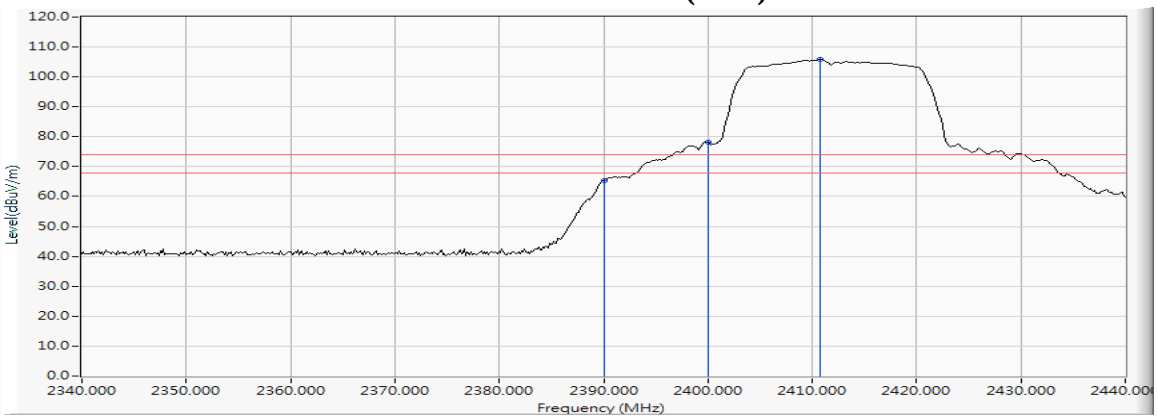
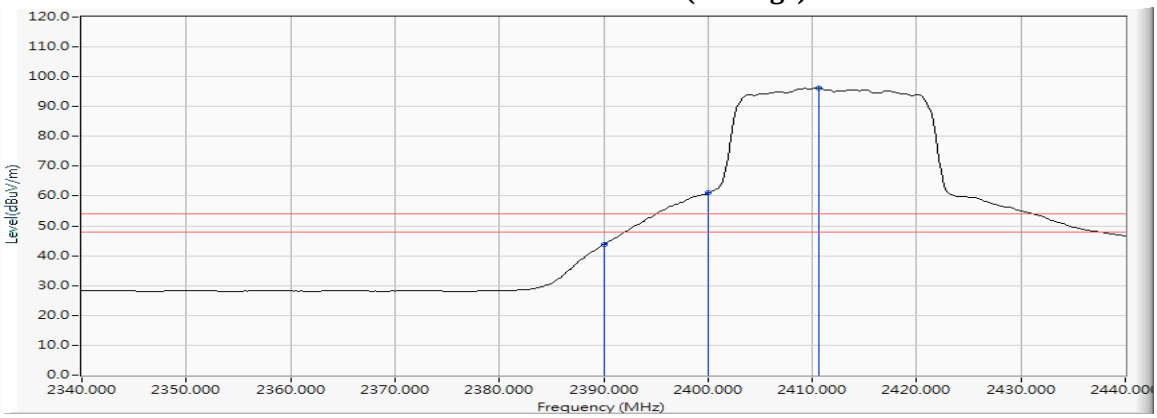



**Figure Channel 01: VERTICAL (Average)**




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 : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)
Test Date : 2018/01/16

**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) | 2463.210 | 12.345 | 92.093 | 104.438 | -- | -- | -- |
| 11 (Peak) | 2483.500 | 12.403 | 47.082 | 59.485 | 74.00 | 54.00 | Pass |
| 11 (Average) | 2463.500 | 12.345 | 82.650 | 94.996 | -- | -- | -- |
| 11 (Average) | 2483.500 | 12.403 | 30.616 | 43.019 | 74.00 | 54.00 | Pass |

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

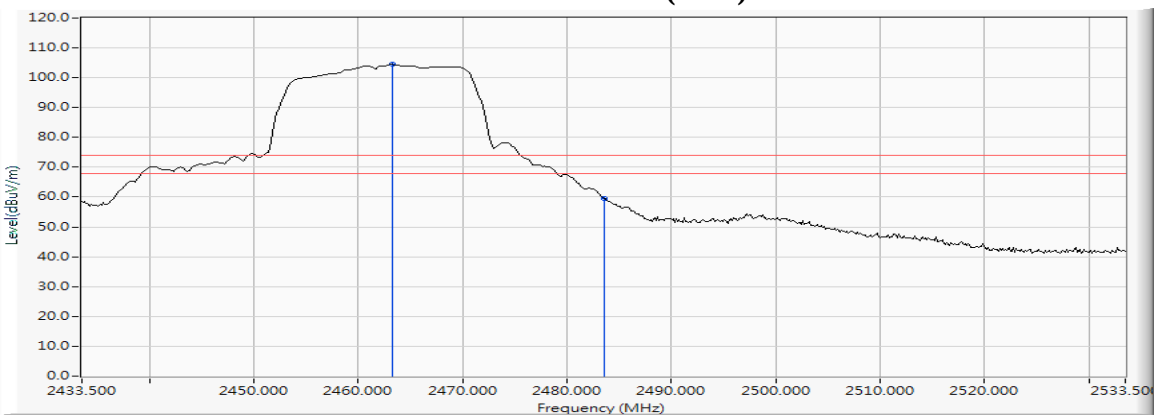
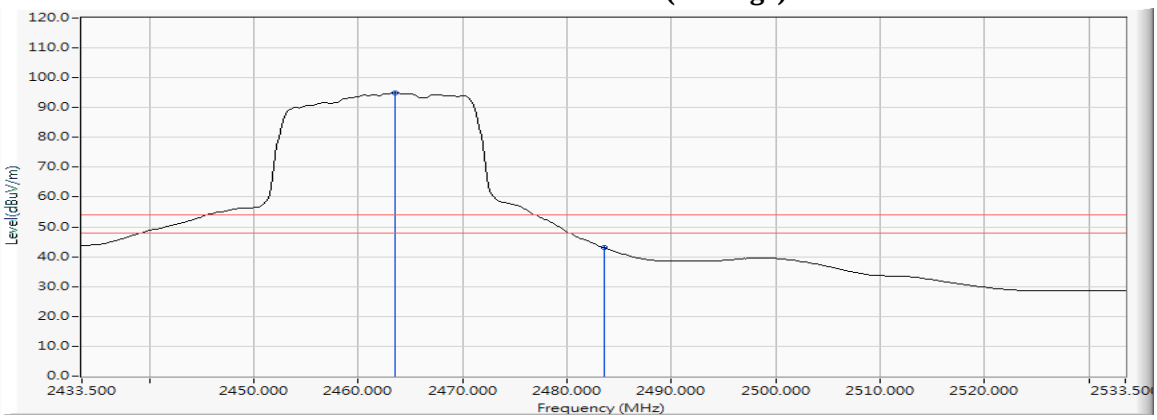



**Figure Channel 11: Horizontal (Average)**




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 : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)
Test Date : 2018/01/16

**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) | 2463.210 | 12.345 | 94.759 | 107.104 | -- | -- | -- |
| 11 (Peak) | 2483.500 | 12.403 | 50.177 | 62.580 | 74.00 | 54.00 | Pass |
| 11 (Average) | 2463.500 | 12.345 | 85.321 | 97.667 | -- | -- | -- |
| 11 (Average) | 2483.500 | 12.403 | 33.479 | 45.882 | 74.00 | 54.00 | Pass |

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

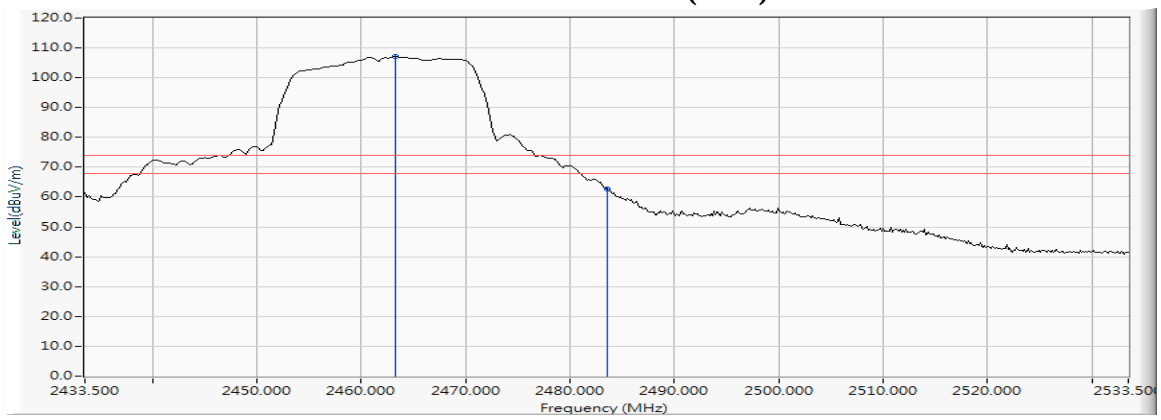
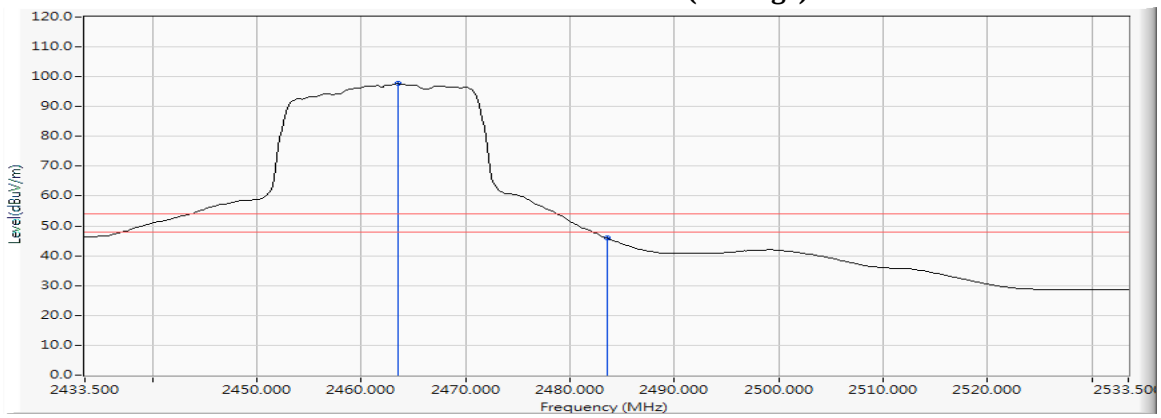



**Figure Channel 11: VERTICAL (Average)**




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 : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2422MHz)
Test Date : 2018/01/16

**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) | 2388.986 | 12.145 | 49.532 | 61.677 | 74.00 | 54.00 | Pass |
| 03 (Peak) | 2390.000 | 12.148 | 45.985 | 58.133 | 74.00 | 54.00 | Pass |
| 03 (Peak) | 2397.971 | 12.169 | 56.583 | 68.753 | -- | -- | Pass |
| 03 (Peak) | 2400.000 | 12.176 | 55.646 | 67.822 | -- | -- | Pass |
| 03 (Peak) | 2432.319 | 12.257 | 92.006 | 104.263 | -- | -- | -- |
| 03 (Average) | 2390.000 | 12.148 | 32.266 | 44.414 | 74.00 | 54.00 | Pass |
| 03 (Average) | 2400.000 | 12.176 | 41.037 | 53.213 | -- | -- | Pass |
| 03 (Average) | 2431.449 | 12.255 | 82.042 | 94.297 | -- | -- | -- |

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

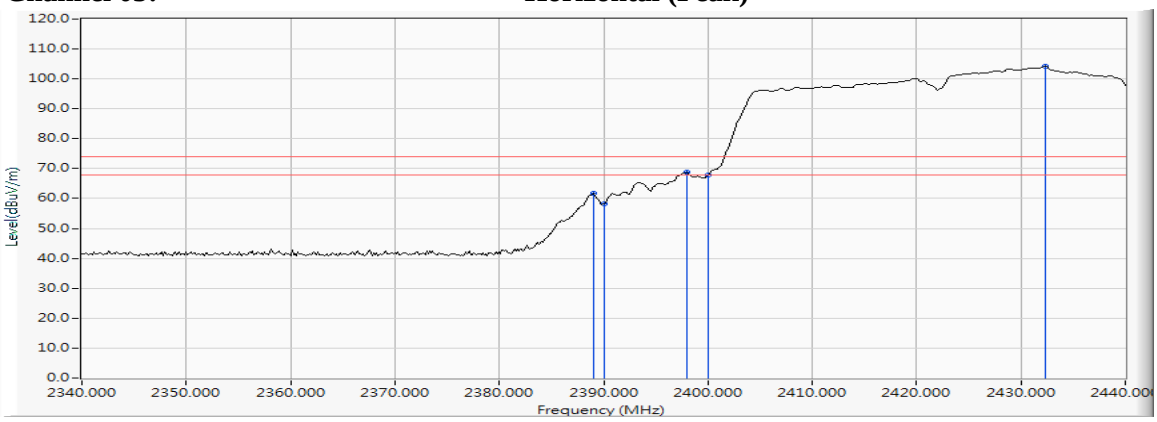
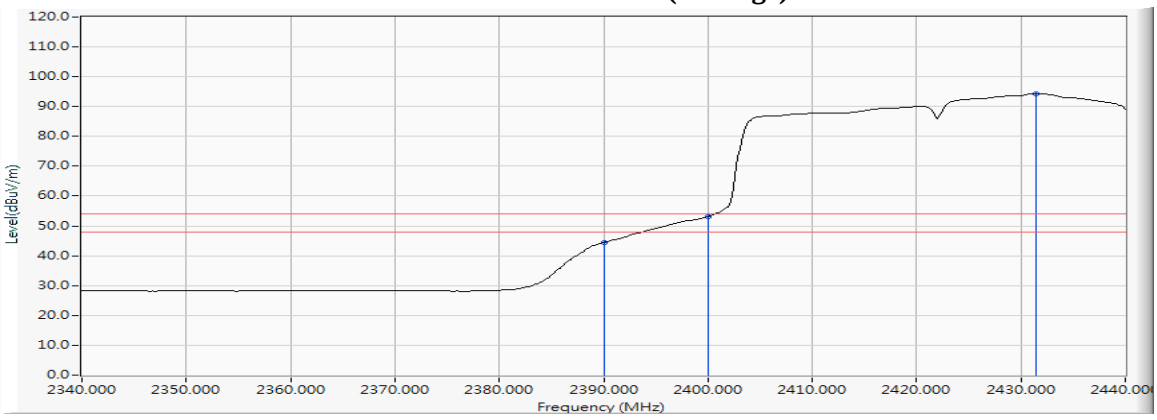



**Figure Channel 03: Horizontal (Average)**




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 : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2422MHz)
Test Date : 2018/01/16

**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) | 2388.841 | 12.145 | 50.599 | 62.744 | 74.00 | 54.00 | Pass |
| 03 (Peak) | 2390.000 | 12.148 | 47.217 | 59.365 | 74.00 | 54.00 | Pass |
| 03 (Peak) | 2398.116 | 12.171 | 57.233 | 69.404 | -- | -- | Pass |
| 03 (Peak) | 2400.000 | 12.176 | 56.376 | 68.552 | -- | -- | Pass |
| 03 (Peak) | 2432.319 | 12.257 | 93.575 | 105.832 | -- | -- | -- |
| 03 (Average) | 2390.000 | 12.148 | 33.560 | 45.708 | 74.00 | 54.00 | Pass |
| 03 (Average) | 2400.000 | 12.176 | 41.847 | 54.023 | 74.00 | 54.00 | Pass |
| 03 (Average) | 2431.594 | 12.255 | 83.574 | 95.829 | -- | -- | -- |

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

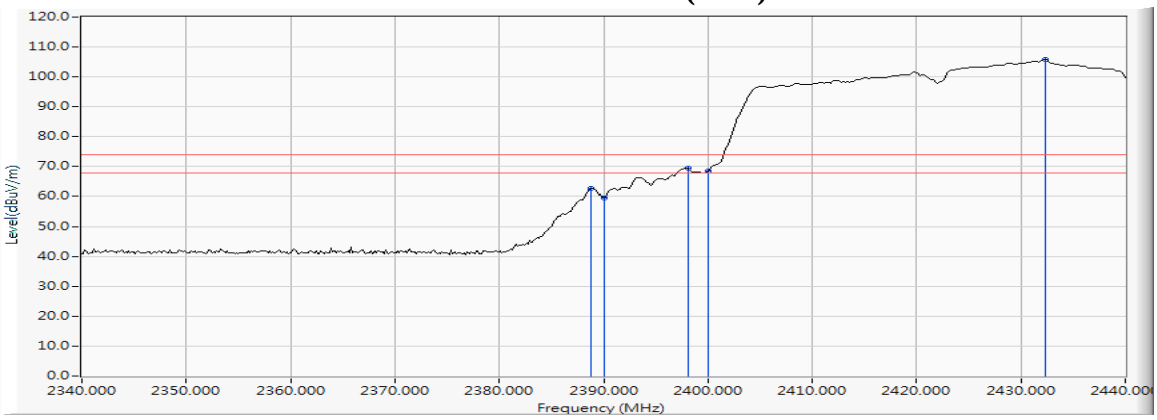
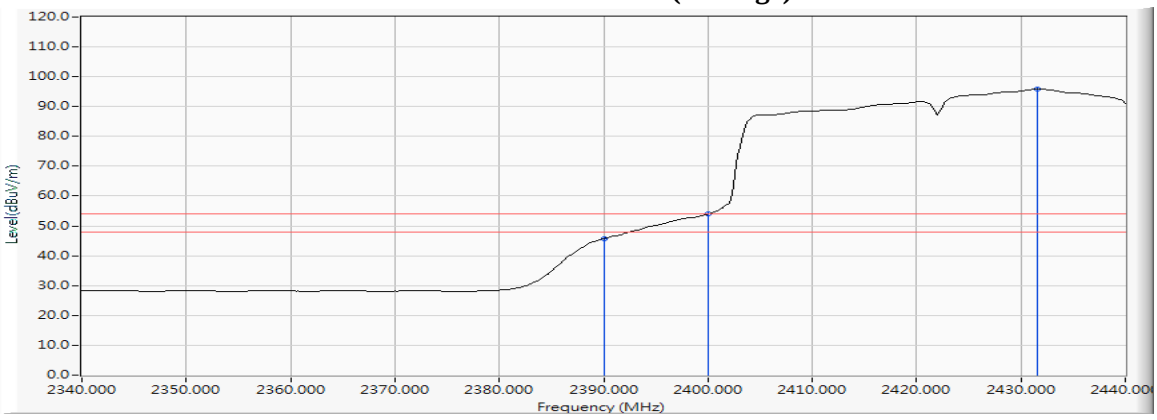



**Figure Channel 03: VERTICAL (Average)**




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 : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2452MHz)
Test Date : 2018/01/16

**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) | 2438.428 | 12.274 | 90.596 | 102.870 | -- | -- | -- |
| 09 (Peak) | 2483.500 | 12.403 | 51.946 | 64.349 | 74.00 | 54.00 | Pass |
| 09 (Average) | 2438.283 | 12.274 | 81.078 | 93.352 | -- | -- | -- |
| 09 (Average) | 2483.500 | 12.403 | 35.625 | 48.028 | 74.00 | 54.00 | Pass |

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

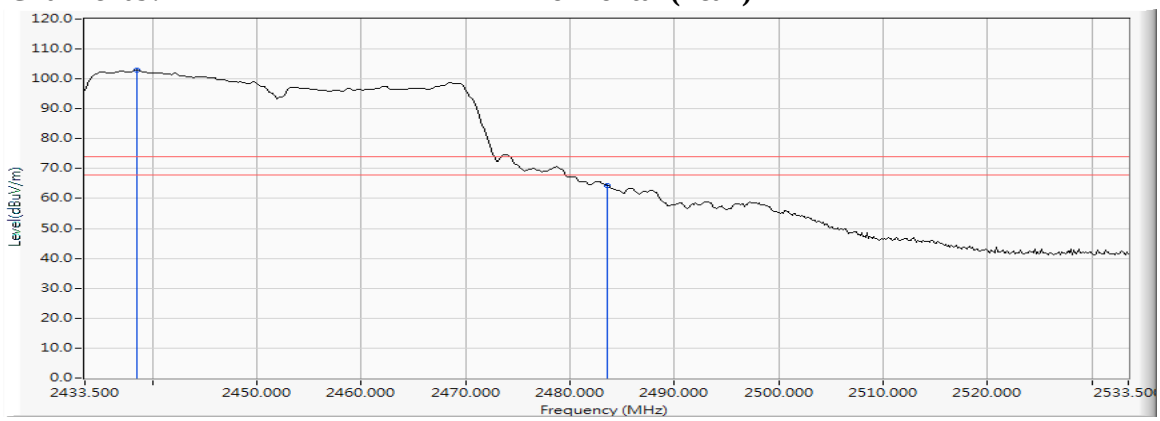
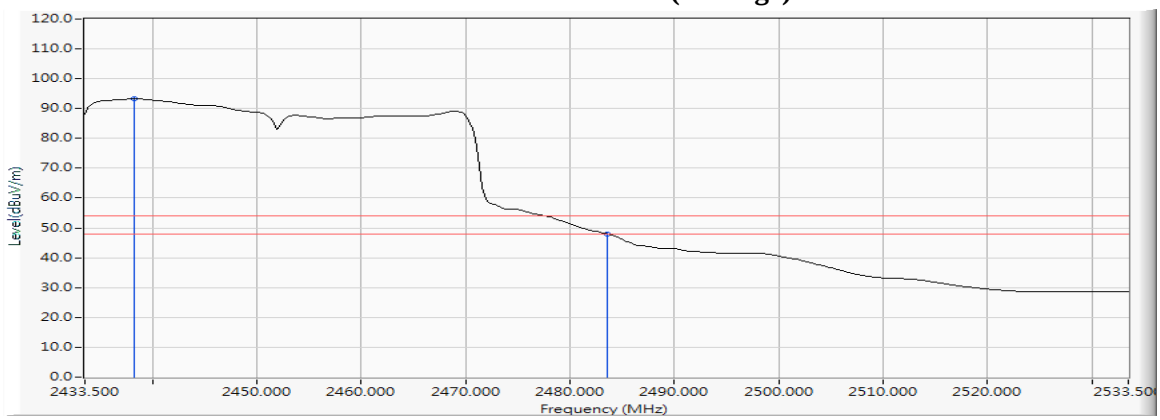



**Figure Channel 09: Horizontal (Average)**




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 : Tablet PC
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2452MHz)
Test Date : 2018/01/16

**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) | 2438.428 | 12.274 | 92.030 | 104.304 | -- | -- | -- |
| 09 (Peak) | 2483.500 | 12.403 | 54.603 | 67.006 | 74.00 | 54.00 | Pass |
| 09 (Average) | 2438.138 | 12.273 | 82.521 | 94.794 | -- | -- | -- |
| 09 (Average) | 2483.500 | 12.403 | 38.246 | 50.649 | 74.00 | 54.00 | Pass |

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

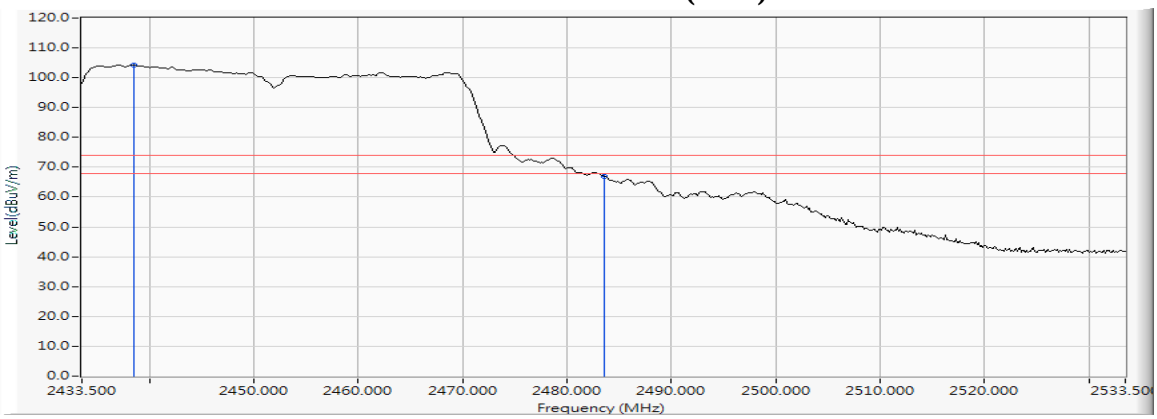
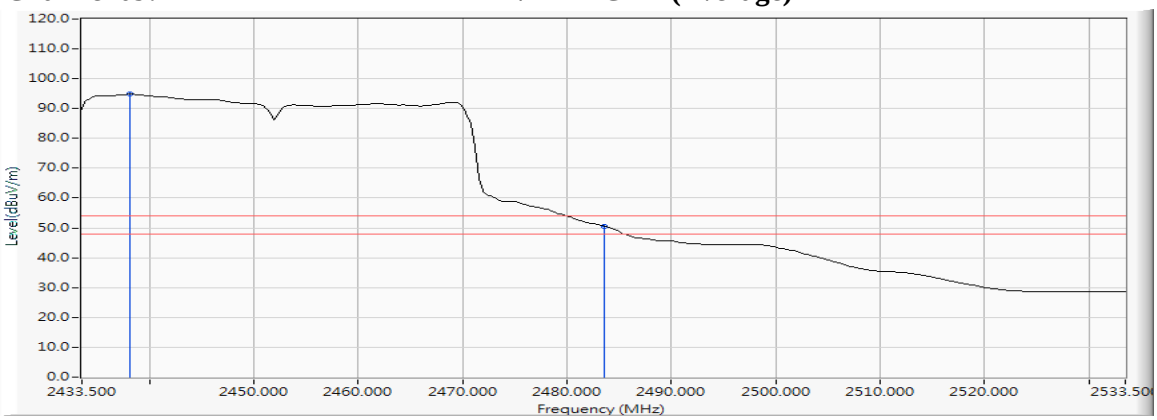



**Figure Channel 09: VERTICAL (Average)**

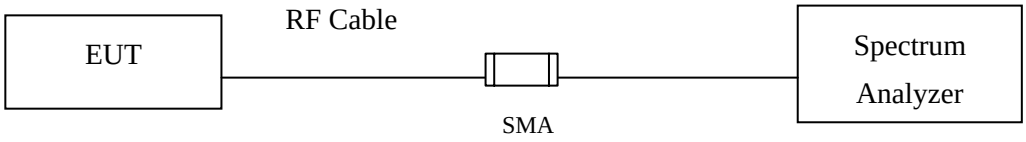



Note:

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.

# 7. 6dB Bandwidth

## 7.1. Test Setup




## 7.2. Limits

The minimum bandwidth shall be at least 500 kHz.

## 7.3. Test Procedure

The EUT was setup according to ANSI C63.4: 2014; tested according to DTS test procedure of Jan KDB558074 for compliance to FCC 47CFR 15.247 requirements.

## 7.4. Uncertainty

± 279.2Hz

## 7.5. Test Result of 6dB Bandwidth

Product : Tablet PC
Test Item : 6dB Bandwidth Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | 9700 | >500 | Pass |
| 06 | 2437 | 8650 | >500 | Pass |
| 11 | 2462 | 8250 | >500 | Pass |

**Figure Channel 01:**

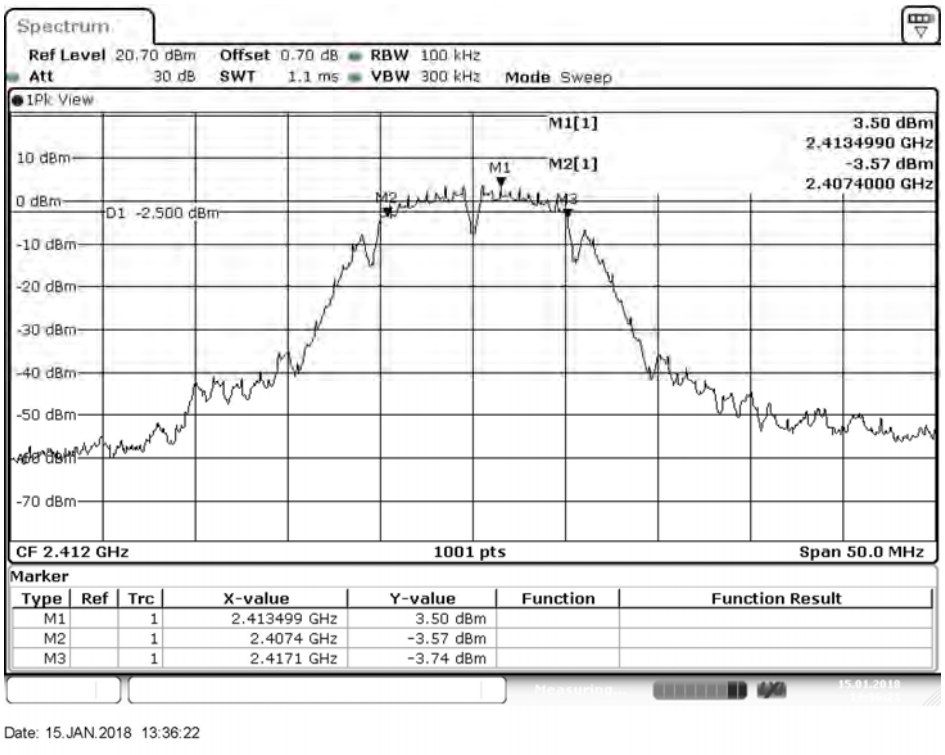
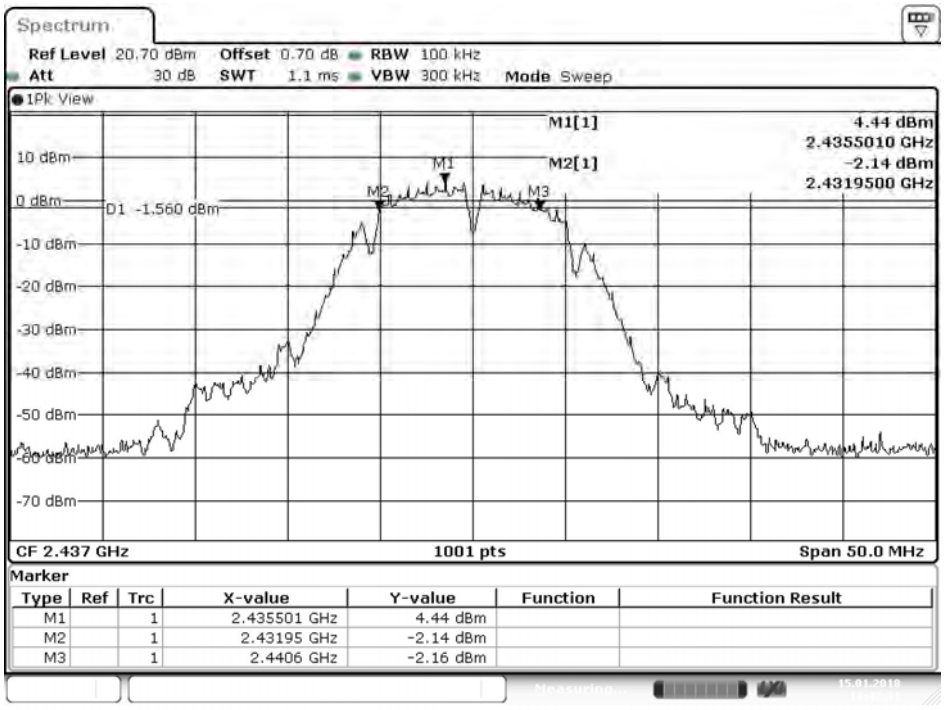
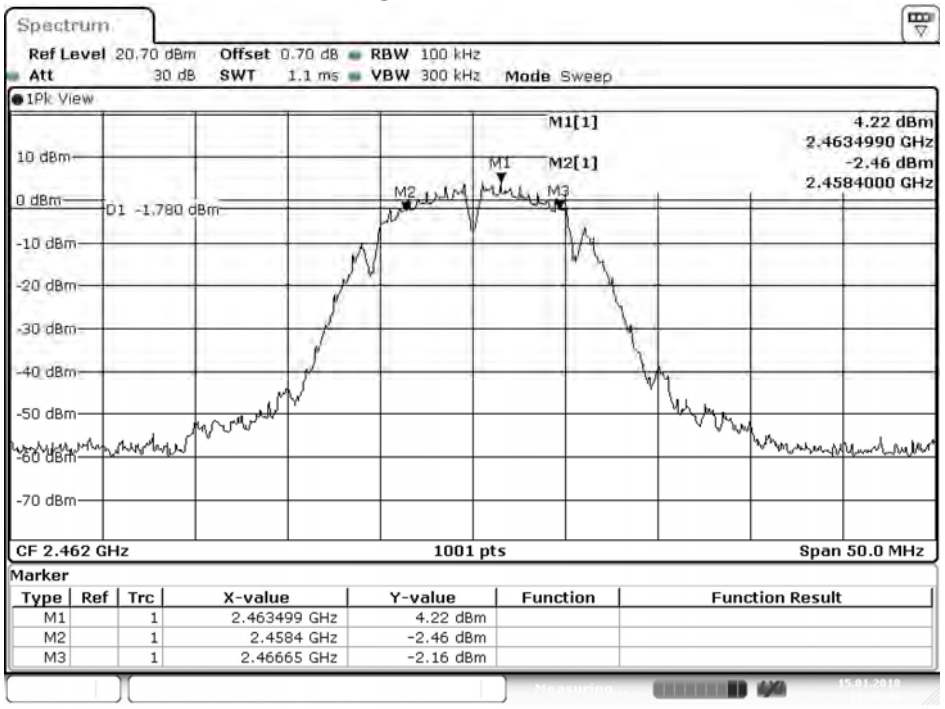


**Figure Channel 06:**




Date: 15.JAN.2018 13:42:32

**Figure Channel 11:**




Date: 15.JAN.2018 13:47:45

Product : Tablet PC
Test Item : 6dB Bandwidth Data
Test Mode : Mode 2: Transmit (802.11g 6Mbps)

| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | 16600 | >500 | Pass |
| 06 | 2437 | 14650 | >500 | Pass |
| 11 | 2462 | 15200 | >500 | Pass |

**Figure Channel 01:**

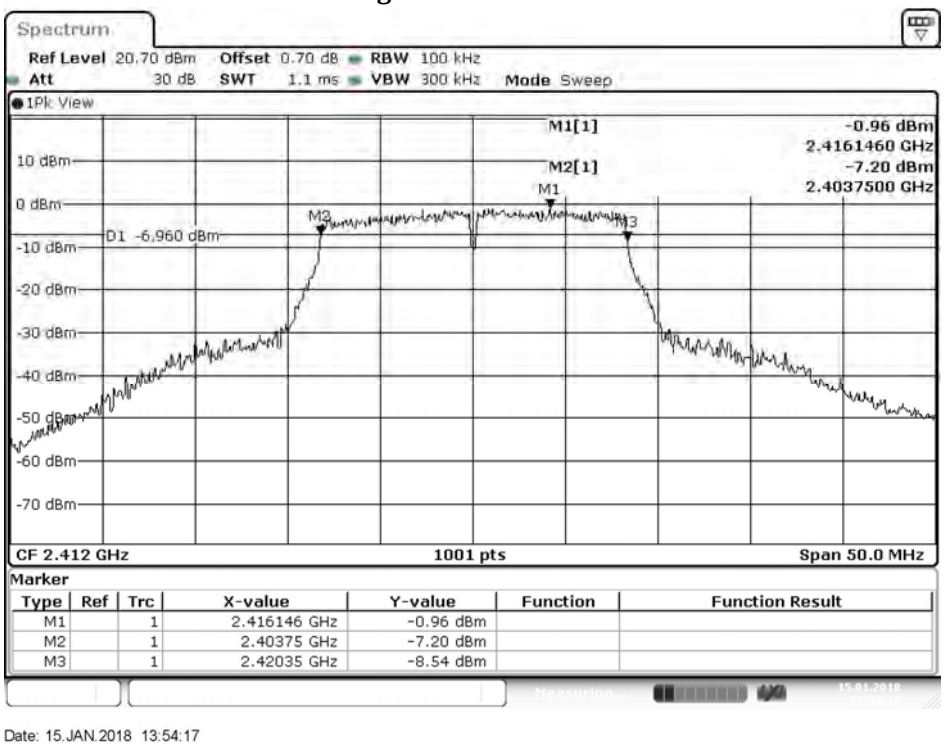
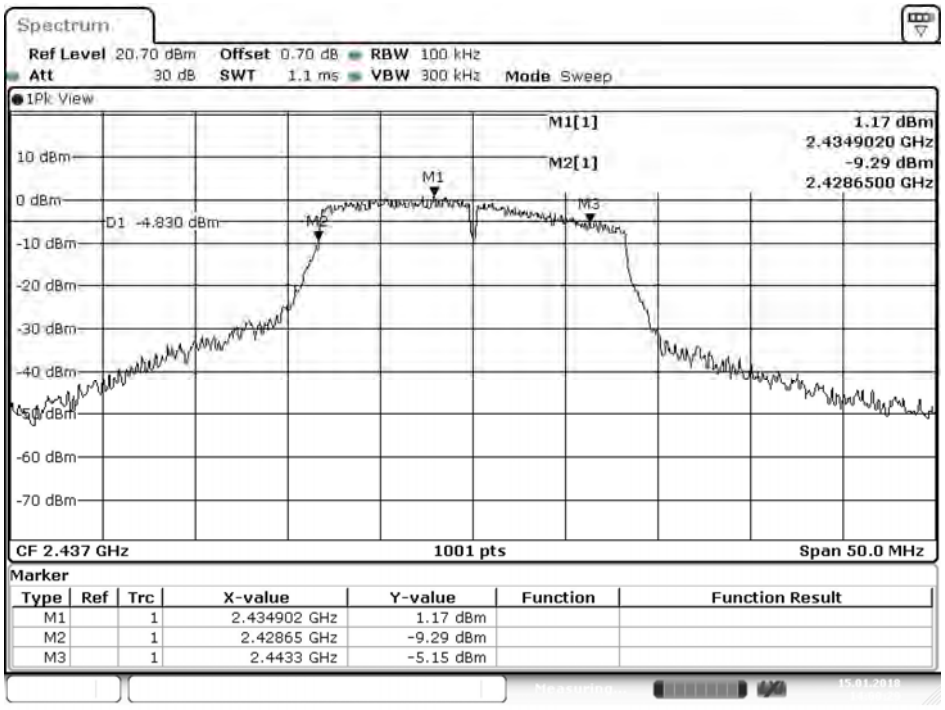
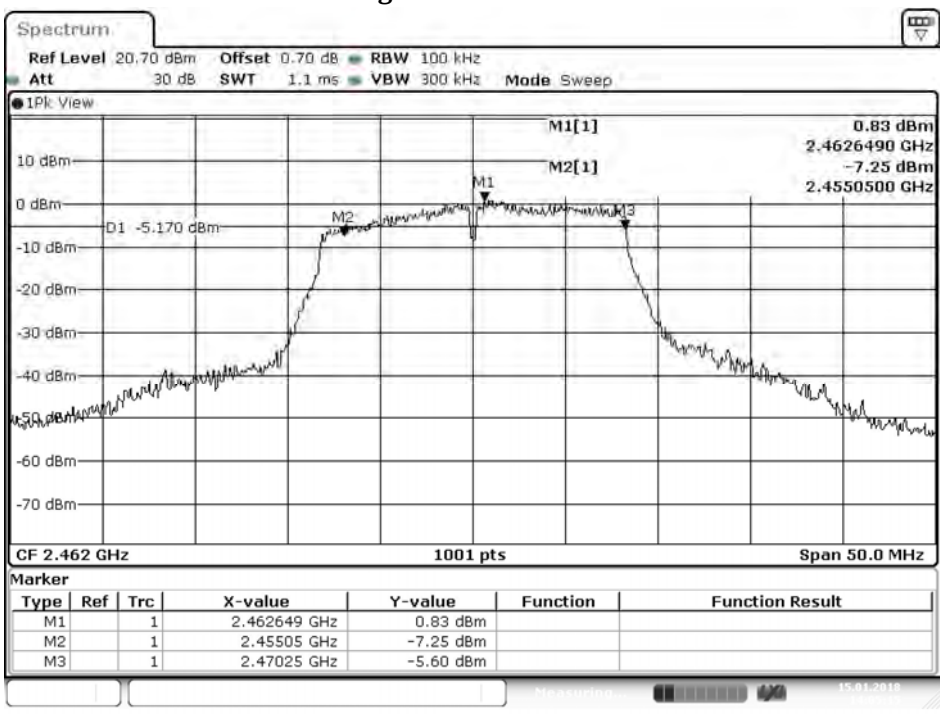


**Figure Channel 06:**




Date: 15.JAN.2018 14:00:30

**Figure Channel 11:**




Date: 15.JAN.2018 14:05:15

Product : Tablet PC
Test Item : 6dB Bandwidth Data
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | 17800 | >500 | Pass |
| 06 | 2437 | 15550 | >500 | Pass |
| 11 | 2462 | 16150 | >500 | Pass |

**Figure Channel 01:**

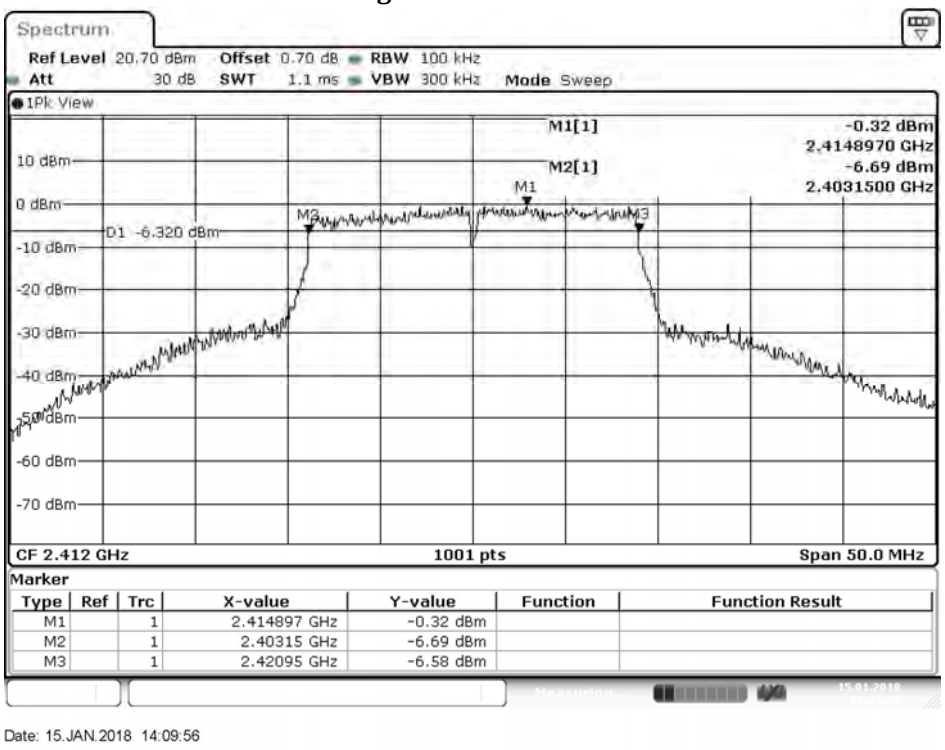
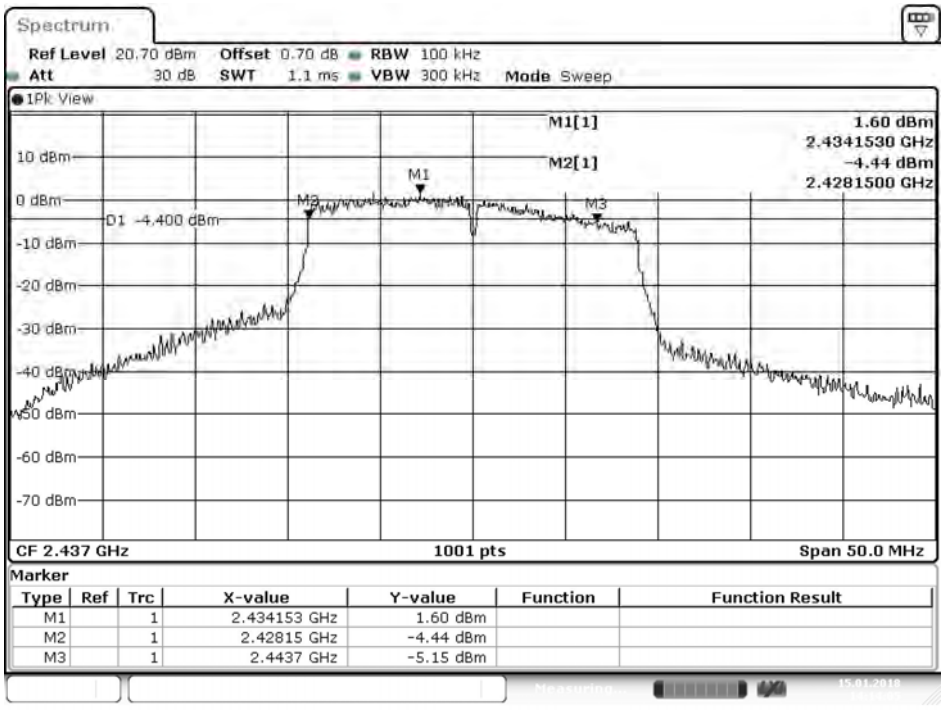
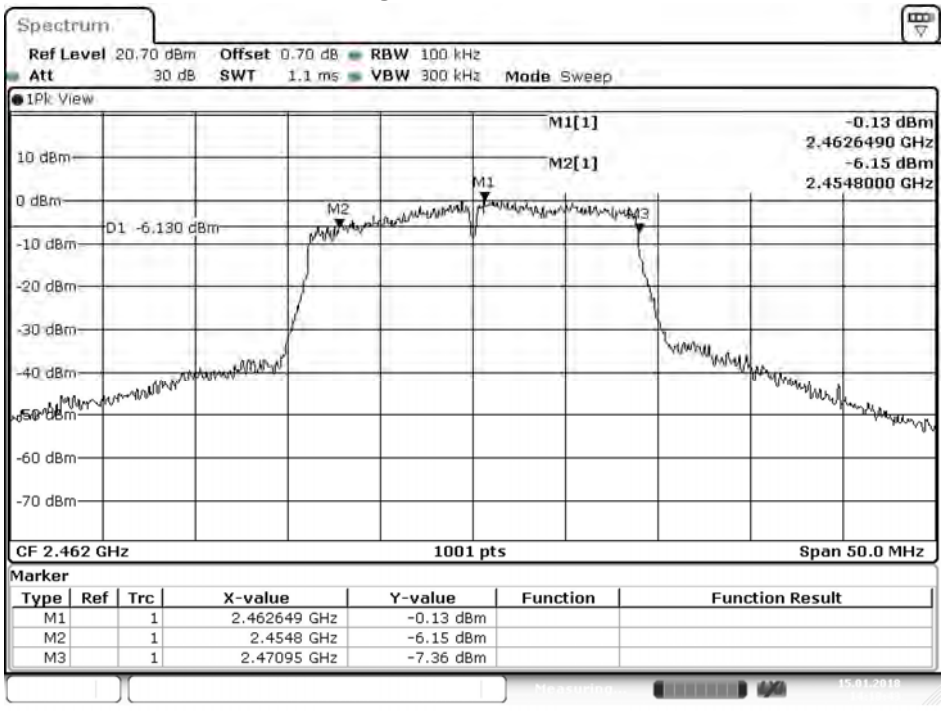


**Figure Channel 06:**




Date: 15.JAN.2018 14:14:06

**Figure Channel 11:**




Date: 15.JAN.2018 14:18:43

Product : Tablet PC
Test Item : 6dB Bandwidth Data
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|---|---|---|---|---|
| 03 | 2422 | 25300 | >500 | Pass |
| 06 | 2437 | 27200 | >500 | Pass |
| 09 | 2452 | 36700 | >500 | Pass |

**Figure Channel 03:**

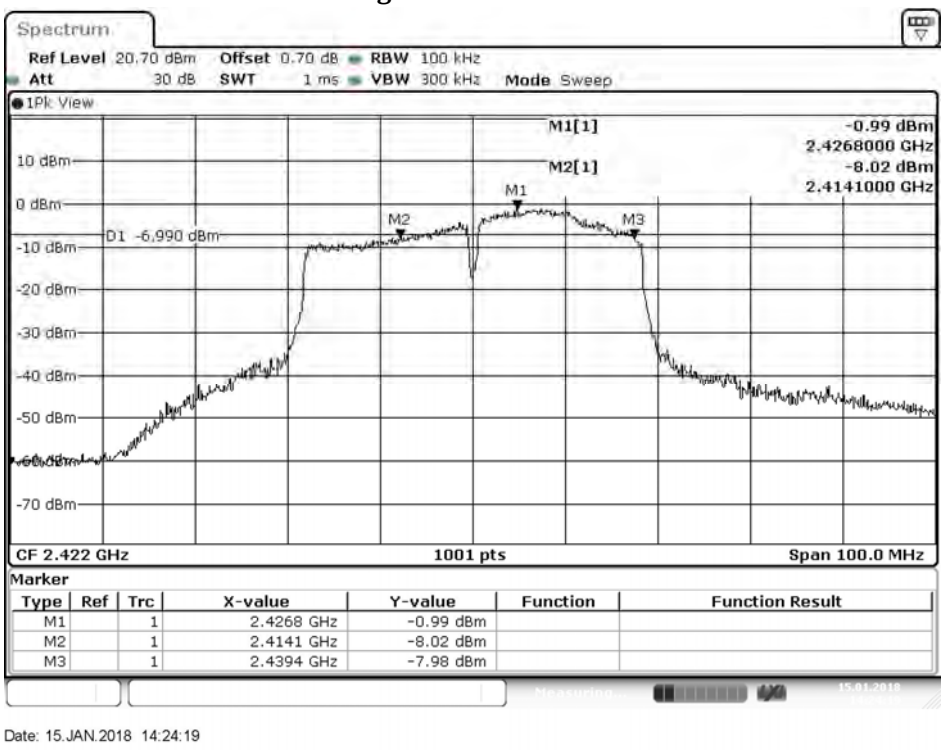
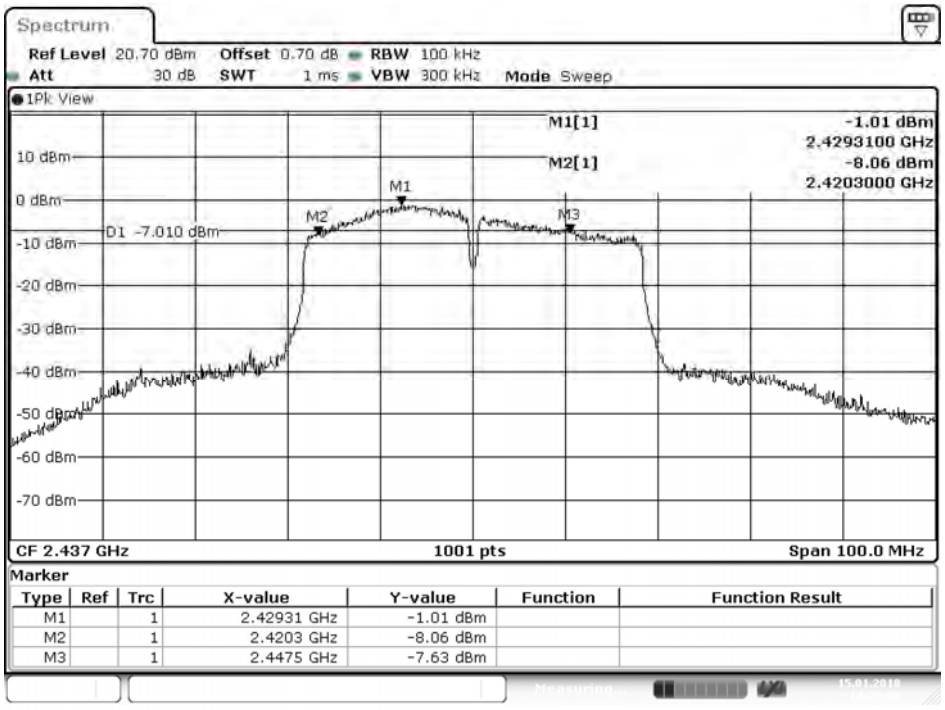
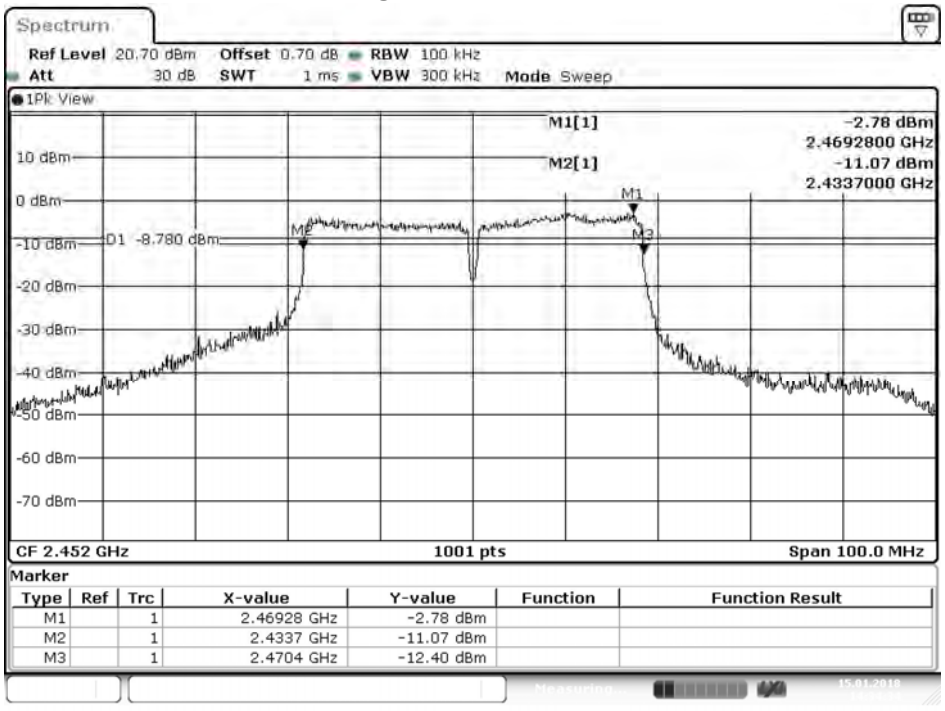


**Figure Channel 06:**




Date: 15.JAN.2018 14:29:09

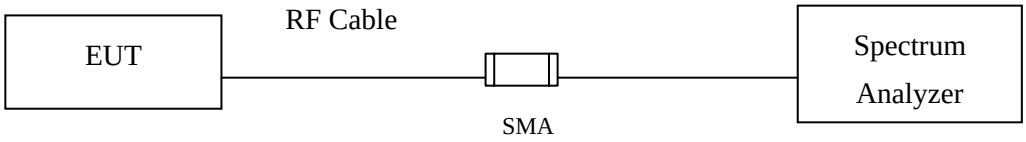
**Figure Channel 09:**




Date: 15.JAN.2018 14:34:34

# 8. Power Density

## 8.1. Test Setup




## 8.2. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

## 8.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013; tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements.
The maximum power spectral density using KDB 558074 section 10.2 PKPSD (peak PSD) method.

## 8.4. Uncertainty

± 1.23 dB

## 8.5. Test Result of Power Density

Product : Tablet PC
Test Item : Power Density Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

| Channel No. | Frequency (MHz) | Measure Level (dBm) | Limit (dBm) | Result |
|---|---|---|---|---|
| 01 | 2412 | 3.410 | ≦8dBm | Pass |
| 06 | 2437 | 4.360 | ≦8dBm | Pass |
| 11 | 2462 | 4.110 | ≦8dBm | Pass |

**Figure Channel 01:**

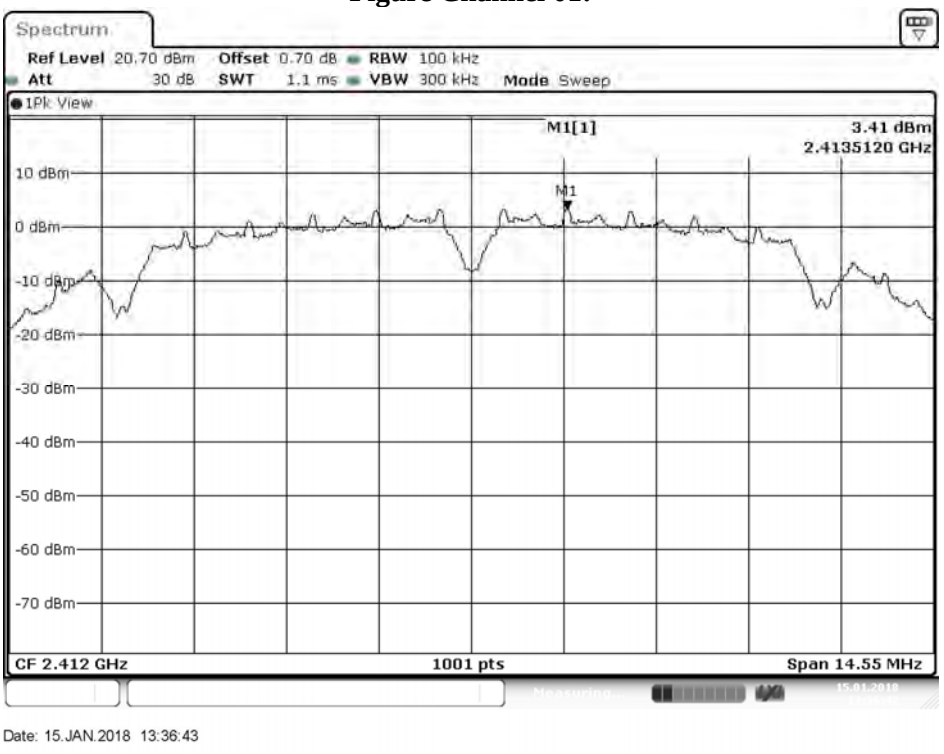


**Figure Channel 06:**

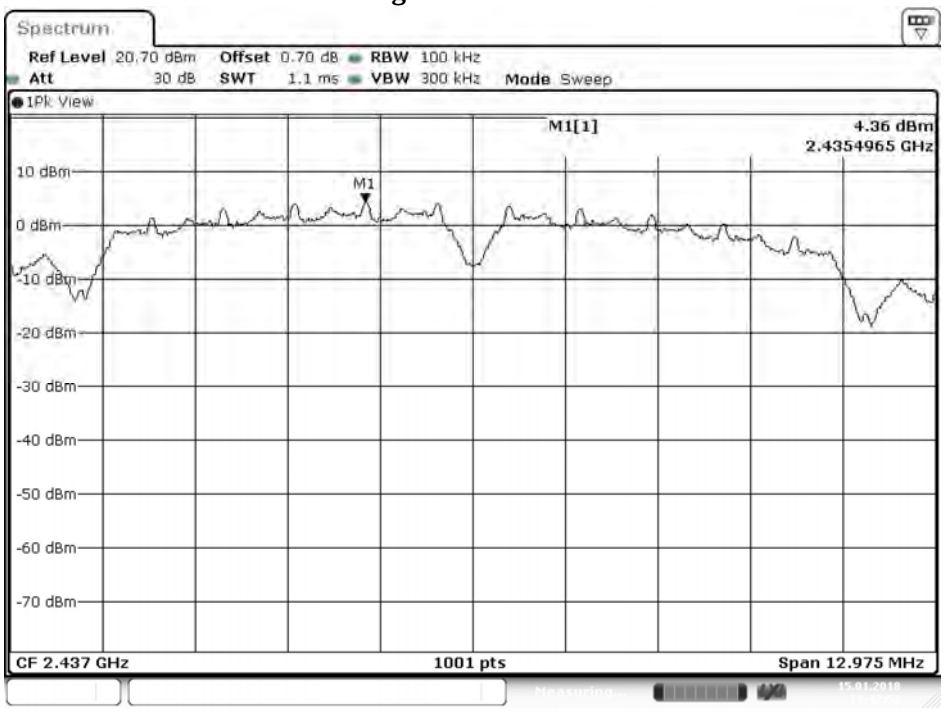
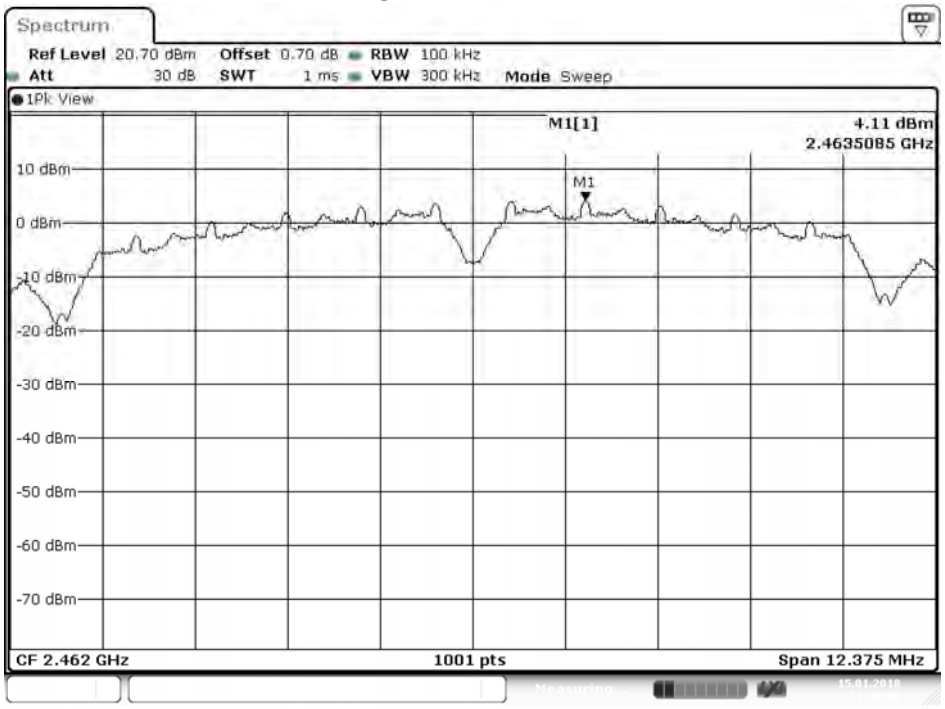



**Figure Channel 11:**



Product : Tablet PC
Test Item : Power Density Data
Test Mode : Mode 2: Transmit (802.11g 6Mbps)

| Channel No. | Frequency (MHz) | Measure Level (dBm) | Limit (dBm) | Result |
|---|---|---|---|---|
| 01 | 2412 | -0.950 | ≦8dBm | Pass |
| 06 | 2437 | 1.170 | ≦8dBm | Pass |
| 11 | 2462 | 0.760 | ≦8dBm | Pass |

**Figure Channel 01:**

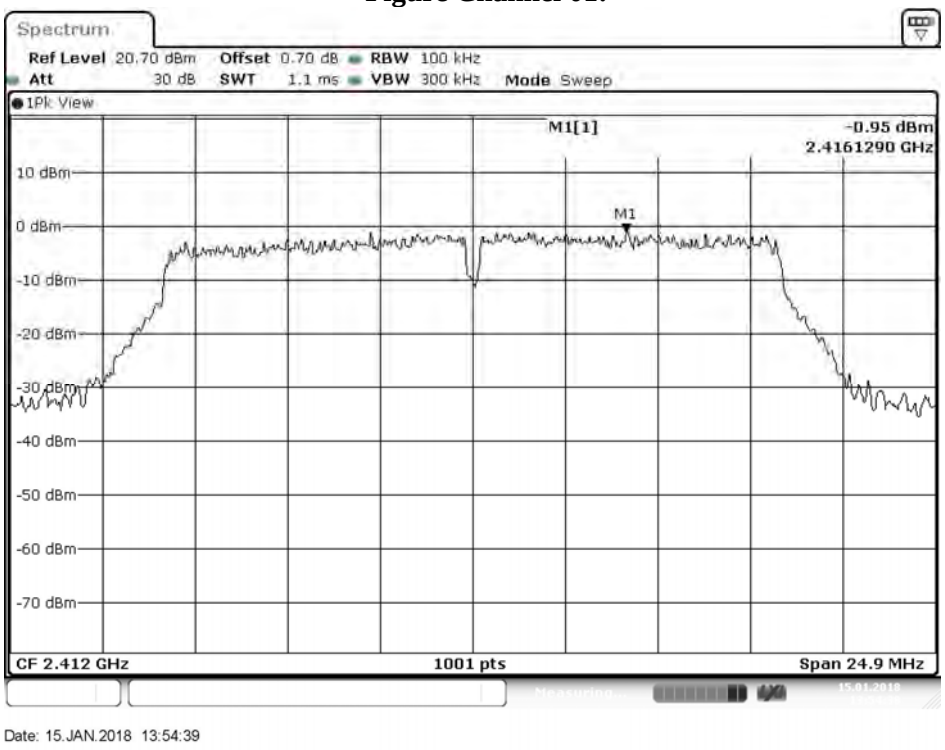


**Figure Channel 06:**

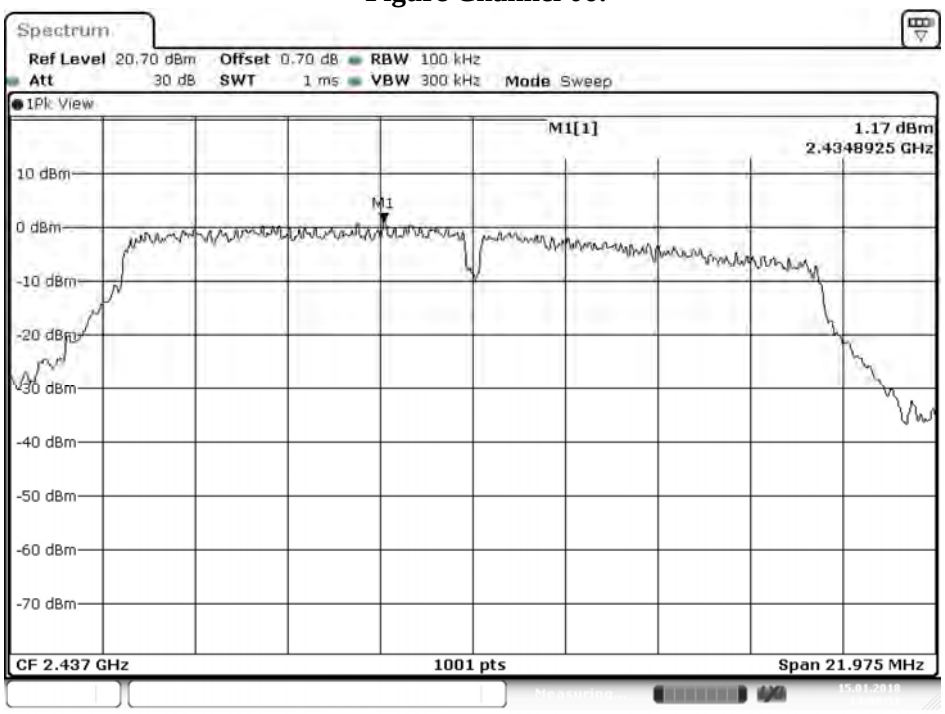
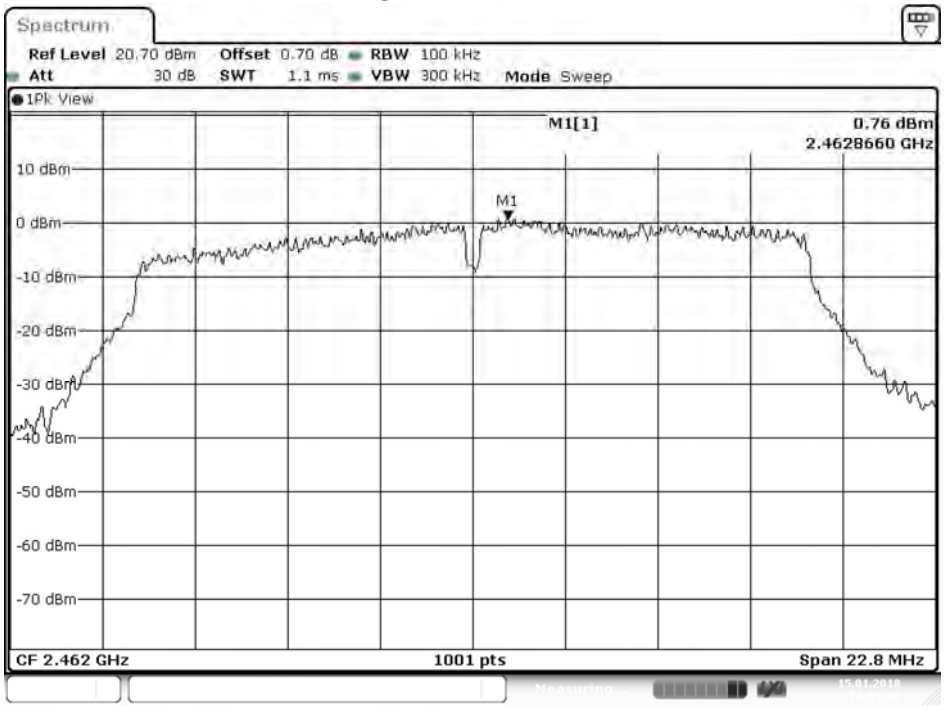



**Figure Channel 11:**



Product : Tablet PC
Test Item : Power Density Data
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

| Channel No. | Frequency (MHz) | Measure Level (dBm) | Limit (dBm) | Result |
|---|---|---|---|---|
| 01 | 2412 | -0.360 | ≦8dBm | Pass |
| 06 | 2437 | 1.650 | ≦8dBm | Pass |
| 11 | 2462 | -0.070 | ≦8dBm | Pass |

**Figure Channel 01:**

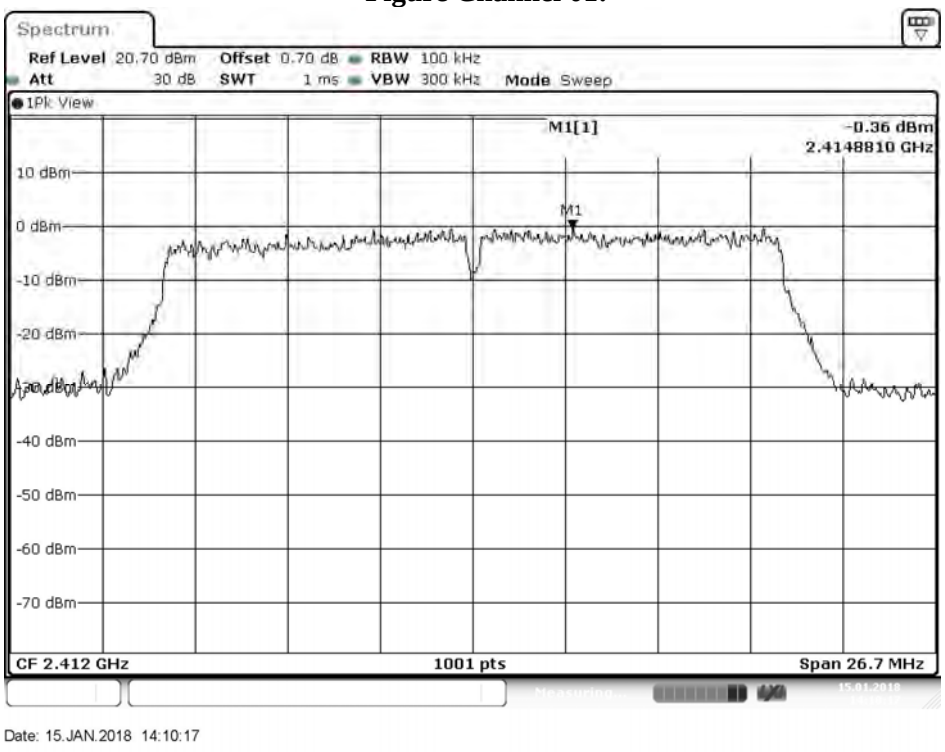


**Figure Channel 06:**

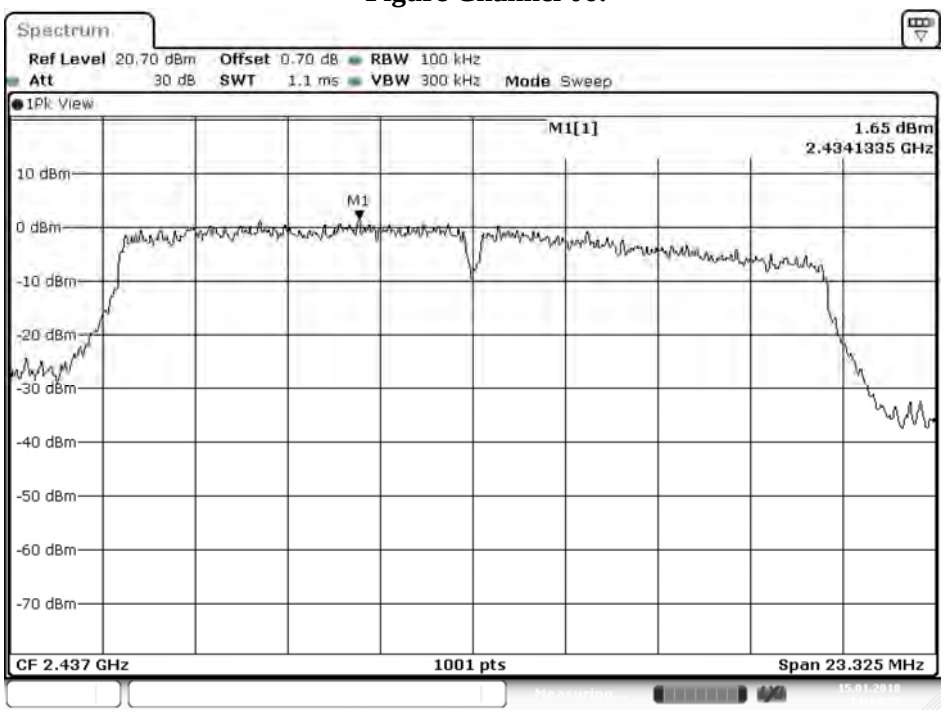
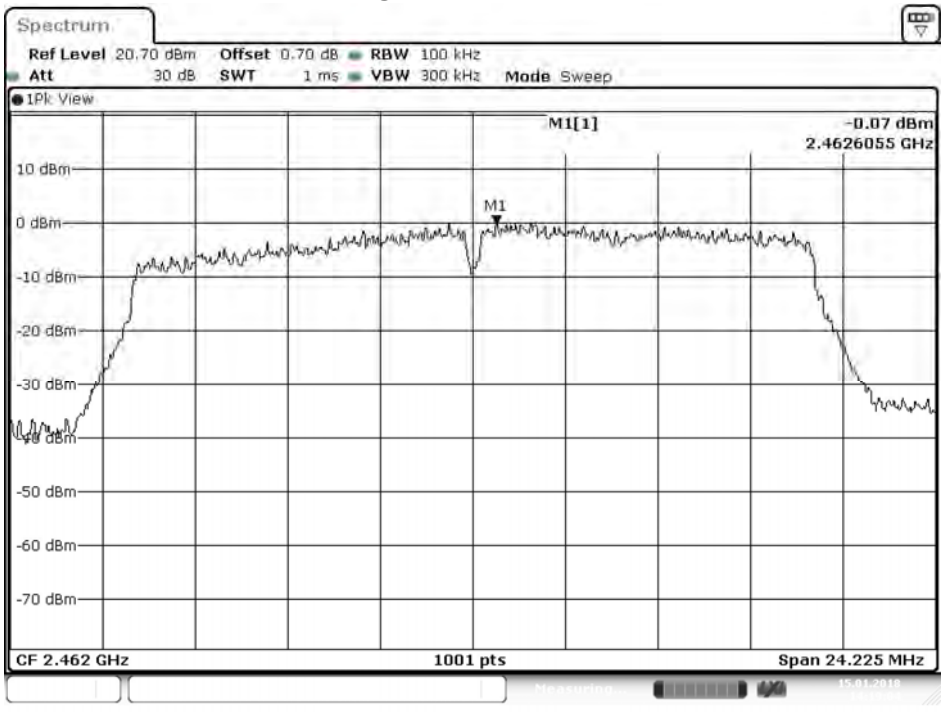



**Figure Channel 11:**



Product : Tablet PC
Test Item : Power Density Data
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

| Channel No. | Frequency (MHz) | Measure Level (dBm) | Limit (dBm) | Result |
|---|---|---|---|---|
| 03 | 2422 | -1.460 | ≦8dBm | Pass |
| 06 | 2437 | -1.200 | ≦8dBm | Pass |
| 09 | 2452 | -3.210 | ≦8dBm | Pass |

**Figure Channel 03:**

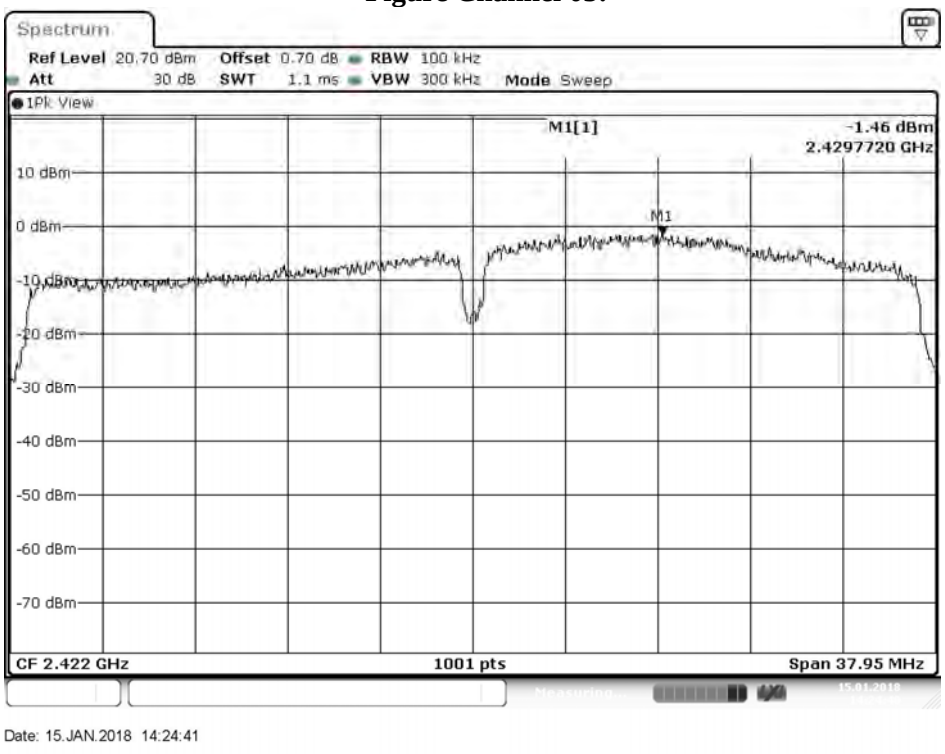


**Figure Channel 06:**

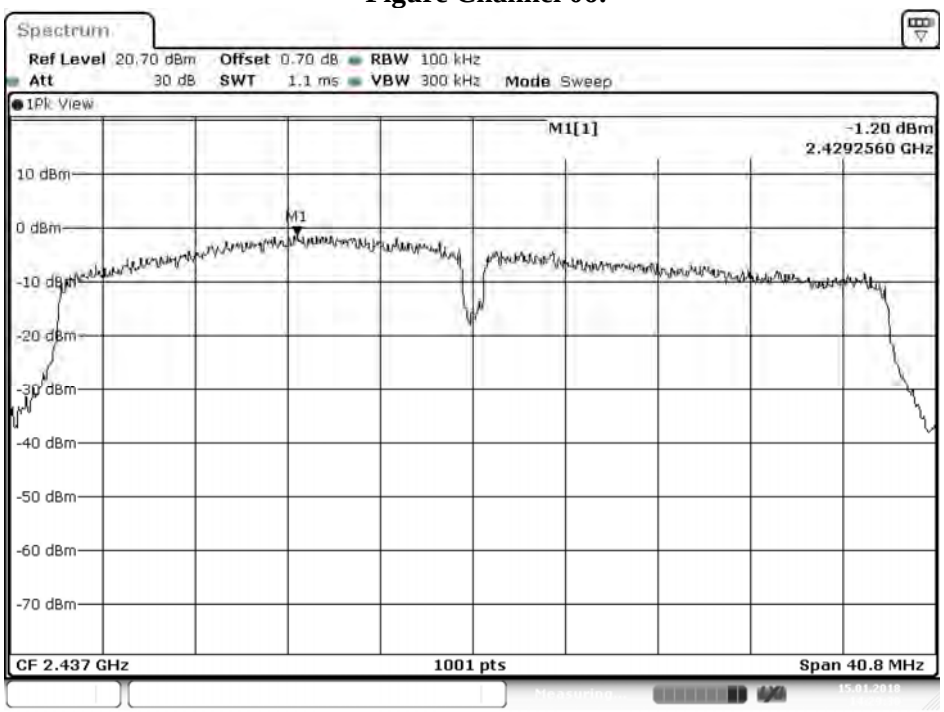
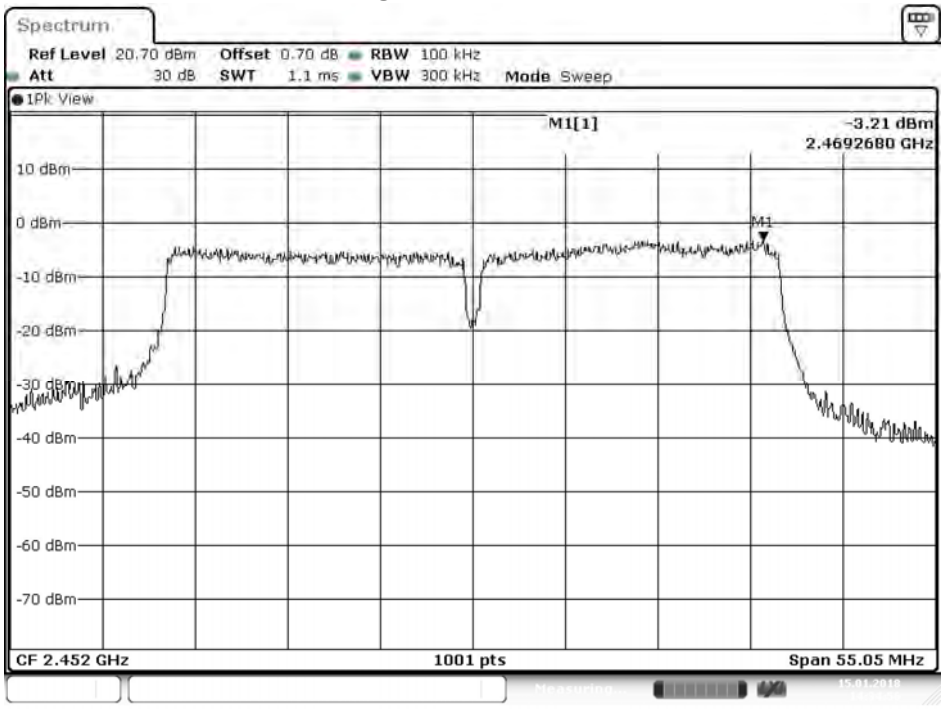
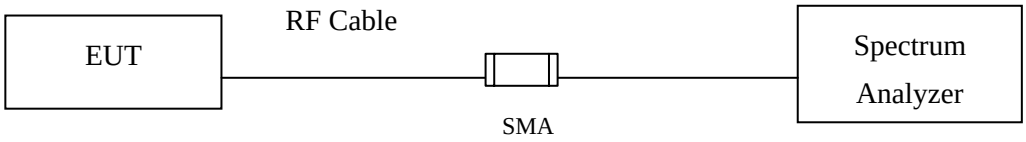



**Figure Channel 09:**



# 9. Duty Cycle

## 9.1. Test Setup




## 9.2. 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.

## 9.3. Uncertainty

± 2.31msec

## 9.4. Test Result of Duty Cycle

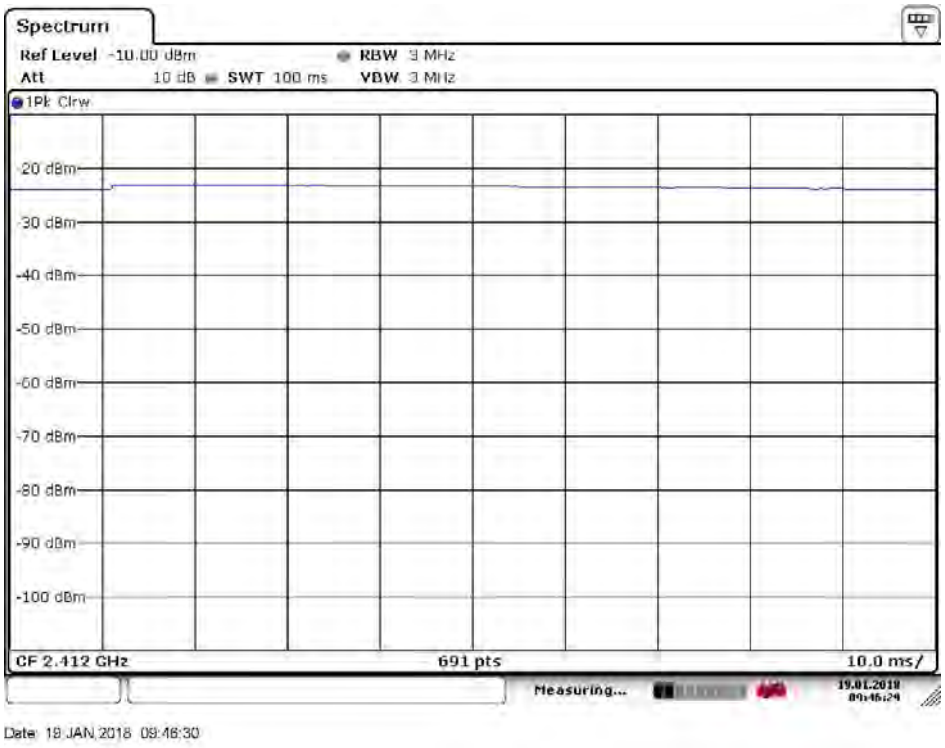
Product : Tablet PC
Test Item : Duty Cycle
Test Mode : Transmit

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

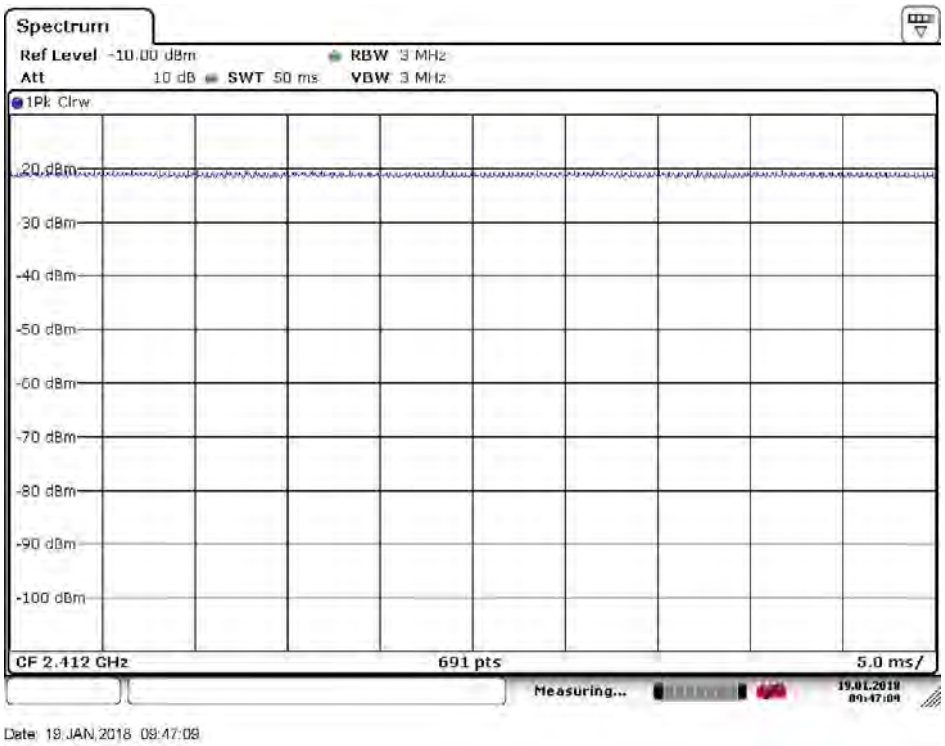
Results:

| 2.4GHz band | Ton (ms) | Ton + Toff (ms) | Duty Cycle (%) | Duty Factor (dB) |
|---|---|---|---|---|
| 802.11b | -- | -- | 100.00 | 0.00 |
| 802.11g | -- | -- | 100.00 | 0.00 |
| 802.11n20 | -- | -- | 100.00 | 0.00 |
| 802.11n40 | -- | -- | 100.00 | 0.00 |

802.11b

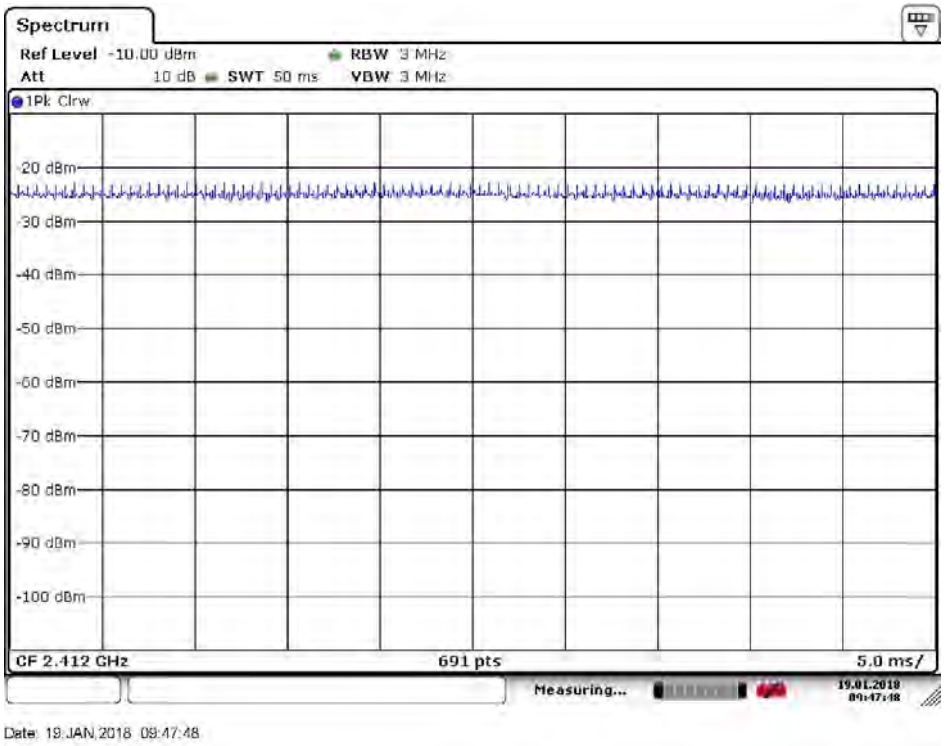


802.11g



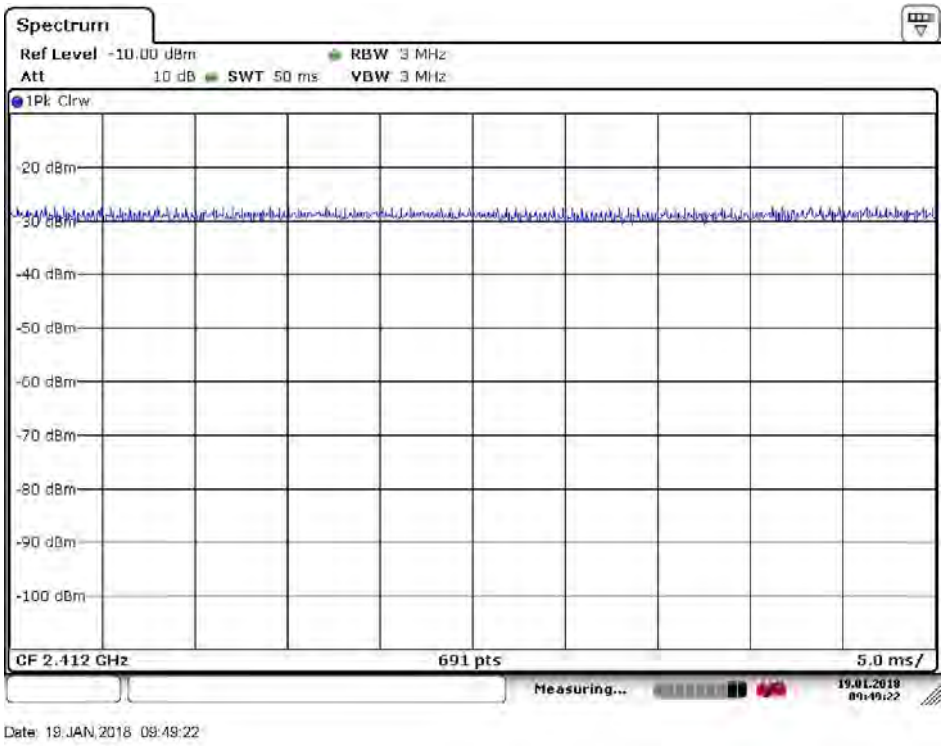

Date: 19.JAN.2018 09:47:09

802.11n20




Date: 19.JAN.2018 09:47:48

802.11n40


Spectrum
Ref Level -10.00 dBm
RBW 3 MHz
Att 10 dB SWT 50 ms VBW 3 MHz
1Pk Clrw
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm
-100 dBm
CF 2.412 GHz
691 pts
5.0 ms/
Measuring...
19.01.2018
09:49:22
Date: 19.JAN.2018 09:49:22

## 10. EMI Reduction Method During Compliance Testing

No modification was made during testing.