

# FCC Radio Test Report

**FCC ID: 2AHLZ-CWI535**

**FCC 47 CFR Part 15 Subpart C  
RSS 247 Issue 1:2016**

|                         |                                                                                                                                |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>Product</b>          | : Notebook                                                                                                                     |
| <b>Trade Name</b>       | : CHUWI                                                                                                                        |
| <b>Model No.</b>        | : CWI535                                                                                                                       |
| <b>Serise Model No.</b> | : CWI535, CWI538, CWI533, CWI534, CWI549, CWI539,<br>CWI540, CWI541, CWI542, CWI543, CWI544, CWI545,<br>CWI546, CWI547, CWI548 |

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## 1. TEST SUMMARY

Test procedures according to the technical standards:

| FCC Part 15 Subpart C (15.247)/RSS 247 Issue 1: 2015 |                    |                                |          |        |
|------------------------------------------------------|--------------------|--------------------------------|----------|--------|
| Standard Section                                     |                    | Test Item                      | Judgment | Remark |
| FCC                                                  | IC                 |                                |          |        |
| 15.203                                               | /                  | Antenna Requirement            | PASS     |        |
| 15.207                                               | RSS-GEN<br>7.2.4   | Conducted Emission             | PASS     |        |
| 15.205/<br>15.209                                    | RSS-GEN<br>7.2.2   | Restricted Bands               | PASS     |        |
| 15.247(a)(2)                                         | RSS 247<br>5.2 (1) | 6dB Bandwidth                  | PASS     |        |
| 15.247(b)                                            | RSS 247<br>5.4 (4) | Peak Output Power              | PASS     |        |
| 15.247(e)                                            | RSS 247<br>5.2 (2) | Power Spectral Density         | PASS     |        |
| 15.247(d)                                            | RSS 247<br>5.5     | Band Edge/Out-of-band Emission | PASS     |        |

### NOTE:

(1) "N/A" denotes test is not applicable in this Test Report

(2) The test results of this report relate only to the tested sample(s) identified in this report.

## 1.1 TEST FACILITY

Shenzhen ATL Testing Technology Co., Ltd.

Add. : F/4, Building 10, Dayuan Industrial Zone, Xili Town, Nanshan District, Shenzhen, China

## 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately **95** %.

### A. Conducted Emission :

The measurement uncertainty is evaluated as  $\pm 3.2$  dB.

### B. Radiated Measurement :

The measurement uncertainty is evaluated as  $\pm 3.7$  dB.

## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

|                            |                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Equipment                  | Notebook                                                                                                                        |
| Model Name                 | CWI535                                                                                                                          |
| Additional Model Number(s) | CWI538, CWI533, CWI534, CWI549, CWI539, CWI540, CWI541, CWI542, CWI543, CWI544, CWI545, CWI546, CWI547, CWI548                  |
| Model Difference           | All these models are identical in the same PCB layout and electrical circuit, the only difference is model name for commercial. |
| Frequency Range            | 802.11b/g/n(HT20):2412~2462 MHz<br>802.11n(HT40):2422~2452 MHz<br>Bluetooth V4.0: 2402~2480 MHz (Note 2)                        |
| Modulation Type            | 802.11b: DSSS (BPSK/QPSK/CCK)<br>802.11g/n: OFDM                                                                                |
| Data Rate                  | 802.11b: 1/2/5.5/11 Mbps<br>802.11g: 6/9/12/18/24/36/48/54 Mbps<br>802.11n: 150 Mbps                                            |
| RF Output Power            | 802.11b: 9.32 dBm<br>802.11g: 9.19 dBm<br>802.11n(HT20): 9.09 dBm<br>802.11n(HT40): 9.01 dBm                                    |
| Antenna Type               | PIFA Antenna (Max. Gain: 0.85 dBi)                                                                                              |
| Power Source               | DC Powered by AC/DC Adapter .<br>DC Powered by Li-ion Battery .                                                                 |
| Power Rating               | AC/DC Adapter:<br>Input: AC 100-240V,0.8A Max.<br>Output: DC 12, 2A.<br>DC 7.6V from Li-ion Battery.                            |
| Remark                     | More details EUT technical specifications, please refer to the User's Manual.                                                   |

**Note:**

- (1) This Test Report is FCC Part 15 Subpart C, 15.247 for IEEE 802.11b/g/n. And the Test procedure follows the FCC KDB 558074 D01 DTS Meas Guidance v03r05.
- (2) The EUT has also been tested and complied the FCC 15C for Bluetooth, and recorded in the separate test report.
- (3) Transmitting mode with antennas

| Mode          | TX Antenna (s) |
|---------------|----------------|
| 802.11b       | 1              |
| 802.11g       | 1              |
| 802.11n(HT20) | 1              |
| 802.11n(HT40) | 1              |

#### (4) Channel List.

| 2.4 GHz Band                            |             |           |             |           |
|-----------------------------------------|-------------|-----------|-------------|-----------|
| Frequency Band                          | Channel No. | Frequency | Channel No. | Frequency |
| 2400~2483.5MHz                          | 1           | 2412 MHz  | 7           | 2442 MHz  |
|                                         | 2           | 2417 MHz  | 8           | 2447 MHz  |
|                                         | 3           | 2422 MHz  | 9           | 2452 MHz  |
|                                         | 4           | 2427 MHz  | 10          | 2457 MHz  |
|                                         | 5           | 2432 MHz  | 11          | 2462 MHz  |
|                                         | 6           | 2437 MHz  |             |           |
| For 802.11b/g/n(HT20), use channel 1~11 |             |           |             |           |
| For 802.11n(HT40), use channel 3~9      |             |           |             |           |

## 2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

| Pretest Mode | Description                |
|--------------|----------------------------|
| Mode 1       | WiFi TX Mode               |
| Mode 2       | WiFi TX 802.11b Mode       |
| Mode 3       | WiFi TX 802.11g Mode       |
| Mode 4       | WiFi TX 802.11n(HT20)Mode  |
| Mode 5       | WiFi TX 802.11n(HT40) Mode |

| For Conducted Test |              |
|--------------------|--------------|
| Final Test Mode    | Description  |
| Mode 1             | WiFi TX Mode |

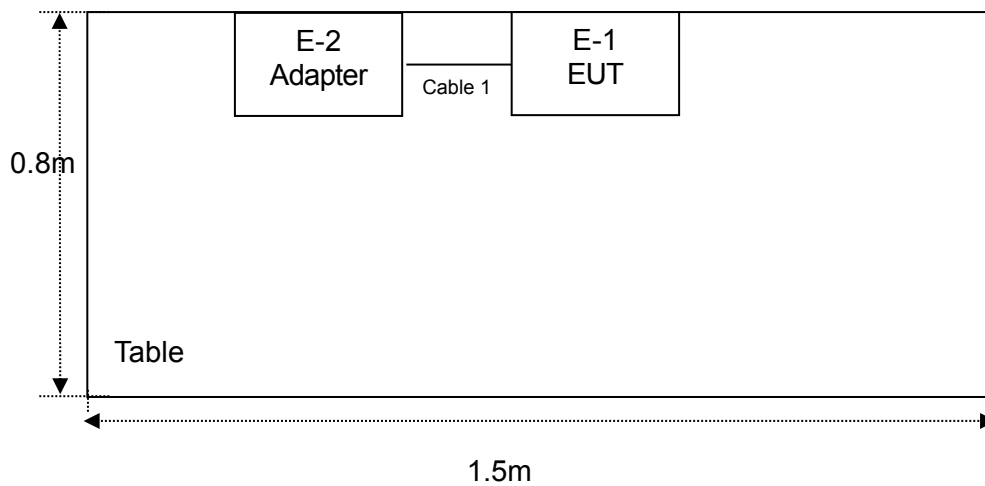
| For Radiated Test |                            |
|-------------------|----------------------------|
| Final Test Mode   | Description                |
| Mode 1            | WiFi TX Mode               |
| Mode 2            | WiFi TX 802.11b Mode       |
| Mode 3            | WiFi TX 802.11g Mode       |
| Mode 4            | WiFi TX 802.11n(HT20)Mode  |
| Mode 5            | WiFi TX 802.11n(HT40) Mode |

Note:

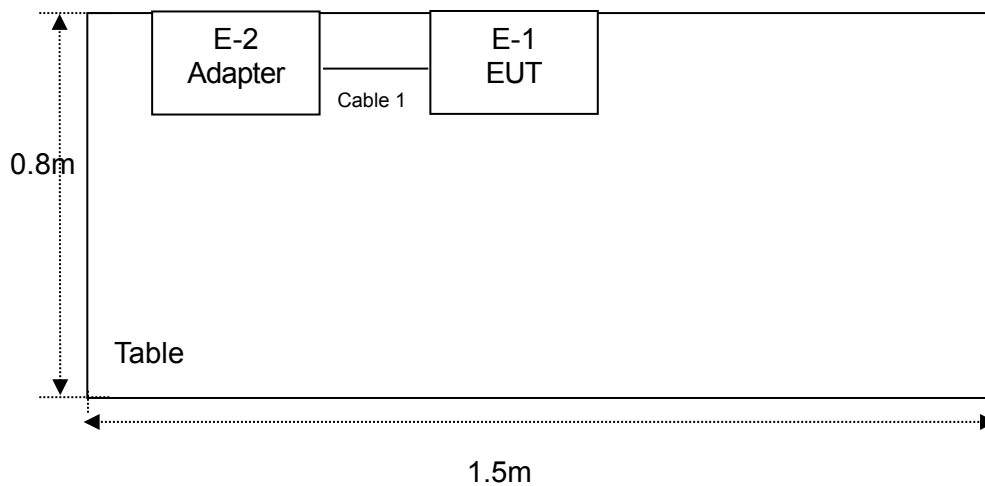
- (1) Software used to control the EUT for staying in continuous transmitting mode was programmed. After verification, all tests were carried out with the worst case test modes as shown below.
- (2) IEEE 802.11b Mode:  
Channel (2412/2437/2462 MHz) with 1Mbps data rate were chosen for full testing.
- (3) IEEE 802.11g Mode:  
Channel (2412/2437/2462 MHz) with 6 Mbps data rate were chosen for full testing.
- (4) IEEE 802.11n(HT20) Mode:  
Channel (2412/2437/2462 MHz) with MCS 0 data rate were chosen for full testing.
- (5) IEEE 802.11n(HT40) Mode:  
Channel (2422/2437/2452 MHz) with MCS 0 data rate were chosen for full testing.
- (6) By preliminary testing and verifying three axis (X, Y and Z) position of EUT transmitted status, it was found that "X axis" position was the worst, then the final test was executed the worst condition and test data were recorded in this report.

## 2.3 DESCRIPTION OF TEST SETUP

### Conducted Emission



### Radiated Emission



## 2.4 DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| Item | Equipment | Mfr/Brand | Model/Type No. | Series No. | Note |
|------|-----------|-----------|----------------|------------|------|
| E-1  | Notebook  | N/A       | CWI535         | N/A        | EUT  |
| E-2  | Adapter   | N/A       | ZX241202000    | N/A        | EUT  |
|      |           |           |                |            |      |
|      |           |           |                |            |      |
|      |           |           |                |            |      |

| Item | Shielded Type | Ferrite Core | Length | Note |
|------|---------------|--------------|--------|------|
| 1    | NO            | NO           | 2m     |      |
|      |               |              |        |      |
|      |               |              |        |      |
|      |               |              |        |      |
|      |               |              |        |      |

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (3) “YES” means “shielded” “with core”; “NO” means “unshielded” “without core”.

## 2.5 EUT EXERCISE SOFTWARE

| Power Parameters for Testing |                       |          |          |
|------------------------------|-----------------------|----------|----------|
| Test Software Version        | N/A                   |          |          |
| Mode                         | Frequency/ Parameters |          |          |
| 802.11b                      | 2412 MHz              | 2437 MHz | 2462 MHz |
|                              | DEF                   | DEF      | DEF      |
| 802.11g                      | 2412 MHz              | 2437 MHz | 2462 MHz |
|                              | DEF                   | DEF      | DEF      |
| 802.11n(HT20)                | 2412 MHz              | 2437 MHz | 2462 MHz |
|                              | DEF                   | DEF      | DEF      |
| 802.11n(HT40)                | 2422 MHz              | 2437 MHz | 2452 MHz |
|                              | DEF                   | DEF      | DEF      |

### 3. CONDUCTED EMISSION TEST

#### 3.1 CONDUCTED EMISSION MEASUREMENT (Frequency Range 150KHz-30MHz)

| FREQUENCY (MHz) | Quasi-peak | Average   |
|-----------------|------------|-----------|
|                 | dBuV       | dBuV      |
| 0.15 -0.5       | 66 - 56 *  | 56 - 46 * |
| 0.50 -5.0       | 56.00      | 46.00     |
| 5.0 -30.0       | 60.00      | 50.00     |

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

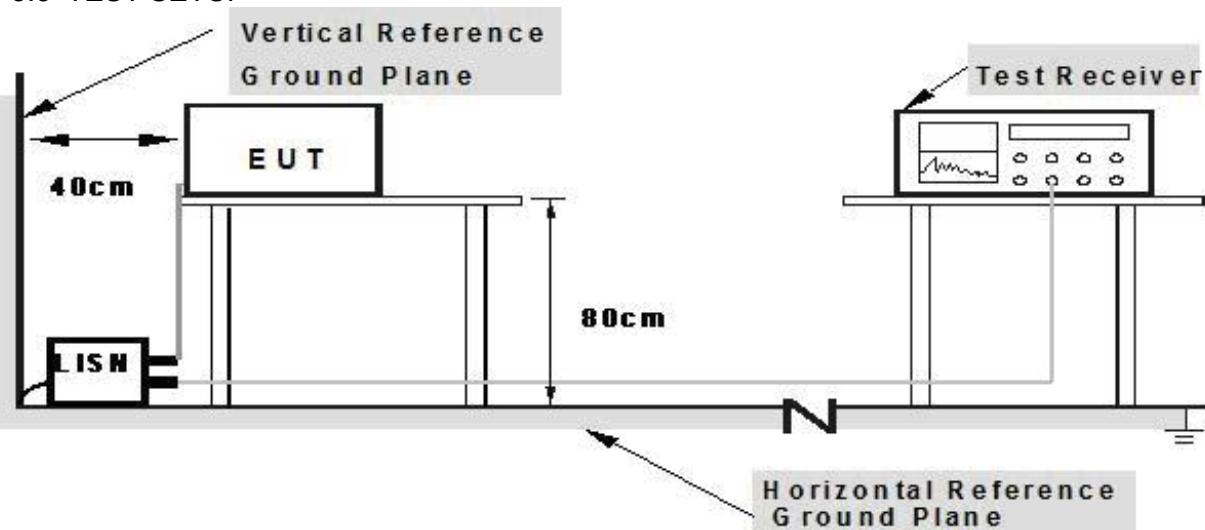
The following table is the setting of the receiver

| Receiver Parameters | Setting  |
|---------------------|----------|
| Attenuation         | 10 dB    |
| Start Frequency     | 0.15 MHz |
| Stop Frequency      | 30 MHz   |
| IF Bandwidth        | 9 kHz    |

#### 3.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 3.3 TEST SETUP



**Note: 1.Support units were connected to second LISN.**  
**2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes**

### 3.4 TEST INSTRUMENTS

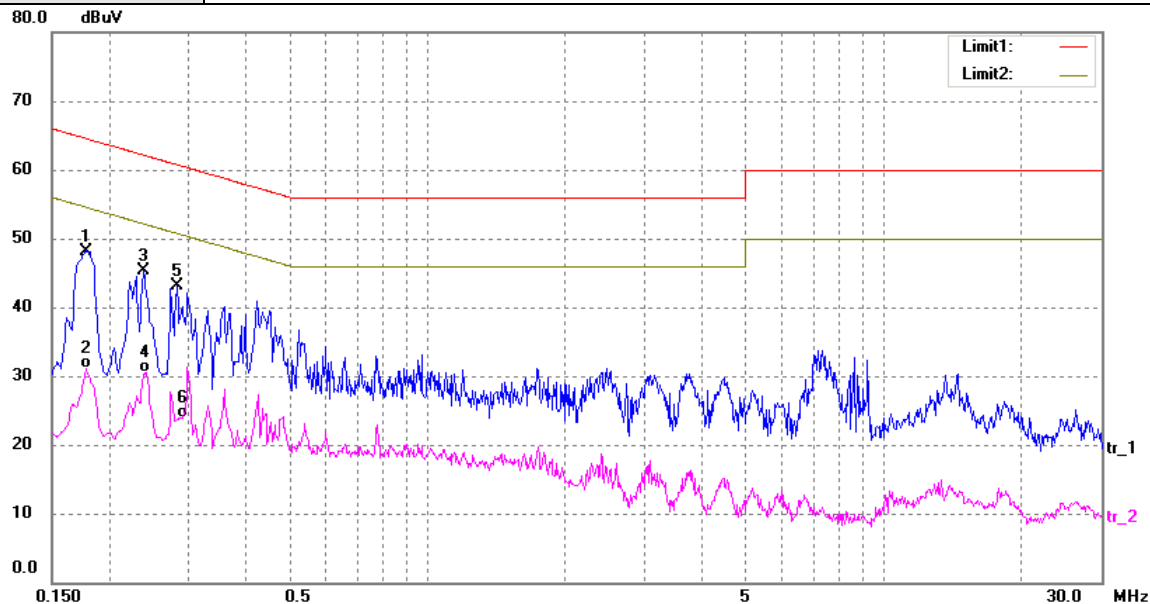
| Equipment             | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until | Calibration period |
|-----------------------|--------------|----------|------------|------------------|------------------|--------------------|
| LISN                  | R&S          | NSLK81   | 8126466    | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| LISN                  | R&S          | NSLK81   | 8126487    | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| 50Ω Switch            | ANRITSU CORP | MP59B    | 6200983704 | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Test Cable            | N/A          | C01      | N/A        | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Test Cable            | N/A          | C02      | N/A        | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Test Cable            | N/A          | C03      | N/A        | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| EMI Test Receiver     | R&S          | ESCI     | 1166.595   | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Passive Voltage Probe | ESH2-Z3      | R&S      | 100196     | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |

### 3.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

### 3.6 TEST RESULTS

|                |                          |                     |            |
|----------------|--------------------------|---------------------|------------|
| EUT :          | Notebook                 | Model Name. :       | CWI535     |
| Temperature :  | 26 °C                    | Relative Humidity : | 56%        |
| Pressure :     | 1010hPa                  | Test Date :         | 2017-06-23 |
| Test Mode :    | WIFI TX Mode (B 2412MHz) | Phase :             | Line       |
| Test Voltage : | AC 120V/ 60Hz            |                     |            |

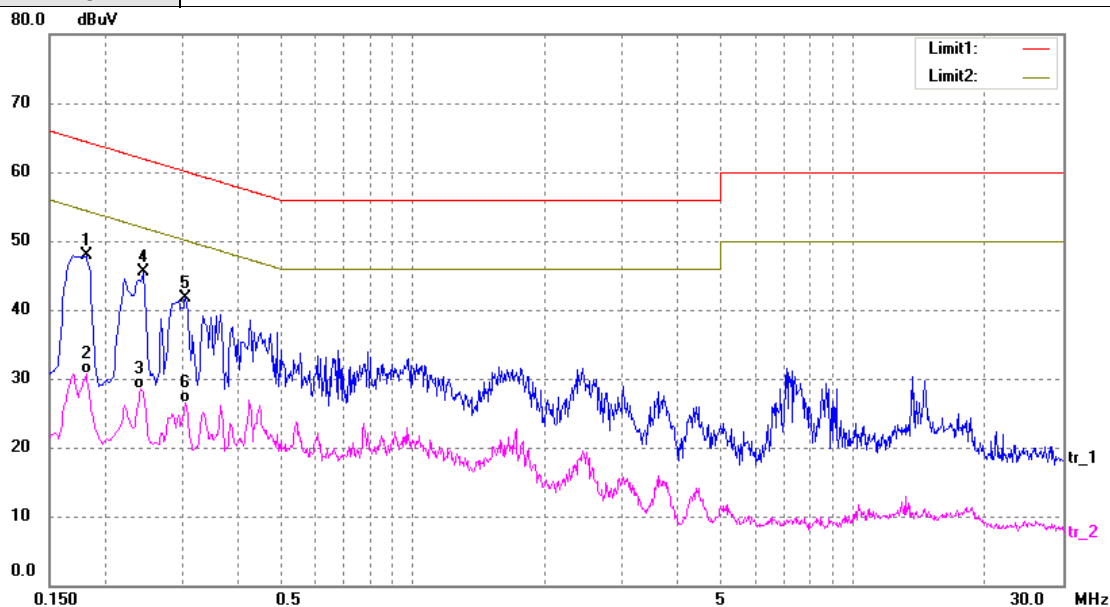


| No. | Frequency<br>(MHz) | Reading<br>(dBuV) | Correct<br>(dB/m) | Result<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Detector |
|-----|--------------------|-------------------|-------------------|------------------|-----------------|----------------|----------|
| 1*  | 0.1780             | 38.70             | 9.50              | 48.20            | 64.58           | -16.38         | QP       |
| 2   | 0.1780             | 21.59             | 9.50              | 31.09            | 54.58           | -23.49         | AVG      |
| 3   | 0.2380             | 35.83             | 9.50              | 45.33            | 62.17           | -16.84         | QP       |
| 4   | 0.2420             | 21.05             | 9.50              | 30.55            | 52.03           | -21.48         | AVG      |
| 5   | 0.2820             | 33.51             | 9.50              | 43.01            | 60.76           | -17.75         | QP       |
| 6   | 0.2878             | 14.31             | 9.50              | 23.81            | 50.59           | -26.78         | AVG      |

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

|                |                          |                     |            |
|----------------|--------------------------|---------------------|------------|
| EUT :          | Notebook                 | Model Name. :       | CWI535     |
| Temperature :  | 26 °C                    | Relative Humidity : | 56%        |
| Pressure :     | 1010hPa                  | Test Date :         | 2017-06-23 |
| Test Mode :    | WIFI TX Mode (B 2412MHz) | Phase :             | Neutral    |
| Test Voltage : | AC 120V/ 60Hz            |                     |            |



| No. | Frequency<br>(MHz) | Reading<br>(dBuV) | Correct<br>(dB/m) | Result<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Detector |
|-----|--------------------|-------------------|-------------------|------------------|-----------------|----------------|----------|
| 1   | 0.1820             | 38.35             | 9.50              | 47.85            | 64.39           | -16.54         | QP       |
| 2   | 0.1820             | 21.25             | 9.50              | 30.75            | 54.39           | -23.64         | AVG      |
| 3*  | 0.2460             | 36.02             | 9.50              | 45.52            | 61.89           | -16.37         | QP       |
| 4   | 0.2420             | 19.01             | 9.50              | 28.51            | 52.03           | -23.52         | AVG      |
| 5   | 0.3060             | 32.30             | 9.50              | 41.80            | 60.08           | -18.28         | QP       |
| 6   | 0.3060             | 17.04             | 9.50              | 26.54            | 50.08           | -23.54         | AVG      |

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

## RADIATED EMISSION MEASUREMENT

### 3.7 RADIATED EMISSION LIMIT (Frequency Range 9KHz-1000MHz)

20 dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a) and RSS-210 Section 2.2&A8.5, then the 15.209(a) and RSS-General limit in the table below has to be followed.

| FREQUENCY (MHz) | Field Strength<br>(uV/m at meter) | Measurement Distance<br>(meters) |
|-----------------|-----------------------------------|----------------------------------|
| 0.009 -0.490    | 2400/F(KHz)                       | 300                              |
| 0.490 -1.705    | 24000/F(KHz)                      | 30                               |
| 1.705 -30.0     | 30                                | 30                               |
| 30 -88          | 100                               | 3                                |
| 88 -216         | 150                               | 3                                |
| 216~960         | 200                               | 3                                |
| Above 960       | 500                               | 3                                |

### RADIATED EMISSION LIMITS (Above 1000MHz)

| FREQUENCY (MHz) | Distance of 3m (dBuV/m) |         |
|-----------------|-------------------------|---------|
|                 | Peak                    | Average |
| Above 1000      | 74                      | 54      |

Note:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (2) Emission Level(dBuV/m)=20log Emission Level(uV/m)

The following table is the setting of the receiver

| Receiver Parameter              | Setting                        |
|---------------------------------|--------------------------------|
| Attenuation                     | Auto                           |
| Start Frequency~ Stop Frequency | 9kHz~150kHz/ RB 200Hz for QP   |
| Start Frequency~ Stop Frequency | 150kHz~30MHz/ RB 9kHz for QP   |
| Start Frequency~ Stop Frequency | 30MHz~1000MHz/ RB120kHz for QP |

The following table is the setting of the spectrum

| Spectrum Parameter                   | Setting                                         |
|--------------------------------------|-------------------------------------------------|
| Attenuation                          | Auto                                            |
| Start Frequency                      | 1000 MHz                                        |
| Stop Frequency                       | 10 <sup>th</sup> carrier harmonic               |
| RB/ VB (emission in restricted band) | 1MHz/ 3 MHz for Peak,<br>1MHz/ 10Hz for Average |

### 3.8 TEST PROCEDURE

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.

- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured, above 1G Average detector mode will be instead.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

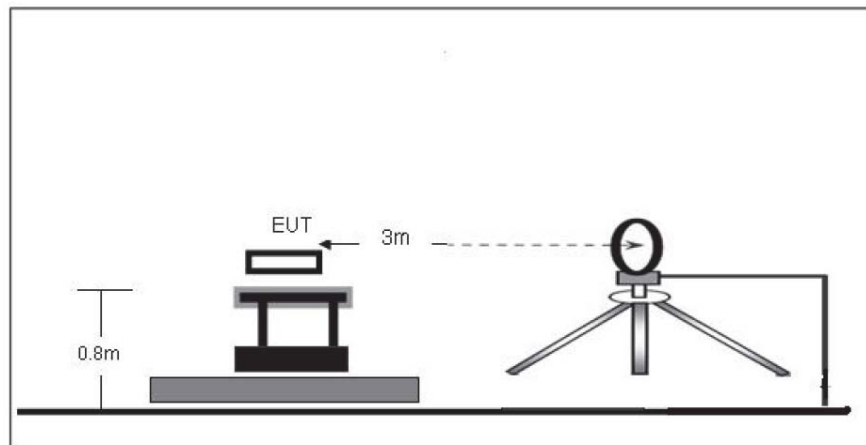
Note:

Both horizontal and vertical antenna polarities were tested.

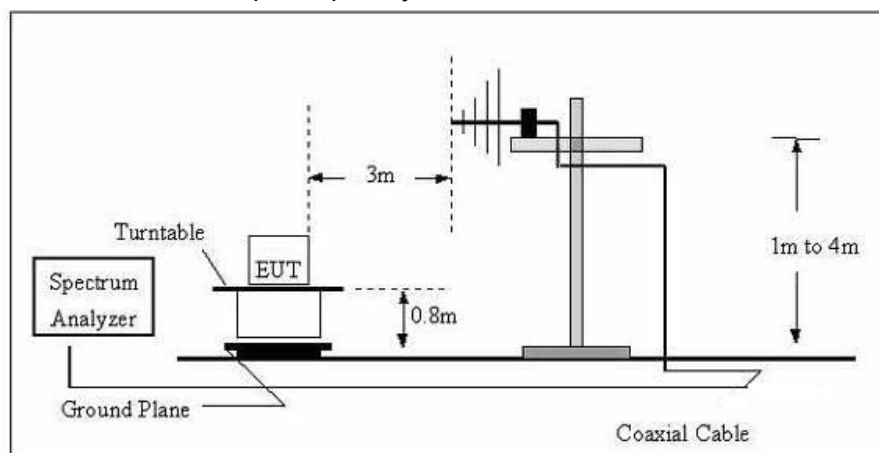
And performed pretest to three orthogonal axis. The worst case emissions were reported.

### 3.9 TEST SETUP

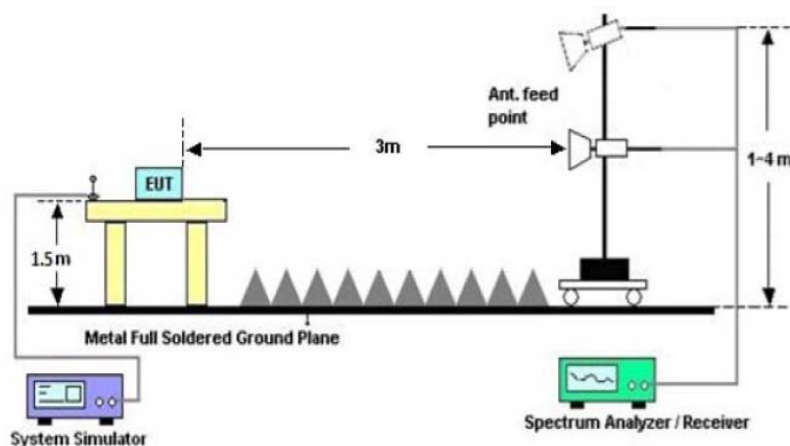
#### (A) Radiated Emission Test Set-Up Frequency Below 30MHz



#### (B) Radiated Emission Test Set-Up Frequency Below 1 GHz



### (C) Radiated Emission Test Set-Up Frequency Above 1GHz



### 3.10 TEST INSTRUMENTS

| Equipment         | Manufacturer | Type No.  | Serial No.    | Last calibration | Calibrated until | Calibration period |
|-------------------|--------------|-----------|---------------|------------------|------------------|--------------------|
| Broadband Antenna | R&S          | VULB 9168 | VULB 9168-456 | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Test Cable        | N/A          | R-01      | N/A           | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Test Cable        | N/A          | R-02      | N/A           | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| EMI Test Receiver | R&S          | ESCI      | 101324        | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Antenna Mast      | EM           | SC100_1   | N/A           | N/A              | N/A              | N/A                |
| Turn Table        | EM           | SC100     | 060531        | N/A              | N/A              | N/A                |
| 50Ω Switch        | Anritsu Corp | MP59B     | 6200983705    | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Spectrum Analyzer | R&S          | FSP40     | 100154        | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Horn Antenna      | R&S          | HF906     | 10029         | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Amplifier         | EM           | EM-30180  | 060538        | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |

### 3.11 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

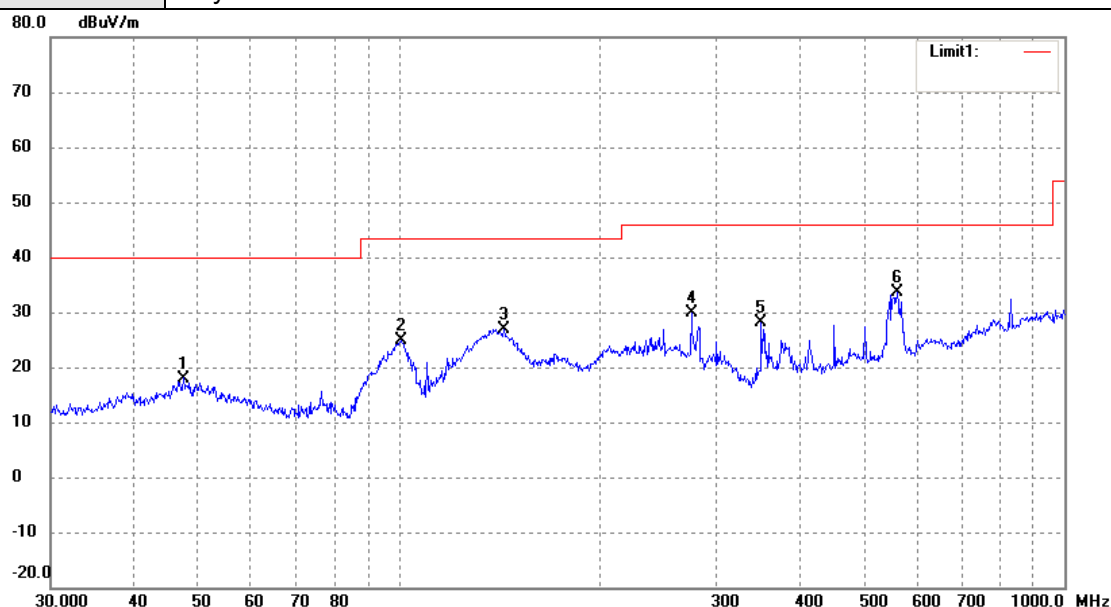
### 3.12 TEST RESULTS

#### 3.12.1 TEST RESULTS (9KHz-30MHz)

Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

#### 3.12.2 TEST RESULTS (Bellow 1GHz)

|               |                           |                     |            |
|---------------|---------------------------|---------------------|------------|
| EUT :         | Notebook                  | Model Name. :       | CWI535     |
| Temperature : | 26 °C                     | Relative Humidity : | 56%        |
| Pressure :    | 1010 hPa                  | Test Date :         | 2017-06-23 |
| Test Mode :   | WIFI TX Mode (B 2412MHz)  | Polarization :      | Horizontal |
| Test Power :  | AC 120V/ 60Hz             |                     |            |
| Remark :      | Only show the worse case. |                     |            |

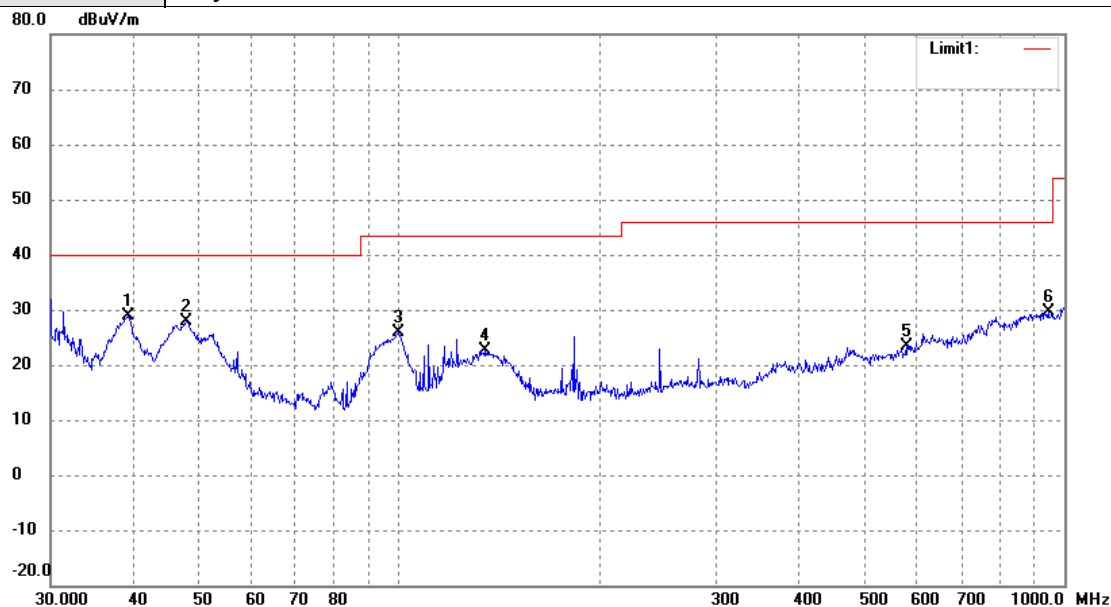


| No. | Frequency<br>(MHz) | Reading<br>(dBuV/m) | Correct<br>dB/m | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|--------|
| 1   | 47.4918            | 28.55               | -10.55          | 18.00              | 40.00             | -22.00         | peak   |
| 2   | 100.9339           | 36.32               | -11.51          | 24.81              | 43.50             | -18.69         | peak   |
| 3   | 143.8295           | 41.68               | -14.86          | 26.82              | 43.50             | -16.68         | peak   |
| 4   | 275.1570           | 39.43               | -9.64           | 29.79              | 46.00             | -16.21         | peak   |
| 5   | 350.4768           | 37.04               | -8.80           | 28.24              | 46.00             | -17.76         | peak   |
| 6   | 560.6928           | 39.43               | -5.74           | 33.69              | 46.00             | -12.31         | peak   |

Remark:

Factor = Antenna Factor + Cable Loss.

|               |                           |                     |            |
|---------------|---------------------------|---------------------|------------|
| EUT :         | Notebook                  | Model Name. :       | CW1535     |
| Temperature : | 26 °C                     | Relative Humidity : | 56%        |
| Pressure :    | 1010 hPa                  | Test Date :         | 2017-06-23 |
| Test Mode :   | WIFI TX Mode (B 2412MHz)  | Polarization :      | Vertical   |
| Test Power :  | AC 120V/ 60Hz             |                     |            |
| Remark :      | Only show the worse case. |                     |            |



| No. | Frequency<br>(MHz) | Reading<br>(dBuV/m) | Correct<br>dB/m | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|--------|
| 1   | 39.1616            | 42.04               | -13.25          | 28.79              | 40.00             | -11.21         | peak   |
| 2   | 47.9940            | 40.20               | -12.32          | 27.88              | 40.00             | -12.12         | peak   |
| 3   | 99.8777            | 37.25               | -11.43          | 25.82              | 43.50             | -17.68         | peak   |
| 4   | 135.0319           | 37.14               | -14.53          | 22.61              | 43.50             | -20.89         | peak   |
| 5   | 578.6699           | 28.72               | -5.22           | 23.50              | 46.00             | -22.50         | peak   |
| 6   | 945.4399           | 27.52               | 2.09            | 29.61              | 46.00             | -16.39         | peak   |

Remark:

Factor = Antenna Factor + Cable Loss.

### 3.12.3 TEST RESULTS (Above 1GHz)

|                                                                                                                                                                                                                                         |                           |          |       |                     |                |         |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------|-------|---------------------|----------------|---------|--------|
| EUT :                                                                                                                                                                                                                                   | Notebook                  |          |       | Model Name. :       | CWI535         |         |        |
| Temperature :                                                                                                                                                                                                                           | 26 °C                     |          |       | Relative Humidity : | 56%            |         |        |
| Test Power :                                                                                                                                                                                                                            | AC 120V/ 60Hz             |          |       | Pressure :          | 1010 hPa       |         |        |
| Test Mode :                                                                                                                                                                                                                             | WIFI TX Mode (B 2412MHz)  |          |       | Test Date :         | 2017-06-23     |         |        |
| Remark :                                                                                                                                                                                                                                | Only show the worse case. |          |       |                     |                |         |        |
| Freq.                                                                                                                                                                                                                                   | Deceiver Reading          | Detector | Polar | Corrected Factor    | Emission Level | Limit   | Margin |
| MHz                                                                                                                                                                                                                                     | dBuV                      | Peak/Avg | H/V   | dB                  | dBuV /m        | dBuV /m | dB     |
| 4824                                                                                                                                                                                                                                    | 59.68                     | Peak     | H     | -3.62               | 56.06          | 74      | -17.94 |
| 4824                                                                                                                                                                                                                                    | 46.39                     | Avg      | H     | -3.62               | 42.77          | 54      | -11.23 |
| 7236                                                                                                                                                                                                                                    | 56.06                     | Peak     | H     | -0.48               | 55.58          | 74      | -18.42 |
| 7236                                                                                                                                                                                                                                    | 42.94                     | Avg      | H     | -0.48               | 42.46          | 54      | -11.54 |
| ---                                                                                                                                                                                                                                     | ---                       | Peak     | H     |                     |                | 74      |        |
| ---                                                                                                                                                                                                                                     | ---                       | Avg      | H     |                     |                | 54      |        |
|                                                                                                                                                                                                                                         |                           |          |       |                     |                |         |        |
| 4824                                                                                                                                                                                                                                    | 60.63                     | Peak     | V     | -3.62               | 57.01          | 74      | -16.99 |
| 4824                                                                                                                                                                                                                                    | 47.59                     | Avg      | V     | -3.62               | 43.97          | 54      | -10.03 |
| 7236                                                                                                                                                                                                                                    | 54.05                     | Peak     | V     | -0.48               | 53.57          | 74      | -20.43 |
| 7236                                                                                                                                                                                                                                    | 40.83                     | Avg      | V     | -0.48               | 40.35          | 54      | -13.65 |
| ---                                                                                                                                                                                                                                     | ---                       | Peak     | V     |                     |                | 74      |        |
| ---                                                                                                                                                                                                                                     | ---                       | Avg      | V     |                     |                | 54      |        |
| Remark:<br>Emission Level= Read Level+ Correct Factor<br>Margin= Emission Level-Limit<br>The testing has been conformed to 10 <sup>th</sup> harmonics(1G~25G)<br>Other harmonics emission are lower then 20dB below the allowable Limit |                           |          |       |                     |                |         |        |

|                      |                          |                            |            |
|----------------------|--------------------------|----------------------------|------------|
| <b>EUT :</b>         | Notebook                 | <b>Model Name. :</b>       | CWI535     |
| <b>Temperature :</b> | 26 °C                    | <b>Relative Humidity :</b> | 56%        |
| <b>Test Power :</b>  | AC 120V/ 60Hz            | <b>Pressure :</b>          | 1010 hPa   |
| <b>Test Mode :</b>   | WIFI TX Mode (B 2437MHz) | <b>Test Date :</b>         | 2017-06-23 |

**Remark :** Only show the worse case.

| Freq. | Deceiver Reading | Detector | Polar | Corrected Factor | Emission Level | Limit   | Margin |
|-------|------------------|----------|-------|------------------|----------------|---------|--------|
| MHz   | dBuV             | Peak/Avg | H/V   | dB               | dBuV /m        | dBuV /m | dB     |
| 4874  | 59.62            | Peak     | H     | -3.6             | 56.02          | 74      | -17.98 |
| 4874  | 46.86            | Avg      | H     | -3.6             | 43.26          | 54      | -10.74 |
| 7311  | 54.93            | Peak     | H     | -0.46            | 54.47          | 74      | -19.53 |
| 7311  | 41.92            | Avg      | H     | -0.46            | 41.46          | 54      | -12.54 |
| ---   | ---              | Peak     | H     |                  |                | 74      |        |
| ---   | ---              | Avg      | H     |                  |                | 54      |        |

|      |       |      |   |       |       |    |        |
|------|-------|------|---|-------|-------|----|--------|
| 4874 | 59.06 | Peak | V | -3.6  | 55.46 | 74 | -18.54 |
| 4874 | 45.93 | Avg  | V | -3.6  | 42.33 | 54 | -11.67 |
| 7311 | 53.34 | Peak | V | -0.46 | 52.88 | 74 | -21.12 |
| 7311 | 40.79 | Avg  | V | -0.46 | 40.33 | 54 | -13.67 |
| ---  | ---   | Peak | V |       |       | 74 |        |
| ---  | ---   | Avg  | V |       |       | 54 |        |

**Remark:**

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

The testing has been conformed to 10<sup>th</sup> harmonics(1G~25G)

Other harmonics emission are lower then 20dB below the allowable Limit

|                      |                           |                            |            |
|----------------------|---------------------------|----------------------------|------------|
| <b>EUT :</b>         | Notebook                  | <b>Model Name. :</b>       | CWI535     |
| <b>Temperature :</b> | 26 °C                     | <b>Relative Humidity :</b> | 56%        |
| <b>Test Power :</b>  | AC 120V/ 60Hz             | <b>Pressure :</b>          | 1010 hPa   |
| <b>Test Mode :</b>   | WIFI TX Mode (B 2462MHz)  | <b>Test Date :</b>         | 2017-06-23 |
| <b>Remark :</b>      | Only show the worse case. |                            |            |

| Freq. | Deceiver Reading | Detector | Polar | Corrected Factor | Emission Level | Limit   | Margin |
|-------|------------------|----------|-------|------------------|----------------|---------|--------|
| MHz   | dBuV             | Peak/Avg | H/V   | dB               | dBuV /m        | dBuV /m | dB     |
| 4924  | 59.74            | Peak     | H     | -3.59            | 56.15          | 74      | -17.85 |
| 4924  | 47.27            | Avg      | H     | -3.59            | 43.68          | 54      | -10.32 |
| 7386  | 55.00            | Peak     | H     | -0.43            | 54.57          | 74      | -19.43 |
| 7386  | 42.40            | Avg      | H     | -0.43            | 41.97          | 54      | -12.03 |
| ---   | ---              | Peak     | H     |                  |                | 74      |        |
| ---   | ---              | Avg      | H     |                  |                | 54      |        |
| 4924  | 59.57            | Peak     | V     | -3.59            | 55.98          | 74      | -18.02 |
| 4924  | 45.14            | Avg      | V     | -3.59            | 41.55          | 54      | -12.45 |
| 7386  | 54.10            | Peak     | V     | -0.43            | 53.67          | 74      | -20.33 |
| 7386  | 40.81            | Avg      | V     | -0.43            | 40.38          | 54      | -13.62 |
| ---   | ---              | Peak     | V     |                  |                | 74      |        |
| ---   | ---              | Avg      | V     |                  |                | 54      |        |

Remark:

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

The testing has been conformed to 10<sup>th</sup> harmonics(1G~25G)

Other harmonics emission are lower then 20dB below the allowable Limit

|                      |                          |                            |            |
|----------------------|--------------------------|----------------------------|------------|
| <b>EUT :</b>         | Notebook                 | <b>Model Name. :</b>       | CWI535     |
| <b>Temperature :</b> | 26 °C                    | <b>Relative Humidity :</b> | 56%        |
| <b>Test Power :</b>  | AC 120V/ 60Hz            | <b>Pressure :</b>          | 1010 hPa   |
| <b>Test Mode :</b>   | WIFI TX Mode (G 2412MHz) | <b>Test Date :</b>         | 2017-06-23 |

**Remark :** Only show the worse case.

| Freq. | Deceiver Reading | Detector | Polar | Corrected Factor | Emission Level | Limit   | Margin |
|-------|------------------|----------|-------|------------------|----------------|---------|--------|
| MHz   | dBuV             | Peak/Avg | H/V   | dB               | dBuV /m        | dBuV /m | dB     |
| 4824  | 60.08            | Peak     | H     | -3.62            | 56.46          | 74      | -17.54 |
| 4824  | 47.19            | Avg      | H     | -3.62            | 43.57          | 54      | -10.43 |
| 7236  | 55.24            | Peak     | H     | -0.48            | 54.76          | 74      | -19.24 |
| 7236  | 42.14            | Avg      | H     | -0.48            | 41.66          | 54      | -12.34 |
| ---   | ---              | Peak     | H     |                  |                | 74      |        |
| ---   | ---              | Avg      | H     |                  |                | 54      |        |
| 4824  | 59.09            | Peak     | V     | -3.62            | 55.47          | 74      | -18.53 |
| 4824  | 45.88            | Avg      | V     | -3.62            | 42.26          | 54      | -11.74 |
| 7236  | 54.10            | Peak     | V     | -0.48            | 53.62          | 74      | -20.38 |
| 7236  | 40.56            | Avg      | V     | -0.48            | 40.08          | 54      | -13.92 |
| ---   | ---              | Peak     | V     |                  |                | 74      |        |
| ---   | ---              | Avg      | V     |                  |                | 54      |        |

**Remark:**

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

The testing has been conformed to 10<sup>th</sup> harmonics(1G~25G)

Other harmonics emission are lower then 20dB below the allowable Limit

|                      |                          |                            |            |
|----------------------|--------------------------|----------------------------|------------|
| <b>EUT :</b>         | Notebook                 | <b>Model Name. :</b>       | CWI535     |
| <b>Temperature :</b> | 26 °C                    | <b>Relative Humidity :</b> | 56%        |
| <b>Test Power :</b>  | AC 120V/ 60Hz            | <b>Pressure :</b>          | 1010 hPa   |
| <b>Test Mode :</b>   | WIFI TX Mode (G 2437MHz) | <b>Test Date :</b>         | 2017-06-23 |

**Remark :** Only show the worse case.

| Freq. | Deceiver Reading | Detector | Polar | Corrected Factor | Emission Level | Limit   | Margin |
|-------|------------------|----------|-------|------------------|----------------|---------|--------|
| MHz   | dBuV             | Peak/Avg | H/V   | dB               | dBuV /m        | dBuV /m | dB     |
| 4874  | 60.77            | Peak     | H     | -3.6             | 57.17          | 74      | -16.83 |
| 4874  | 48.17            | Avg      | H     | -3.6             | 44.57          | 54      | -9.43  |
| 7311  | 53.02            | Peak     | H     | -0.46            | 52.56          | 74      | -21.44 |
| 7311  | 40.68            | Avg      | H     | -0.46            | 40.22          | 54      | -13.78 |
| ---   | ---              | Peak     | H     |                  |                | 74      |        |
| ---   | ---              | Avg      | H     |                  |                | 54      |        |

|      |       |      |   |       |       |    |        |
|------|-------|------|---|-------|-------|----|--------|
| 4874 | 60.28 | Peak | V | -3.6  | 56.68 | 74 | -17.32 |
| 4874 | 46.96 | Avg  | V | -3.6  | 43.36 | 54 | -10.64 |
| 7311 | 55.03 | Peak | V | -0.46 | 54.57 | 74 | -19.43 |
| 7311 | 42.01 | Avg  | V | -0.46 | 41.55 | 54 | -12.45 |
| ---  | ---   | Peak | V |       |       | 74 |        |
| ---  | ---   | Avg  | V |       |       | 54 |        |

**Remark:**

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

The testing has been conformed to 10<sup>th</sup> harmonics(1G~25G)

Other harmonics emission are lower then 20dB below the allowable Limit

|                      |                          |                            |            |
|----------------------|--------------------------|----------------------------|------------|
| <b>EUT :</b>         | Notebook                 | <b>Model Name. :</b>       | CWI535     |
| <b>Temperature :</b> | 26 °C                    | <b>Relative Humidity :</b> | 56%        |
| <b>Test Power :</b>  | AC 120V/ 60Hz            | <b>Pressure :</b>          | 1010 hPa   |
| <b>Test Mode :</b>   | WIFI TX Mode (G 2462MHz) | <b>Test Date :</b>         | 2017-06-23 |

**Remark :** Only show the worse case.

| Freq. | Deceiver Reading | Detector | Polar | Corrected Factor | Emission Level | Limit   | Margin |
|-------|------------------|----------|-------|------------------|----------------|---------|--------|
| MHz   | dBuV             | Peak/Avg | H/V   | dB               | dBuV /m        | dBuV /m | dB     |
| 4924  | 60.14            | Peak     | H     | -3.59            | 56.55          | 74      | -17.45 |
| 4924  | 46.70            | Avg      | H     | -3.59            | 43.11          | 54      | -10.89 |
| 7386  | 54.66            | Peak     | H     | -0.43            | 54.23          | 74      | -19.77 |
| 7386  | 41.89            | Avg      | H     | -0.43            | 41.46          | 54      | -12.54 |
| ---   | ---              | Peak     | H     |                  |                | 74      |        |
| ---   | ---              | Avg      | H     |                  |                | 54      |        |

|      |       |      |   |       |       |    |        |
|------|-------|------|---|-------|-------|----|--------|
| 4924 | 59.16 | Peak | V | -3.59 | 55.57 | 74 | -18.43 |
| 4924 | 44.83 | Avg  | V | -3.59 | 41.24 | 54 | -12.76 |
| 7386 | 54.96 | Peak | V | -0.43 | 54.53 | 74 | -19.47 |
| 7386 | 42.48 | Avg  | V | -0.43 | 42.05 | 54 | -11.95 |
| ---  | ---   | Peak | V |       |       | 74 |        |
| ---  | ---   | Avg  | V |       |       | 54 |        |

**Remark:**

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

The testing has been conformed to 10<sup>th</sup> harmonics(1G~25G)

Other harmonics emission are lower then 20dB below the allowable Limit

|                      |                            |                            |            |
|----------------------|----------------------------|----------------------------|------------|
| <b>EUT :</b>         | Notebook                   | <b>Model Name. :</b>       | CWI535     |
| <b>Temperature :</b> | 26 °C                      | <b>Relative Humidity :</b> | 56%        |
| <b>Test Power :</b>  | AC 120V/ 60Hz              | <b>Pressure :</b>          | 1010 hPa   |
| <b>Test Mode :</b>   | WIFI TX Mode (N20 2412MHz) | <b>Test Date :</b>         | 2017-06-23 |
| <b>Remark :</b>      | Only show the worse case.  |                            |            |

| Freq. | Deceiver Reading | Detector | Polar | Corrected Factor | Emission Level | Limit   | Margin |
|-------|------------------|----------|-------|------------------|----------------|---------|--------|
| MHz   | dBuV             | Peak/Avg | H/V   | dB               | dBuV /m        | dBuV /m | dB     |
| 4824  | 58.19            | Peak     | H     | -3.62            | 54.57          | 74      | -19.43 |
| 4824  | 45.08            | Avg      | H     | -3.62            | 41.46          | 54      | -12.54 |
| 7236  | 52.94            | Peak     | H     | -0.48            | 52.46          | 74      | -21.54 |
| 7236  | 40.16            | Avg      | H     | -0.48            | 39.68          | 54      | -14.32 |
| ---   | ---              | Peak     | H     |                  |                | 74      |        |
| ---   | ---              | Avg      | H     |                  |                | 54      |        |
| 4824  | 58.69            | Peak     | V     | -3.62            | 55.07          | 74      | -18.93 |
| 4824  | 46.26            | Avg      | V     | -3.62            | 42.64          | 54      | -11.36 |
| 7236  | 53.91            | Peak     | V     | -0.48            | 53.43          | 74      | -20.57 |
| 7236  | 40.76            | Avg      | V     | -0.48            | 40.28          | 54      | -13.72 |
| ---   | ---              | Peak     | V     |                  |                | 74      |        |
| ---   | ---              | Avg      | V     |                  |                | 54      |        |

Remark:

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

The testing has been conformed to 10<sup>th</sup> harmonics(1G~25G)

Other harmonics emission are lower then 20dB below the allowable Limit

|                      |                            |                            |            |
|----------------------|----------------------------|----------------------------|------------|
| <b>EUT :</b>         | Notebook                   | <b>Model Name. :</b>       | CWI535     |
| <b>Temperature :</b> | 26 °C                      | <b>Relative Humidity :</b> | 56%        |
| <b>Test Power :</b>  | AC 120V/ 60Hz              | <b>Pressure :</b>          | 1010 hPa   |
| <b>Test Mode :</b>   | WIFI TX Mode (N20 2437MHz) | <b>Test Date :</b>         | 2017-06-23 |

**Remark :** Only show the worse case .

| Freq. | Deceiver Reading | Detector | Polar | Corrected Factor | Emission Level | Limit   | Margin |
|-------|------------------|----------|-------|------------------|----------------|---------|--------|
| MHz   | dBuV             | Peak/Avg | H/V   | dB               | dBuV /m        | dBuV /m | dB     |
| 4874  | 58.25            | Peak     | H     | -3.6             | 54.65          | 74      | -19.35 |
| 4874  | 45.46            | Avg      | H     | -3.6             | 41.86          | 54      | -12.14 |
| 7311  | 53.78            | Peak     | H     | -0.46            | 53.32          | 74      | -20.68 |
| 7311  | 37.04            | Avg      | H     | -0.46            | 36.58          | 54      | -17.42 |
| ---   | ---              | Peak     | H     |                  |                | 74      |        |
| ---   | ---              | Avg      | H     |                  |                | 54      |        |

|      |       |      |   |       |       |    |        |
|------|-------|------|---|-------|-------|----|--------|
| 4874 | 57.27 | Peak | V | -3.6  | 53.67 | 74 | -20.33 |
| 4874 | 44.03 | Avg  | V | -3.6  | 40.43 | 54 | -13.57 |
| 7311 | 51.82 | Peak | V | -0.46 | 51.36 | 74 | -22.64 |
| 7311 | 38.82 | Avg  | V | -0.46 | 38.36 | 54 | -15.64 |
| ---  | ---   | Peak | V |       |       | 74 |        |
| ---  | ---   | Avg  | V |       |       | 54 |        |

**Remark:**

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

The testing has been conformed to 10<sup>th</sup> harmonics(1G~25G)

Other harmonics emission are lower then 20dB below the allowable Limit

|                      |                            |                            |            |
|----------------------|----------------------------|----------------------------|------------|
| <b>EUT :</b>         | Notebook                   | <b>Model Name. :</b>       | CWI535     |
| <b>Temperature :</b> | 26 °C                      | <b>Relative Humidity :</b> | 56%        |
| <b>Test Power :</b>  | AC 120V/ 60Hz              | <b>Pressure :</b>          | 1010 hPa   |
| <b>Test Mode :</b>   | WIFI TX Mode (N20 2462MHz) | <b>Test Date :</b>         | 2017-06-23 |

**Remark :** Only show the worse case .

| Freq. | Deceiver Reading | Detector | Polar | Corrected Factor | Emission Level | Limit   | Margin |
|-------|------------------|----------|-------|------------------|----------------|---------|--------|
| MHz   | dBuV             | Peak/Avg | H/V   | dB               | dBuV /m        | dBuV /m | dB     |
| 4924  | 59.24            | Peak     | H     | -3.59            | 55.65          | 74      | -18.35 |
| 4924  | 46.03            | Avg      | H     | -3.59            | 42.44          | 54      | -11.56 |
| 7386  | 53.98            | Peak     | H     | -0.43            | 53.55          | 74      | -20.45 |
| 7386  | 41.49            | Avg      | H     | -0.43            | 41.06          | 54      | -12.94 |
| ---   | ---              | Peak     | H     |                  |                | 74      |        |
| ---   | ---              | Avg      | H     |                  |                | 54      |        |
| 4924  | 57.76            | Peak     | V     | -3.59            | 54.17          | 74      | -19.83 |
| 4924  | 44.85            | Avg      | V     | -3.59            | 41.26          | 54      | -12.74 |
| 7386  | 52.89            | Peak     | V     | -0.43            | 52.46          | 74      | -21.54 |
| 7386  | 39.79            | Avg      | V     | -0.43            | 39.36          | 54      | -14.64 |
| ---   | ---              | Peak     | V     |                  |                | 74      |        |
| ---   | ---              | Avg      | V     |                  |                | 54      |        |

**Remark:**

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

The testing has been conformed to 10<sup>th</sup> harmonics(1G~25G)

Other harmonics emission are lower then 20dB below the allowable Limit

| EUT :                                                                                                                                                                                                                                   | Notebook                   |          |       |                  | Model Name. :       | CWI535     |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------|-------|------------------|---------------------|------------|--------|
| Temperature :                                                                                                                                                                                                                           | 26 °C                      |          |       |                  | Relative Humidity : | 56%        |        |
| Test Power :                                                                                                                                                                                                                            | AC 120V/ 60Hz              |          |       |                  | Pressure :          | 1010 hPa   |        |
| Test Mode :                                                                                                                                                                                                                             | WIFI TX Mode (N40 2422MHz) |          |       |                  | Test Date :         | 2017-06-23 |        |
| Remark :                                                                                                                                                                                                                                | Only show the worse case.  |          |       |                  |                     |            |        |
| Freq.                                                                                                                                                                                                                                   | Deceiver Reading           | Detector | Polar | Corrected Factor | Emission Level      | Limit      | Margin |
| MHz                                                                                                                                                                                                                                     | dBuV                       | Peak/Avg | H/V   | dB               | dBuV /m             | dBuV /m    | dB     |
| 4844                                                                                                                                                                                                                                    | 59.08                      | Peak     | H     | -3.62            | 55.46               | 74         | -18.54 |
| 4844                                                                                                                                                                                                                                    | 44.98                      | Avg      | H     | -3.62            | 41.36               | 54         | -12.64 |
| 7266                                                                                                                                                                                                                                    | 54.02                      | Peak     | H     | -0.48            | 53.54               | 74         | -20.46 |
| 7266                                                                                                                                                                                                                                    | 41.24                      | Avg      | H     | -0.48            | 40.76               | 54         | -13.24 |
| ---                                                                                                                                                                                                                                     | ---                        | Peak     | H     |                  |                     | 74         |        |
| ---                                                                                                                                                                                                                                     | ---                        | Avg      | H     |                  |                     | 54         |        |
|                                                                                                                                                                                                                                         |                            |          |       |                  |                     |            |        |
| 4844                                                                                                                                                                                                                                    | 58.3                       | Peak     | V     | -3.62            | 54.68               | 74         | -19.32 |
| 4844                                                                                                                                                                                                                                    | 45.09                      | Avg      | V     | -3.62            | 41.47               | 54         | -12.53 |
| 7266                                                                                                                                                                                                                                    | 53.95                      | Peak     | V     | -0.48            | 53.47               | 74         | -20.53 |
| 7266                                                                                                                                                                                                                                    | 41.79                      | Avg      | V     | -0.48            | 41.31               | 54         | -12.69 |
| ---                                                                                                                                                                                                                                     | ---                        | Peak     | V     |                  |                     | 74         |        |
| ---                                                                                                                                                                                                                                     | ---                        | Avg      | V     |                  |                     | 54         |        |
| Remark:<br>Emission Level= Read Level+ Correct Factor<br>Margin= Emission Level-Limit<br>The testing has been conformed to 10 <sup>th</sup> harmonics(1G~25G)<br>Other harmonics emission are lower then 20dB below the allowable Limit |                            |          |       |                  |                     |            |        |

|                      |                            |                            |            |
|----------------------|----------------------------|----------------------------|------------|
| <b>EUT :</b>         | Notebook                   | <b>Model Name. :</b>       | CWI535     |
| <b>Temperature :</b> | 26 °C                      | <b>Relative Humidity :</b> | 56%        |
| <b>Test Power :</b>  | AC 120V/ 60Hz              | <b>Pressure :</b>          | 1010 hPa   |
| <b>Test Mode :</b>   | WIFI TX Mode (N40 2437MHz) | <b>Test Date :</b>         | 2017-06-23 |

**Remark :** Only show the worse case .

| Freq. | Deceiver Reading | Detector | Polar | Corrected Factor | Emission Level | Limit   | Margin |
|-------|------------------|----------|-------|------------------|----------------|---------|--------|
| MHz   | dBuV             | Peak/Avg | H/V   | dB               | dBuV /m        | dBuV /m | dB     |
| 4874  | 58.96            | Peak     | H     | -3.6             | 55.36          | 74      | -18.64 |
| 4874  | 47.29            | Avg      | H     | -3.6             | 43.69          | 54      | -10.31 |
| 7311  | 54.03            | Peak     | H     | -0.46            | 53.57          | 74      | -20.43 |
| 7311  | 41.7             | Avg      | H     | -0.46            | 41.24          | 54      | -12.76 |
| ---   | ---              | Peak     | H     |                  |                | 74      |        |
| ---   | ---              | Avg      | H     |                  |                | 54      |        |

|      |       |      |   |       |       |    |        |
|------|-------|------|---|-------|-------|----|--------|
| 4874 | 58.17 | Peak | V | -3.6  | 54.57 | 74 | -19.43 |
| 4874 | 46.28 | Avg  | V | -3.6  | 42.68 | 54 | -11.32 |
| 7311 | 52.92 | Peak | V | -0.46 | 52.46 | 74 | -21.54 |
| 7311 | 40.09 | Avg  | V | -0.46 | 39.63 | 54 | -14.37 |
| ---  | ---   | Peak | V |       |       | 74 |        |
| ---  | ---   | Avg  | V |       |       | 54 |        |

**Remark:**

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

The testing has been conformed to 10<sup>th</sup> harmonics(1G~25G)

Other harmonics emission are lower then 20dB below the allowable Limit

|                      |                            |                            |            |
|----------------------|----------------------------|----------------------------|------------|
| <b>EUT :</b>         | Notebook                   | <b>Model Name. :</b>       | CWI535     |
| <b>Temperature :</b> | 26 °C                      | <b>Relative Humidity :</b> | 56%        |
| <b>Test Power :</b>  | AC 120V/ 60Hz              | <b>Pressure :</b>          | 1010 hPa   |
| <b>Test Mode :</b>   | WIFI TX Mode (N40 2452MHz) | <b>Test Date :</b>         | 2017-06-23 |

**Remark :** Only show the worse case .

| Freq. | Deceiver Reading | Detector | Polar | Corrected Factor | Emission Level | Limit   | Margin |
|-------|------------------|----------|-------|------------------|----------------|---------|--------|
| MHz   | dBuV             | Peak/Avg | H/V   | dB               | dBuV /m        | dBuV /m | dB     |
| 4904  | 59.14            | Peak     | H     | -3.59            | 55.55          | 74      | -18.45 |
| 4904  | 46.05            | Avg      | H     | -3.59            | 42.46          | 54      | -11.54 |
| 7356  | 53.89            | Peak     | H     | -0.43            | 53.46          | 74      | -20.54 |
| 7356  | 42.05            | Avg      | H     | -0.43            | 41.62          | 54      | -12.38 |
| ---   | ---              | Peak     | H     |                  |                | 74      |        |
| ---   | ---              | Avg      | H     |                  |                | 54      |        |

|      |       |      |   |       |       |    |        |
|------|-------|------|---|-------|-------|----|--------|
| 4904 | 59.13 | Peak | V | -3.59 | 55.54 | 74 | -18.46 |
| 4904 | 45.55 | Avg  | V | -3.59 | 41.96 | 54 | -12.04 |
| 7356 | 54.54 | Peak | V | -0.43 | 54.11 | 74 | -19.89 |
| 7356 | 42.98 | Avg  | V | -0.43 | 42.55 | 54 | -11.45 |
| ---  | ---   | Peak | V |       |       | 74 |        |
| ---  | ---   | Avg  | V |       |       | 54 |        |

**Remark:**

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

The testing has been conformed to 10<sup>th</sup> harmonics(1G~25G)

Other harmonics emission are lower then 20dB below the allowable Limit

## 4. MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

### 4.1 LIMITS

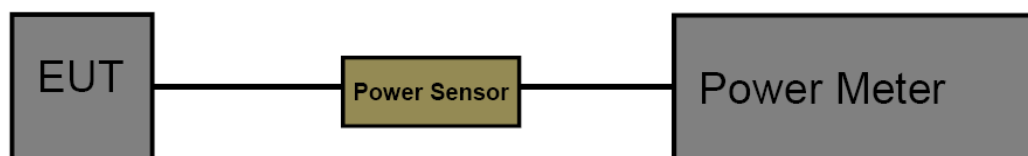
| FCC Part 15.247, subpart C/ RSS 247 Section 5.4(4) |             |
|----------------------------------------------------|-------------|
| Frequency Range (MHz)                              | 2400~2483.5 |
| Limits                                             | 30          |

### 4.2 TEST PROCEDURE

The measurement is according to section 9.1.2 of FCC KDB 558074 D01 DTS Meas Guidance v04.

The EUT was directly connected to the power meter and antenna output port as show in the block diagram as bellow.

### 4.3 TEST SETUP



### 4.4 TEST INSTRUMENTS

| Equipment             | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until | Calibration period |
|-----------------------|--------------|----------|------------|------------------|------------------|--------------------|
| P-Series Power Meter  | Agilent      | N1911A   | MY45100482 | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Wideband Power Sensor | Agilent      | N1921A   | MY51200145 | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |

### 4.5 EUT OPERATING CONDITIONS

The EUT was set to continuously transmitting in the maximum power during the test.

### 4.6 TEST RESULTS

| 2.4 G Band Conducted Power |           |                       |                  |
|----------------------------|-----------|-----------------------|------------------|
| 802.11b Power              |           |                       |                  |
| Channel                    | Frequency | Conducted Power (dBm) | Max. Limit (dBm) |
| 1                          | 2412 MHz  | 9.32                  | 30               |
| 6                          | 2437 MHz  | 9.21                  |                  |
| 11                         | 2462 MHz  | 9.25                  |                  |
| 802.11g Power              |           |                       |                  |
| Channel                    | Frequency | Conducted Power (dBm) | Max. Limit (dBm) |
| 1                          | 2412 MHz  | 9.18                  | 30               |
| 6                          | 2437 MHz  | 9.19                  |                  |
| 11                         | 2462 MHz  | 9.17                  |                  |
| 802.11n(HT20) Power        |           |                       |                  |
| Channel                    | Frequency | Conducted Power (dBm) | Max. Limit (dBm) |
| 1                          | 2412 MHz  | 9.03                  | 30               |
| 6                          | 2437 MHz  | 9.05                  |                  |
| 11                         | 2462 MHz  | 9.09                  |                  |
| 802.11n(HT40) Power        |           |                       |                  |
| Channel                    | Frequency | Conducted Power (dBm) | Max. Limit (dBm) |
| 3                          | 2422 MHz  | 9.01                  | 30               |
| 6                          | 2437 MHz  | 8.99                  |                  |
| 9                          | 2452 MHz  | 8.97                  |                  |

## 5. OCCUPIED BANDWIDTH MEASUREMENT

### 5.1 LIMITS

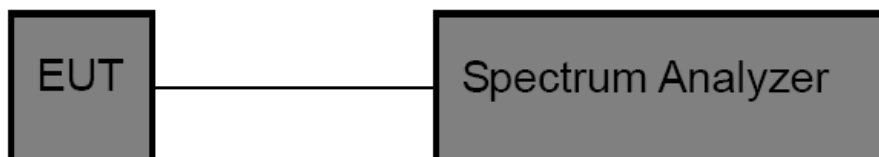
| FCC Part 15.247, subpart C/ RSS 247 Section 5.2(1) |                        |
|----------------------------------------------------|------------------------|
| Frequency Range (MHz)                              | 2400~2483.5            |
| Limits                                             | 6 dB Bandwidth>500 KHz |

### 5.2 TEST PROCEDURE

The EUT was directly connected to the power meter and antenna output port as show in the block diagram as below.

| Spectrum Parameters | Setting            |
|---------------------|--------------------|
| Attenuation         | Auto               |
| Span                | >6 dB Bandwidth    |
| RBW                 | 100 kHz            |
| VBW                 | $\geq 3\text{RBW}$ |
| Detector            | Peak               |
| Trace               | Max Hold           |
| Sweep Time          | Auto               |

### 5.3 TEST SETUP



### 5.4 TEST INSTRUMENTS

| Equipment         | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until | Calibration period |
|-------------------|--------------|----------|------------|------------------|------------------|--------------------|
| Spectrum Analyzer | R&S          | FSP40    | 100154     | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Spectrum Analyzer | Agilent      | E4407B   | MY41440432 | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |

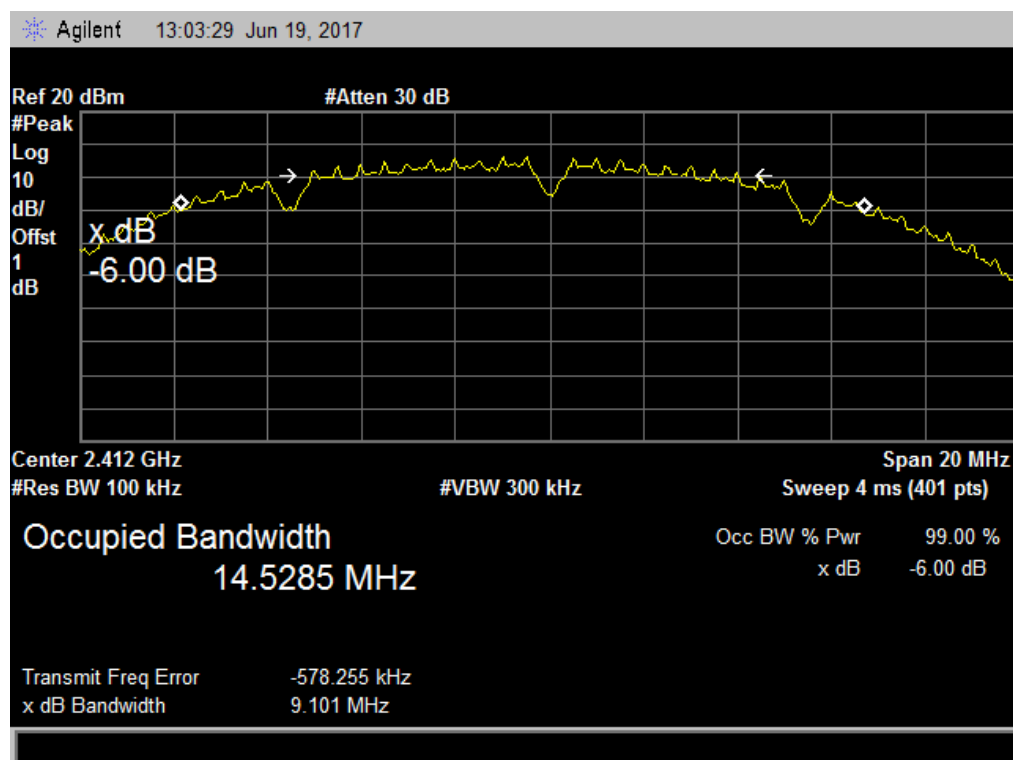
### 5.5 EUT OPERATING CONDITIONS

The EUT was set to continuously transmitting in the maximum power during the test.

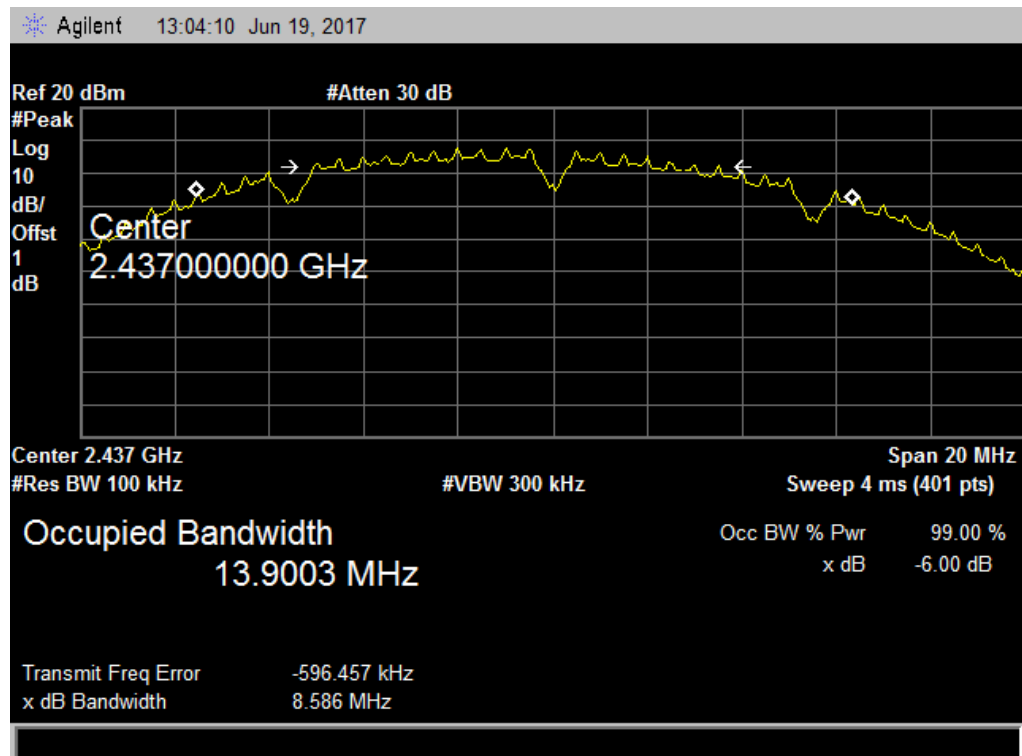
### 5.6 TEST RESULTS

| 801.11b Mode    |                     |               |           |
|-----------------|---------------------|---------------|-----------|
| Frequency (MHz) | 6dB Bandwidth (MHz) | 99% OBW (MHz) | Limit     |
| 2412            | 9.101               | 14.5285       | >=500 kHz |
| 2437            | 8.586               | 13.9003       |           |
| 2462            | 8.063               | 13.4579       |           |
|                 |                     |               |           |

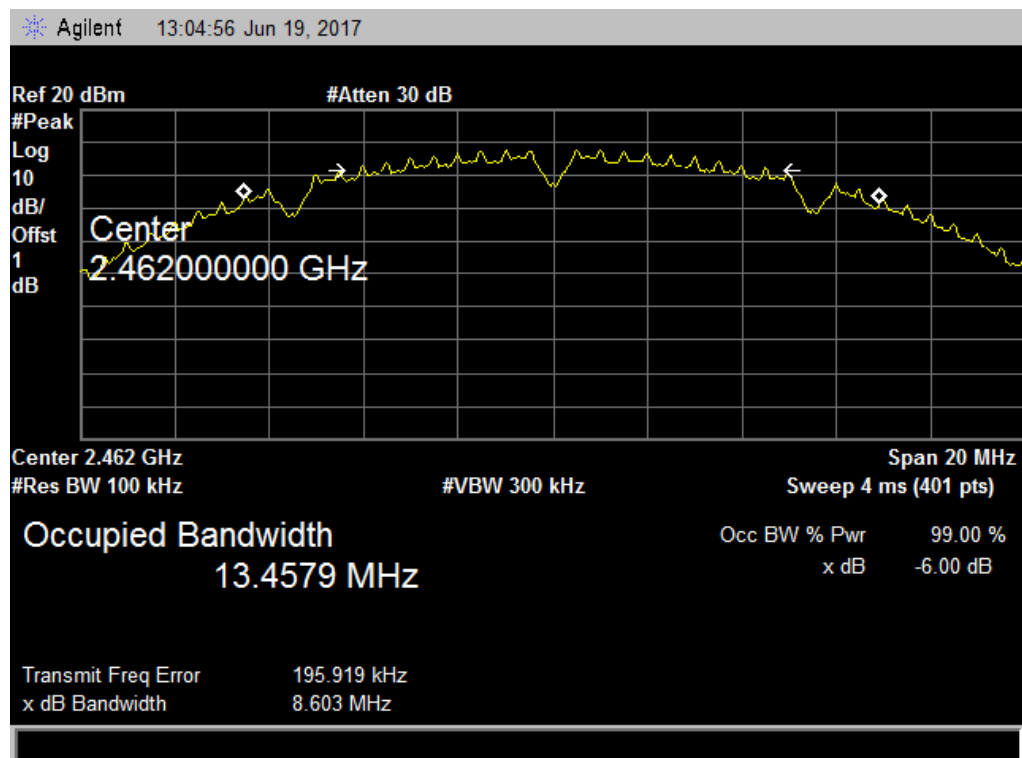
### B Mode 2412 MHz



### B Mode 2437 MHz

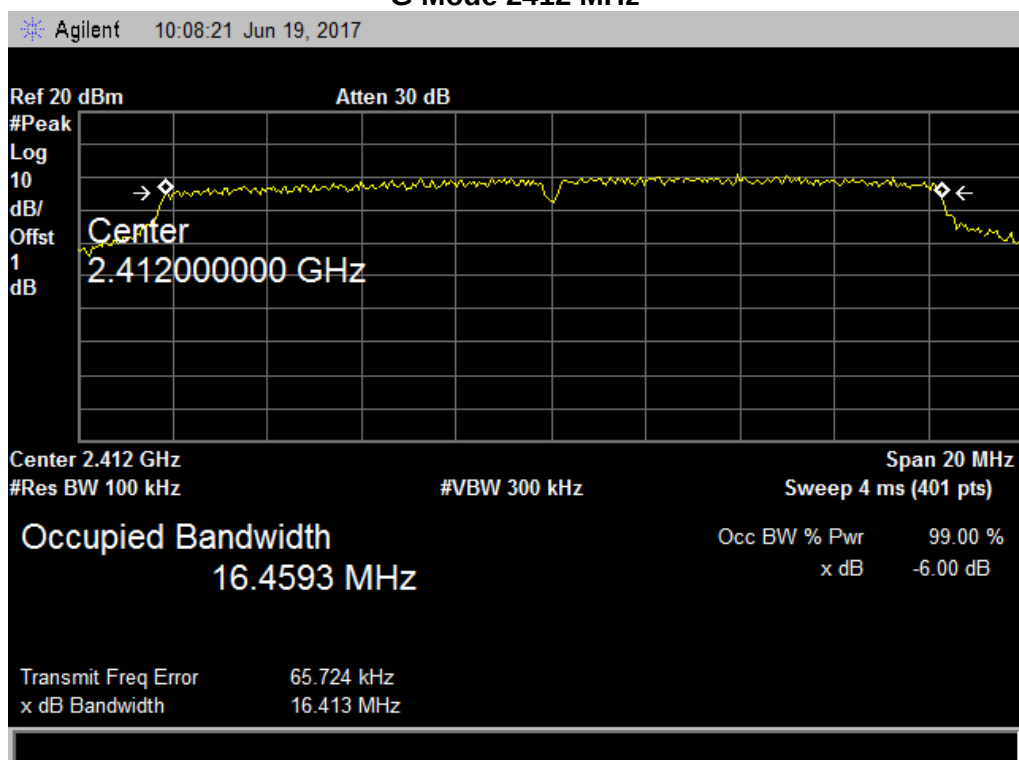


### B Mode 2462 MHz

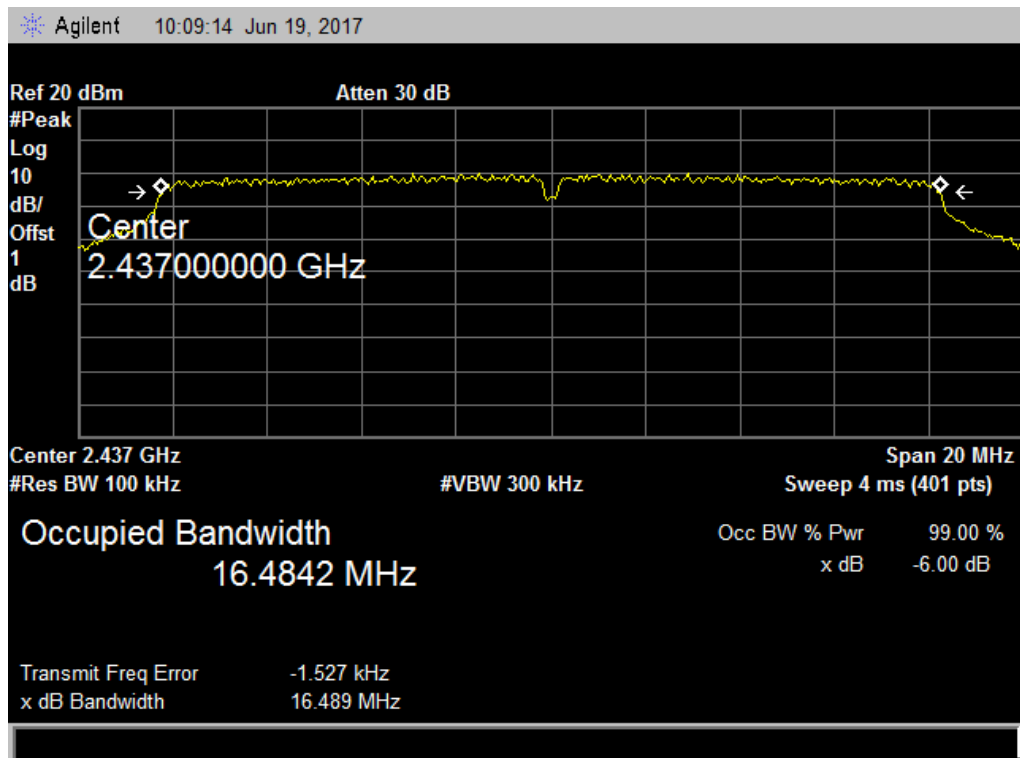


| 801.11g Mode    |                     |               |           |
|-----------------|---------------------|---------------|-----------|
| Frequency (MHz) | 6dB Bandwidth (MHz) | 99% OBW (MHz) | Limit     |
| 2412            | 16.413              | 16.4593       | >=500 kHz |
| 2437            | 16.489              | 16.4842       |           |
| 2462            | 16.456              | 16.4490       |           |
|                 |                     |               |           |

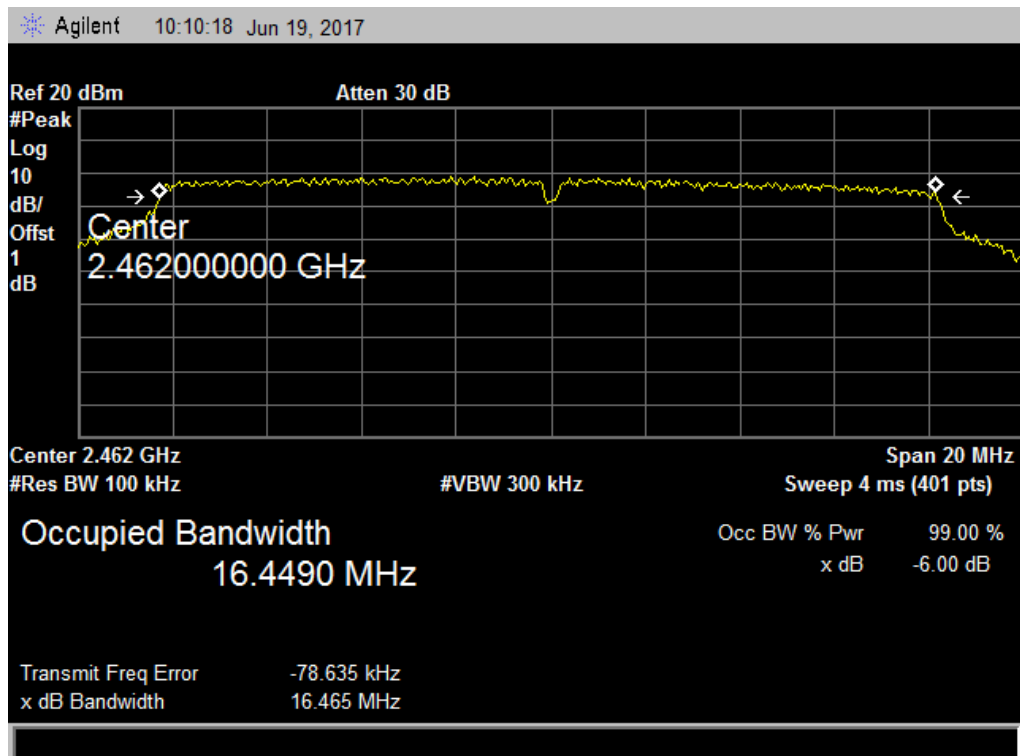
### G Mode 2412 MHz



### G Mode 2437 MHz

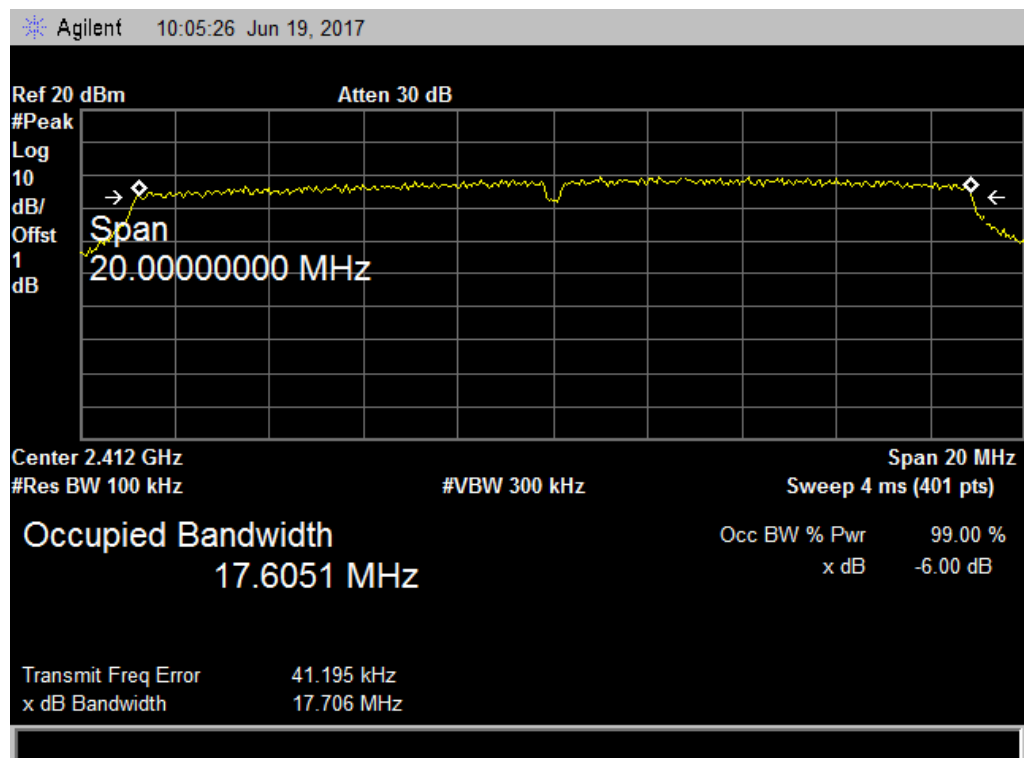


### G Mode 2462 MHz

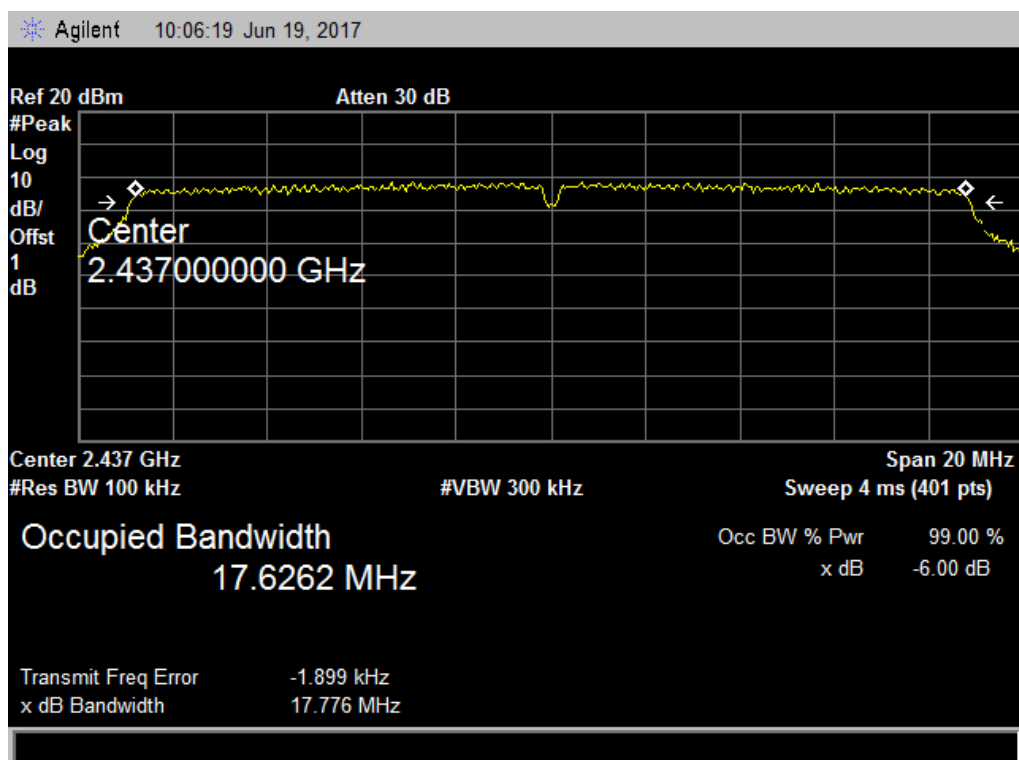


| 801.11n(HT20) Mode |                     |               |           |
|--------------------|---------------------|---------------|-----------|
| Frequency (MHz)    | 6dB Bandwidth (MHz) | 99% OBW (MHz) | Limit     |
| 2412               | 17.706              | 17.6051       | >=500 kHz |
| 2437               | 17.776              | 17.6262       |           |
| 2462               | 17.723              | 17.6084       |           |
|                    |                     |               |           |

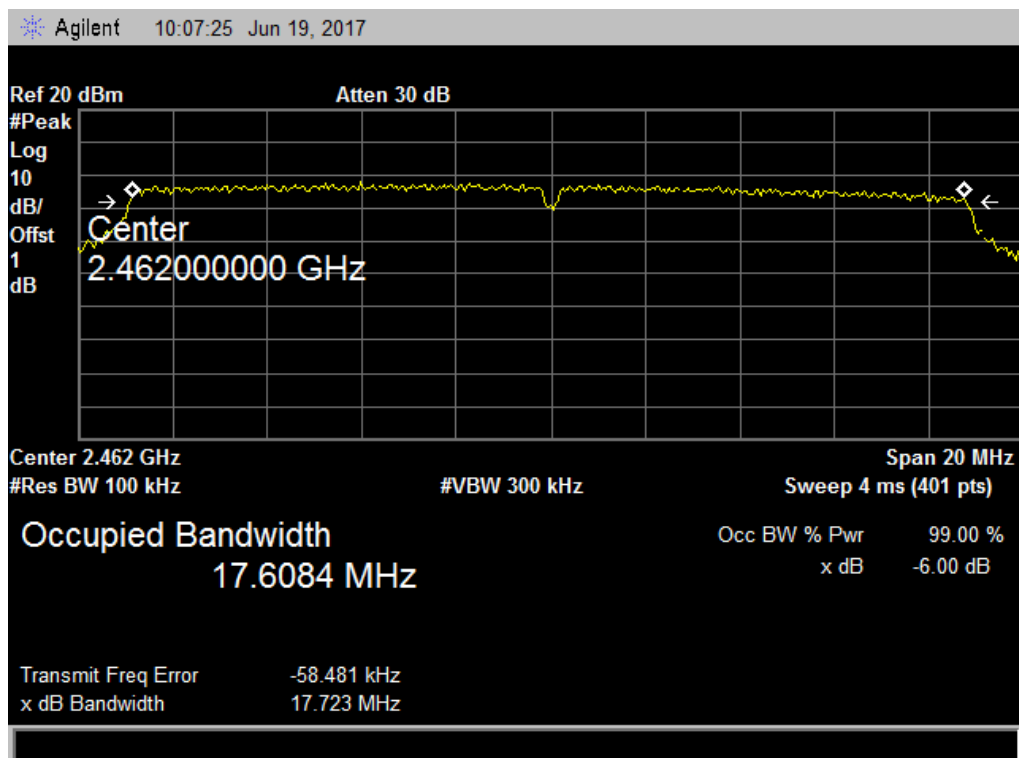
### N20 Mode 2412 MHz



### N20 Mode 2437 MHz

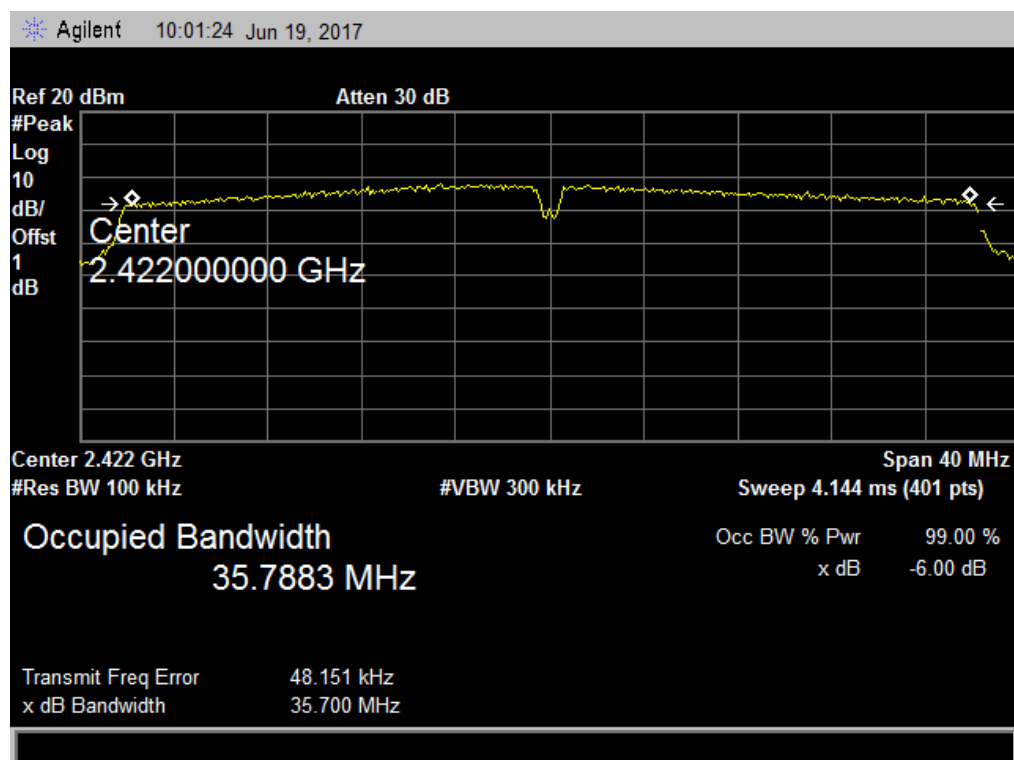


### N20 Mode 2462 MHz

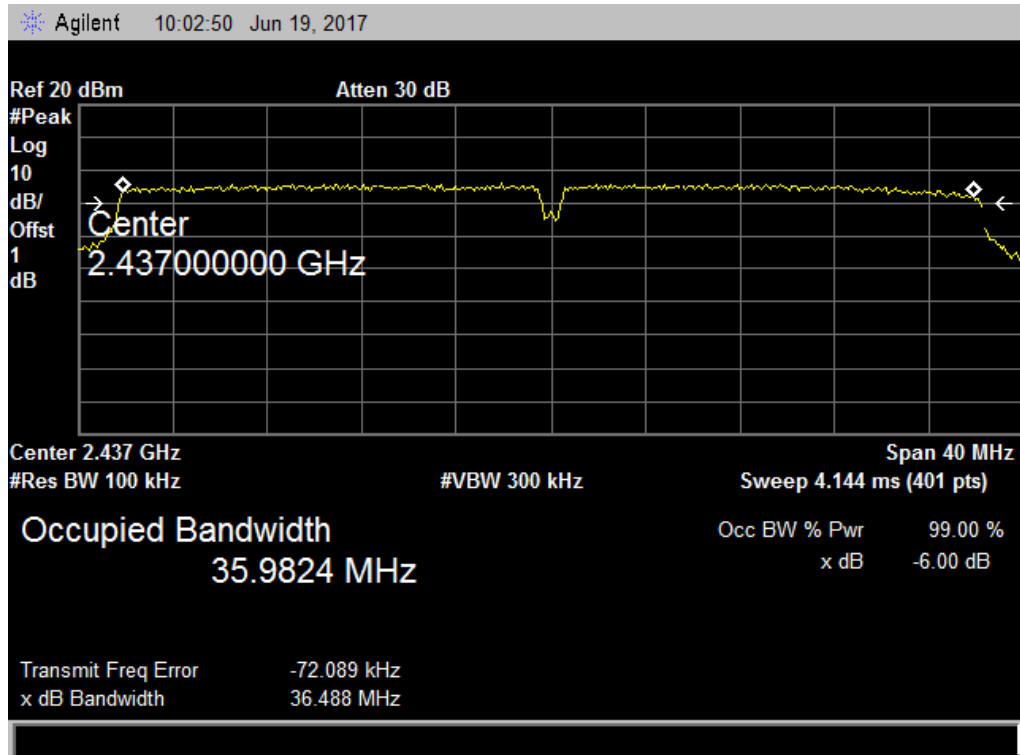


| 801.11n(HT40) Mode |                     |               |           |
|--------------------|---------------------|---------------|-----------|
| Frequency (MHz)    | 6dB Bandwidth (MHz) | 99% OBW (MHz) | Limit     |
| 2422               | 35.700              | 35.7883       | >=500 kHz |
| 2437               | 36.488              | 35.9824       |           |
| 2452               | 35.256              | 35.7727       |           |
|                    |                     |               |           |

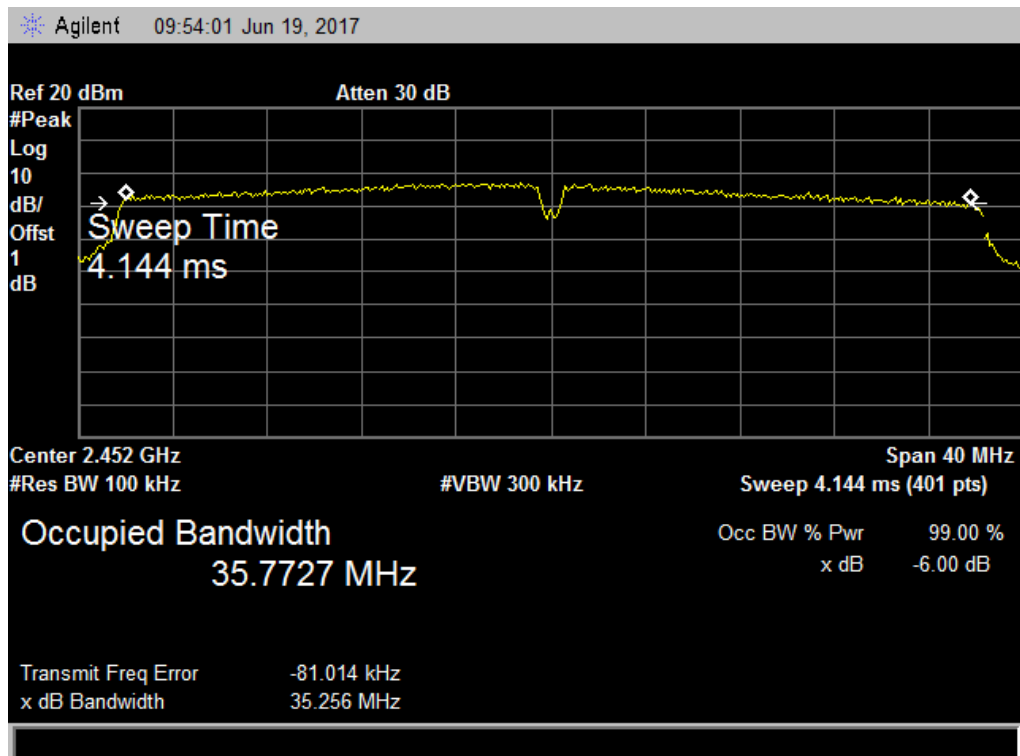
### N40 Mode 2422 MHz



### N40 Mode 2437 MHz



### N40 Mode 2452 MHz



## 6. POWER SPECTRAL DENSITY

### 6.1 LIMITS

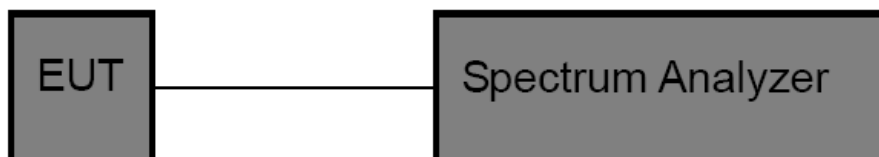
| FCC Part 15.247, Subpart C/ RSS 247 Section 5.2(2) |                    |
|----------------------------------------------------|--------------------|
| Frequency Range (MHz)                              | 2400~2483.5        |
| 99% Occupied Bandwidth                             | 8 dBm in any 3 kHz |

### 6.2 TEST PROCEDURE

The EUT was directly connected to the power meter and antenna output port as show in the block diagram as below.

| Spectrum Parameters | Setting                                             |
|---------------------|-----------------------------------------------------|
| Attenuation         | Auto                                                |
| Span                | Set the span to 1.5 times the DTS channel bandwidth |
| RBW                 | 3 kHz                                               |
| VBW                 | $\geq 3\text{RBW}$                                  |
| Detector            | Reak                                                |
| Trace               | Max Hold                                            |
| Sweep Time          | Auto                                                |

### 6.3 TEST SETUP



### 6.4 TEST INSTRUMENTS

| Equipment         | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until | Calibration period |
|-------------------|--------------|----------|------------|------------------|------------------|--------------------|
| Spectrum Analyzer | R&S          | FSP40    | 100154     | Jul. 04, 2015    | Jul. 03. 2017    | 1 year             |
| Spectrum Analyzer | Agilent      | E4407B   | MY41440432 | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |

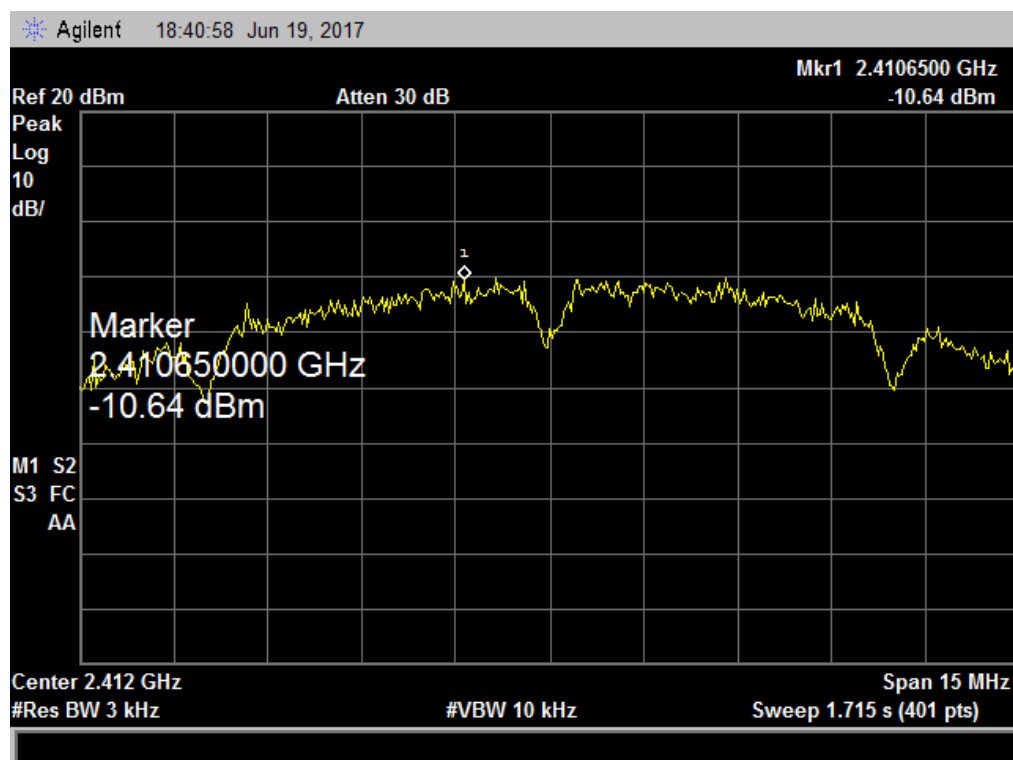
### 6.5 EUT OPERATING CONDITIONS

The EUT was set to continuously transmitting in the maximum power during the test.

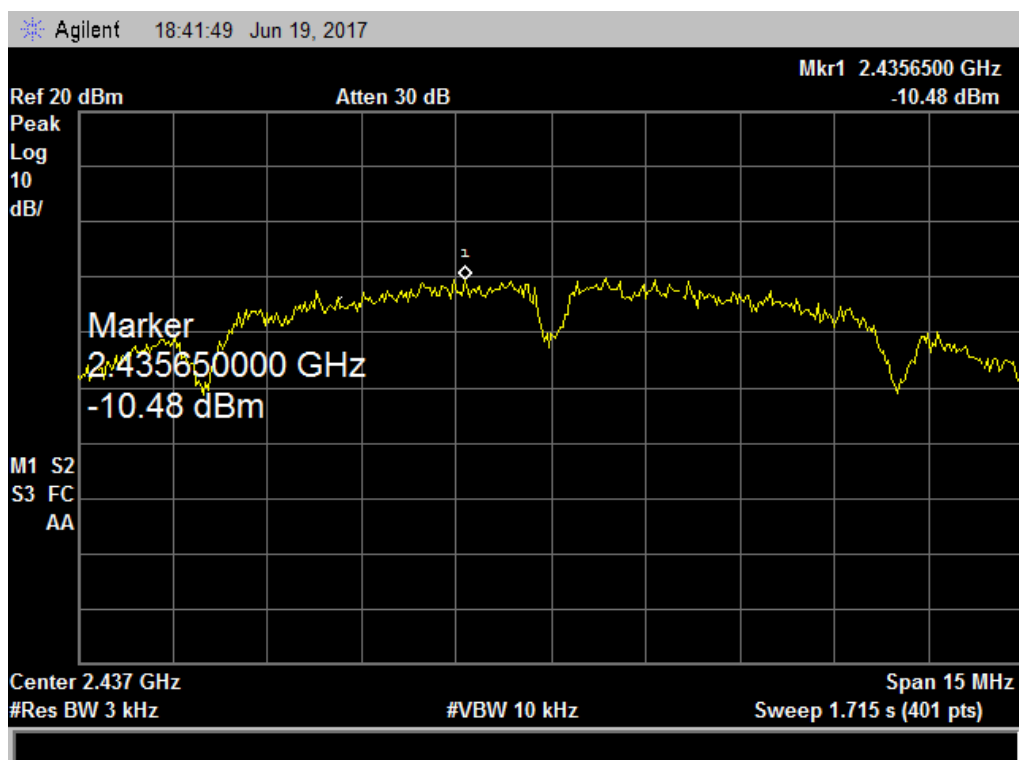
### 6.6 TEST RESULTS

| 801.11b Mode       |                              |                     |        |
|--------------------|------------------------------|---------------------|--------|
| Frequency<br>(MHz) | Power Density<br>(3 kHz/dBm) | Limit<br>(dBm/3KHz) | Result |
| 2412               | -10.64                       | 8                   | Pass   |
| 2437               | -10.48                       |                     |        |
| 2462               | -11.38                       |                     |        |
|                    |                              |                     |        |

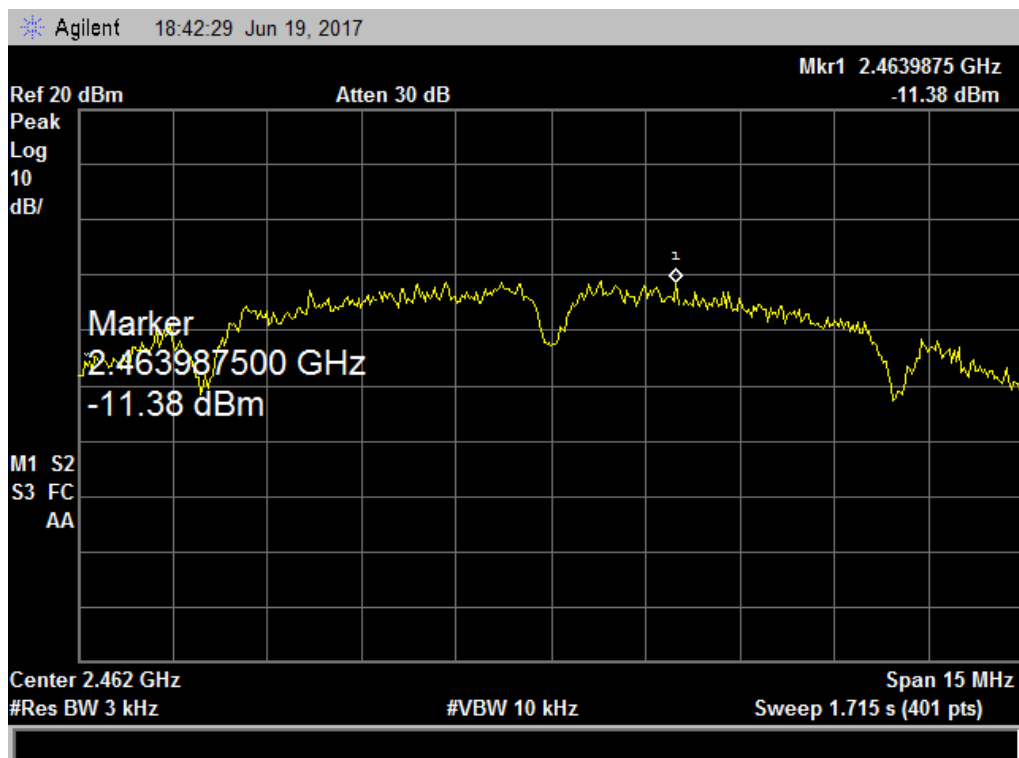
### B Mode 2412 MHz



### B Mode 2437 MHz

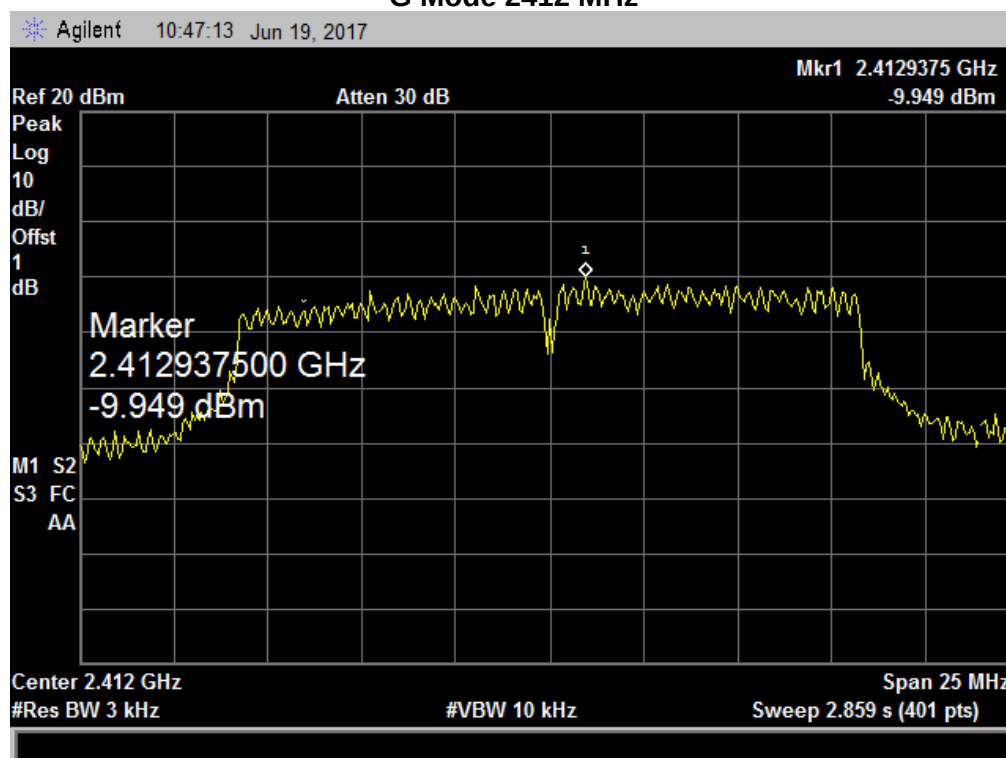


### B Mode 2462 MHz

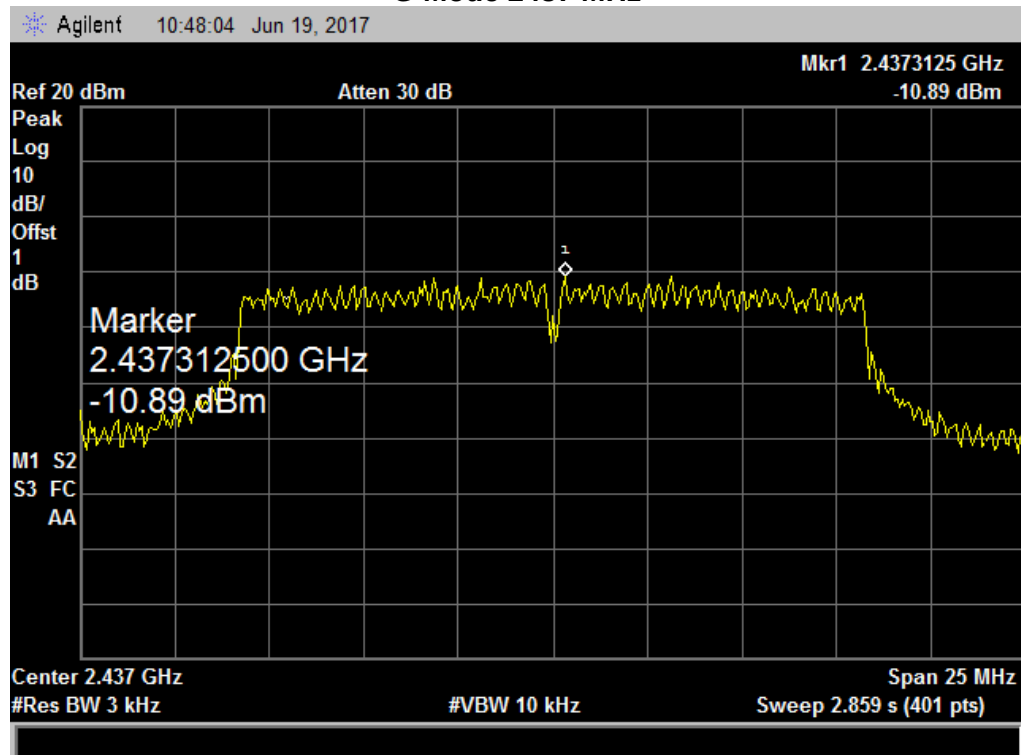


| 801.11g Mode    |                           |                  |        |
|-----------------|---------------------------|------------------|--------|
| Frequency (MHz) | Power Density (3 kHz/dBm) | Limit (dBm/3KHz) | Result |
| 2412            | -9.949                    | 8                | Pass   |
| 2437            | -10.89                    |                  |        |
| 2462            | -8.549                    |                  |        |

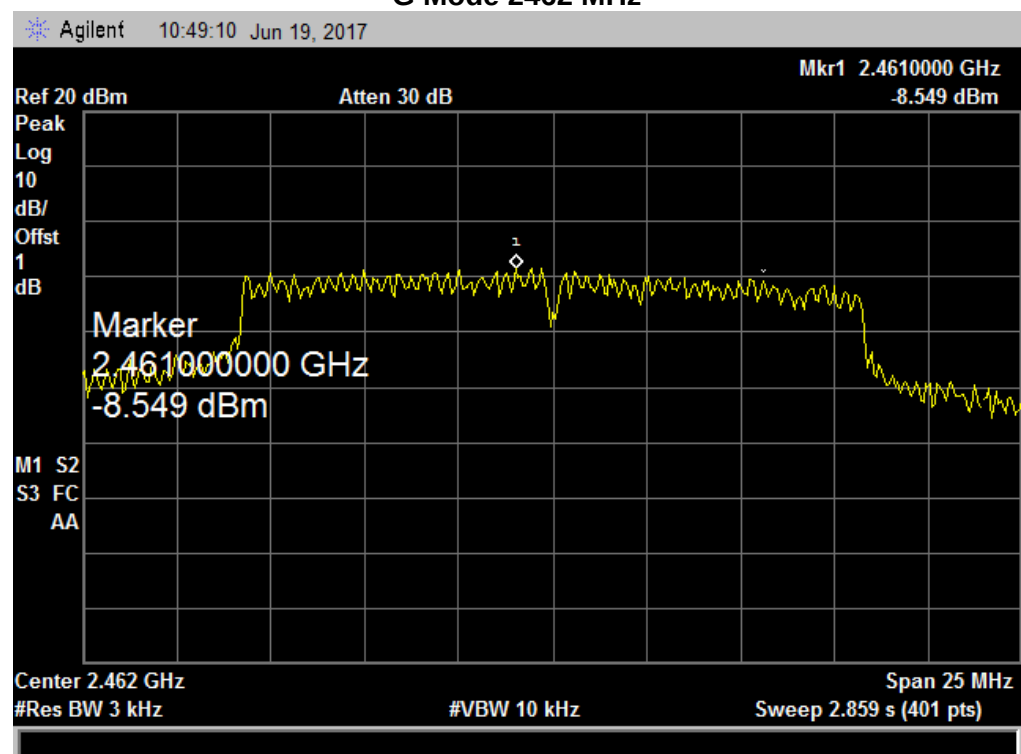
### G Mode 2412 MHz



### G Mode 2437 MHz

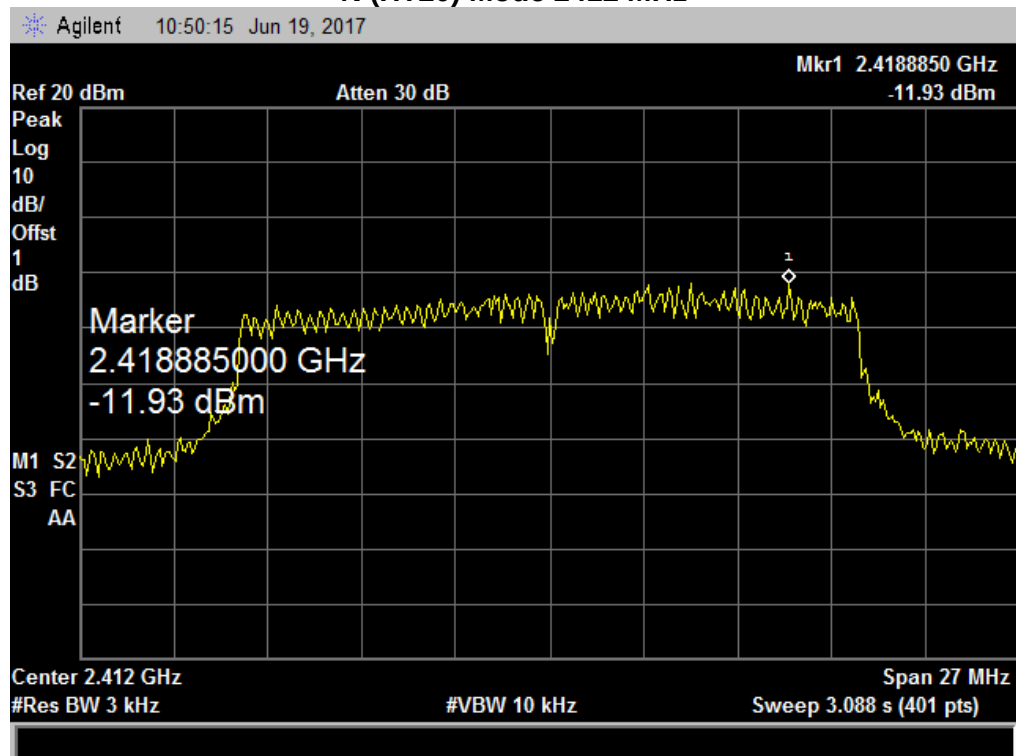


### G Mode 2462 MHz

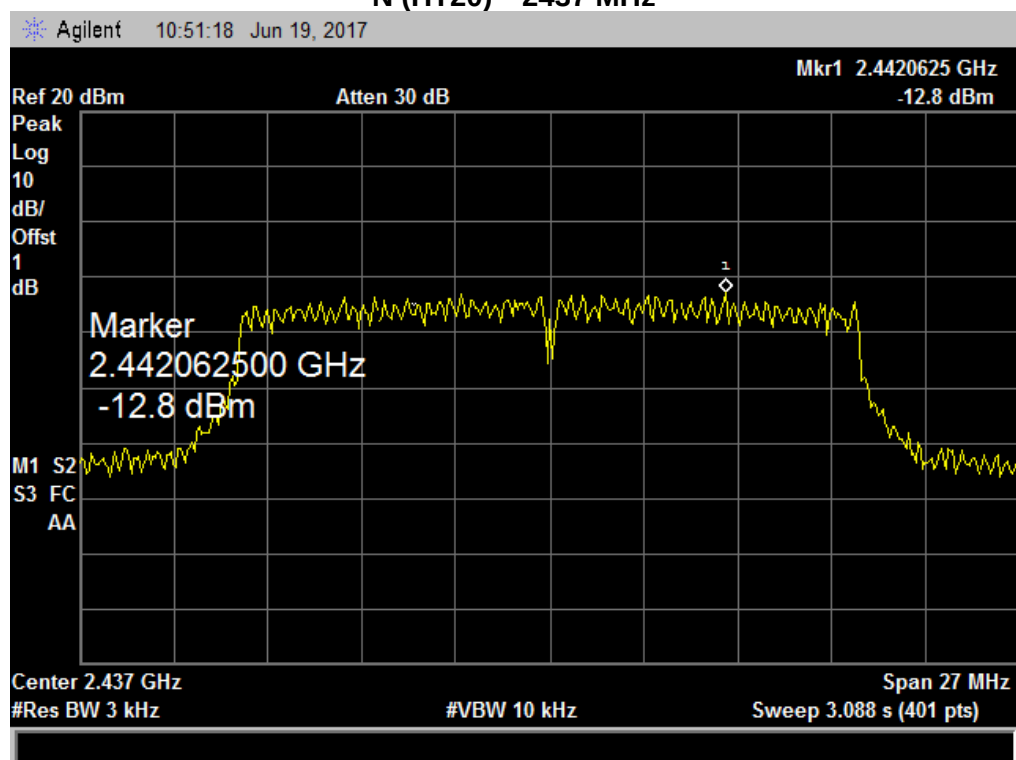


| 801.11 n(HT20) Mode |                           |                  |        |
|---------------------|---------------------------|------------------|--------|
| Frequency (MHz)     | Power Density (3 kHz/dBm) | Limit (dBm/3KHz) | Result |
| 2412                | -11.93                    | 8                | Pass   |
| 2437                | -12.80                    |                  |        |
| 2462                | -13.46                    |                  |        |

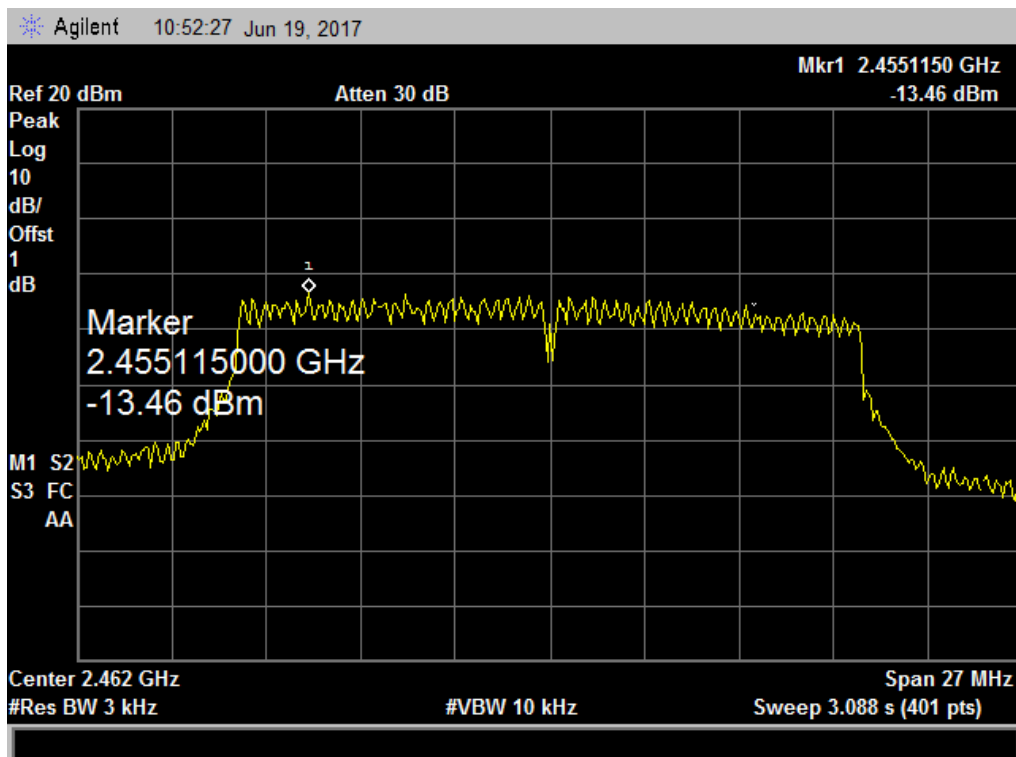
### N (HT20) Mode 2412 MHz



### N (HT20) 2437 MHz

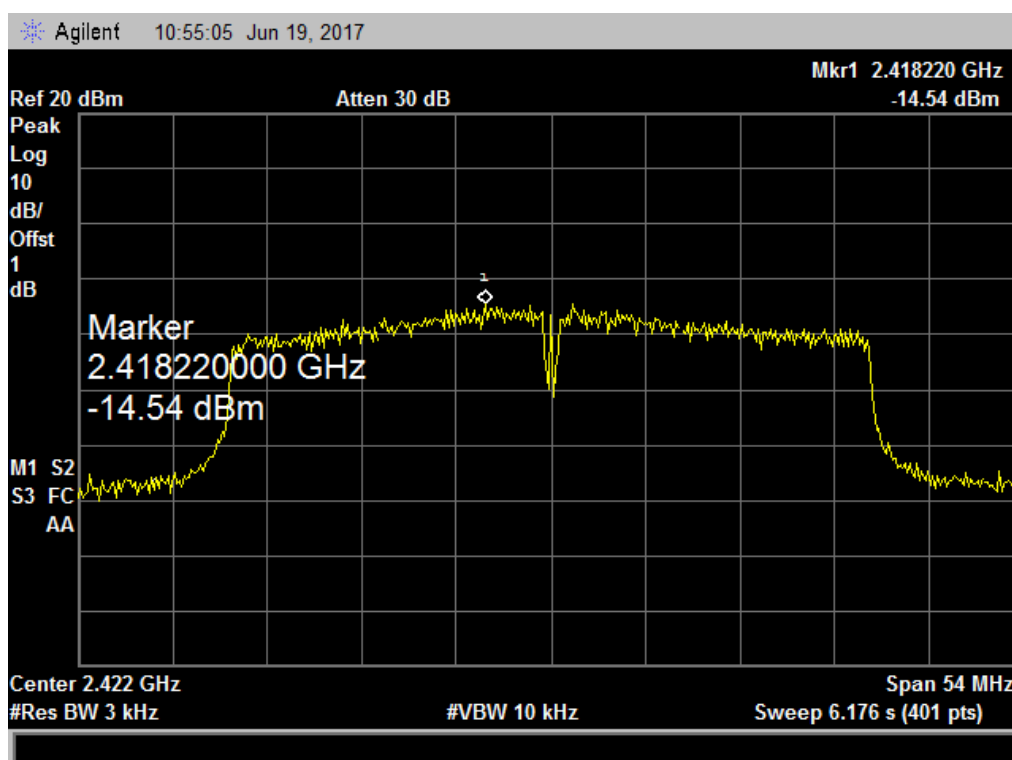


### N (HT20) 2462 MHz

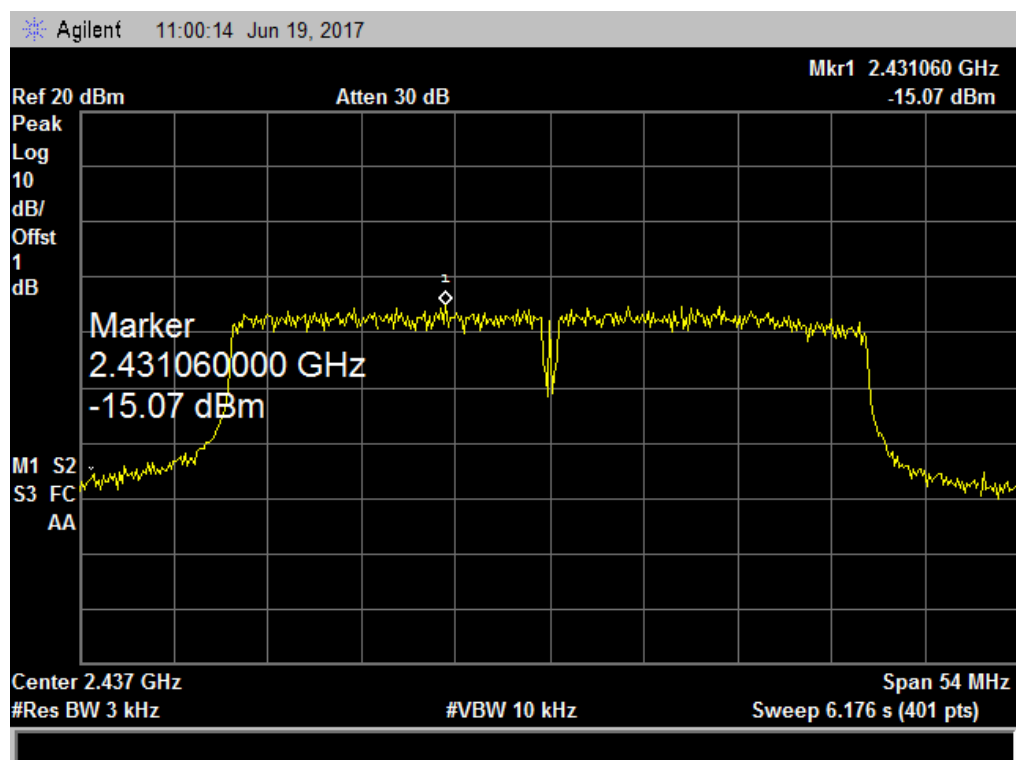


| 801.11 n(HT40) Mode |                           |                  |        |
|---------------------|---------------------------|------------------|--------|
| Frequency (MHz)     | Power Density (3 kHz/dBm) | Limit (dBm/3KHz) | Result |
| 2422                | -14.54                    | 8                | Pass   |
| 2437                | -15.07                    |                  |        |
| 2452                | -10.03                    |                  |        |

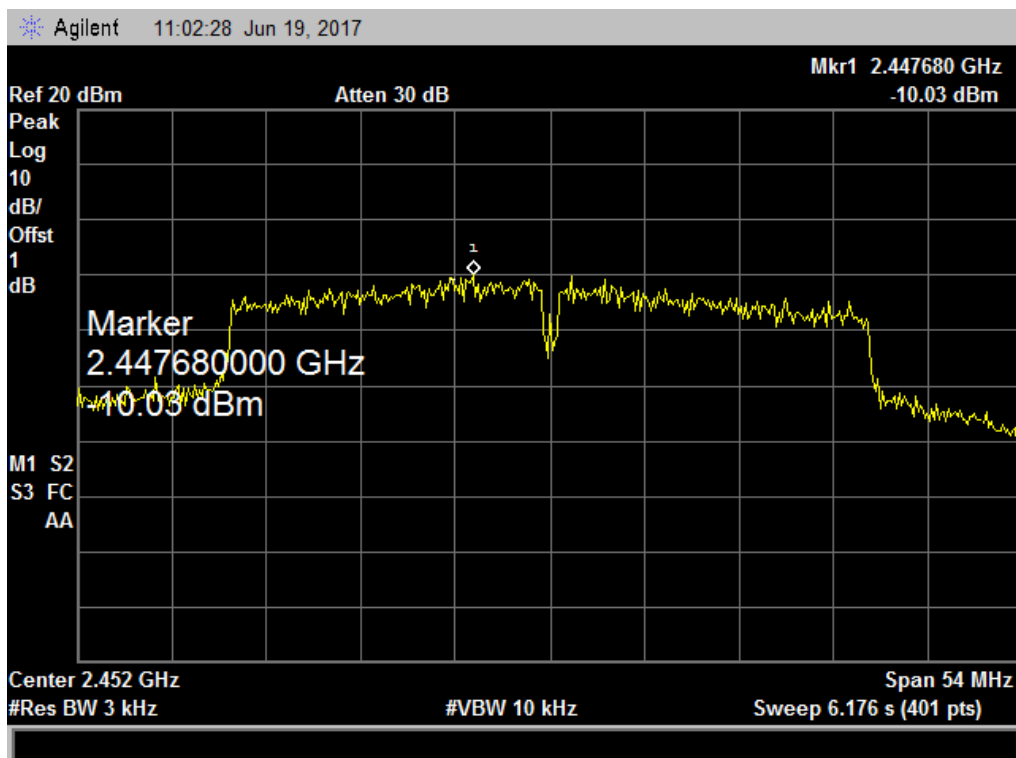
### N (HT40) Mode 2422 MHz



### N (HT40) 2437 MHz



### N (HT40) 2452 MHz



## 7. BAND EDGE AND OUT-OF-BAND EMISSION

### 7.1 LIMITS

| FCC Part 15.247, Subpart C/ RSS 247 Section 5.5 |                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency Range (MHz)                           | 2400~2483.5                                                                                                                                                                                                                                                                                                   |
| Limit                                           | In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the desired power, based on either an RF conducted measurement, provide the transmitter demonstrates compliance with the peak conducted power limits. |

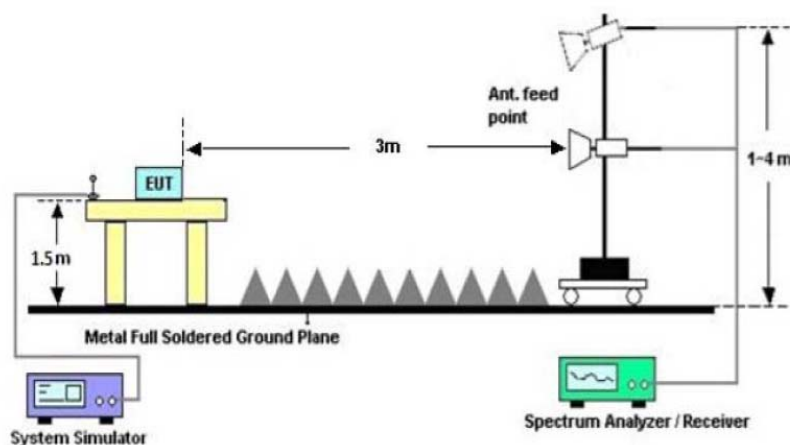
### 7.2 TEST PROCEDURE

The EUT was directly connected to the power meter and antenna output port as show in the block diagram as bellow.

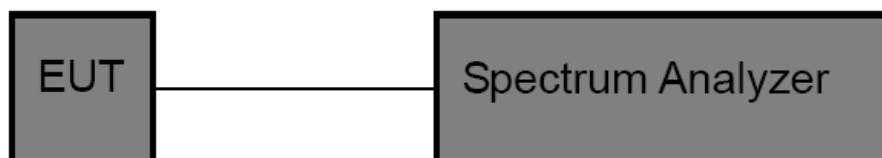
- Set frequency range to capture low band-edge from 2310 MHz up to 2390 MHz, and for up band-edge from 2483.5 MHz up to 2500 MHz
- For low band-edge set the equipment transmit at the lowest channel, and for up band-edge set the equipment transmit at the highest channel
- Set the VBW  $\geq 3$  RBW (100kHz/ 300kHz) for conducted measurement
- For radiated measurements the RBW set to 1 MHz, and the VBW set to 1 MHz for peak measurements and 10 Hz for average measurement

### 7.3 TEST SETUP

#### (A) Radiated Emission Test Set-Up



#### (B) Conducted Emission Test Setup



#### 7.4 TEST INSTRUMENTS

| Equipment         | Manufacturer | Type No.  | Serial No.    | Last calibration | Calibrated until | Calibration period |
|-------------------|--------------|-----------|---------------|------------------|------------------|--------------------|
| Broadband Antenna | R&S          | VULB 9168 | VULB 9168-456 | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Test Cable        | N/A          | R-01      | N/A           | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Test Cable        | N/A          | R-02      | N/A           | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| EMI Test Receiver | R&S          | ESCI      | 101324        | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Spectrum Analyzer | Agilent      | E4407B    | MY41440432    | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Antenna Mast      | EM           | SC100_1   | N/A           | N/A              | N/A              | N/A                |
| Turn Table        | EM           | SC100     | 060531        | N/A              | N/A              | N/A                |
| 50Ω Switch        | Anritsu Corp | MP59B     | 6200983705    | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Spectrum Analyzer | R&S          | FSP40     | 100154        | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Horn Antenna      | R&S          | HF906     | 10029         | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |
| Amplifier         | EM           | EM-30180  | 060538        | Jul. 04, 2016    | Jul. 03. 2017    | 1 year             |

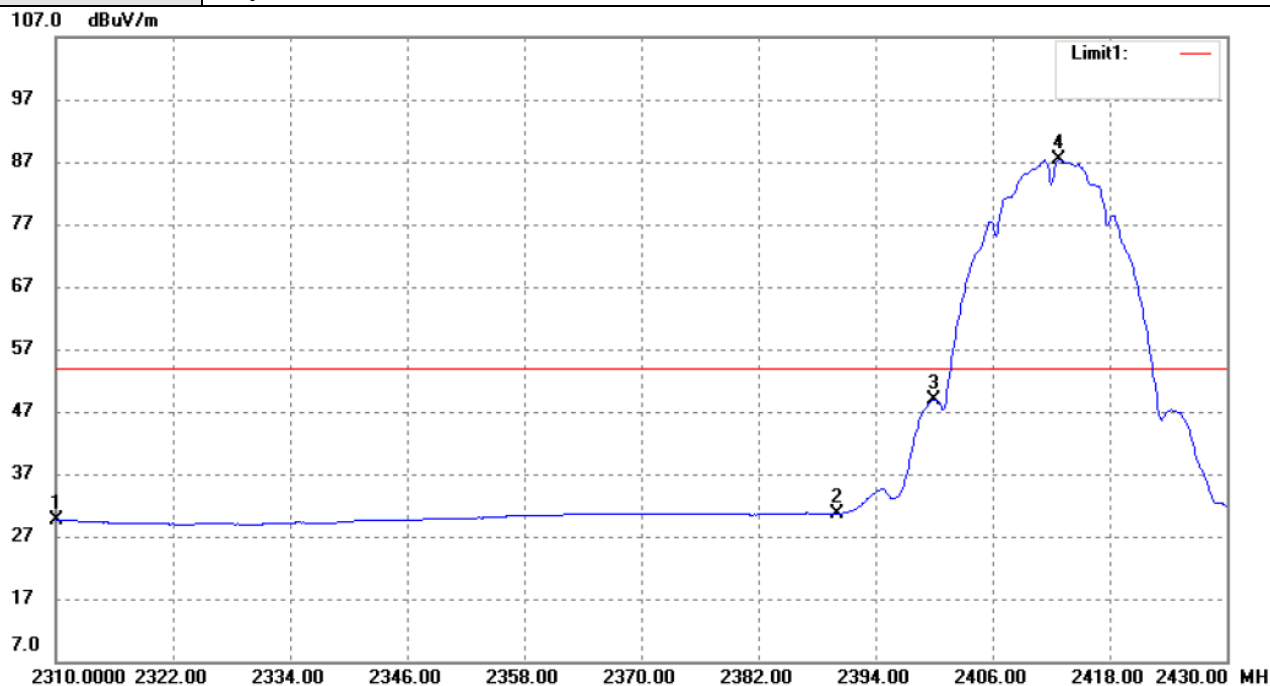
#### 7.5 EUT OPERATING CONDITIONS

The EUT was set to continuously transmitting in the maximum power during the test.

#### 7.6 TEST RESULTS

### Bandedge(Radiated Emission)

|               |                                   |                     |            |
|---------------|-----------------------------------|---------------------|------------|
| EUT :         | WiFi Module                       | Model Name. :       | CWI535     |
| Temperature : | 26 °C                             | Relative Humidity : | 56%        |
| Test Power :  | AC 120V/ 60Hz                     | Pressure :          | 1010 hPa   |
| Test Mode :   | TX B Mode 2412MHz                 | Test Date :         | 2017-06-23 |
| Remark :      | Only show the worse case-Vertical |                     |            |



| No. | Frequency<br>(MHz) | Reading<br>(dBuV/m) | Correct<br>dB/m | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark           |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|------------------|
| 1   | 2310.000           | 33.95               | -4.42           | 29.53              | 54.00             | -24.47         | Average Detector |
|     | 2310.000           | 44.98               | -4.42           | 40.56              | 74.00             | -33.44         | Peak Detector    |
| 2   | 2390.000           | 34.34               | -3.72           | 30.62              | 54.00             | -23.38         | Average Detector |
|     | 2390.000           | 45.43               | -3.72           | 41.71              | 74.00             | -32.29         | Peak Detector    |
| 3   | 2400.000           | 52.53               | -3.64           | 48.89              | 54.00             | -5.11          | Average Detector |
|     | 2400.000           | 58.48               | -3.64           | 54.84              | 74.00             | -19.16         | Peak Detector    |
| 4   | 2412.840           | 90.97               | -3.54           | 87.43              | /                 | /              | Average Detector |
|     | 2413.080           | 95.80               | -3.54           | 92.26              | /                 | /              | Peak Detector    |

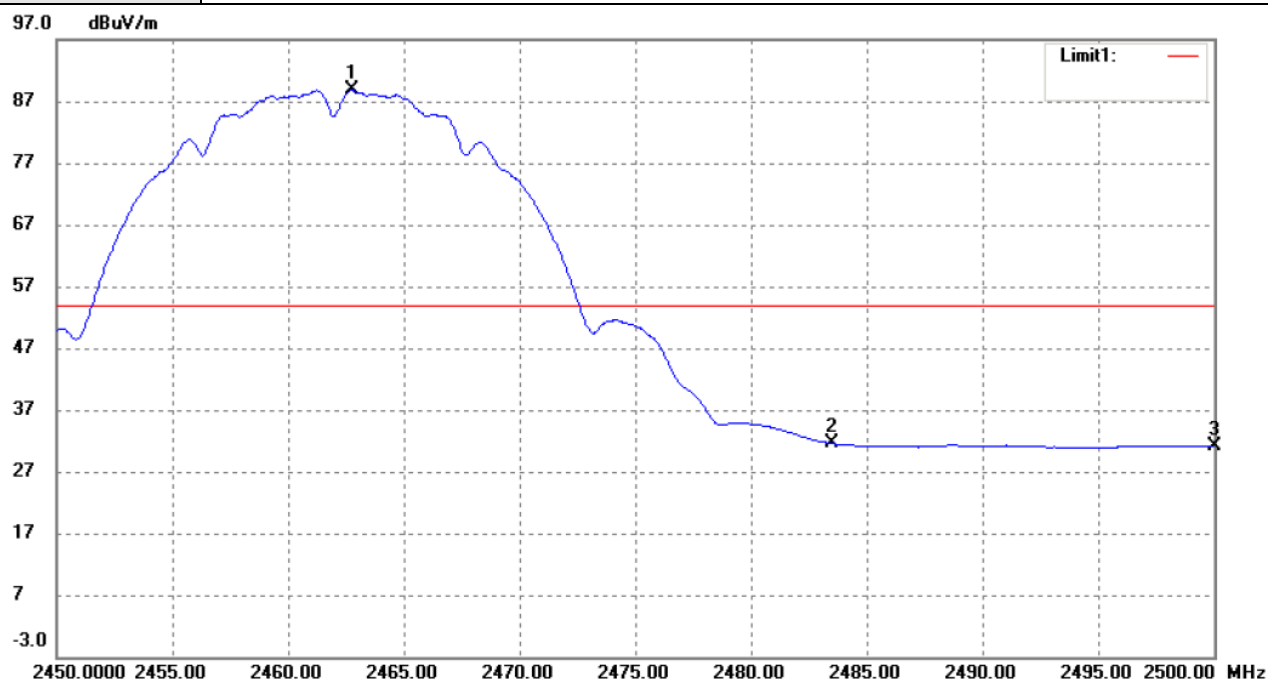
Remark:

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

No report for the emission which more than 10 dB below the prescribed limit.

|                      |                                   |                            |            |
|----------------------|-----------------------------------|----------------------------|------------|
| <b>EUT :</b>         | WiFi Module                       | <b>Model Name. :</b>       | CWI535     |
| <b>Temperature :</b> | 26 °C                             | <b>Relative Humidity :</b> | 56%        |
| <b>Test Power :</b>  | AC 120V/ 60Hz                     | <b>Pressure :</b>          | 1010 hPa   |
| <b>Test Mode :</b>   | TX B Mode 2462MHz                 | <b>Test Date :</b>         | 2017-06-23 |
| <b>Remark :</b>      | Only show the worse case-Vertical |                            |            |



| No. | Frequency<br>(MHz) | Reading<br>(dBuV/m) | Correct<br>Factor(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark           |
|-----|--------------------|---------------------|-----------------------|--------------------|-------------------|----------------|------------------|
| 1   | 2462.750           | 91.97               | -3.17                 | 88.80              | /                 | /              | Average Detector |
|     | 2463.050           | 96.99               | -3.16                 | 93.83              | /                 | /              | Peak Detector    |
| 2   | 2483.500           | 34.58               | -3.01                 | 31.57              | 54.00             | -22.43         | Average Detector |
|     | 2483.500           | 46.43               | -3.01                 | 43.42              | 74.00             | -30.58         | Peak Detector    |
| 3   | 2500.000           | 34.03               | -2.88                 | 31.15              | 54.00             | -22.85         | Average Detector |
|     | 2500.000           | 45.70               | -2.88                 | 42.82              | 74.00             | -31.18         | Peak Detector    |

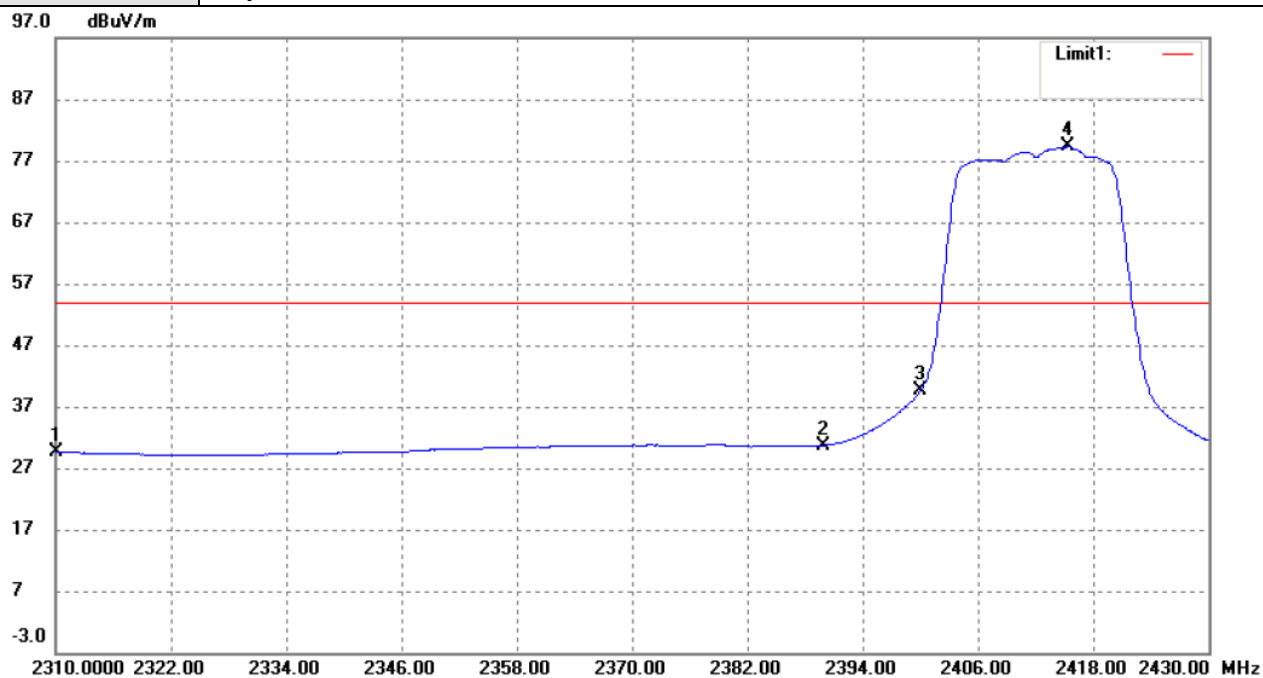
Remark:

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

No report for the emission which more than 10 dB below the prescribed limit.

|               |                                   |                     |            |
|---------------|-----------------------------------|---------------------|------------|
| EUT :         | WiFi Module                       | Model Name. :       | CWI535     |
| Temperature : | 26 °C                             | Relative Humidity : | 56%        |
| Test Power :  | AC 120V/ 60Hz                     | Pressure :          | 1010 hPa   |
| Test Mode :   | TX G Mode 2412MHz                 | Test Date :         | 2017-06-23 |
| Remark :      | Only show the worse case-Vertical |                     |            |



| No. | Frequency<br>(MHz) | Reading<br>(dBuV/m) | Correct<br>dB/m | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark           |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|------------------|
| 1   | 2310.000           | 34.03               | -4.42           | 29.61              | 54.00             | -24.39         | Average Detector |
|     | 2310.000           | 45.73               | -4.42           | 41.31              | 74.00             | -32.69         | Peak Detector    |
| 2   | 2390.000           | 34.44               | -3.72           | 30.72              | 54.00             | -23.28         | Average Detector |
|     | 2390.000           | 46.55               | -3.72           | 42.83              | 74.00             | -31.17         | Peak Detector    |
| 3   | 2400.000           | 43.16               | -3.64           | 39.52              | 54.00             | -14.48         | Average Detector |
|     | 2400.000           | 72.22               | -3.64           | 68.58              | 74.00             | -5.42          | Peak Detector    |
| 4   | 2415.360           | 82.79               | -3.52           | 79.27              | /                 | /              | Average Detector |
|     | 2415.240           | 94.51               | -3.52           | 90.99              | /                 | /              | Peak Detector    |

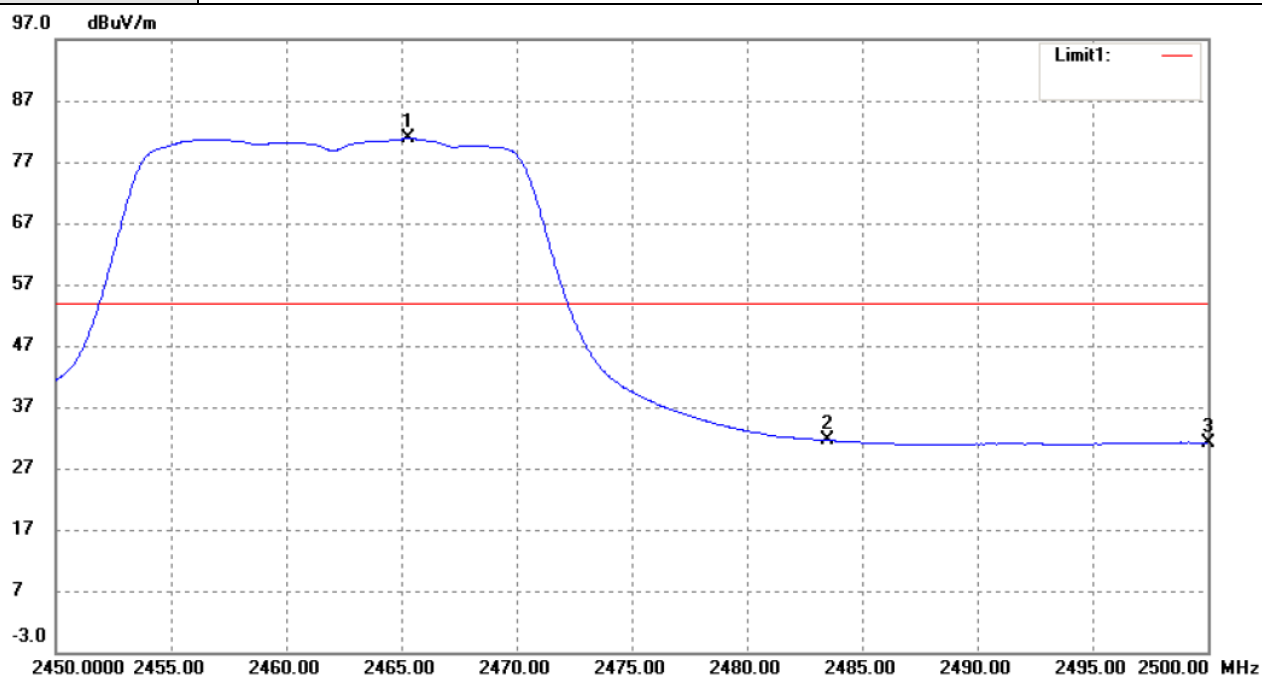
Remark:

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

No report for the emission which more than 10 dB below the prescribed limit.

|               |                                   |                     |            |
|---------------|-----------------------------------|---------------------|------------|
| EUT :         | WiFi Module                       | Model Name. :       | CWI535     |
| Temperature : | 26 °C                             | Relative Humidity : | 56%        |
| Test Power :  | AC 120V/ 60Hz                     | Pressure :          | 1010 hPa   |
| Test Mode :   | TX G Mode 2462MHz                 | Test Date :         | 2017-06-23 |
| Remark :      | Only show the worse case-Vertical |                     |            |



| No. | Frequency<br>(MHz) | Reading<br>(dBuV/m) | Correct<br>dB/m | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark           |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|------------------|
| 1   | 2465.300           | 83.97               | -3.15           | 80.82              | /                 | /              | Average Detector |
|     | 2465.100           | 95.79               | -3.15           | 92.64              | /                 | /              | Peak Detector    |
| 2   | 2483.500           | 34.58               | -3.01           | 31.57              | 54.00             | -22.43         | Average Detector |
|     | 2483.500           | 47.33               | -3.01           | 44.32              | 74.00             | -29.68         | Peak Detector    |
| 3   | 2500.000           | 34.13               | -2.88           | 31.25              | 54.00             | -22.75         | Average Detector |
|     | 2500.000           | 46.58               | -2.88           | 43.70              | 74.00             | -30.30         | Peak Detector    |

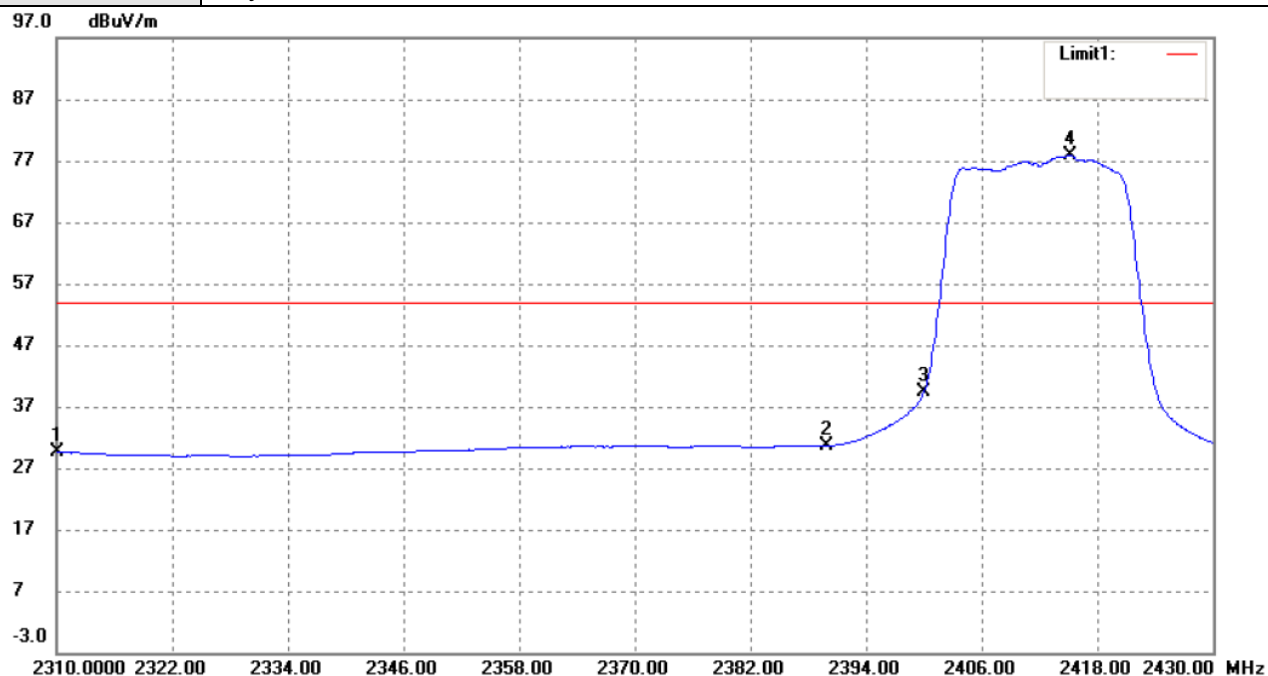
Remark:

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

No report for the emission which more than 10 dB below the prescribed limit.

|               |                                   |                     |            |
|---------------|-----------------------------------|---------------------|------------|
| EUT :         | WiFi Module                       | Model Name. :       | CWI535     |
| Temperature : | 26 °C                             | Relative Humidity : | 56%        |
| Test Power :  | AC 120V/ 60Hz                     | Pressure :          | 1010 hPa   |
| Test Mode :   | TX N20 Mode 2412MHz               | Test Date :         | 2017-06-23 |
| Remark :      | Only show the worse case-Vertical |                     |            |



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark           |
|-----|-----------------|------------------|----------------|-----------------|----------------|-------------|------------------|
| 1   | 2310.000        | 33.94            | -4.42          | 29.52           | 54.00          | -24.48      | Average Detector |
|     | 2310.000        | 46.11            | -4.42          | 41.69           | 74.00          | -32.31      | Peak Detector    |
| 2   | 2390.000        | 34.35            | -3.72          | 30.63           | 54.00          | -23.37      | Average Detector |
|     | 2390.000        | 46.19            | -3.72          | 42.47           | 74.00          | -31.53      | Peak Detector    |
| 3   | 2400.000        | 43.02            | -3.64          | 39.38           | 54.00          | -14.62      | Average Detector |
|     | 2400.000        | 71.95            | -3.64          | 68.31           | 74.00          | -5.69       | Peak Detector    |
| 4   | 2415.120        | 81.33            | -3.52          | 77.81           | /              | /           | Average Detector |
|     | 2415.240        | 92.00            | -3.52          | 88.48           | /              | /           | Peak Detector    |

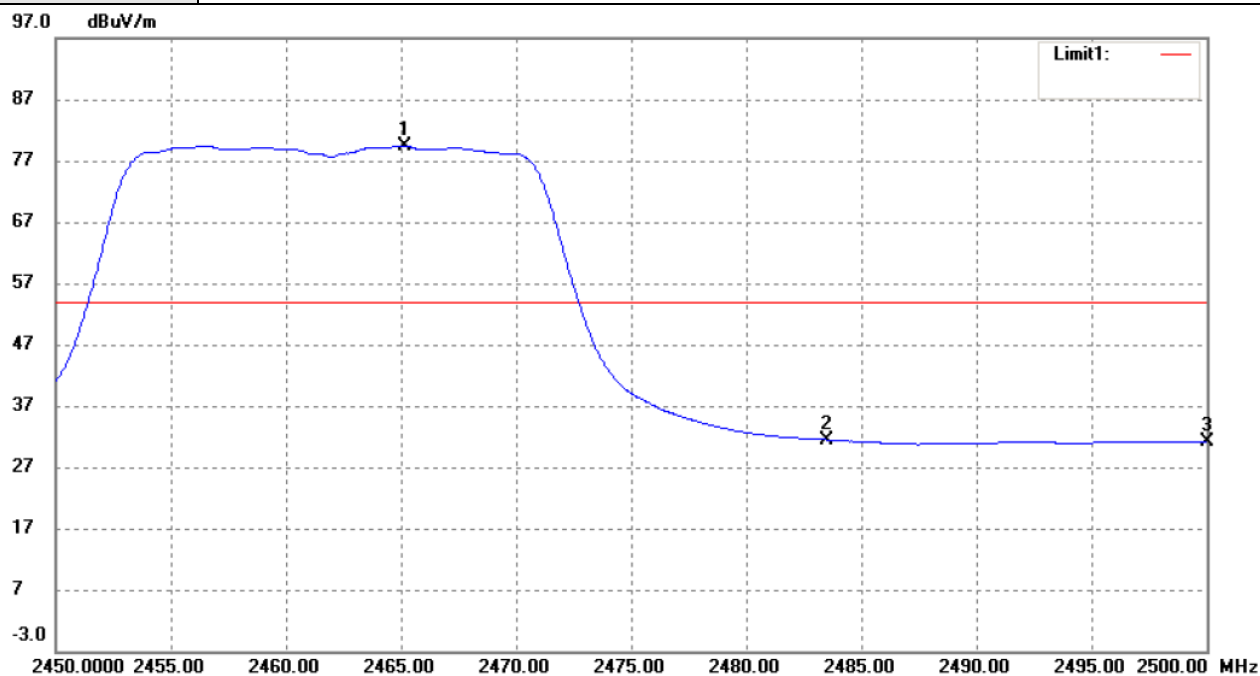
Remark:

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

No report for the emission which more than 10 dB below the prescribed limit.

|                      |                                   |                            |            |
|----------------------|-----------------------------------|----------------------------|------------|
| <b>EUT :</b>         | WiFi Module                       | <b>Model Name. :</b>       | CWI535     |
| <b>Temperature :</b> | 26 °C                             | <b>Relative Humidity :</b> | 56%        |
| <b>Test Power :</b>  | AC 120V/ 60Hz                     | <b>Pressure :</b>          | 1010 hPa   |
| <b>Test Mode :</b>   | TX N20 Mode 2462MHz               | <b>Test Date :</b>         | 2017-06-23 |
| <b>Remark :</b>      | Only show the worse case-Vertical |                            |            |



| No. | Frequency<br>(MHz) | Reading<br>(dBuV/m) | Correct<br>dB/m | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark           |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|------------------|
| 1   | 2465.150           | 82.62               | -3.15           | 79.47              | /                 | /              | Average Detector |
|     | 2458.850           | 93.69               | -3.19           | 90.50              | /                 | /              | Peak Detector    |
| 2   | 2483.500           | 34.51               | -3.01           | 31.50              | 54.00             | -22.50         | Average Detector |
|     | 2483.500           | 47.39               | -3.01           | 44.38              | 74.00             | -29.62         | Peak Detector    |
| 3   | 2500.000           | 34.06               | -2.88           | 31.18              | 54.00             | -22.82         | Average Detector |
|     | 2500.000           | 45.37               | -2.89           | 42.48              | 74.00             | -31.52         | Peak Detector    |

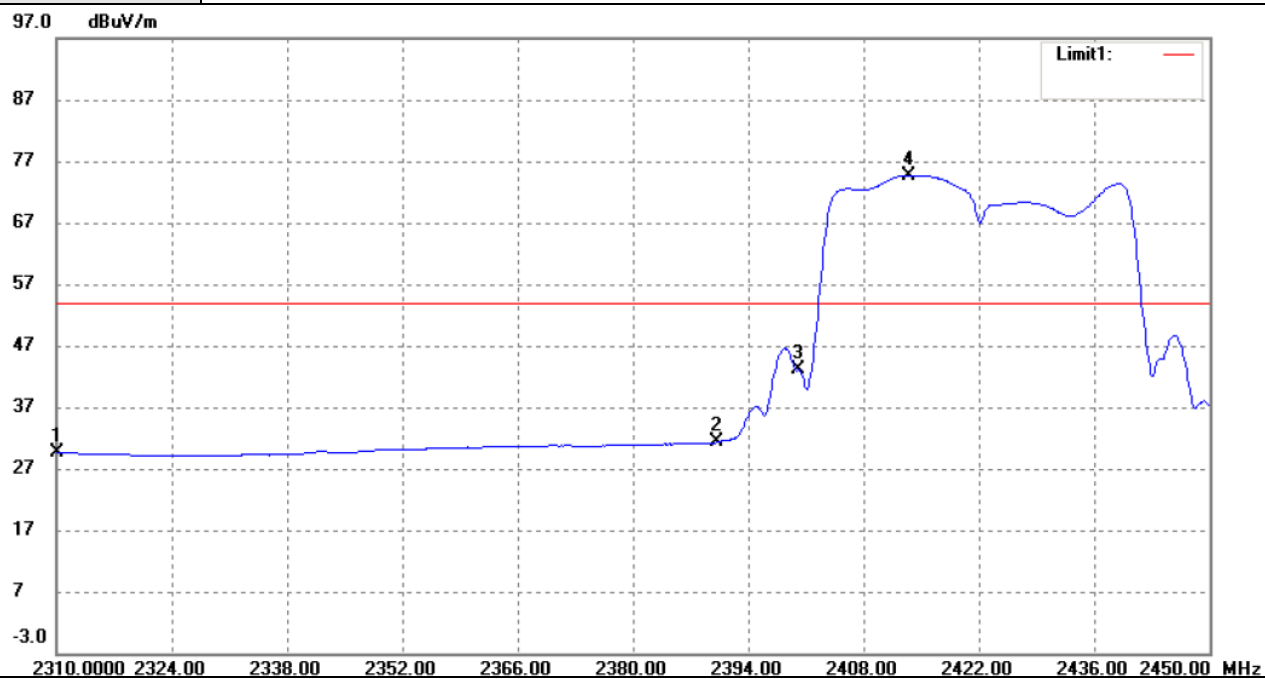
Remark:

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

No report for the emission which more than 10 dB below the prescribed limit.

|                      |                                   |                            |            |
|----------------------|-----------------------------------|----------------------------|------------|
| <b>EUT :</b>         | WiFi Module                       | <b>Model Name. :</b>       | CWI535     |
| <b>Temperature :</b> | 26 °C                             | <b>Relative Humidity :</b> | 56%        |
| <b>Test Power :</b>  | AC 120V/ 60Hz                     | <b>Pressure :</b>          | 1010 hPa   |
| <b>Test Mode :</b>   | TX N40 Mode 2422MHz               | <b>Test Date :</b>         | 2017-06-23 |
| <b>Remark :</b>      | Only show the worse case-Vertical |                            |            |



| No. | Frequency<br>(MHz) | Reading<br>(dBuV/m) | Correct<br>dB/m | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark           |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|------------------|
| 1   | 2310.000           | 34.05               | -4.42           | 29.63              | 54.00             | -24.37         | Average Detector |
|     | 2310.000           | 45.99               | -4.42           | 41.57              | 74.00             | -32.43         | Peak Detector    |
| 2   | 2390.000           | 34.99               | -3.72           | 31.27              | 54.00             | -22.73         | Average Detector |
|     | 2390.000           | 47.98               | -3.72           | 44.26              | 74.00             | -29.74         | Peak Detector    |
| 3   | 2400.000           | 46.68               | -3.64           | 43.04              | 54.00             | -10.96         | Average Detector |
|     | 2400.000           | 59.64               | -3.64           | 56.00              | 74.00             | -18.00         | Peak Detector    |
| 4   | 2413.460           | 78.26               | -3.53           | 74.73              | /                 | /              | Average Detector |
|     | 2412.620           | 88.65               | -3.54           | 85.11              | /                 | /              | Peak Detector    |

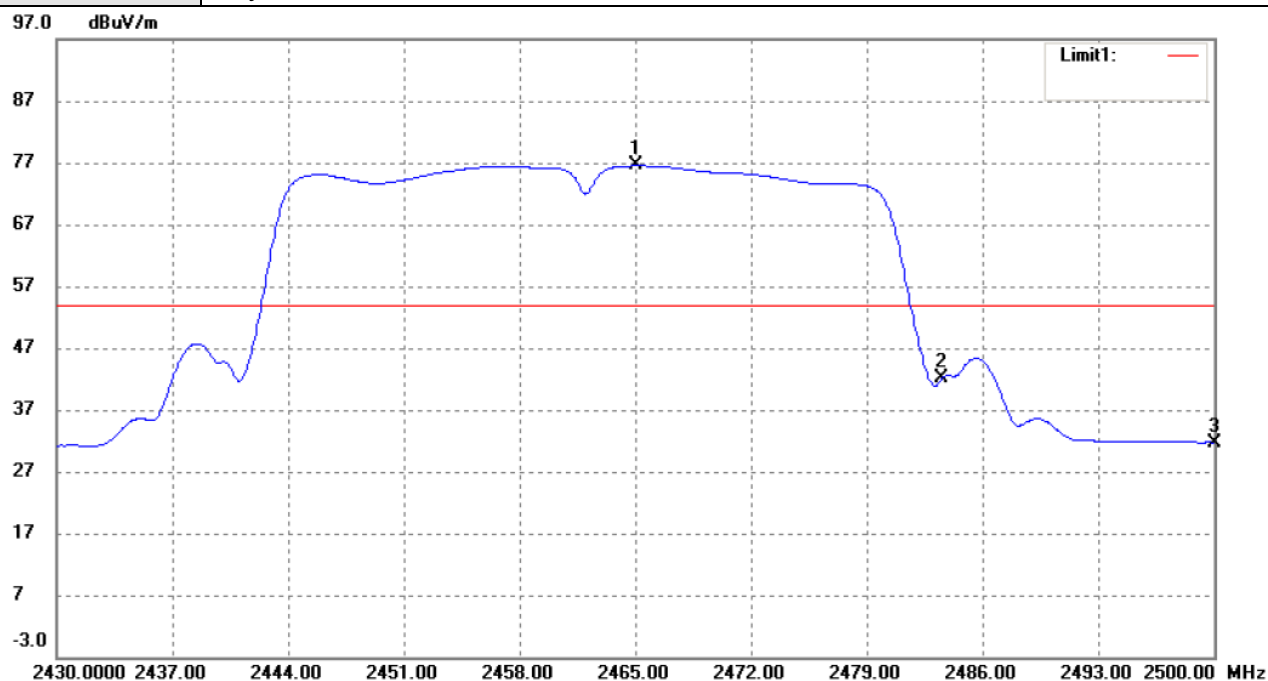
Remark:

Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

No report for the emission which more than 10 dB below the prescribed limit.

|               |                                   |                     |            |
|---------------|-----------------------------------|---------------------|------------|
| EUT :         | WiFi Module                       | Model Name. :       | CWI535     |
| Temperature : | 26 °C                             | Relative Humidity : | 56%        |
| Test Power :  | AC 120V/ 60Hz                     | Pressure :          | 1010 hPa   |
| Test Mode :   | TX N40 Mode 2452MHz               | Test Date :         | 2017-06-23 |
| Remark :      | Only show the worse case-Vertical |                     |            |



| No. | Frequency<br>(MHz) | Reading<br>(dBuV/m) | Correct<br>dB/m | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark           |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|------------------|
| 1   | 2465.000           | 79.69               | -3.15           | 76.54              | /                 | /              | Average Detector |
|     | 2458.350           | 90.17               | -3.19           | 86.98              | /                 | /              | Peak Detector    |
| 2   | 2483.500           | 45.15               | -3.01           | 42.14              | 54.00             | -11.86         | Average Detector |
|     | 2483.500           | 60.65               | -3.01           | 57.64              | 74.00             | -16.36         | Peak Detector    |
| 3   | 2500.000           | 34.62               | -2.88           | 31.74              | 54.00             | -22.26         | Average Detector |
|     | 2500.000           | 46.72               | -2.88           | 43.84              | 74.00             | -30.16         | Peak Detector    |

Remark:

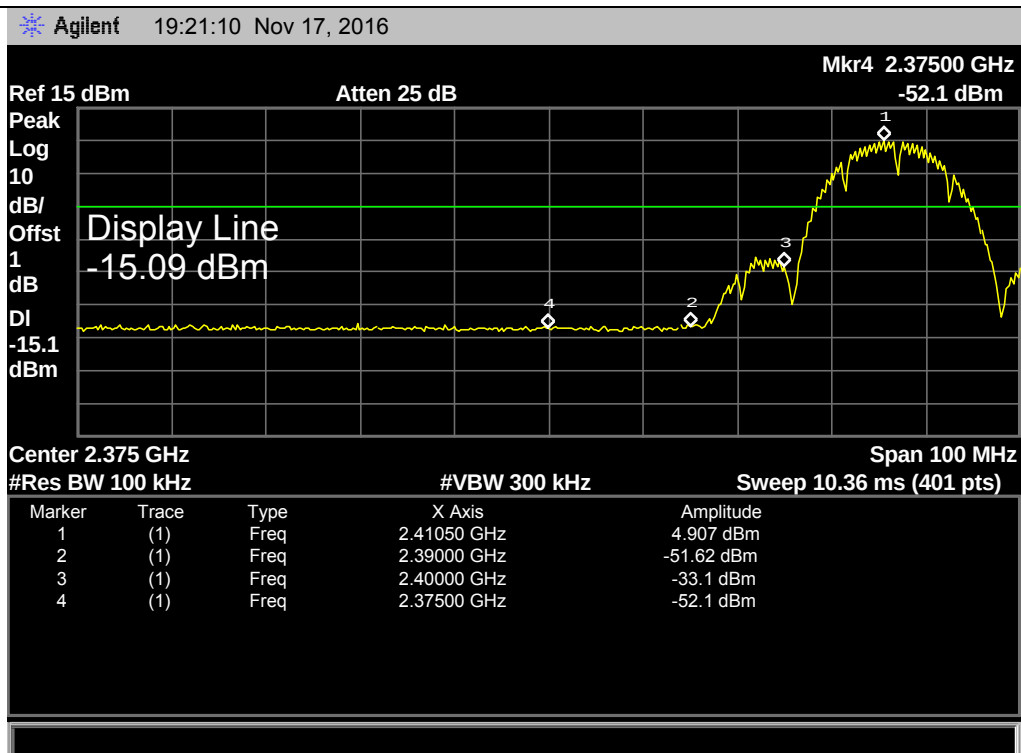
Emission Level= Read Level+ Correct Factor

Margin= Emission Level-Limit

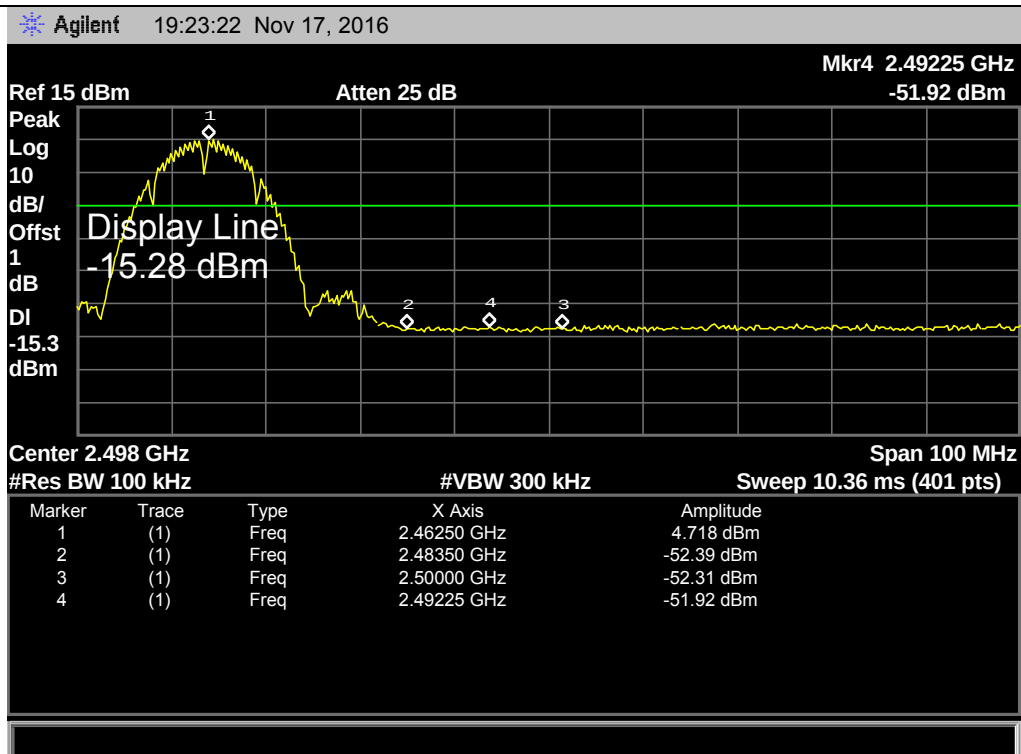
No report for the emission which more than 10 dB below the prescribed limit.

## Bandedge(Conducted Emission)

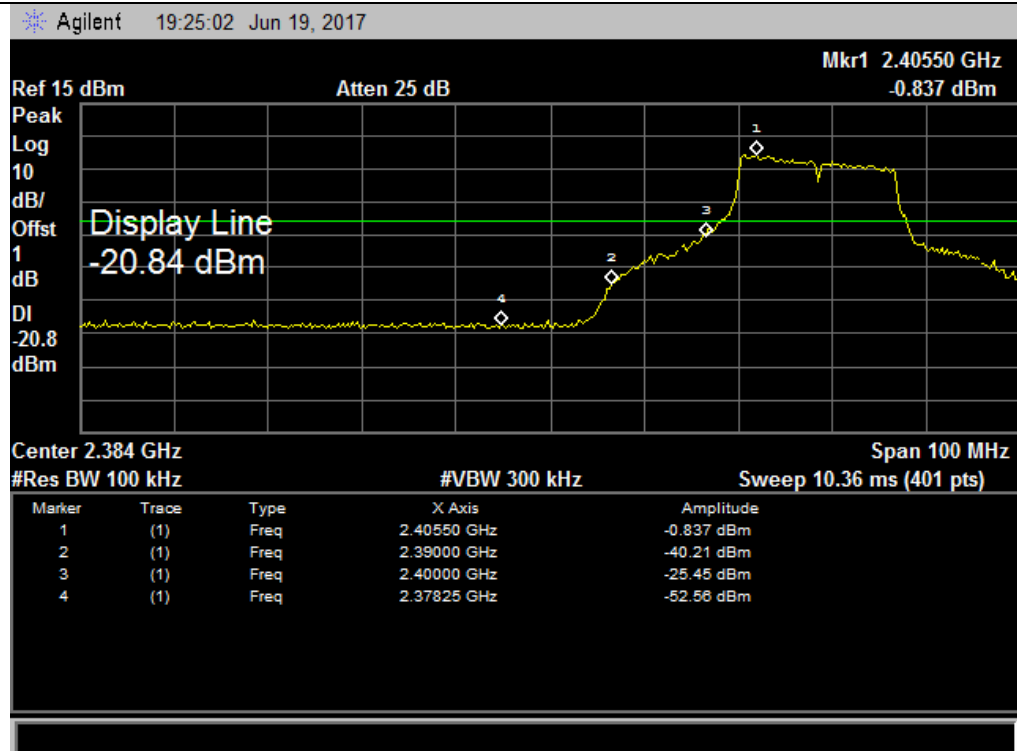
### B Mode Low CH



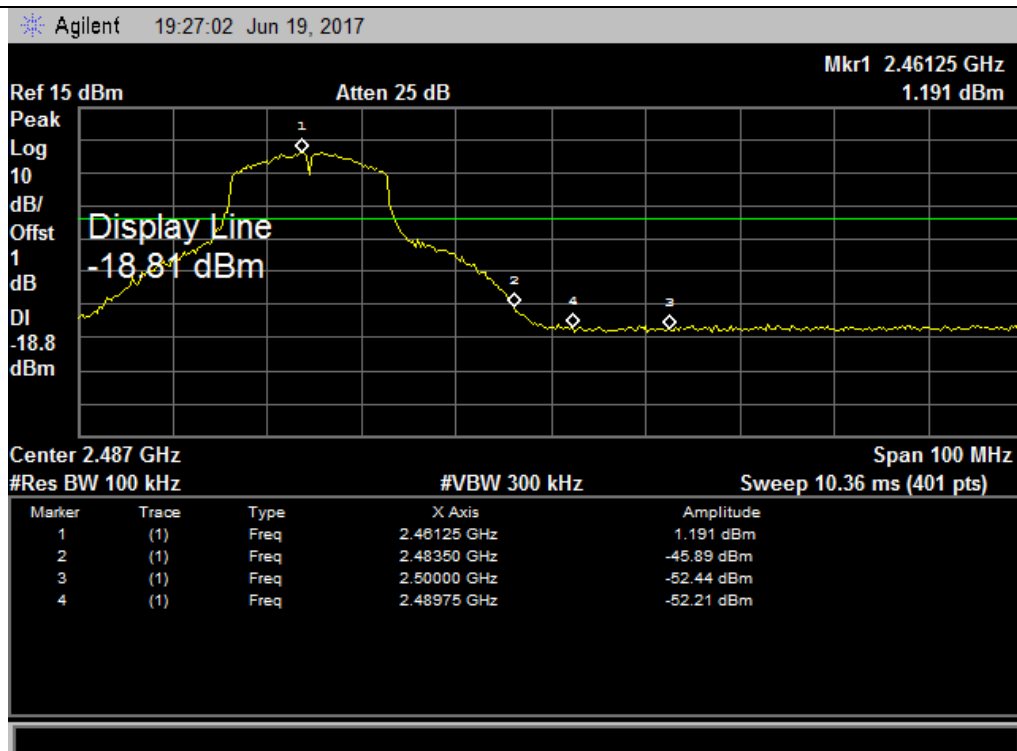
### B Mode High CH



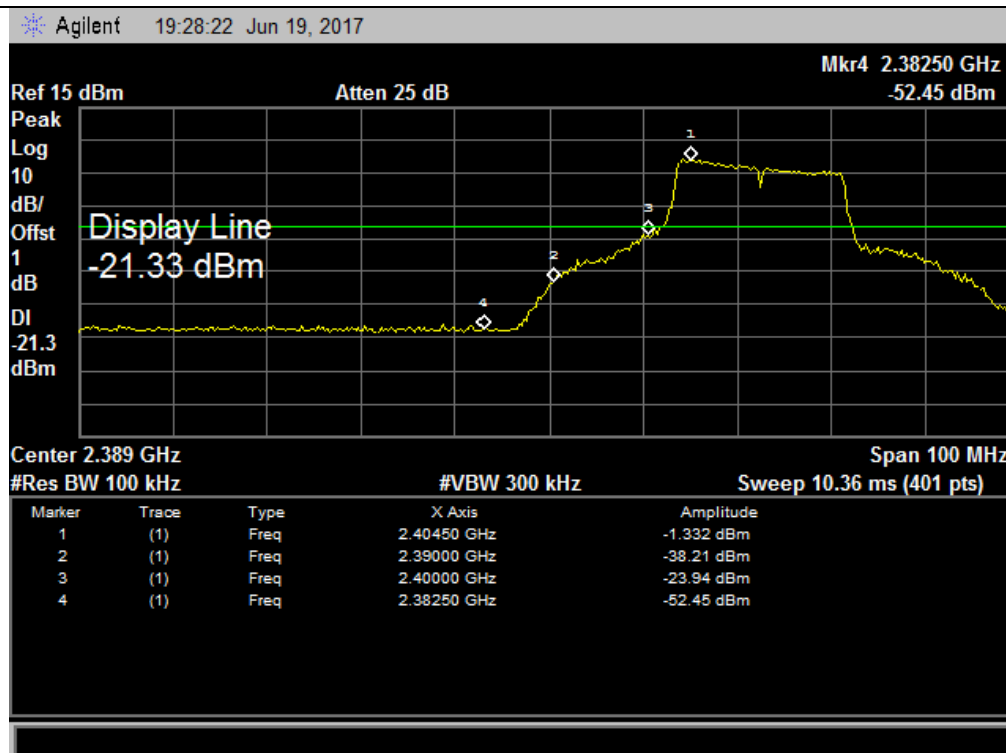
### G Mode Low CH



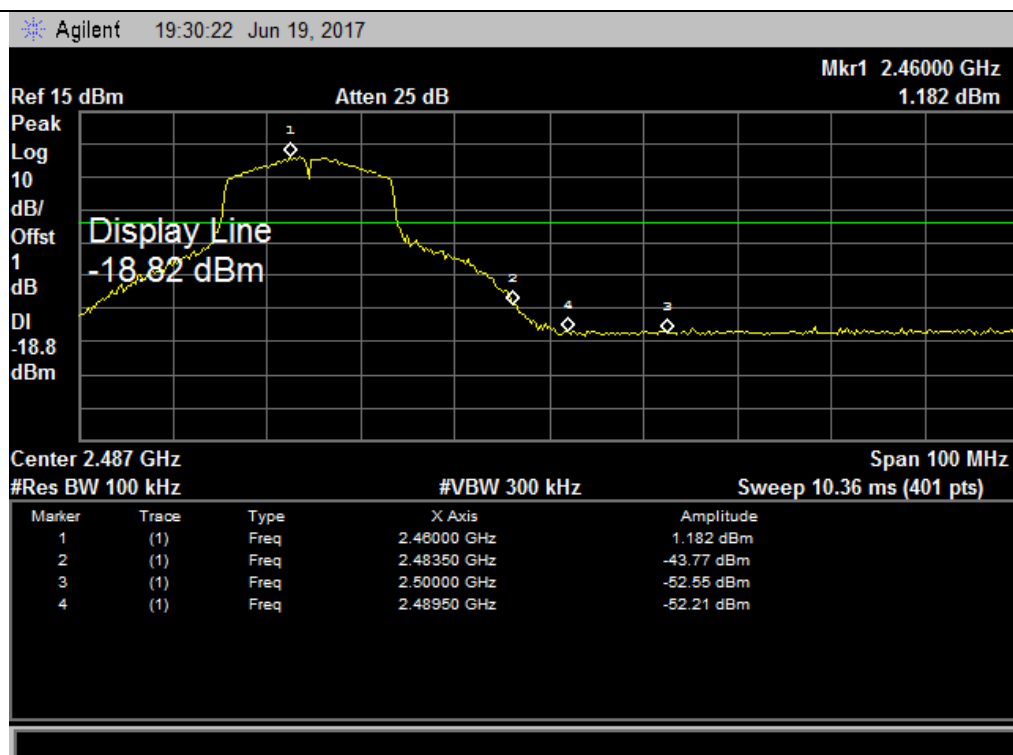
### G Mode High CH



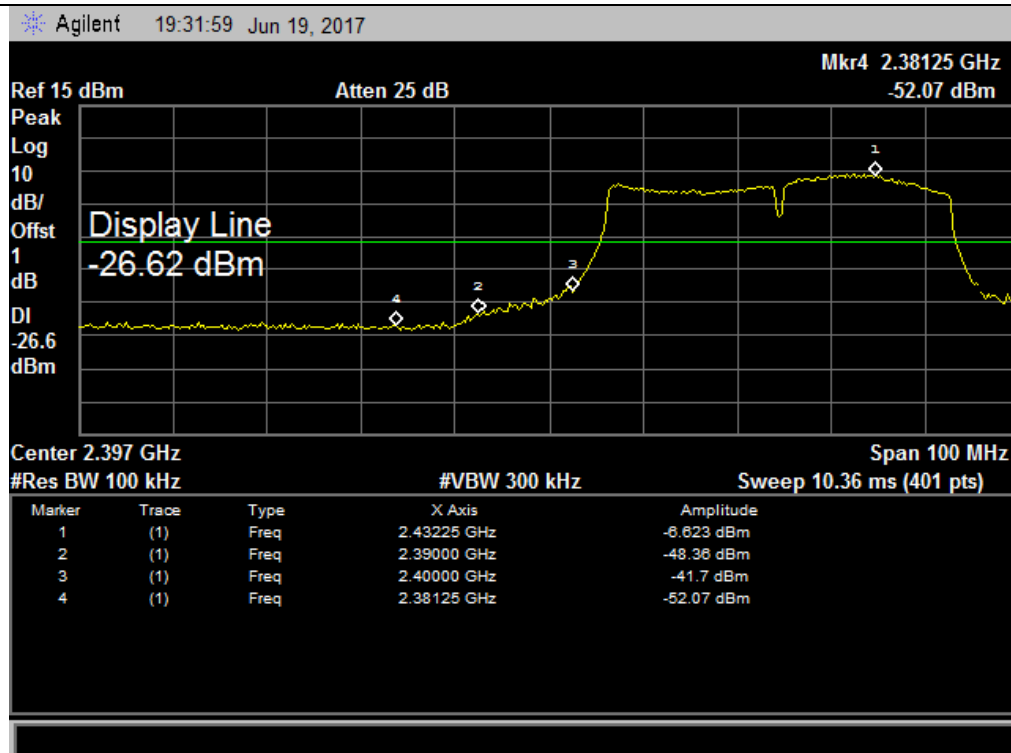
### N(20) Mode Low CH



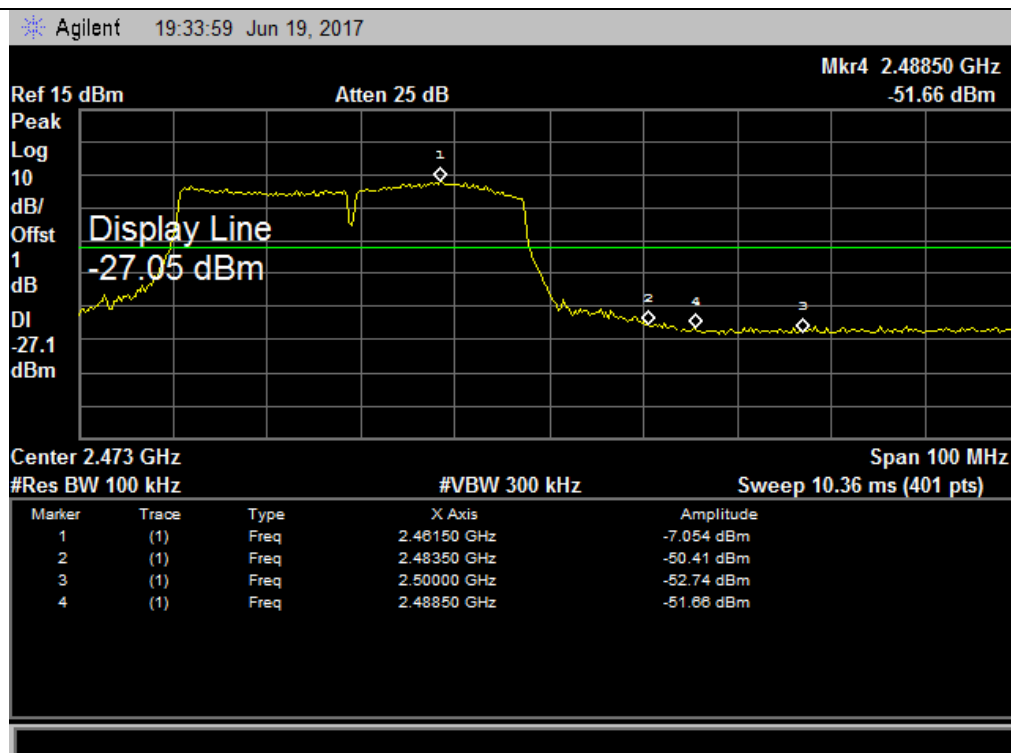
### N(20) Mode High CH



### N(40) Mode Low CH



### N(40) Mode High CH



## 8. ANTENNA REQUIREMENT

### 8.1 REQUIREMENT

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Antenna Requirement<br>(15.203) | An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. |
| Antenna Requirement<br>(15.247) | If transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.                                                                                                                                                                                                                                                                                                                                                |

### 8.2 ANTENNA CONNECTOR CONSTRUCTION

The EUT antenna is a PIFA Antenna. And the maximum gain of this antenna is 0.85 dBi. It complies with the standard requirement.

-----END OF REPORT-----