

## 4.4 POWER SPECTRAL DENSITY

### 4.4.1 Test Limit

According to §15.407 (a)(1), 15.407(a)(2) and 15.407(a)(3)

#### UNII-1 :

**FCC:** The maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

**IC:** The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### UNII-2a and 2c:

The maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### UNII-3:

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.i.

|                  |                                                                                                                                                                                   |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UNII-1 Limit     | <input checked="" type="checkbox"/> Antenna not exceed 6 dBi : 11 dBm (EIRP : 10 dBm)<br><input type="checkbox"/> Antenna with DG greater than 6 dBi :<br>[Limit = 17 – (DG – 6)] |
| UNII-2a/2c Limit | <input checked="" type="checkbox"/> Antenna not exceed 6 dBi : 11 dBm<br><input type="checkbox"/> Antenna with DG greater than 6 dBi :<br>[Limit = 17 – (DG – 6)]                 |
| UNII-3 Limit     | <input checked="" type="checkbox"/> Antenna not exceed 6 dBi : 30 dBm<br><input type="checkbox"/> Antenna with DG greater than 6 dBi :<br>[Limit = 30 – (DG – 6)]                 |

### 4.4.2 Test Procedure

Test method Refer as KDB 789033 D02 v01r03, Section F

1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. UNII-1, UNII-2a and UNII-2c, SA set RBW = 1MHz, VBW = 3MHz and Detector = RMS, to measurement Power Density.
4. UNII-3, SA set RBW = 500kHz, VBW = 2MHz and Detector = RMS, to measurement Power Density
5. The path loss and Duty Factor were compensated to the results for each measurement by SA.
6. Mark the maximum level.
7. Measure and record the result of power spectral density. in the test report.

### 4.4.3 Test Setup



## 4.4.4 Test Result

| UNII-1 5150-5250 MHz              |                 |                    |                    |                  |             |                  |
|-----------------------------------|-----------------|--------------------|--------------------|------------------|-------------|------------------|
| Test mode: IEEE 802.11a mode      |                 |                    |                    |                  |             |                  |
| Channel                           | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) | EIRP Limit (dBm) |
| Low                               | 5180            | 2.81               | -                  | 2.81             | 11          | 10               |
| Mid                               | 5220            | 2.99               | -                  | 2.99             |             |                  |
| High                              | 5240            | 3.03               | -                  | 3.03             |             |                  |
| Test mode: IEEE 802.11n HT20 mode |                 |                    |                    |                  |             |                  |
| Channel                           | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) | EIRP Limit (dBm) |
| Low                               | 5180            | 1.16               | 1.02               | 4.10             | 11          | 10               |
| Mid                               | 5220            | 1.34               | -1.76              | 3.07             |             |                  |
| High                              | 5240            | 1.23               | -1.77              | 2.99             |             |                  |
| Test mode: IEEE 802.11n HT40 mode |                 |                    |                    |                  |             |                  |
| Channel                           | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) | EIRP Limit (dBm) |
| Low                               | 5190            | -2.68              | -2.01              | 0.68             | 11          | 10               |
| High                              | 5230            | -2.64              | -2.54              | 0.42             |             |                  |

| UNII-2a 5250-5350 MHz             |                 |                    |                    |                  |             |
|-----------------------------------|-----------------|--------------------|--------------------|------------------|-------------|
| Test mode: IEEE 802.11a mode      |                 |                    |                    |                  |             |
| Channel                           | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) |
| Low                               | 5260            | 4.38               | -                  | 4.38             | 11          |
| Mid                               | 5280            | 4.10               | -                  | 4.10             |             |
| High                              | 5320            | 4.31               | -                  | 4.31             |             |
| Test mode: IEEE 802.11n HT20 mode |                 |                    |                    |                  |             |
| Channel                           | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) |
| Low                               | 5260            | 1.79               | 2.16               | 4.99             | 11          |
| Mid                               | 5280            | 2.08               | 2.48               | 5.29             |             |
| High                              | 5320            | 2.28               | 2.25               | 5.28             |             |
| Test mode: IEEE 802.11n HT40 mode |                 |                    |                    |                  |             |
| Channel                           | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) |
| Low                               | 5270            | -0.52              | -0.53              | 2.49             | 11          |
| High                              | 5310            | -0.70              | -0.86              | 2.23             |             |

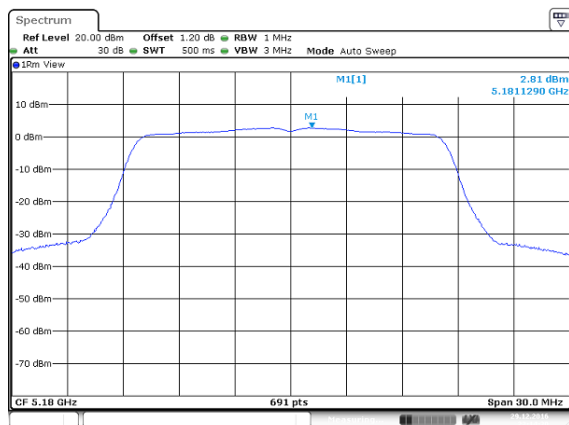
| UNII-2c 5470-5725 MHz             |                 |                    |                    |                  |             |
|-----------------------------------|-----------------|--------------------|--------------------|------------------|-------------|
| Test mode: IEEE 802.11a mode      |                 |                    |                    |                  |             |
| Channel                           | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) |
| Low                               | 5500            | 3.51               | -                  | 3.51             | 11          |
| Mid                               | 5580            | 4.51               | -                  | 4.51             |             |
| High                              | 5700            | 3.97               | -                  | 3.97             |             |
| Cross                             | 5720            | 3.76               | -                  | 3.76             |             |
| Test mode: IEEE 802.11n HT20 mode |                 |                    |                    |                  |             |
| Channel                           | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) |
| Low                               | 5500            | 2.16               | 1.80               | 4.99             | 11          |
| Mid                               | 5580            | 2.71               | 2.18               | 5.46             |             |
| High                              | 5700            | 2.22               | 2.02               | 5.13             |             |
| Cross                             | 5720            | 1.82               | 2.43               | 5.15             |             |
| Test mode: IEEE 802.11n HT40 mode |                 |                    |                    |                  |             |
| Channel                           | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) |
| Low                               | 5510            | -1.01              | -0.77              | 2.12             | 11          |
| High                              | 5670            | -0.64              | -0.95              | 2.22             |             |
| Cross                             | 5710            | -1.72              | -0.93              | 1.70             |             |

| UNII-3 5725-5825 MHz              |                 |                    |                    |                  |             |
|-----------------------------------|-----------------|--------------------|--------------------|------------------|-------------|
| Test mode: IEEE 802.11a mode      |                 |                    |                    |                  |             |
| Channel                           | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) |
| Low                               | 5745            | 1.42               | -                  | 1.42             | 30          |
| Mid                               | 5785            | 2.13               | -                  | 2.13             |             |
| High                              | 5825            | 2.37               | -                  | 2.37             |             |
| Cross                             | 5720            | 0.12               | -                  | 0.12             |             |
| Test mode: IEEE 802.11n HT20 mode |                 |                    |                    |                  |             |
| Channel                           | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) |
| Low                               | 5745            | -0.25              | -0.38              | 2.70             | 30          |
| Mid                               | 5785            | 0.52               | 0.11               | 3.33             |             |
| High                              | 5825            | 0.21               | 0.02               | 3.13             |             |
| Cross                             | 5720            | -1.41              | -1.59              | 1.51             |             |
| Test mode: IEEE 802.11n HT40 mode |                 |                    |                    |                  |             |
| Channel                           | Frequency (MHz) | Chain 0 PPSD (dBm) | Chain 1 PPSD (dBm) | Total PPSD (dBm) | Limit (dBm) |
| Low                               | 5755            | -4.41              | -4.31              | -1.35            | 30          |
| High                              | 5795            | -4.42              | -4.17              | -1.28            |             |
| Cross                             | 5710            | -5.12              | -4.37              | -1.72            |             |

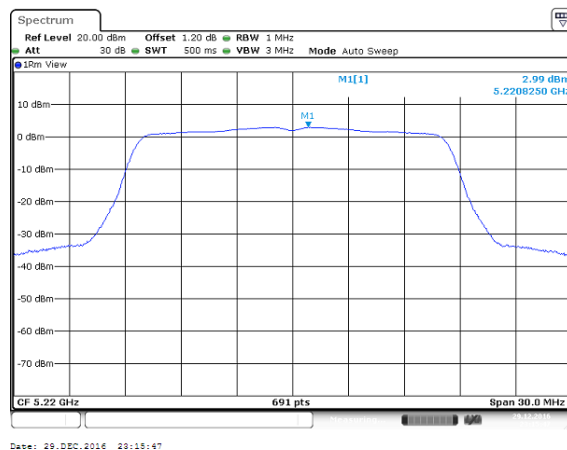
## Test Data

### UNII-1 IEEE 802.11a mode- chain 0

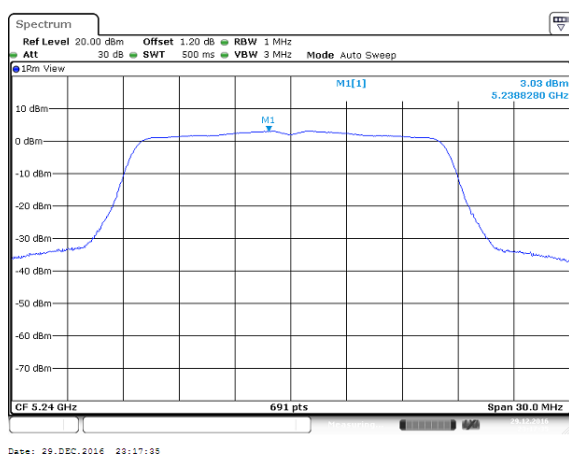
#### Low CH



#### Mid CH

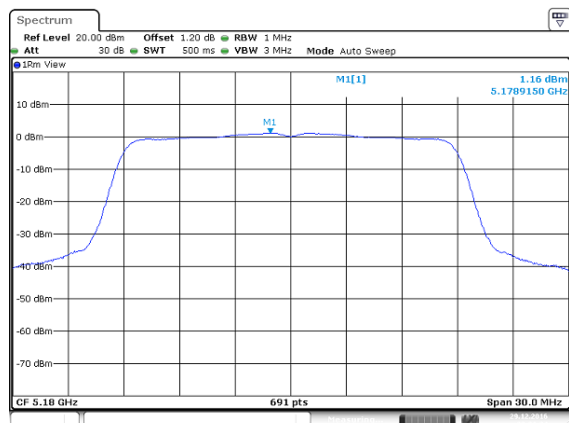


#### High CH



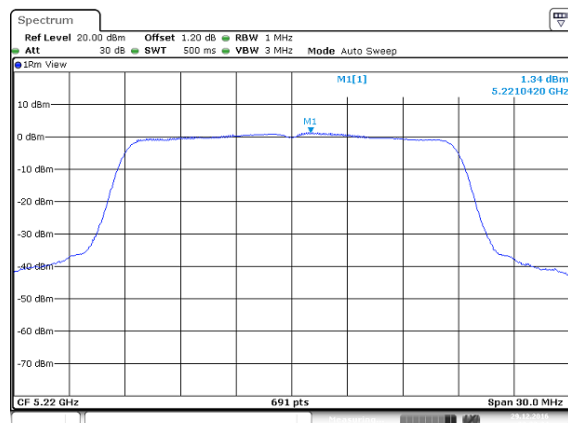
**UNII-1 IEEE 802.11n HT20 mode- chain 0**

**Low CH**



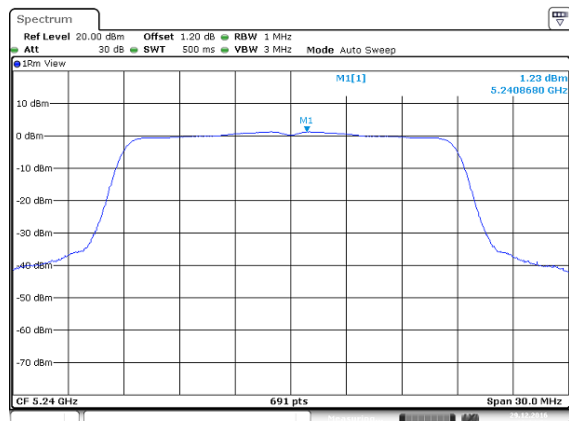
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**Mid CH**



Date: 29.DEC.2016 23:22:36

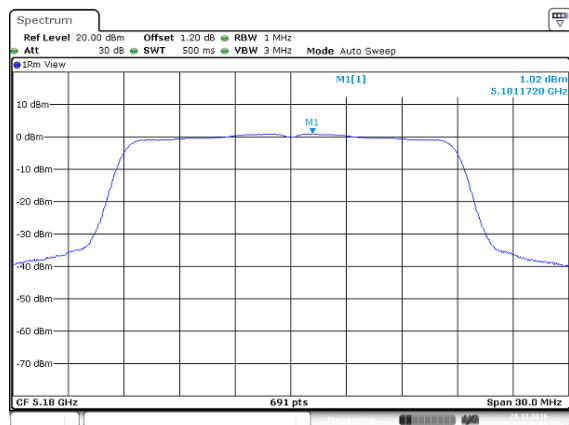
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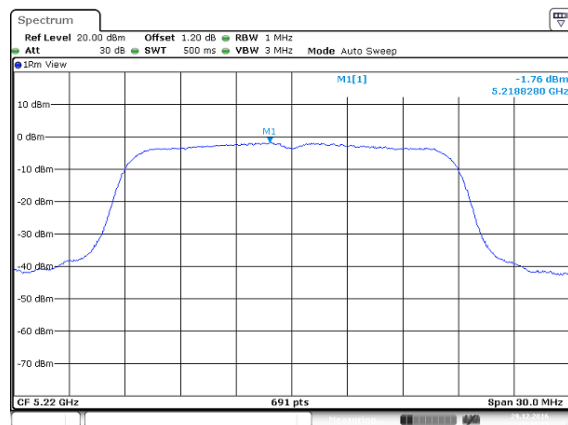
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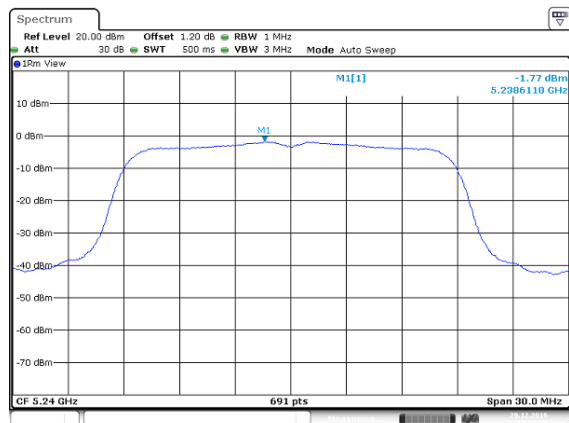
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## Mid CH



Date: 29.DEC.2016 23:40:35

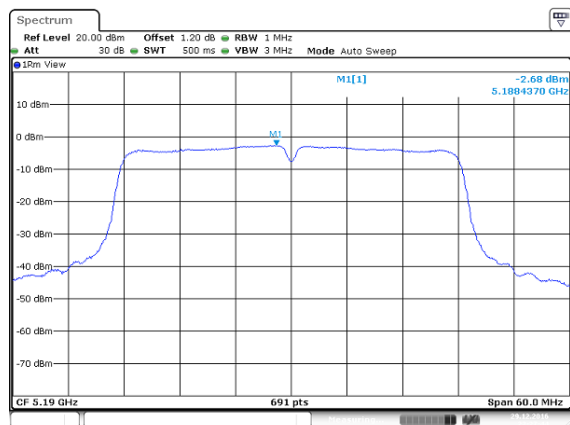
## High CH



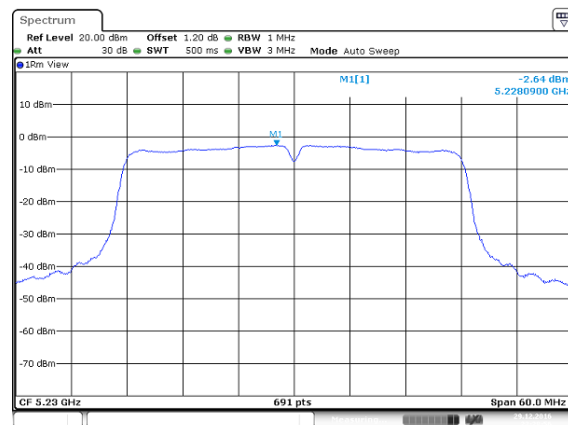
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### UNII-1 IEEE 802.11n HT40 mode- chain 0

#### Low CH

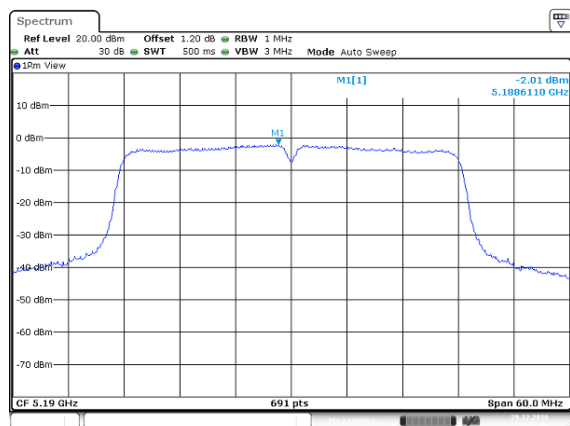


#### High CH

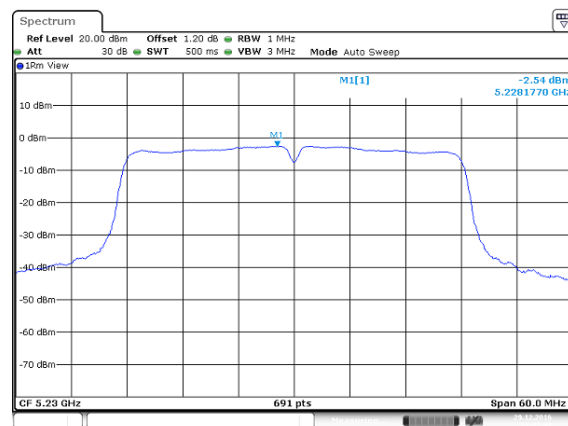


### UNII-1 IEEE 802.11n HT40 mode- chain 1

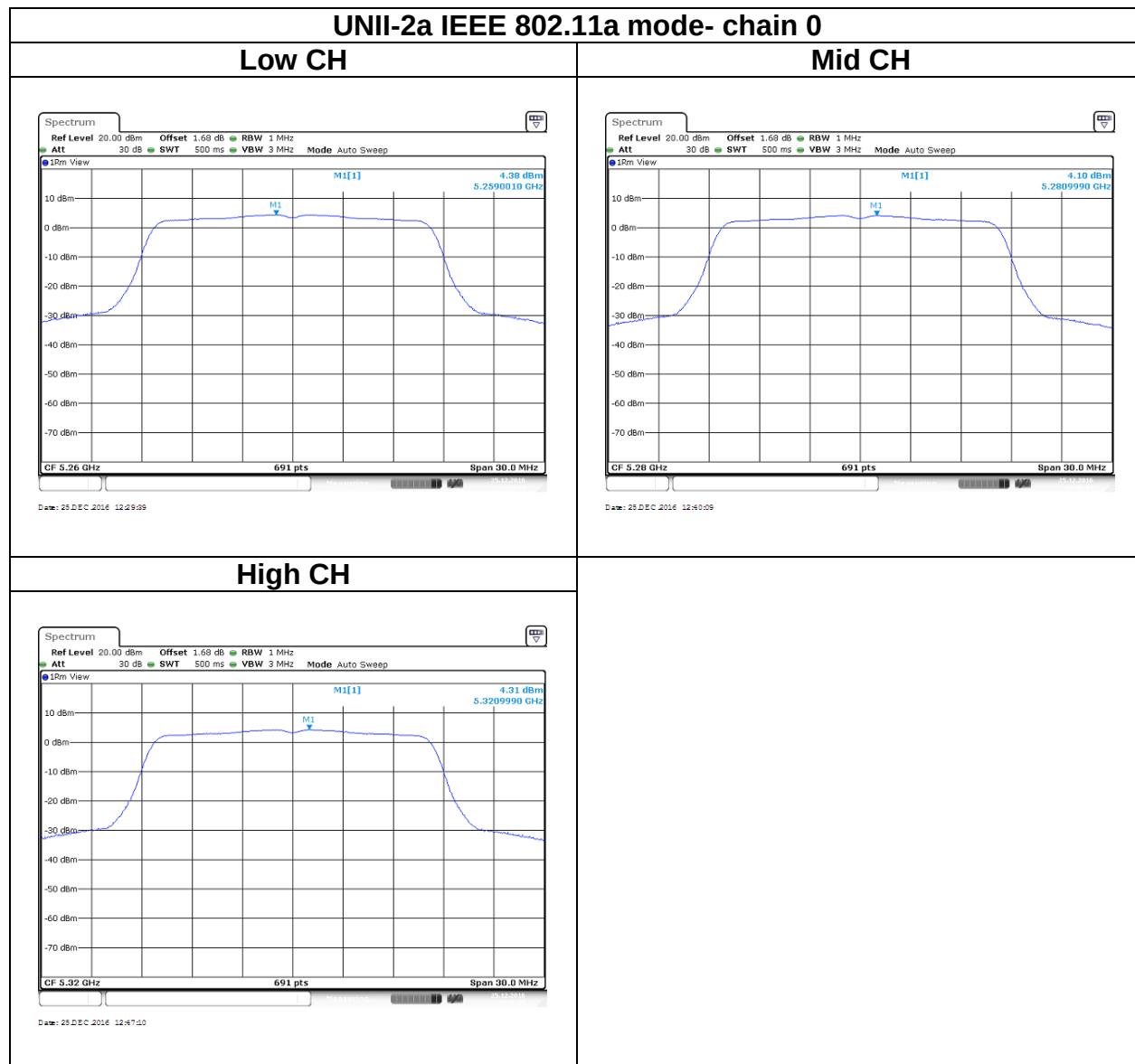
#### Low CH



#### High CH

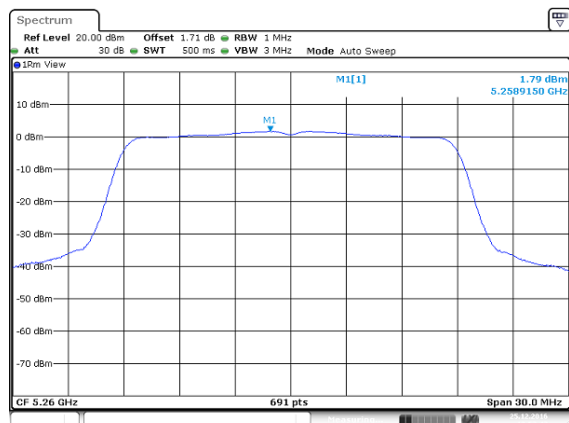


## Test Data



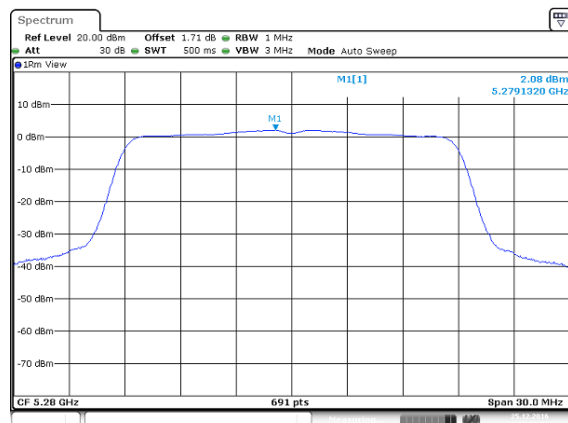
**UNII-2a IEEE 802.11n HT20 mode- chain 0**

**Low CH**



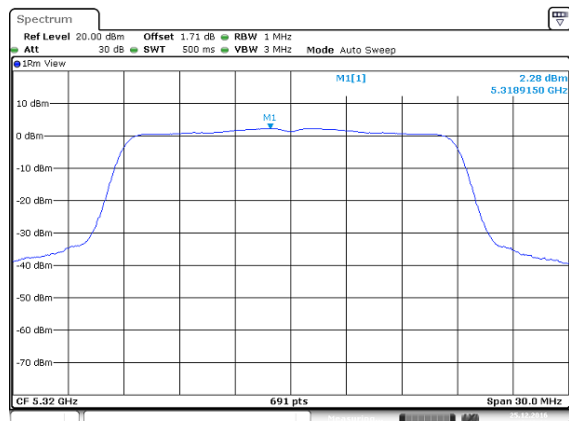
Date: 25 DEC 2016 12:57:47

**Mid CH**



Date: 25 DEC 2016 13:02:02

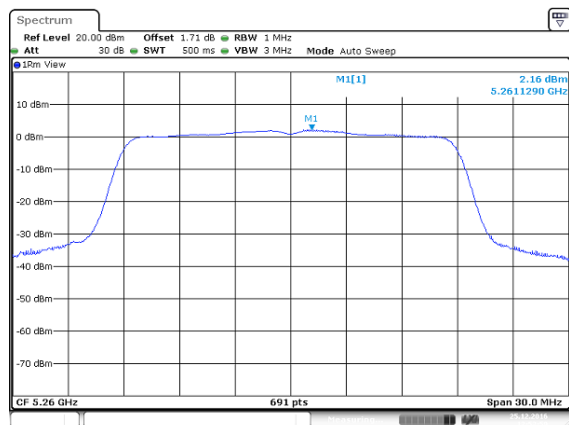
**High CH**



Date: 25 DEC 2016 13:22:23

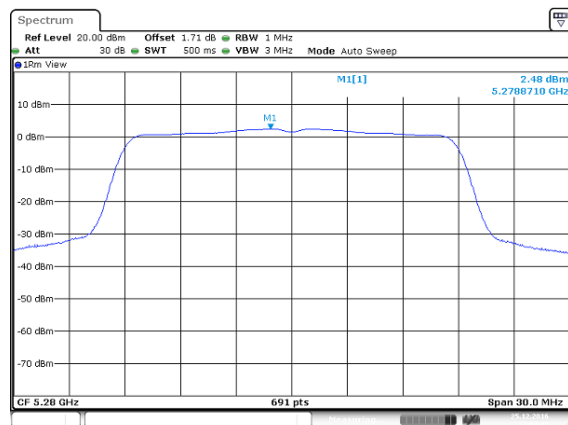
**UNII-2a IEEE 802.11n HT20 mode- chain 1**

**Low CH**



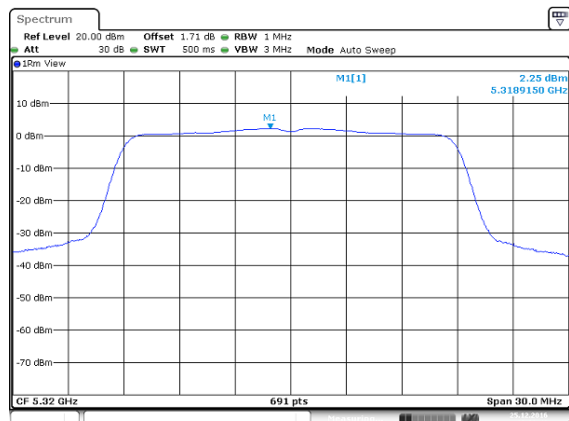
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**Mid CH**



Date: 25 DEC 2016 13:04:49

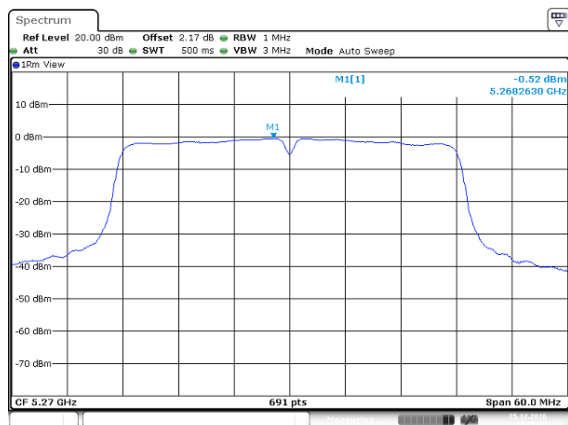
**High CH**



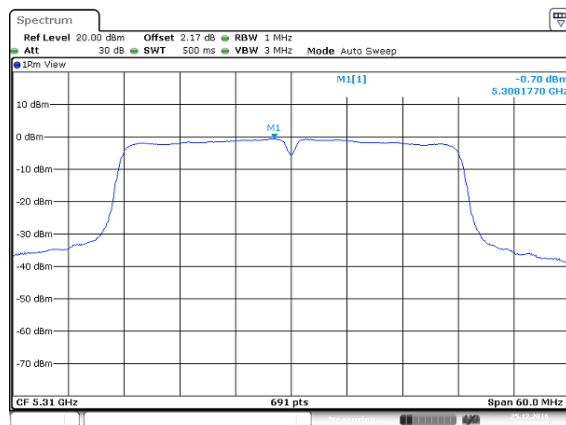
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### UNII-2a IEEE 802.11n HT40 mode- chain 0

#### Low CH

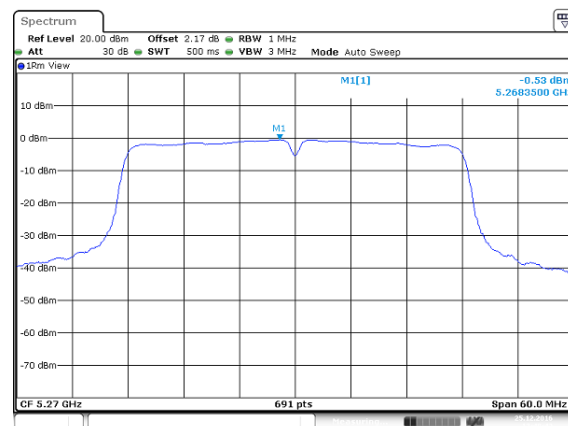


#### High CH

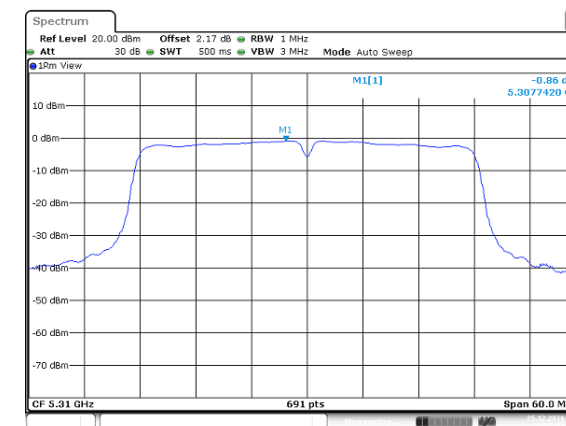


### UNII-2a IEEE 802.11n HT40 mode- chain 1

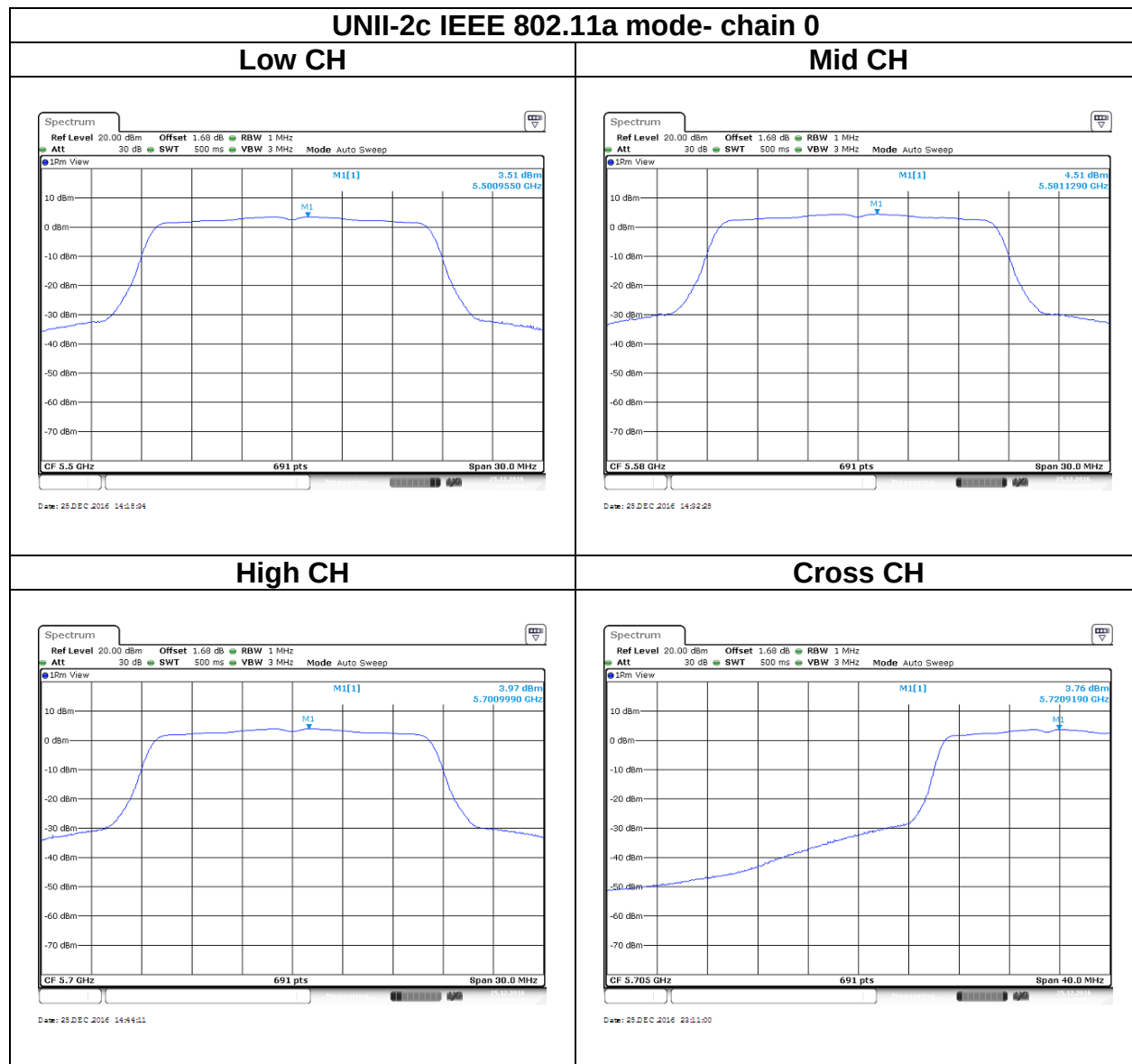
#### Low CH



#### High CH

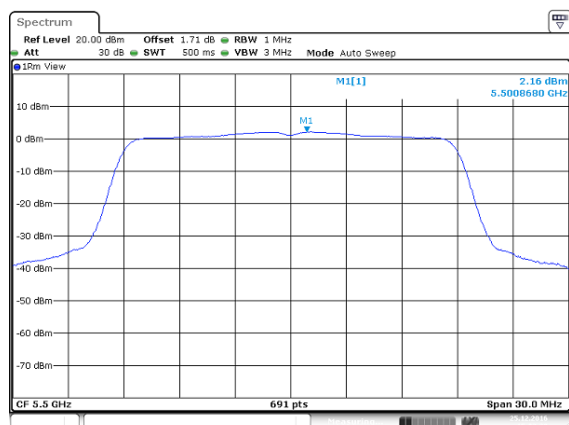


## Test Data



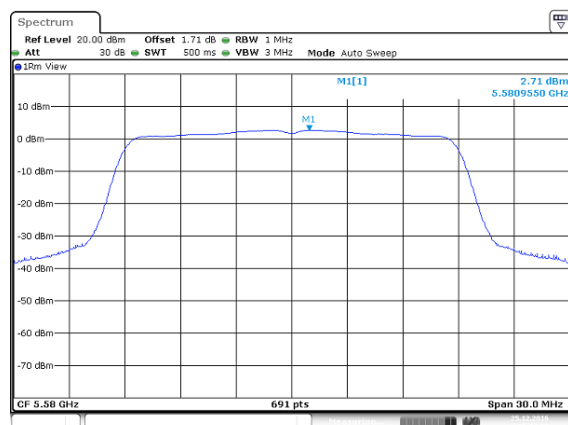
**UNII-2c IEEE 802.11n HT20 mode- chain 0**

**Low CH**



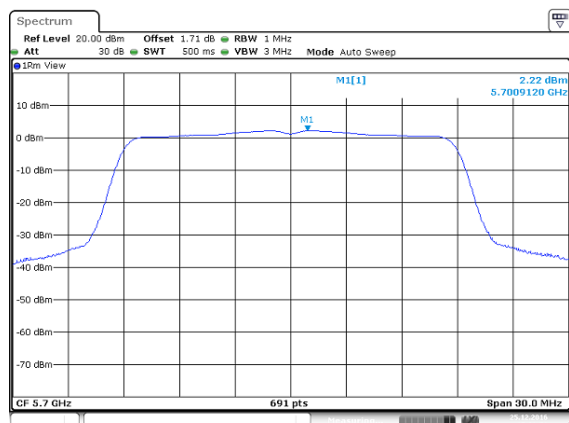
Date: 25 DEC 2016 15:02:29

**Mid CH**



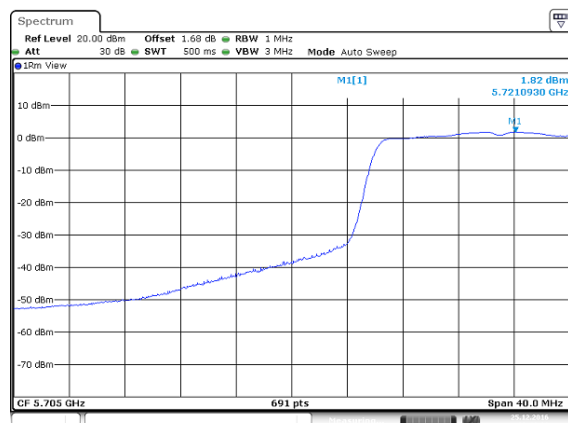
Date: 25 DEC 2016 15:04:56

**High CH**



Date: 25 DEC 2016 15:20:57

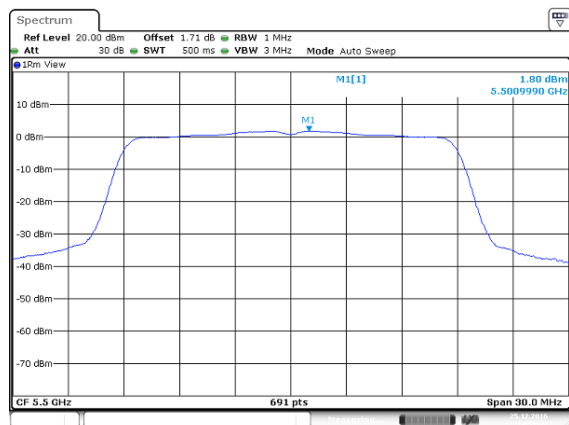
**Cross CH**



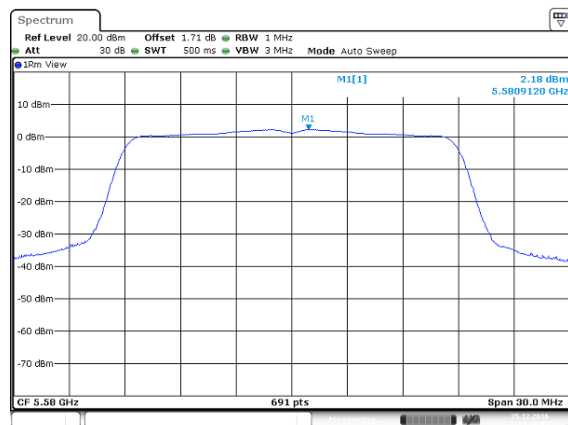
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**UNII-2c IEEE 802.11n HT20 mode- chain 1**

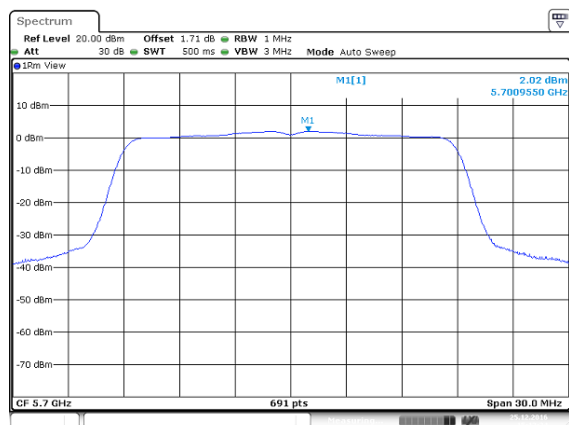
**Low CH**



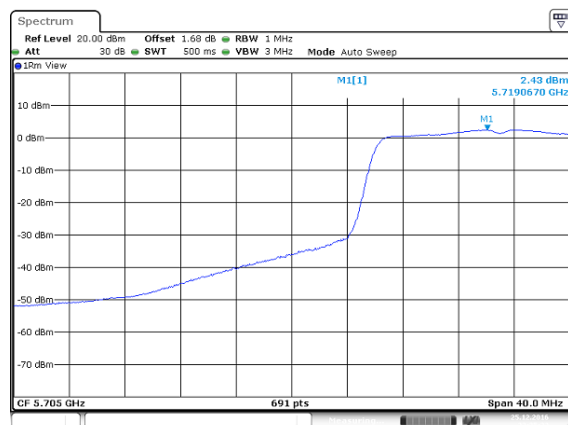
**Mid CH**



**High CH**

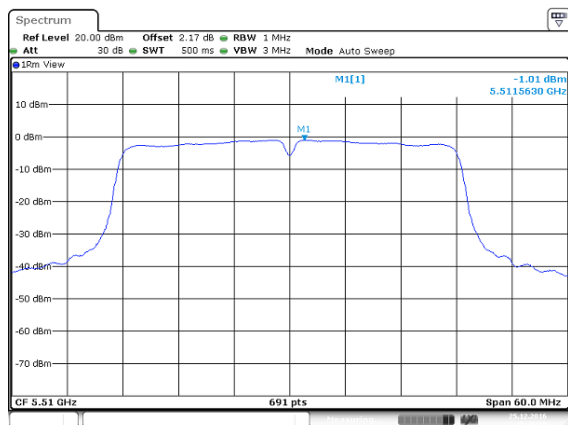


**Cross CH**



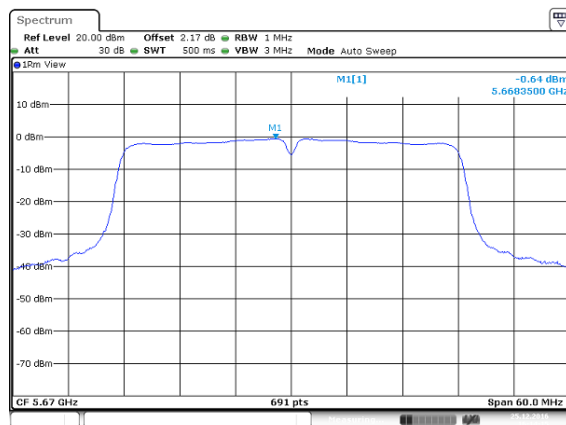
**UNII-2c IEEE 802.11n HT40 mode- chain 0**

**Low CH**



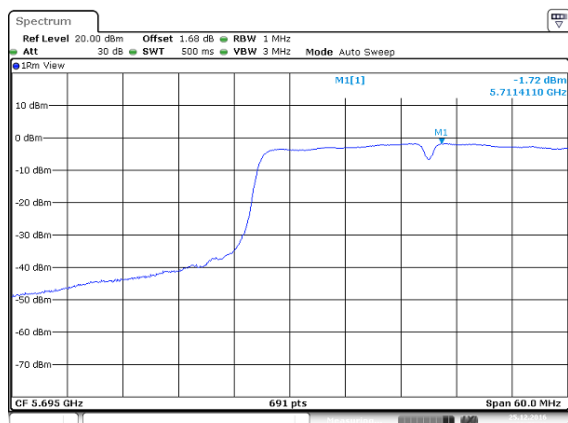
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**High CH**



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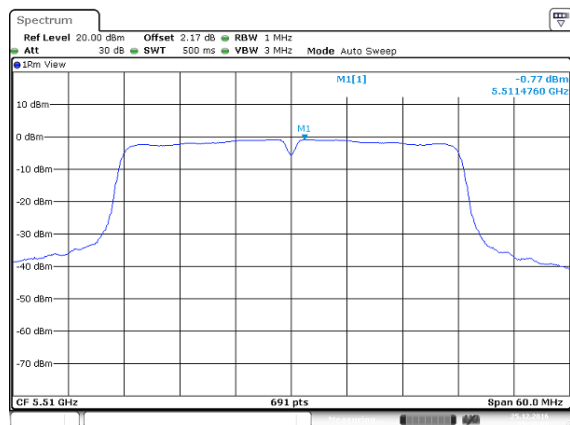
**Cross CH**



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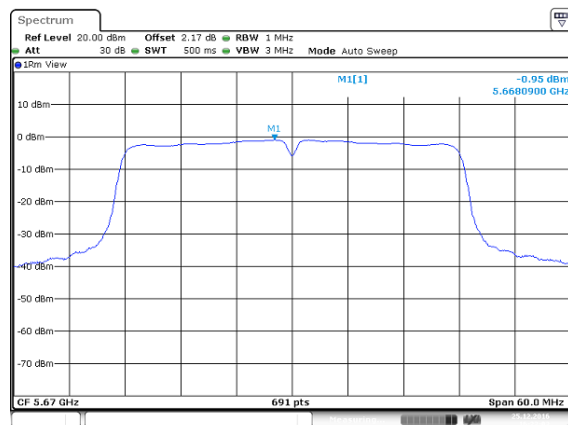
**UNII-2c IEEE 802.11n HT40 mode- chain 1**

**Low CH**



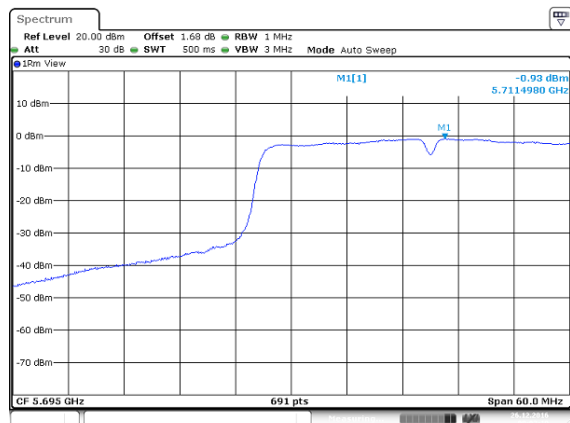
Date: 25 DEC 2016 15:56:08

**High CH**



Date: 25 DEC 2016 16:23:09

**Cross CH**

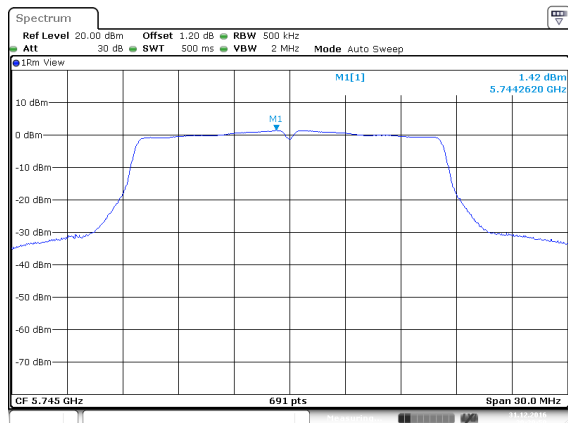


Date: 26 DEC 2016 00:02:11

## Test Data

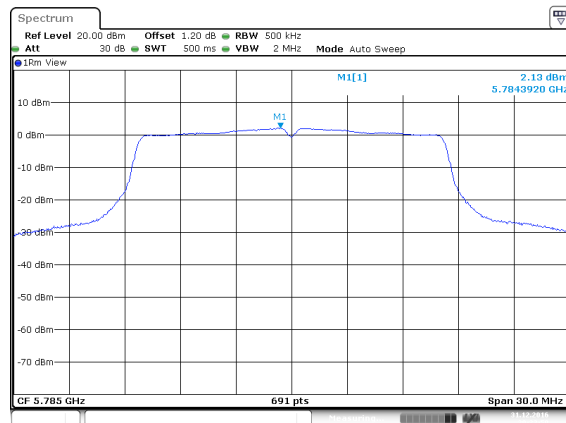
### UNII-3 IEEE 802.11a mode- chain 0

#### Low CH



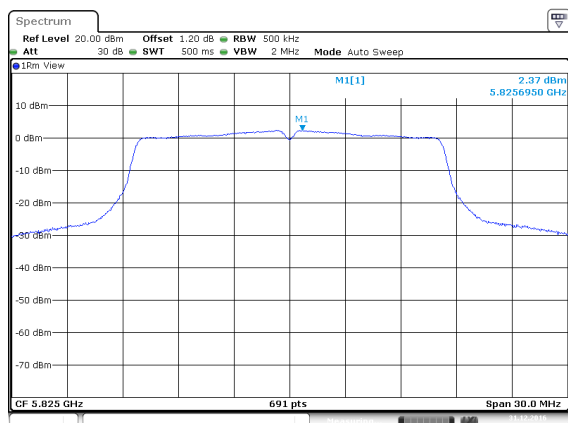
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#### Mid CH



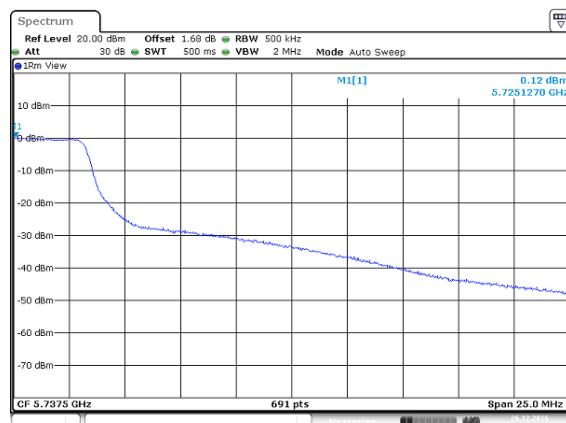
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#### High CH



Date: 31 DEC 2016 20:35:48

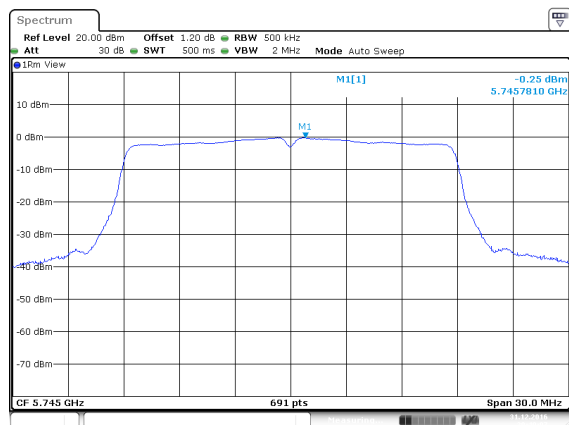
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Date: 26 DEC 2016 17:40:21

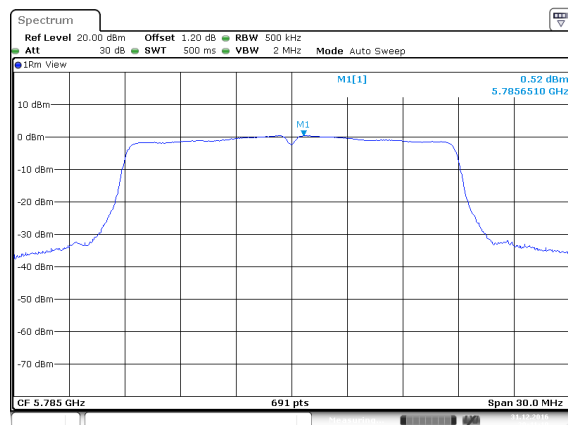
**UNII-3 IEEE 802.11n HT20 mode- chain 0**

**Low CH**



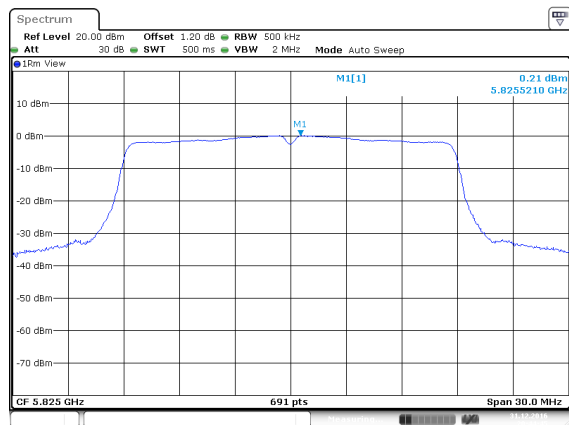
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**Mid CH**



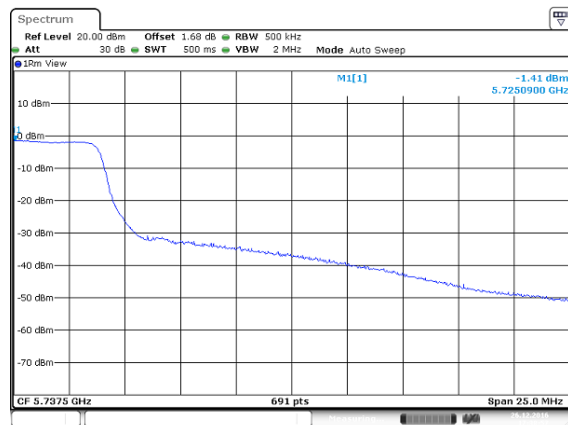
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**High CH**



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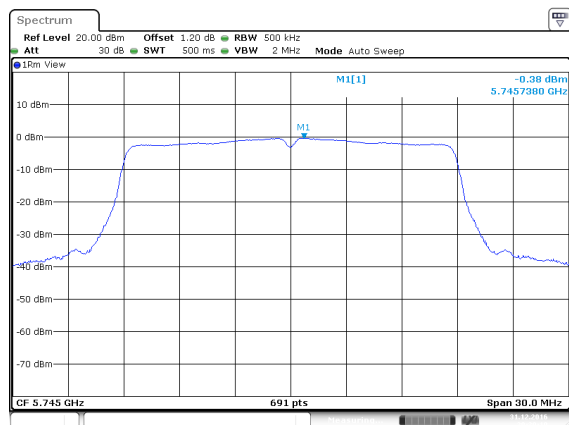
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Date: 26 DEC 2016 17:48:57

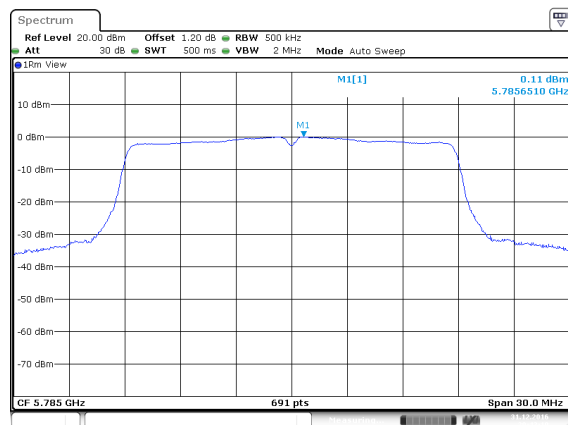
## UNII-3 IEEE 802.11n HT20 mode- chain 1

### Low CH



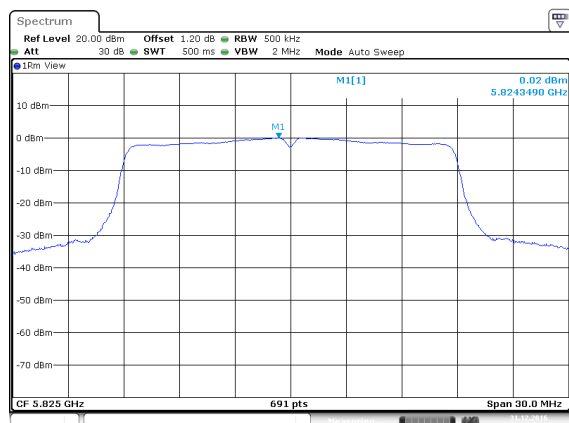
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### Mid CH



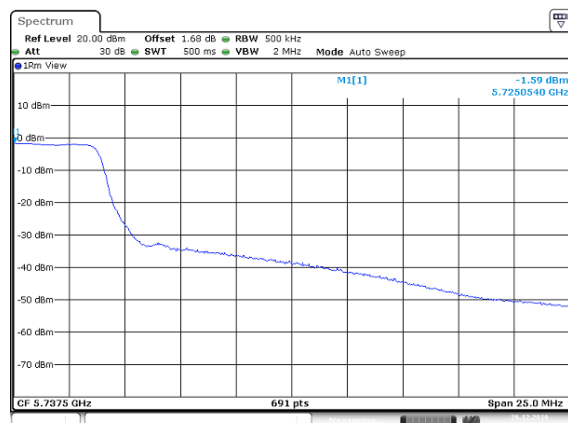
Date: 31 DEC 2016 20:42:10

### High CH



Date: 31 DEC 2016 20:43:07

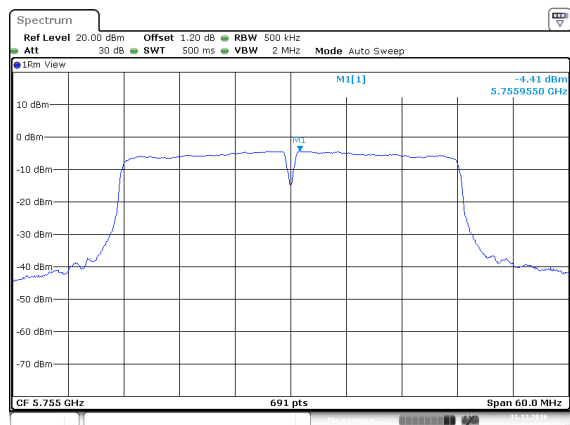
### Cross CH



Date: 26 DEC 2016 17:47:53

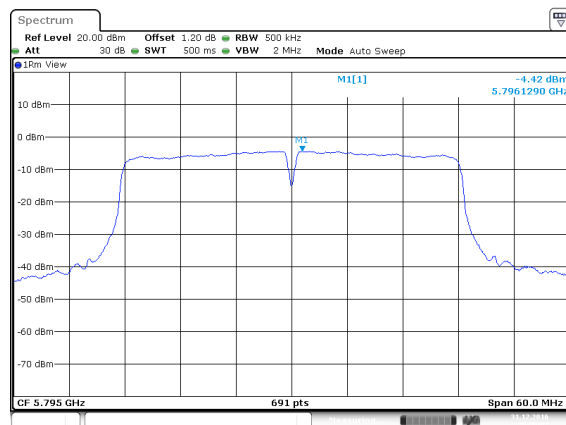
## UNII-3 IEEE 802.11n HT40 mode- chain 0

### Low CH



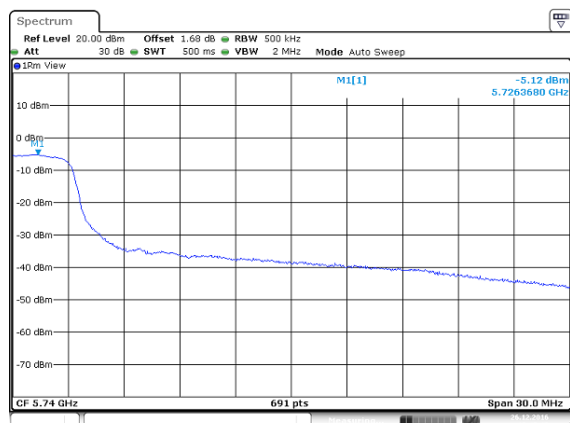
Date: 31 DEC 2016 20:47:17

### High CH



Date: 31 DEC 2016 20:50:02

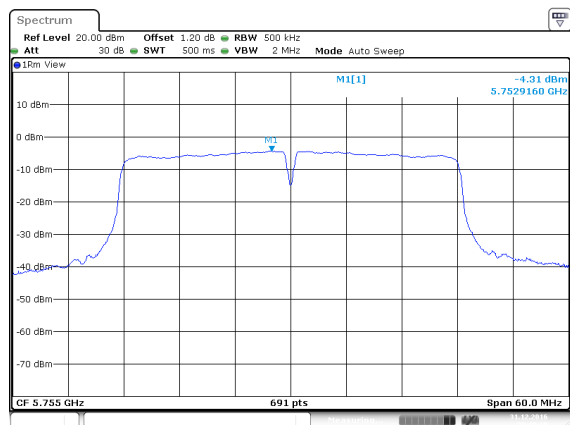
### Cross CH



Date: 26 DEC 2016 17:45:17

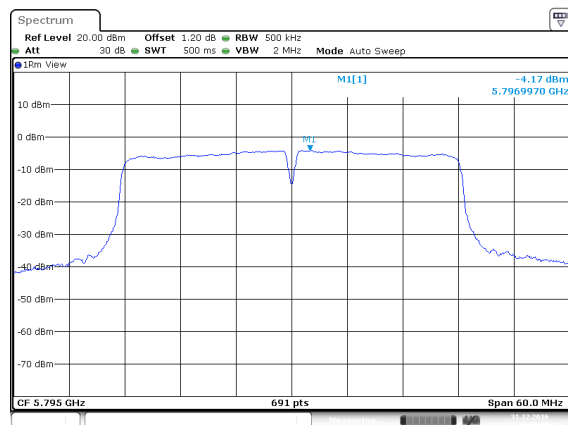
## UNII-3 IEEE 802.11n HT40 mode- chain 1

### Low CH



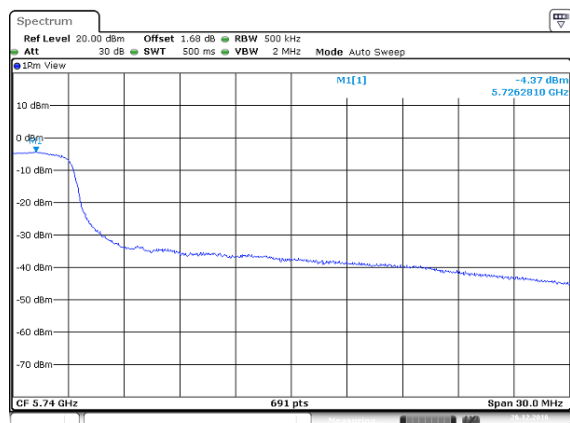
Date: 31 DEC 2016 20:48:10

### High CH



Date: 31 DEC 2016 20:49:10

### Cross CH



Date: 26 DEC 2016 17:49:27

## 4.5 RADIATION Bandedge and Spurious Emission

### 4.5.1 Test Limit

FCC according to §15.407, §15.209 and §15.205,

#### Below 30 MHz

| Frequency     | Field Strength<br>(microvolts/m) | Magnetic<br>H-Field<br>(microamperes/m) | Measurement<br>Distance<br>(metres) |
|---------------|----------------------------------|-----------------------------------------|-------------------------------------|
| 9-490 kHz     | 2,400/F (F in kHz)               | 2,400/F (F in kHz)                      | 300                                 |
| 490-1,705 kHz | 24,000/F (F in kHz)              | 24,000/F (F in kHz)                     | 30                                  |
| 1.705-30 MHz  | 30                               | N/A                                     | 30                                  |

#### Above 30 MHz

| Frequency<br>(MHz) | Field Strength<br>microvolts/m at 3 metres (watts, e.i.r.p.) |              |
|--------------------|--------------------------------------------------------------|--------------|
|                    | Transmitters                                                 | Receivers    |
| 30-88              | 100 (3 nW)                                                   | 100 (3 nW)   |
| 88-216             | 150 (6.8 nW)                                                 | 150 (6.8 nW) |
| 216-960            | 200 (12 nW)                                                  | 200 (12 nW)  |
| Above 960          | 500 (75 nW)                                                  | 500 (75 nW)  |

#### UNII-1 :

For transmitters operating in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. However, any unwanted emissions that fall into the band 5250-5350 MHz must be 26 dBc, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth, above 5.25 GHz. Otherwise, the transmission is considered as intentional and the devices shall implement dynamic frequency selection (DFS) and transmitter power control (TPC) as per the requirements for the band 5250-5350 MHz

#### UNII-2a and 2c :

For devices with operating frequencies in the band 5250-5350 MHz but having a channel bandwidth that overlaps the band 5150-5250 MHz, the devices' unwanted emission shall not exceed -27 dBm/MHz e.i.r.p. outside the band 5150-5350 MHz and its power shall comply with the spectral power density for operation within the band 5150-5250 MHz. The device shall be labelled "for indoor use only." Emissions outside the band 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

#### UNII-3:

For the band 5725-5850 MHz, emissions at frequencies from the band edges to 10 MHz above or below the band edges shall not exceed -17 dBm/MHz e.i.r.p.

For emissions at frequencies more than 10 MHz above or below the band edges, the emissions power shall not exceed -27 dBm/MHz

## 4.5.2 Test Procedure

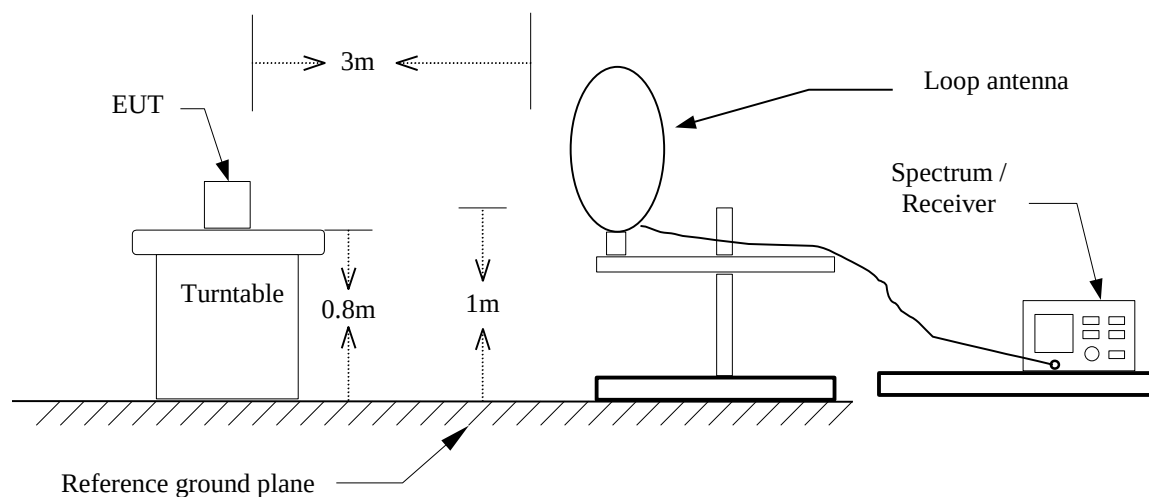
Test method Refer as KDB 789033 D02 v01r03, Section G.3, G.4, G.5, and G.6,.

1. The EUT is placed on a turntable, Above 1 GHz is 1.5m and below 1 GHz is 0.8m above ground plane. The EUT Configured un accordance with ANSI C63.10, and the EUT set in a continuous mode.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. And EUT is set 3m away from the receiving antenna, which is scanned from 1m to 4m above the ground plane to find out the highest emissions. Measurement are made polarized in both the vertical and the horizontal positions with antenna.
3. Span shall wide enough to full capture the emission measured. The SA from 30MHz to 26.5GHz set to the low, Mid and High channels with the EUT transmit.
5. The SA setting following :
  - (1) Below 1G : RBW = 100kHz, VBW  $\geq 3 \times$  RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
  - (2) Above 1G :
    - (2.1) For Peak measurement : RBW = 1MHz, VBW  $\geq 3$  RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
    - (2.2) For Average measurement : RBW = 1MHz, VBW
      - If Duty Cycle  $\geq 98\%$ , VBW=10Hz.
      - If Duty Cycle  $< 98\%$ , VBW=1/T.

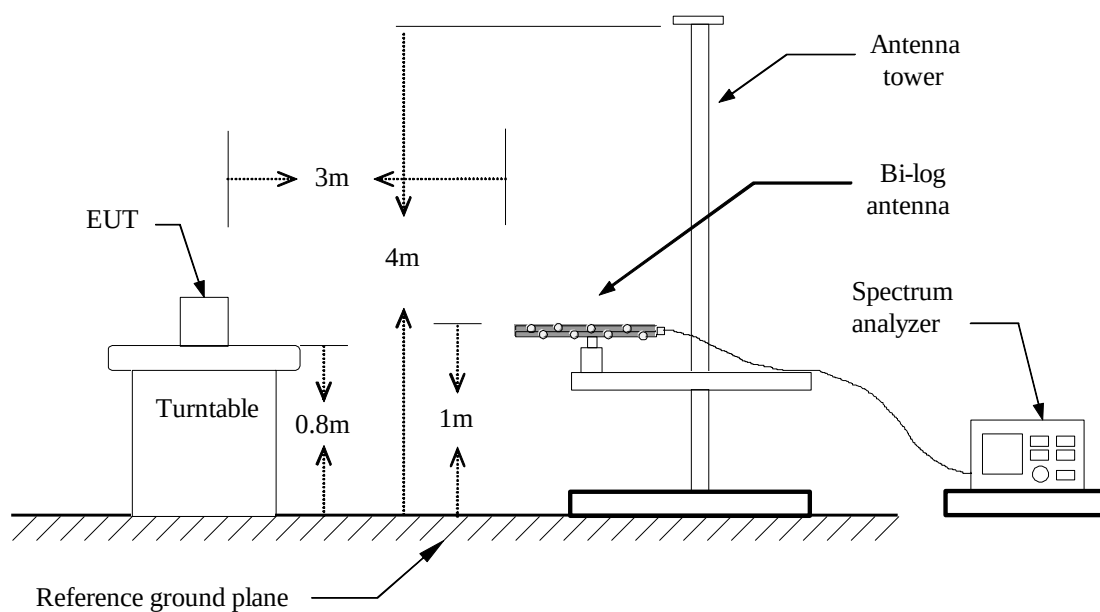
| Configuration | Duty Cycle (%) | VBW  |
|---------------|----------------|------|
| 802.11a       | 100%           | 10Hz |
| 802.11n HT20  | 100%           | 10Hz |
| 802.11n HT40  | 100%           | 10Hz |

### 4.5.3 Test Setup

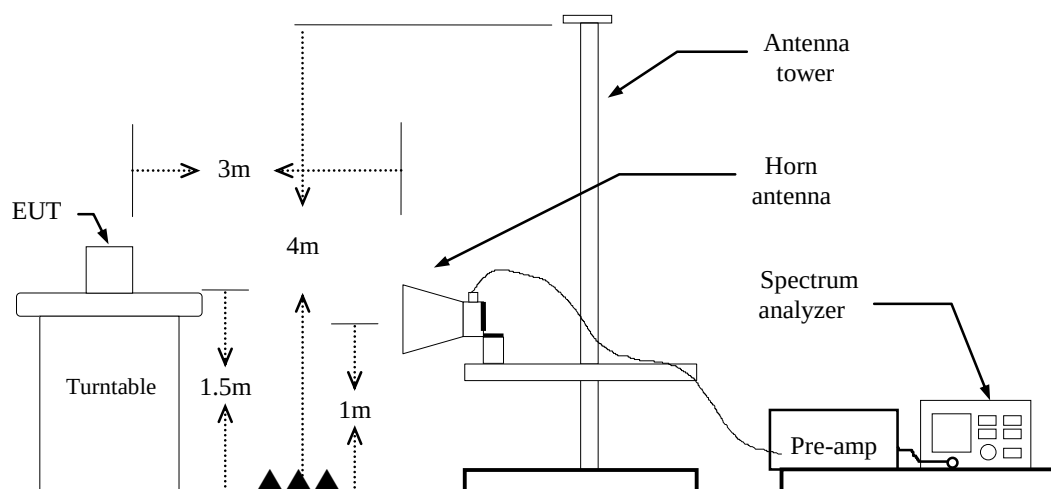
#### 9kHz ~ 30MHz



#### 30MHz ~ 1GHz



## Above 1 GHz

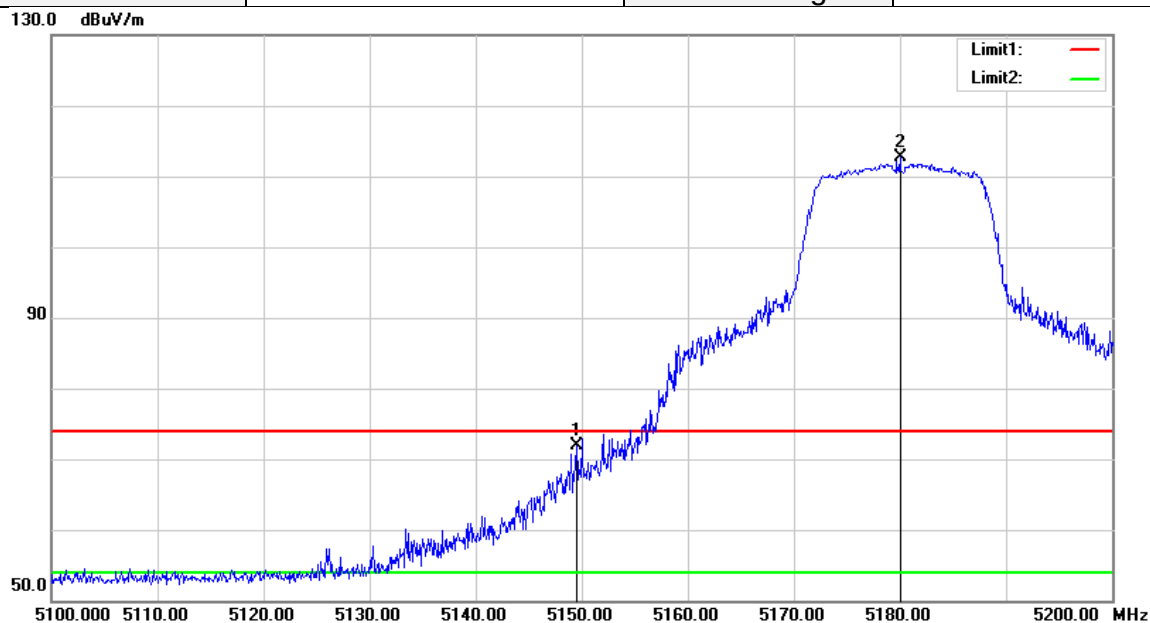


## 4.5.4 Test Result

### Test Data

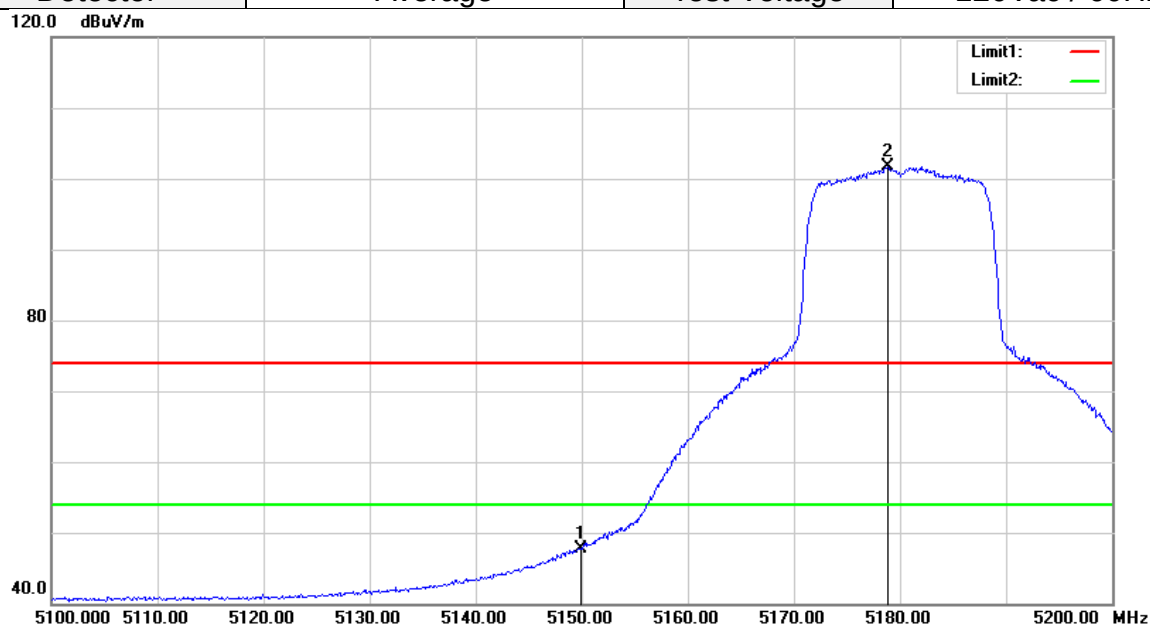
#### Band Edge Test Data for UNII-1

|           |                     |               |               |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Low CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge           | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal          | Test Engineer | Kevin Kuo     |
| Detector  | Peak                | Test Voltage  | 120Vac / 60Hz |



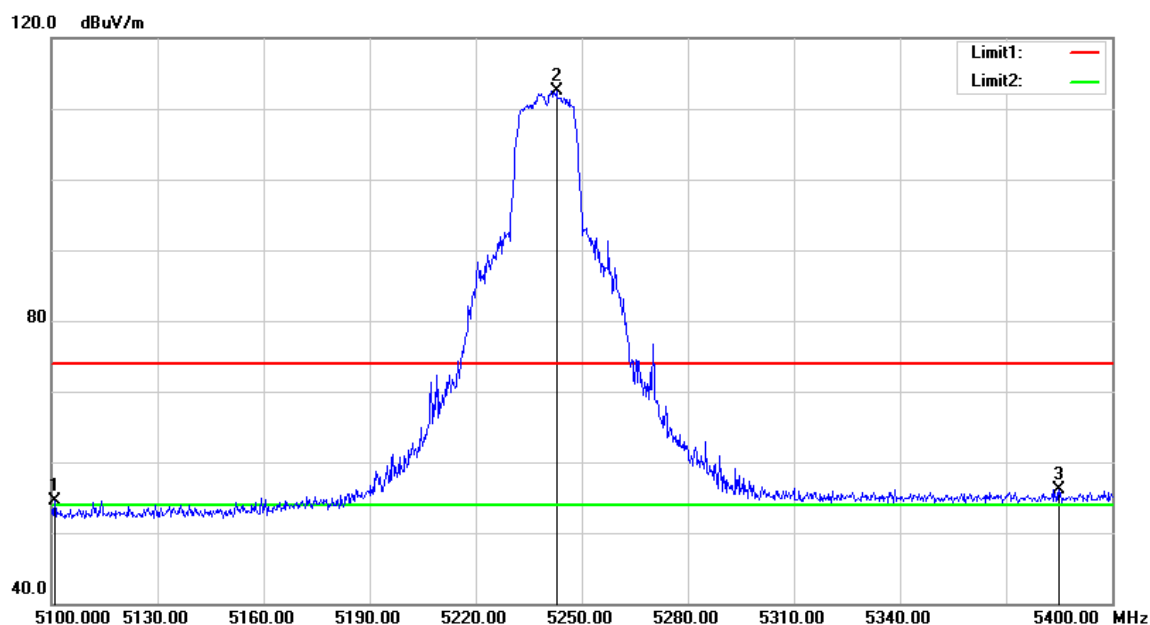
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5149.500        | 68.91          | 3.04                  | 71.95           | 74.00          | -2.05       | peak   |
| 5180.000        | 108.89         | 3.91                  | 112.80          | -              | -           | peak   |

|           |                     |               |               |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Low CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge           | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal          | Test Engineer | Kevin Kuo     |
| Detector  | Average             | Test Voltage  | 120Vac / 60Hz |



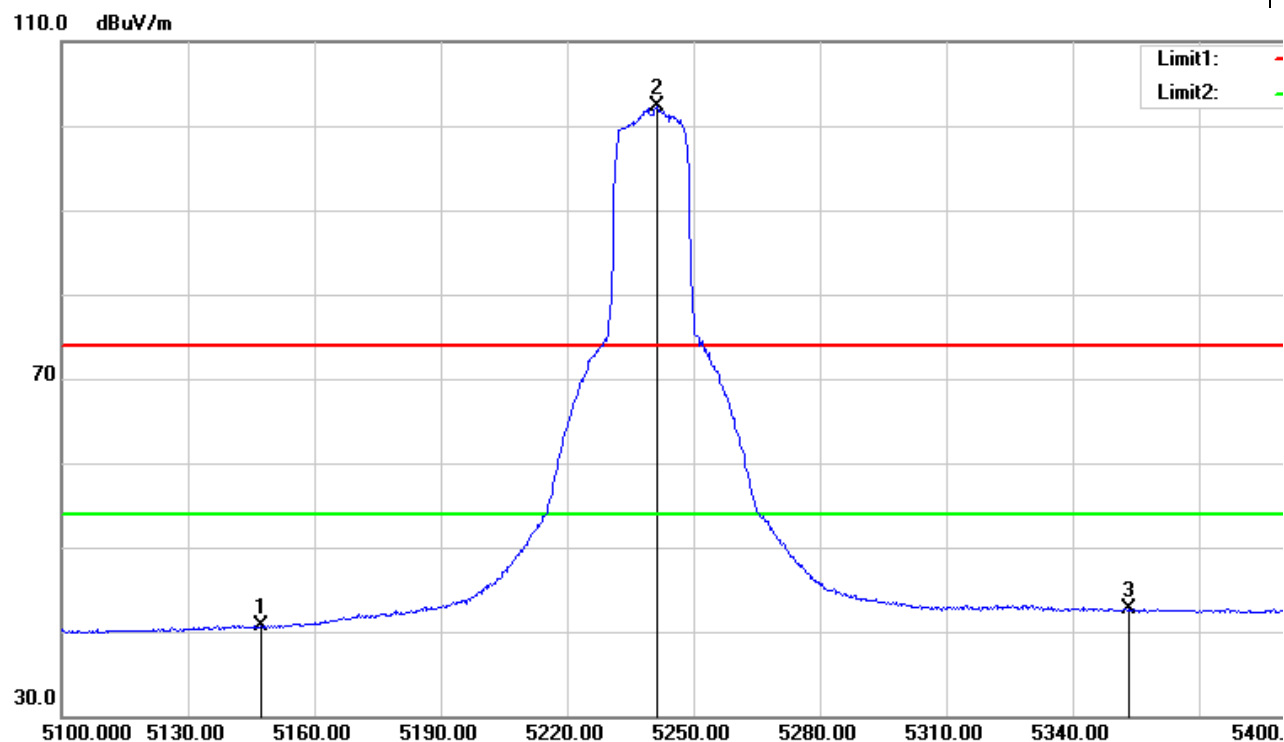
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5149.900        | 44.73          | 3.04                  | 47.77           | 54.00          | -6.23       | AVG    |
| 5178.900        | 97.87          | 3.88                  | 101.75          | -              | -           | AVG    |

|           |                      |               |               |
|-----------|----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a High CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge            | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal           | Test Engineer | Kevin Kuo     |
| Detector  | Peak                 | Test Voltage  | 120Vac / 60Hz |



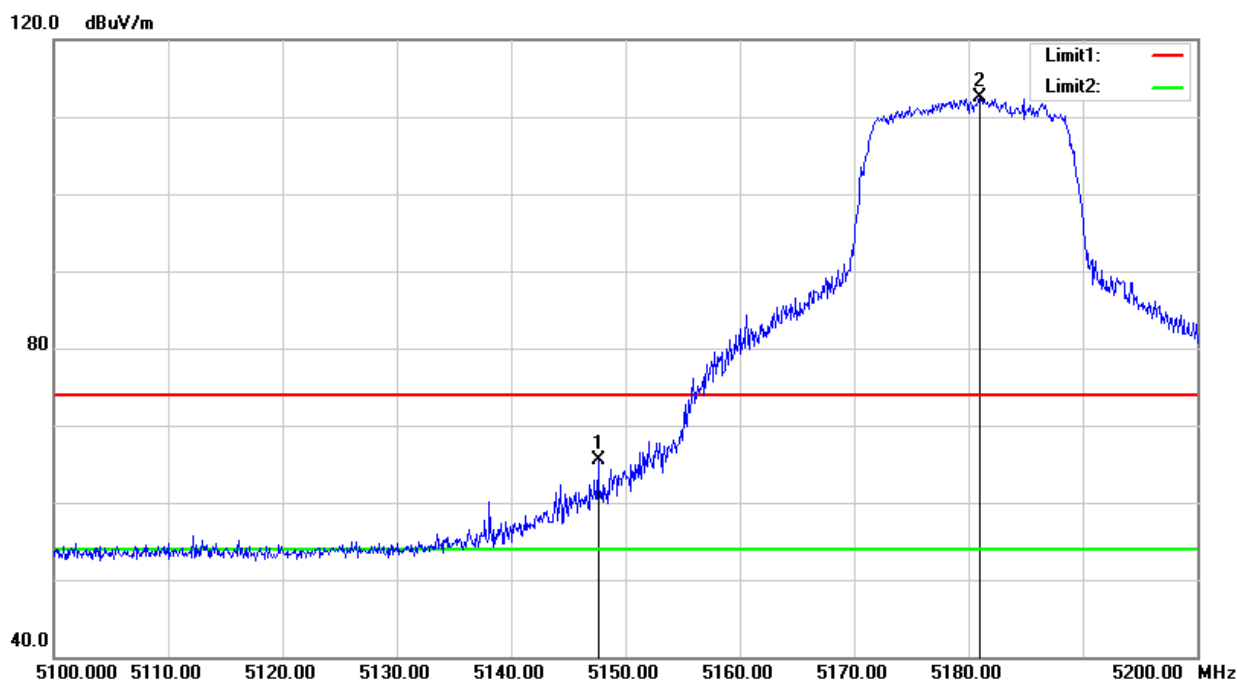
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5100.900        | 51.75          | 2.71                  | 54.46           | 74.00          | -19.54      | peak   |
| 5242.800        | 107.94         | 4.64                  | 112.58          | -              | -           | peak   |
| 5385.000        | 50.54          | 5.60                  | 56.14           | 74.00          | -17.86      | peak   |

|           |                      |               |               |
|-----------|----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a High CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge            | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal           | Test Engineer | Kevin Kuo     |
| Detector  | Average              | Test Voltage  | 120Vac / 60Hz |



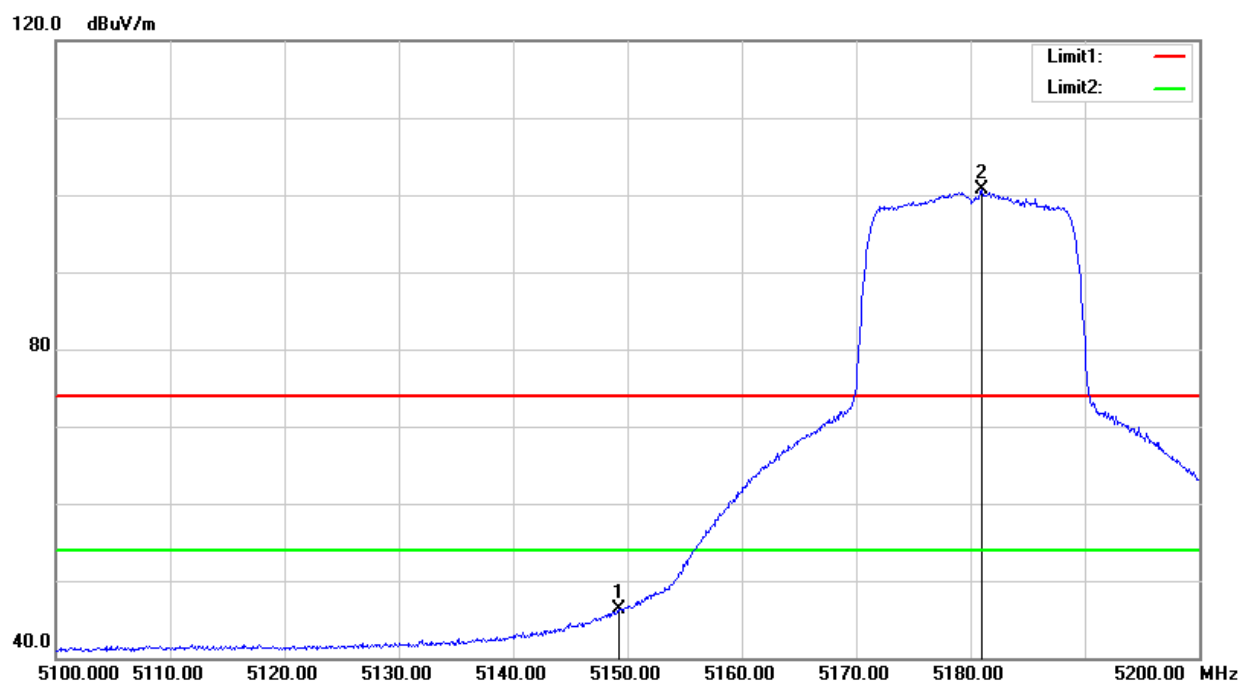
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5147.400        | 37.71          | 3.02                  | 40.73           | 54.00          | -13.27      | AVG    |
| 5241.300        | 97.62          | 4.63                  | 102.25          | -              | -           | AVG    |
| 5353.200        | 37.43          | 5.34                  | 42.77           | 54.00          | -11.23      | AVG    |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Low CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Peak                     | Test Voltage  | 120Vac / 60Hz |



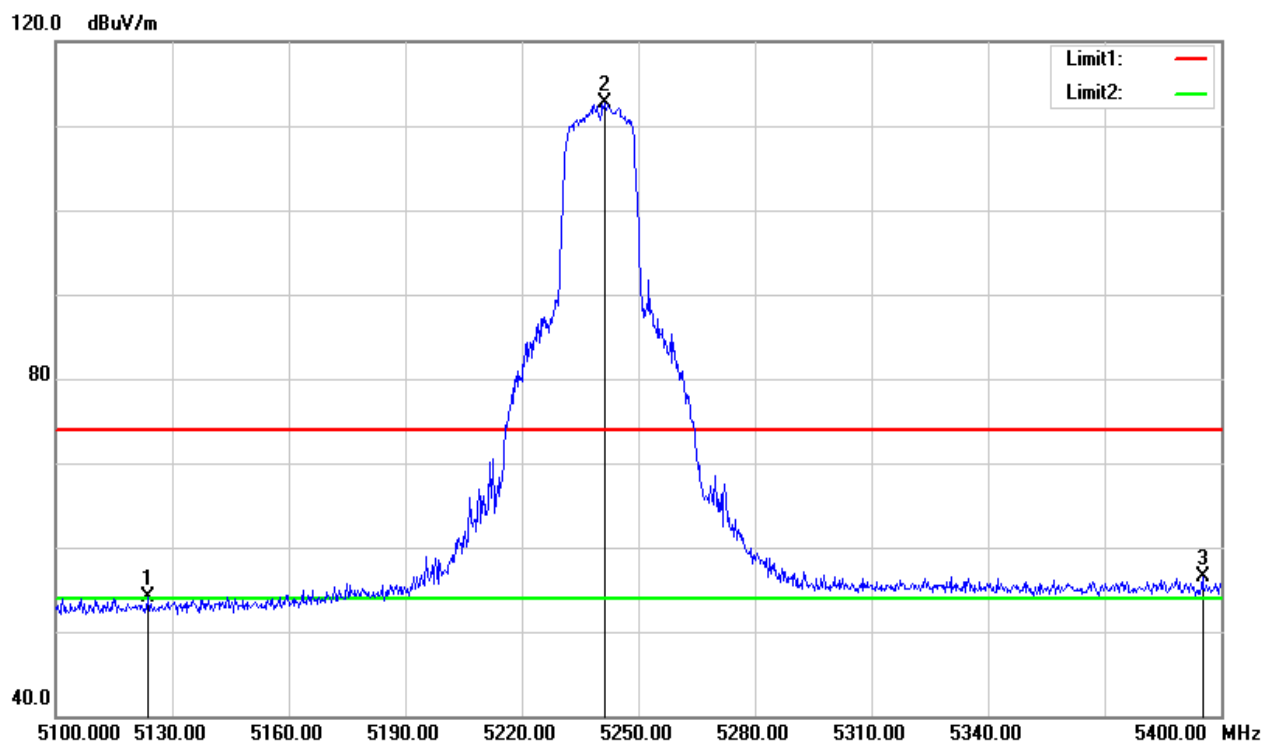
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5147.600        | 62.44          | 3.02                  | 65.46           | 74.00          | -8.54       | peak   |
| 5181.000        | 108.51         | 3.94                  | 112.45          | -              | -           | peak   |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Low CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Average                  | Test Voltage  | 120Vac / 60Hz |



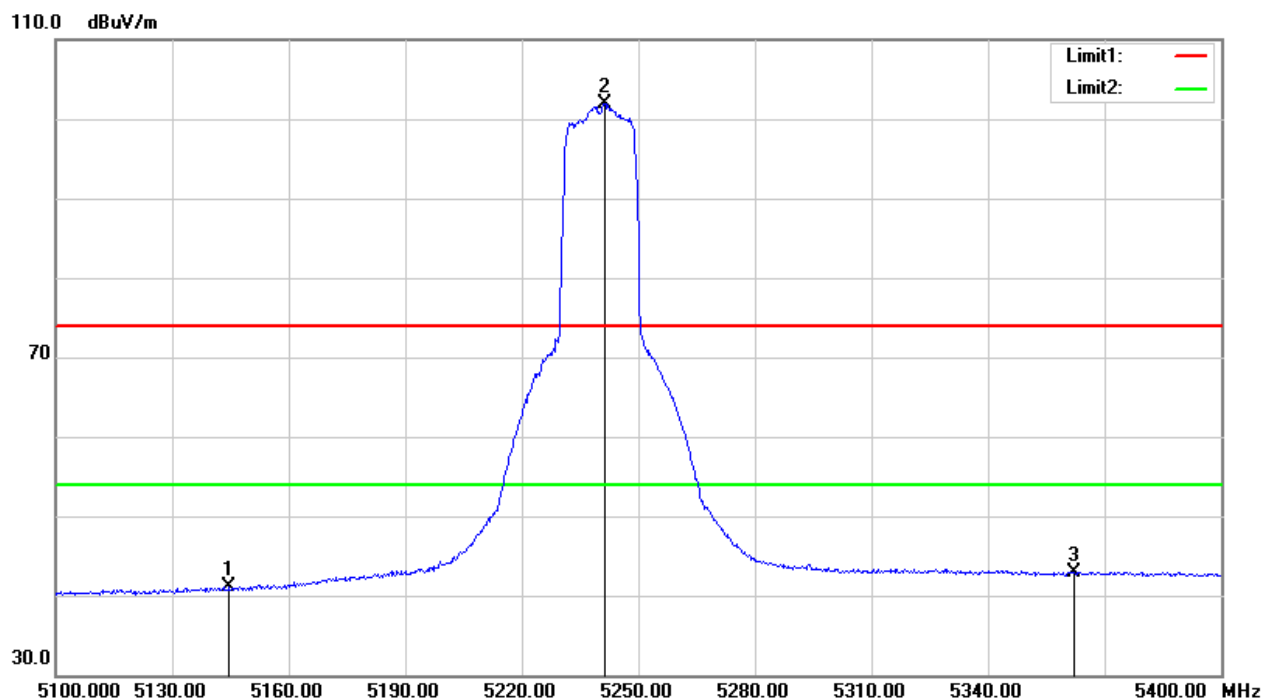
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5149.200        | 43.37          | 3.03                  | 46.40           | 54.00          | -7.60       | AVG    |
| 5181.000        | 96.67          | 3.94                  | 100.61          | -              | -           | AVG    |

|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 High CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Peak                      | Test Voltage  | 120Vac / 60Hz |



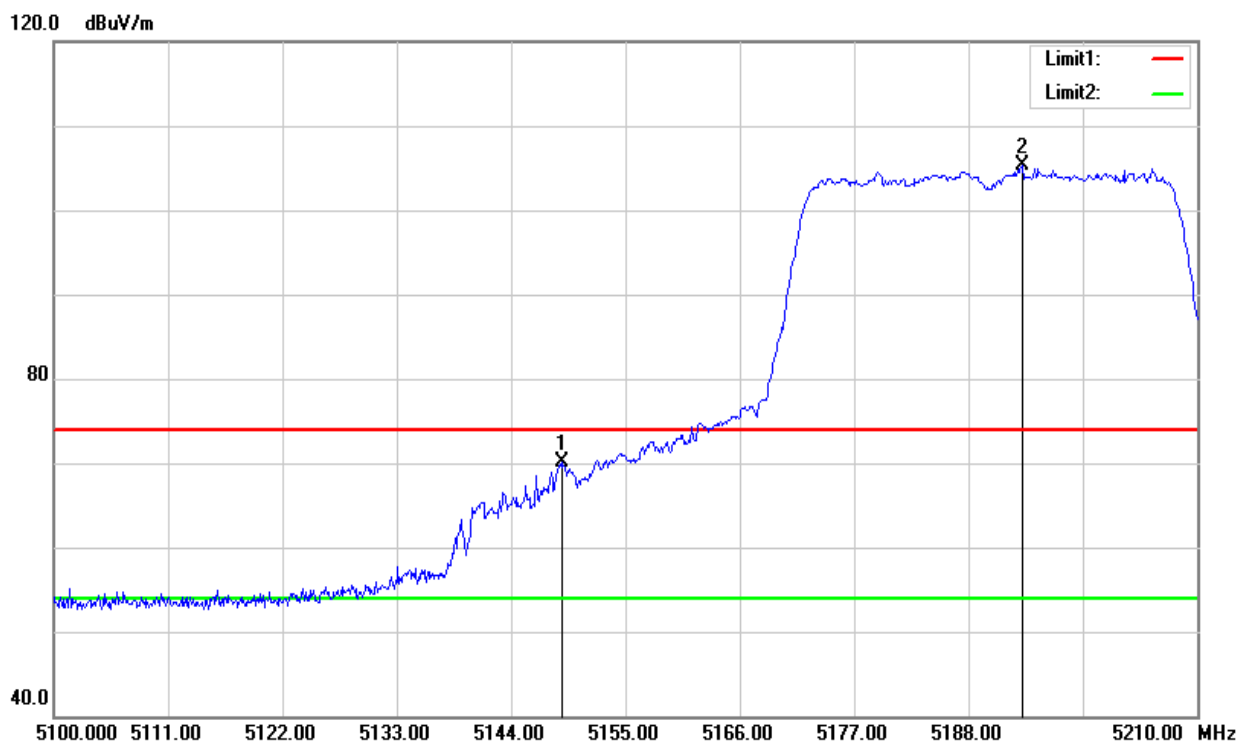
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5123.700        | 51.15          | 2.86                  | 54.01           | 74.00          | -19.99      | peak   |
| 5241.300        | 108.04         | 4.63                  | 112.67          | -              | -           | peak   |
| 5395.200        | 50.83          | 5.68                  | 56.51           | 74.00          | -17.49      | peak   |

|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 High CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Average                   | Test Voltage  | 120Vac / 60Hz |



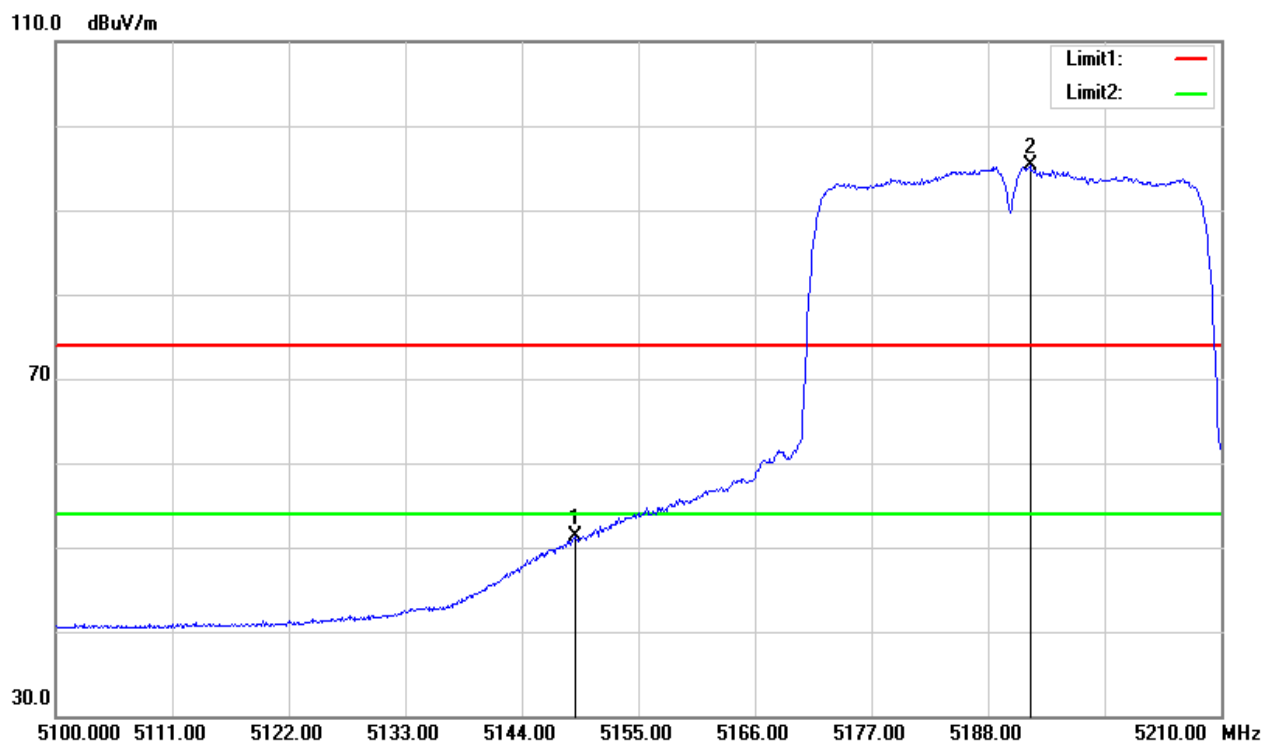
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5144.700        | 38.05          | 3.00                  | 41.05           | 54.00          | -12.95      | AVG    |
| 5241.300        | 97.32          | 4.63                  | 101.95          | -              | -           | AVG    |
| 5362.200        | 37.55          | 5.41                  | 42.96           | 54.00          | -11.04      | AVG    |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Low CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 4, 2017   |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Peak                     | Test Voltage  | 120Vac / 60Hz |



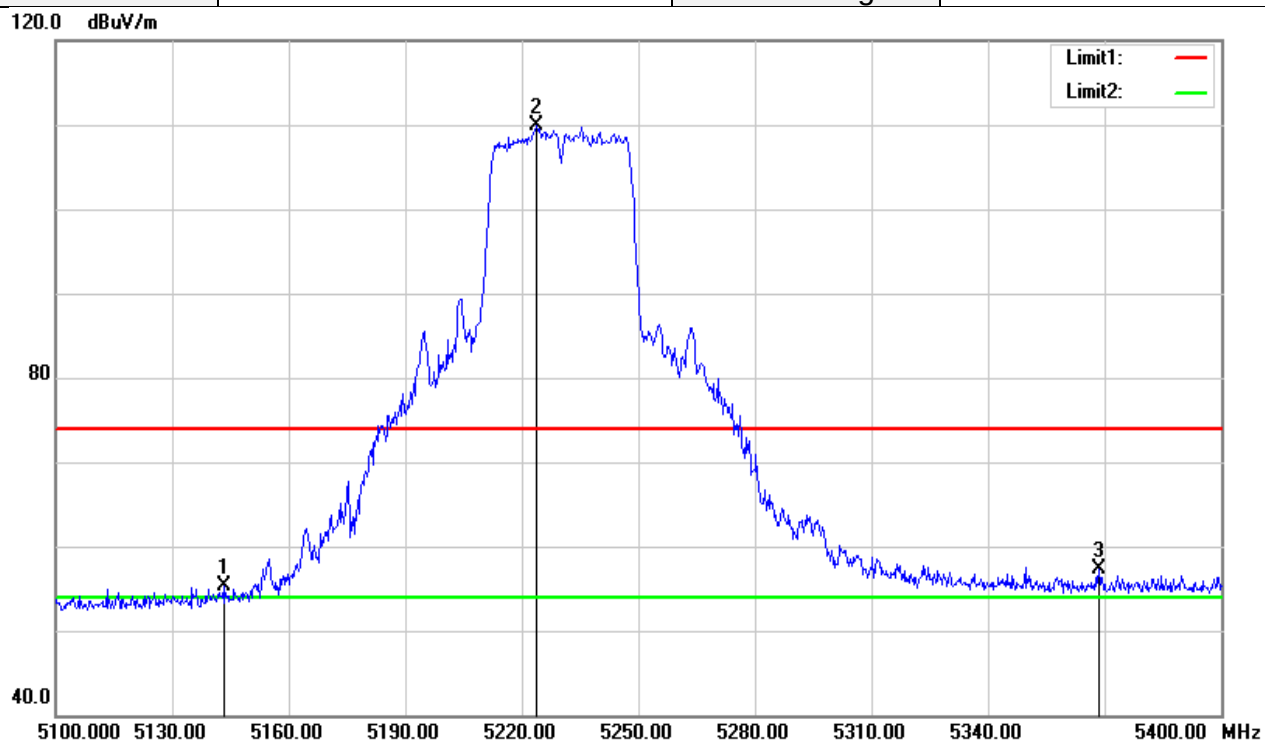
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5148.950        | 67.02          | 3.03                  | 70.05           | 74.00          | -3.95       | peak   |
| 5193.170        | 100.95         | 4.29                  | 105.24          | -              | -           | peak   |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Low CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 4, 2017   |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Average                  | Test Voltage  | 120Vac / 60Hz |



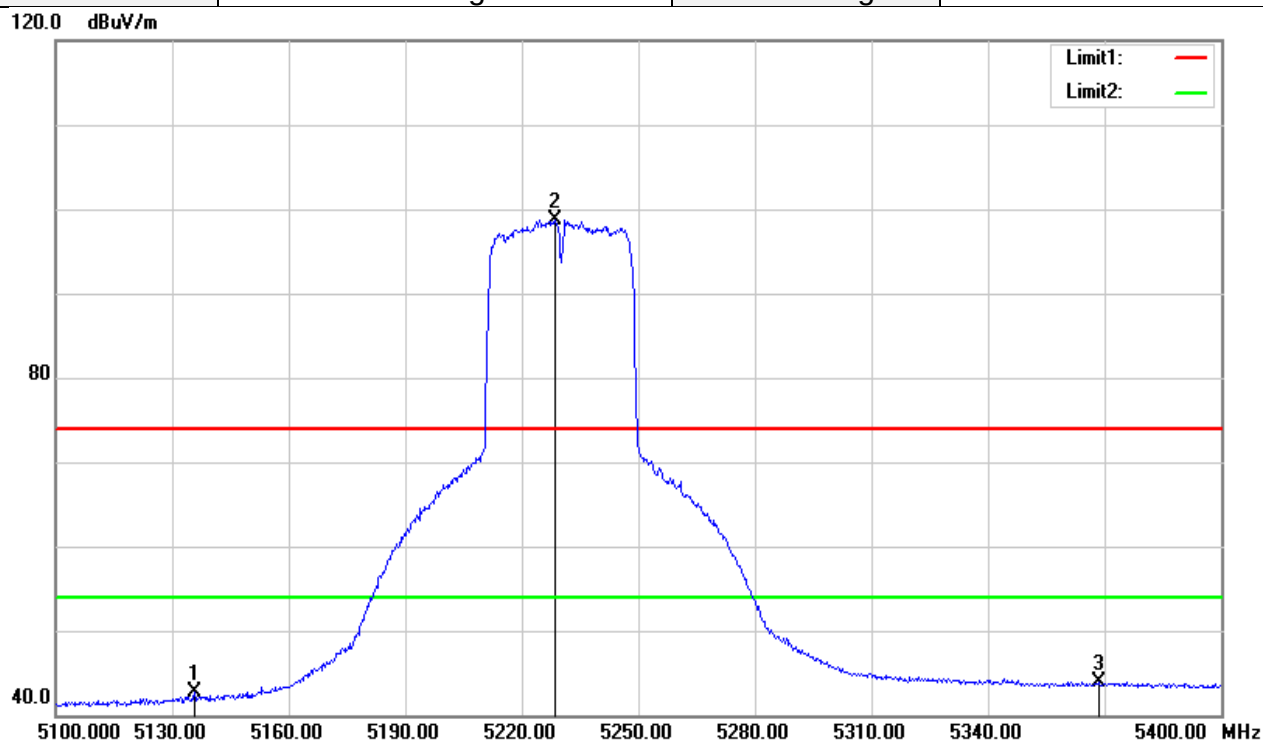
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5149.060        | 48.19          | 3.03                  | 51.22           | 54.00          | -2.78       | AVG    |
| 5191.960        | 90.96          | 4.26                  | 95.22           | -              | -           | AVG    |

|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 High CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Peak                      | Test Voltage  | 120Vac / 60Hz |



| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5143.200        | 52.31          | 2.99                  | 55.30           | 74.00          | -18.70      | peak   |
| 5223.900        | 105.38         | 4.57                  | 109.95          | -              | -           | peak   |
| 5368.500        | 51.81          | 5.46                  | 57.27           | 74.00          | -16.73      | peak   |

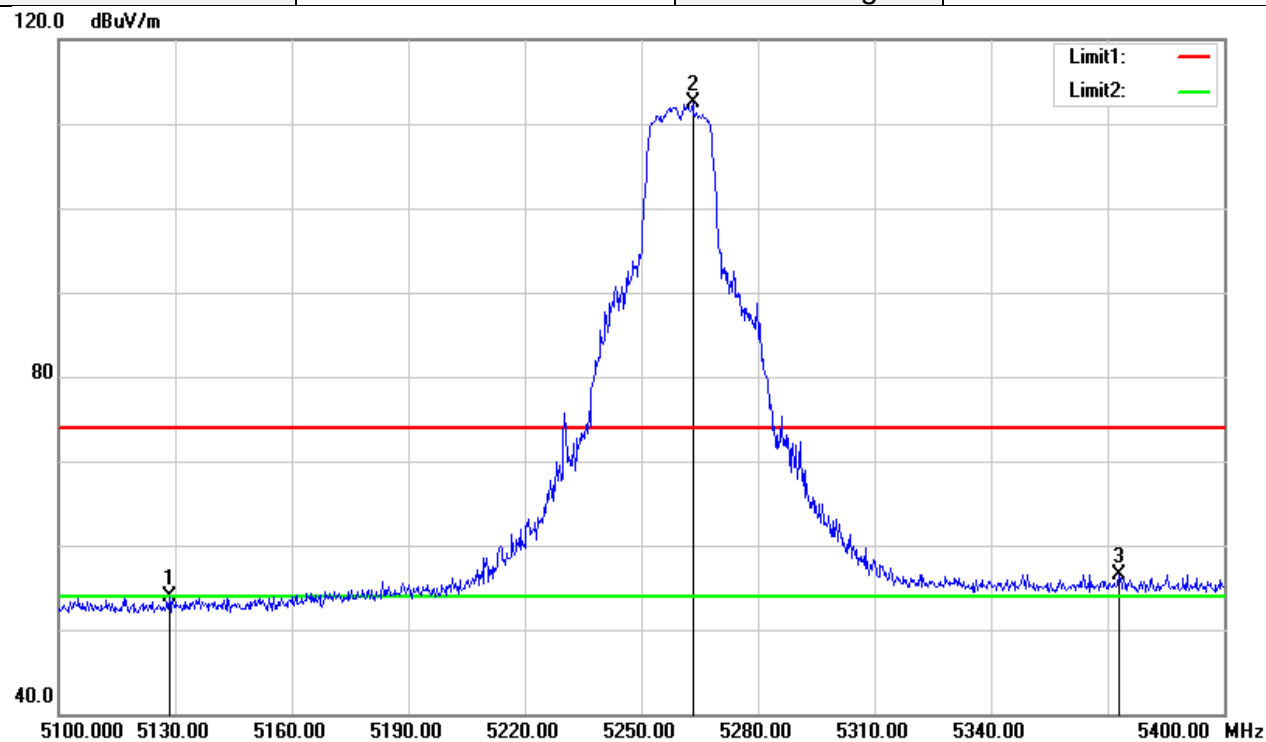
|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 High CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Average                   | Test Voltage  | 120Vac / 60Hz |



| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5135.700        | 39.75          | 2.94                  | 42.69           | 54.00          | -11.31      | AVG    |
| 5228.700        | 94.20          | 4.59                  | 98.79           | -              | -           | AVG    |
| 5368.500        | 38.46          | 5.46                  | 43.92           | 54.00          | -10.08      | AVG    |

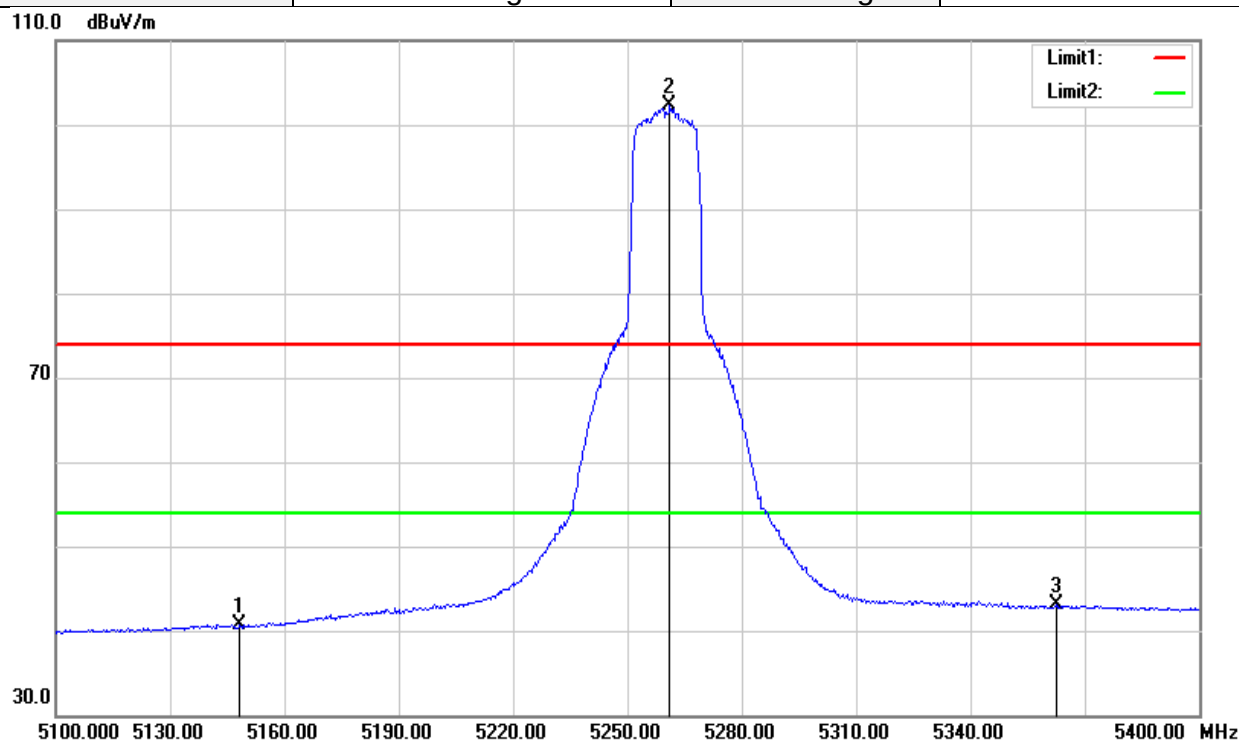
**Test Data****Band Edge Test Data for UNII-2a**

|           |                     |               |               |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Low CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge           | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal          | Test Engineer | Kevin Kuo     |
| Detector  | Peak                | Test Voltage  | 120Vac / 60Hz |



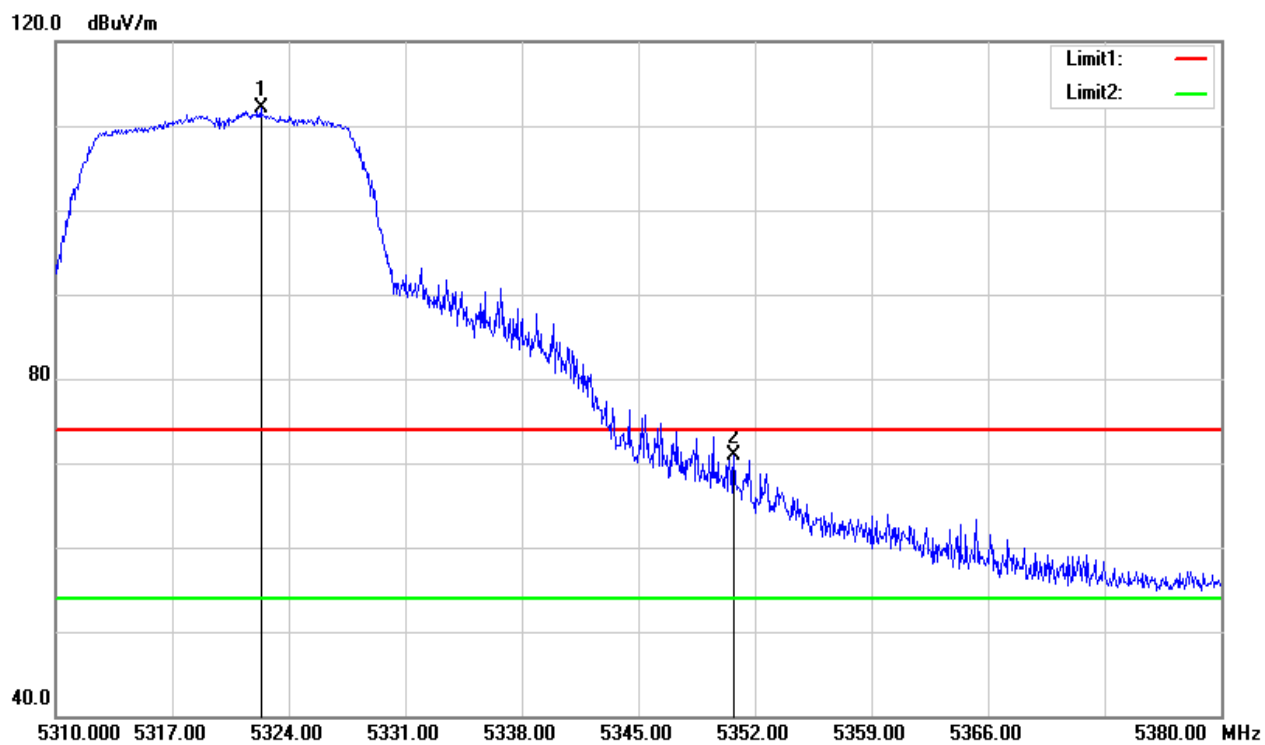
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5128.500        | 50.96          | 2.89                  | 53.85           | 74.00          | -20.15      | peak   |
| 5263.200        | 107.74         | 4.70                  | 112.44          | -              | -           | peak   |
| 5373.000        | 51.07          | 5.50                  | 56.57           | 74.00          | -17.43      | peak   |

|           |                     |               |               |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Low CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge           | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal          | Test Engineer | Kevin Kuo     |
| Detector  | Average             | Test Voltage  | 120Vac / 60Hz |



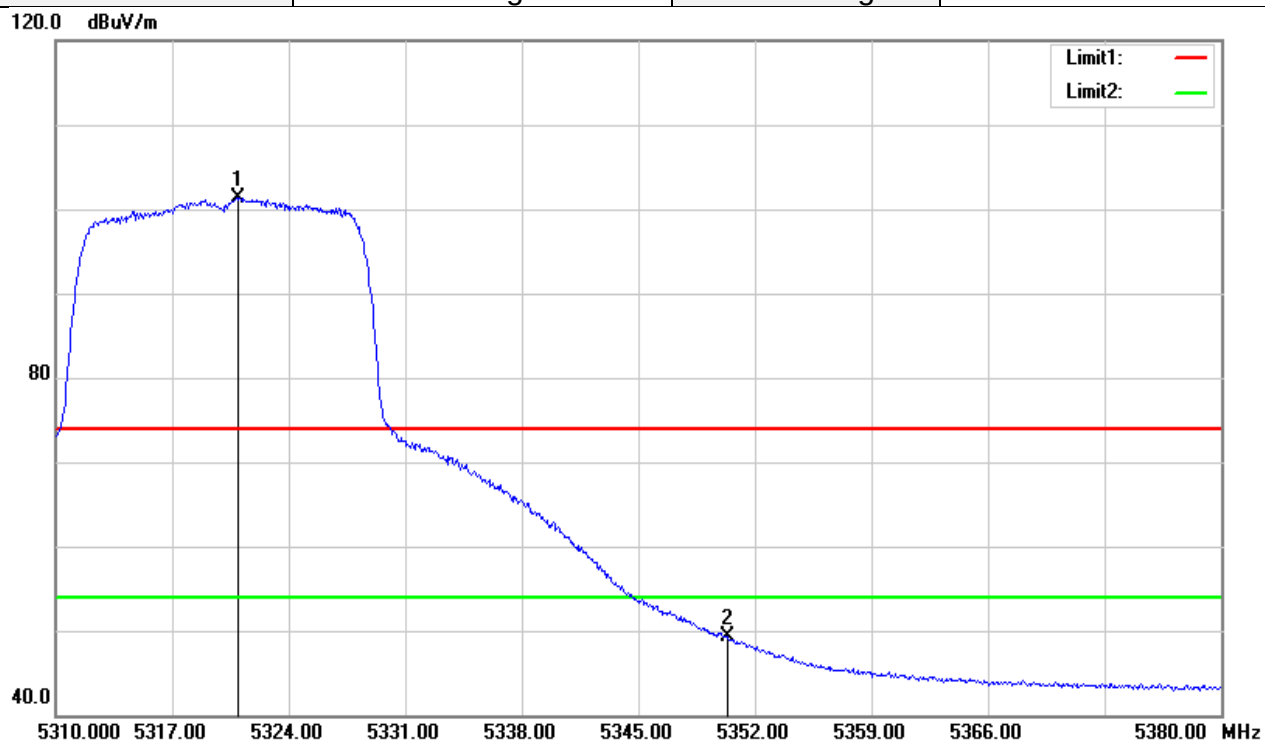
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5148.300        | 37.64          | 3.03                  | 40.67           | 54.00          | -13.33      | AVG    |
| 5261.100        | 97.54          | 4.70                  | 102.24          | -              | -           | AVG    |
| 5362.500        | 37.61          | 5.41                  | 43.02           | 54.00          | -10.98      | AVG    |

|           |                      |               |               |
|-----------|----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a High CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge            | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal           | Test Engineer | Kevin Kuo     |
| Detector  | Peak                 | Test Voltage  | 120Vac / 60Hz |



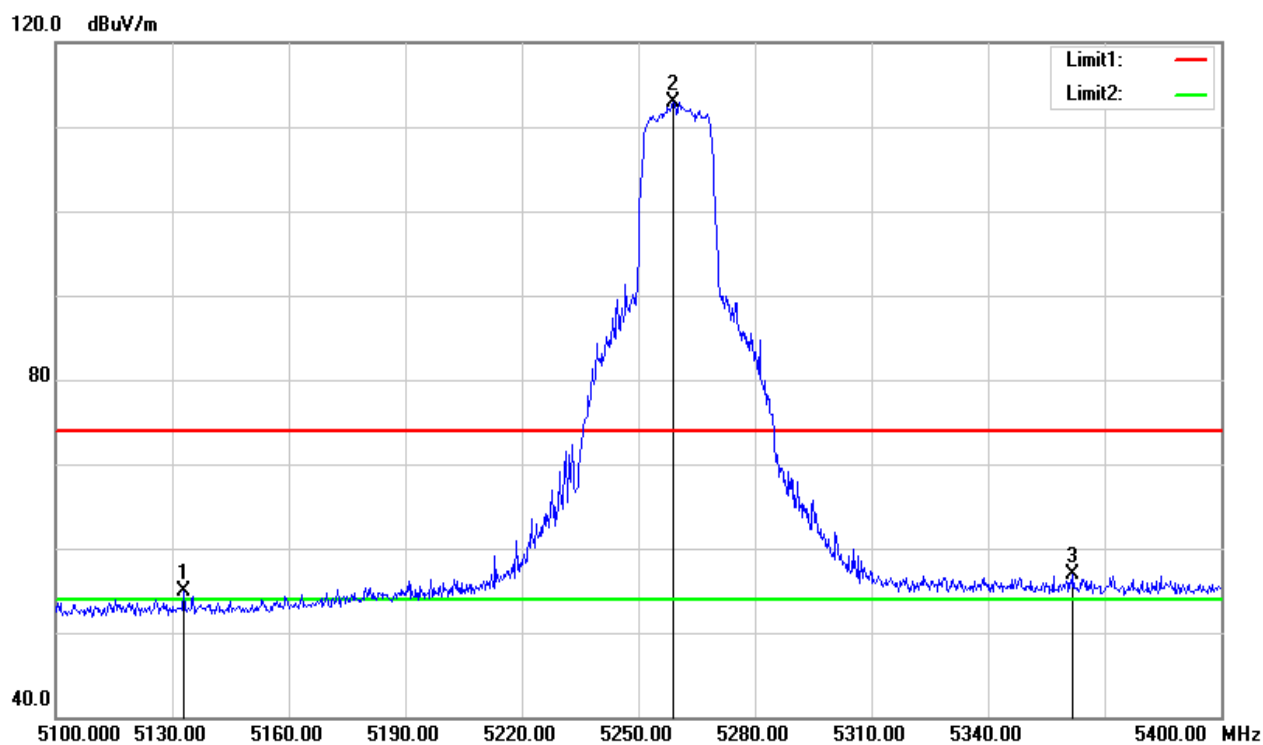
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5322.320        | 107.00         | 5.04                  | 112.04          | -              | -           | peak   |
| 5350.740        | 65.54          | 5.32                  | 70.86           | 74.00          | -3.14       | peak   |

|           |                      |               |               |
|-----------|----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a High CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge            | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal           | Test Engineer | Kevin Kuo     |
| Detector  | Average              | Test Voltage  | 120Vac / 60Hz |



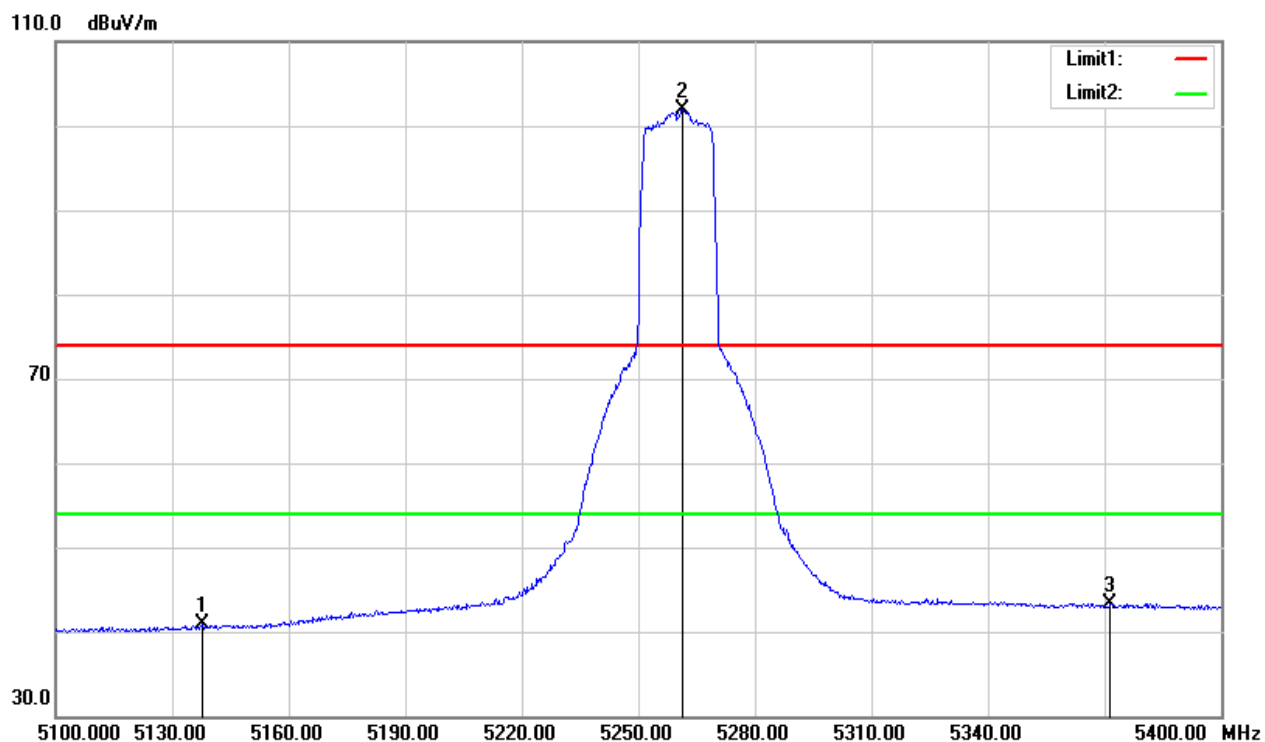
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5320.920        | 96.35          | 5.03                  | 101.38          | -              | -           | AVG    |
| 5350.320        | 43.99          | 5.31                  | 49.30           | 54.00          | -4.70       | AVG    |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Low CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Peak                     | Test Voltage  | 120Vac / 60Hz |



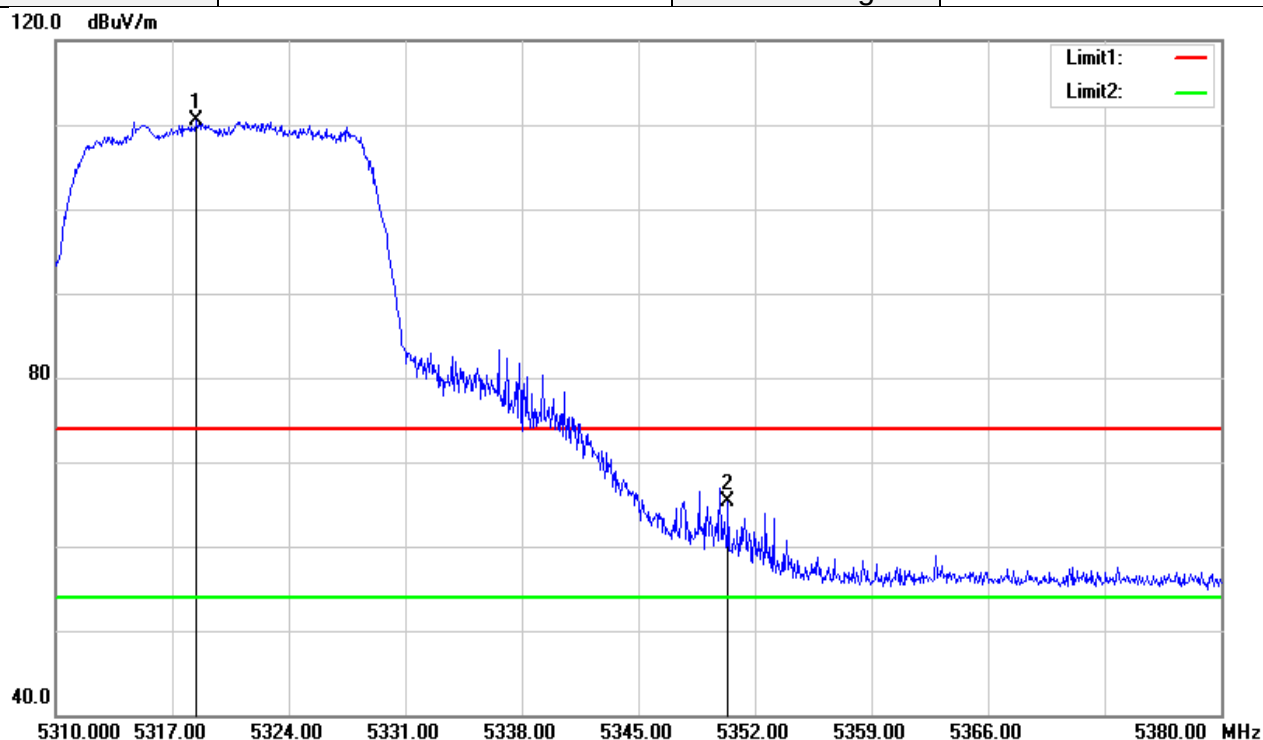
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5133.000        | 52.04          | 2.92                  | 54.96           | 74.00          | -19.04      | peak   |
| 5259.000        | 108.21         | 4.69                  | 112.90          | -              | -           | peak   |
| 5361.900        | 51.43          | 5.41                  | 56.84           | 74.00          | -17.16      | peak   |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Low CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Average                  | Test Voltage  | 120Vac / 60Hz |



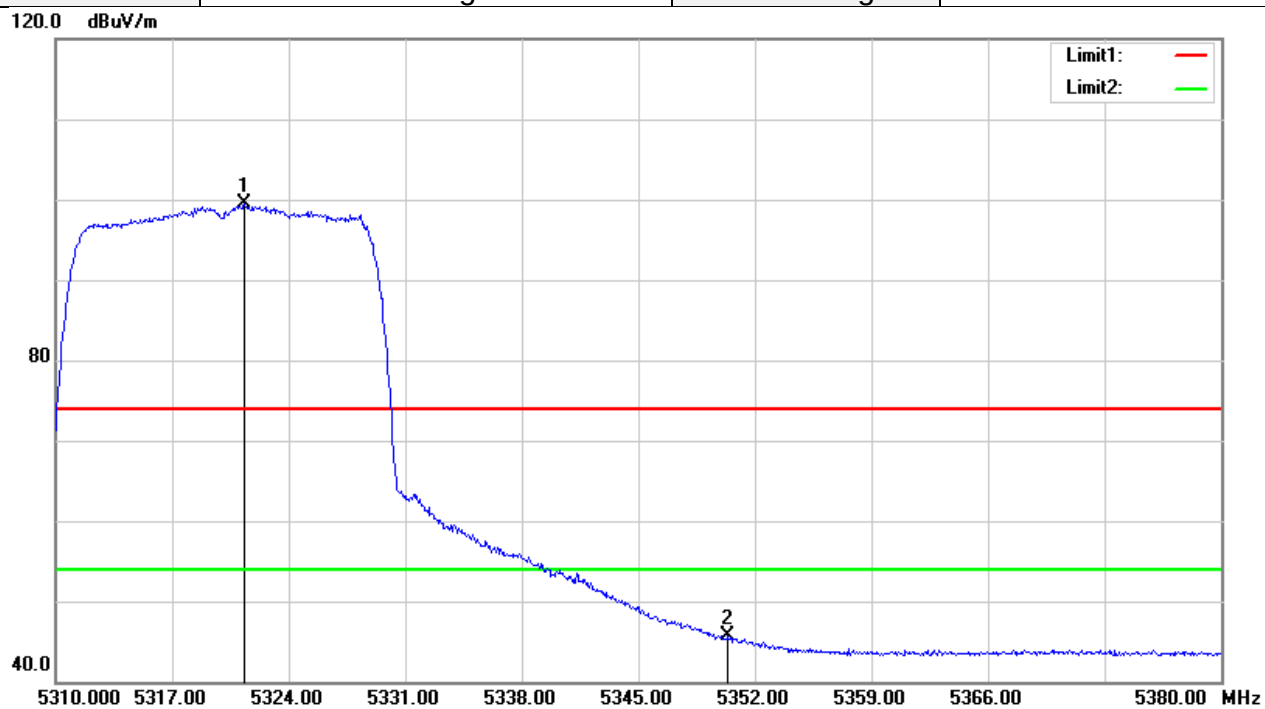
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5137.800        | 37.88          | 2.96                  | 40.84           | 54.00          | -13.16      | AVG    |
| 5261.400        | 97.19          | 4.70                  | 101.89          | -              | -           | AVG    |
| 5371.500        | 37.90          | 5.49                  | 43.39           | 54.00          | -10.61      | AVG    |

|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 High CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Peak                      | Test Voltage  | 120Vac / 60Hz |



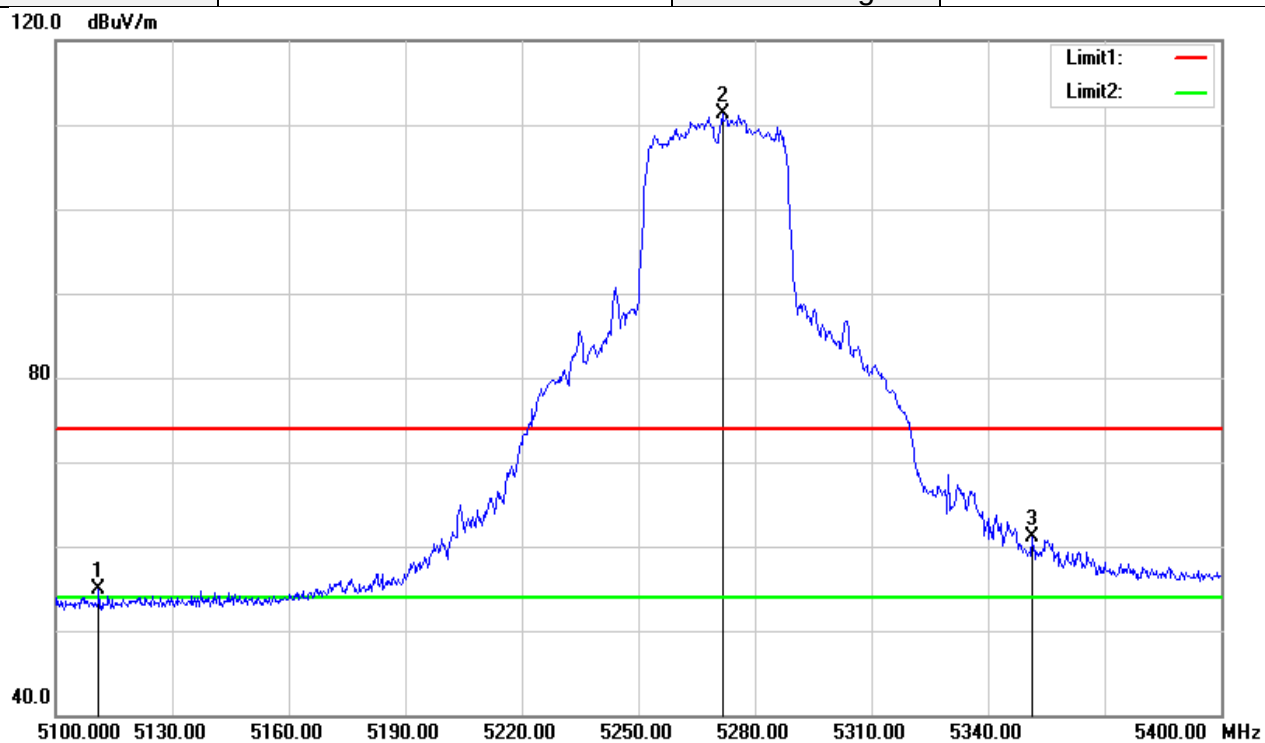
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5318.470        | 105.40         | 5.01                  | 110.41          | -              | -           | peak   |
| 5350.390        | 60.05          | 5.31                  | 65.36           | 74.00          | -8.64       | peak   |

|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 High CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Average                   | Test Voltage  | 120Vac / 60Hz |



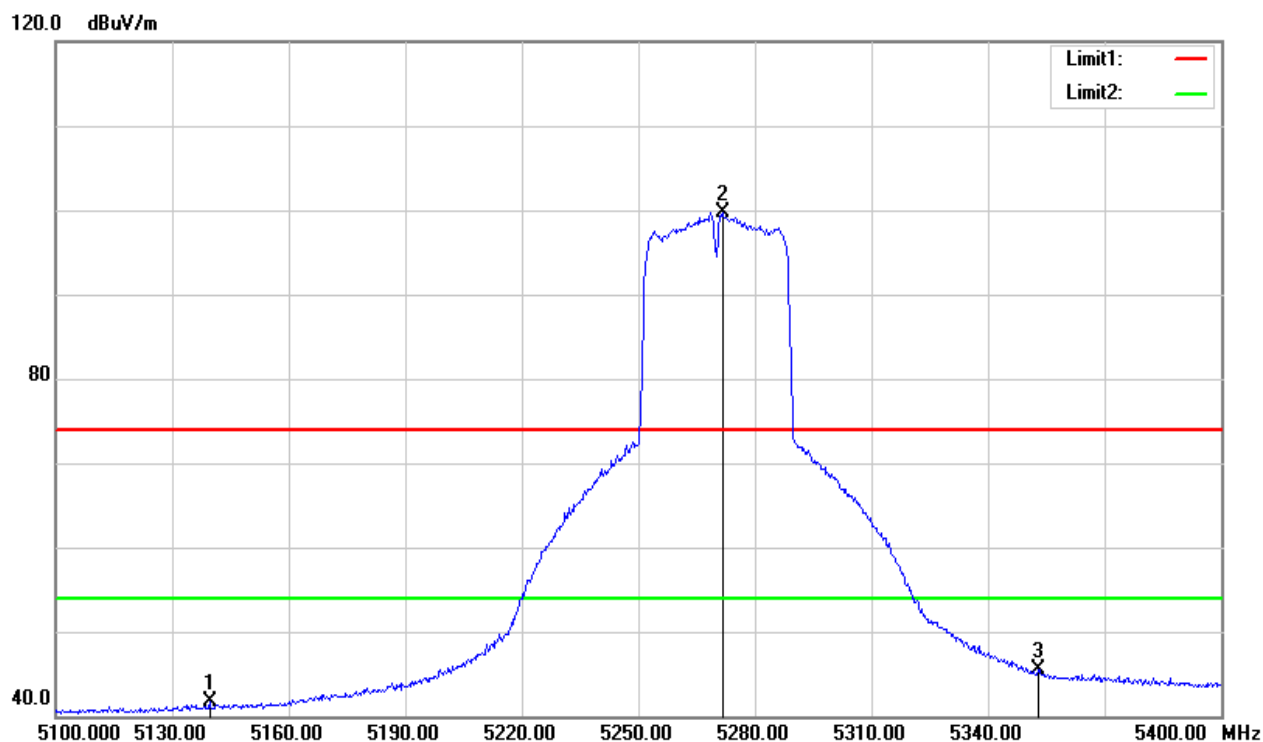
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5321.340        | 94.38          | 5.03                  | 99.41           | -              | -           | AVG    |
| 5350.390        | 40.37          | 5.31                  | 45.68           | 54.00          | -8.32       | AVG    |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Low CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Peak                     | Test Voltage  | 120Vac / 60Hz |



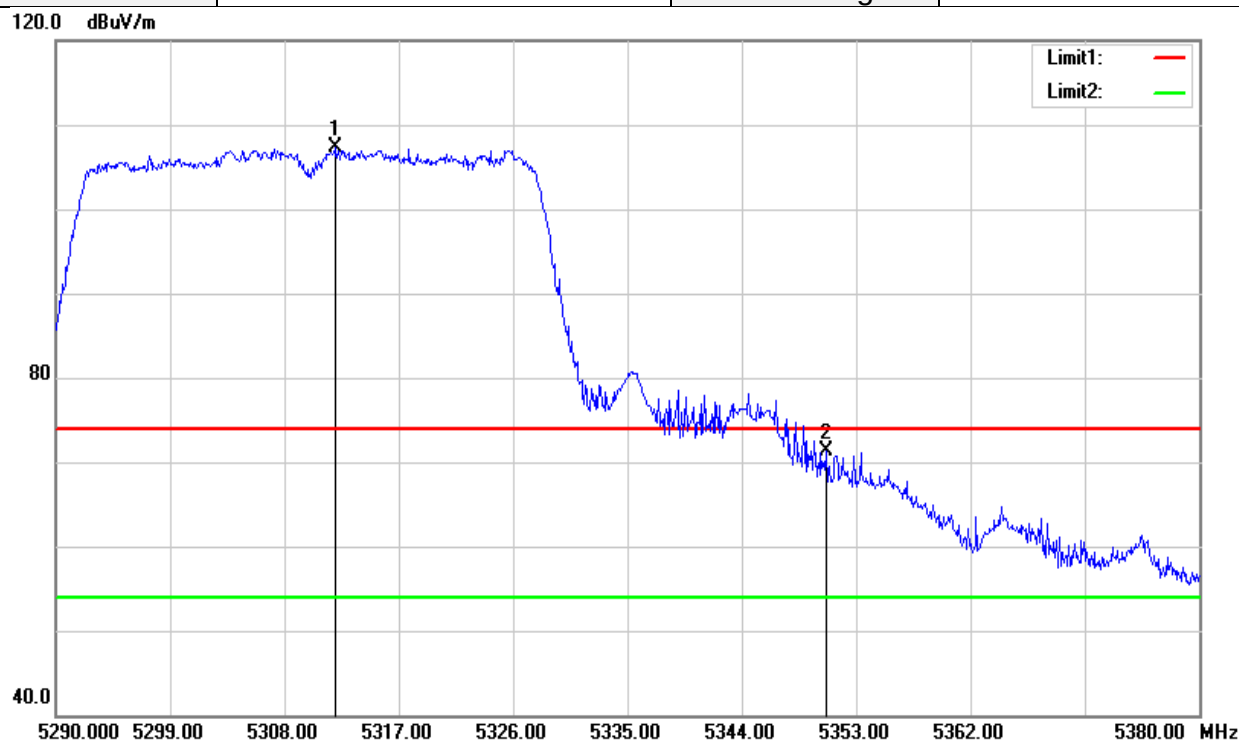
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5111.100        | 52.10          | 2.78                  | 54.88           | 74.00          | -19.12      | peak   |
| 5271.600        | 106.52         | 4.73                  | 111.25          | -              | -           | peak   |
| 5351.400        | 55.72          | 5.32                  | 61.04           | 74.00          | -12.96      | peak   |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Low CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Average                  | Test Voltage  | 120Vac / 60Hz |



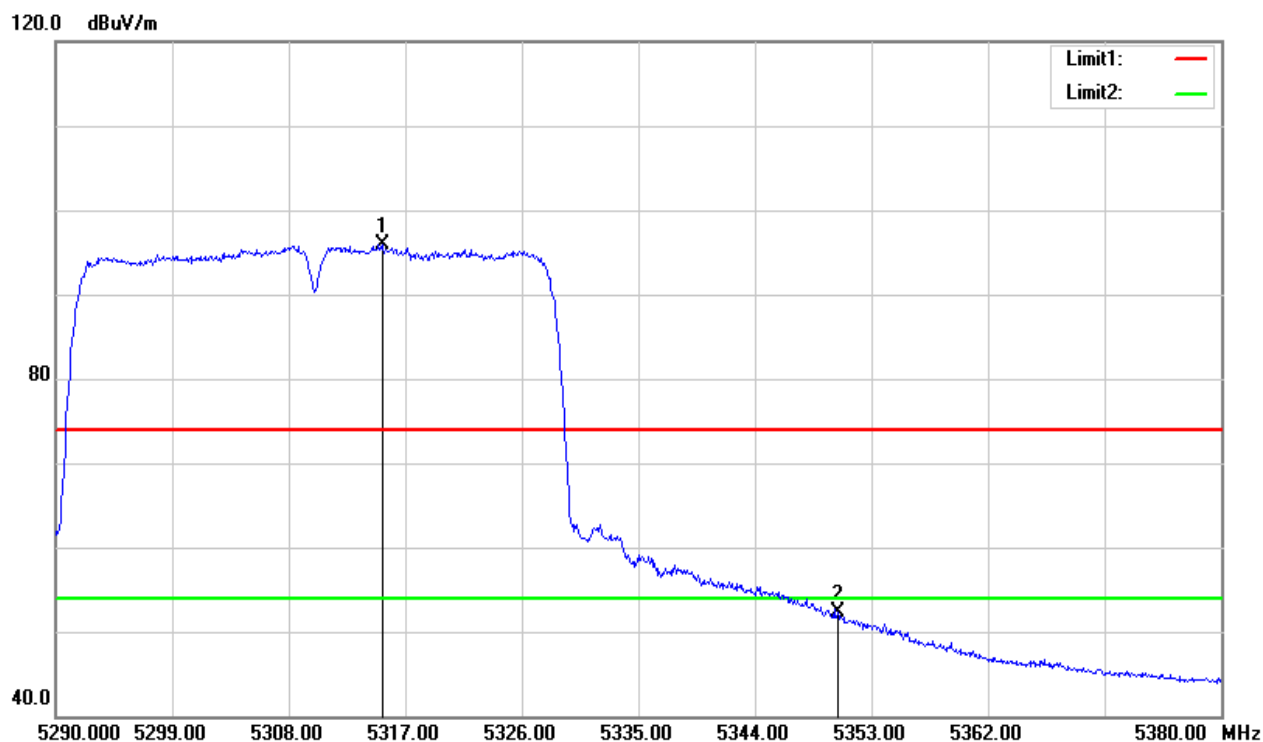
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5139.600        | 38.77          | 2.97                  | 41.74           | 54.00          | -12.26      | AVG    |
| 5271.600        | 95.02          | 4.73                  | 99.75           | -              | -           | AVG    |
| 5352.900        | 40.16          | 5.33                  | 45.49           | 54.00          | -8.51       | AVG    |

|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 High CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Peak                      | Test Voltage  | 120Vac / 60Hz |



| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5311.960        | 102.29         | 4.94                  | 107.23          | -              | -           | peak   |
| 5350.660        | 65.96          | 5.32                  | 71.28           | 74.00          | -2.72       | peak   |

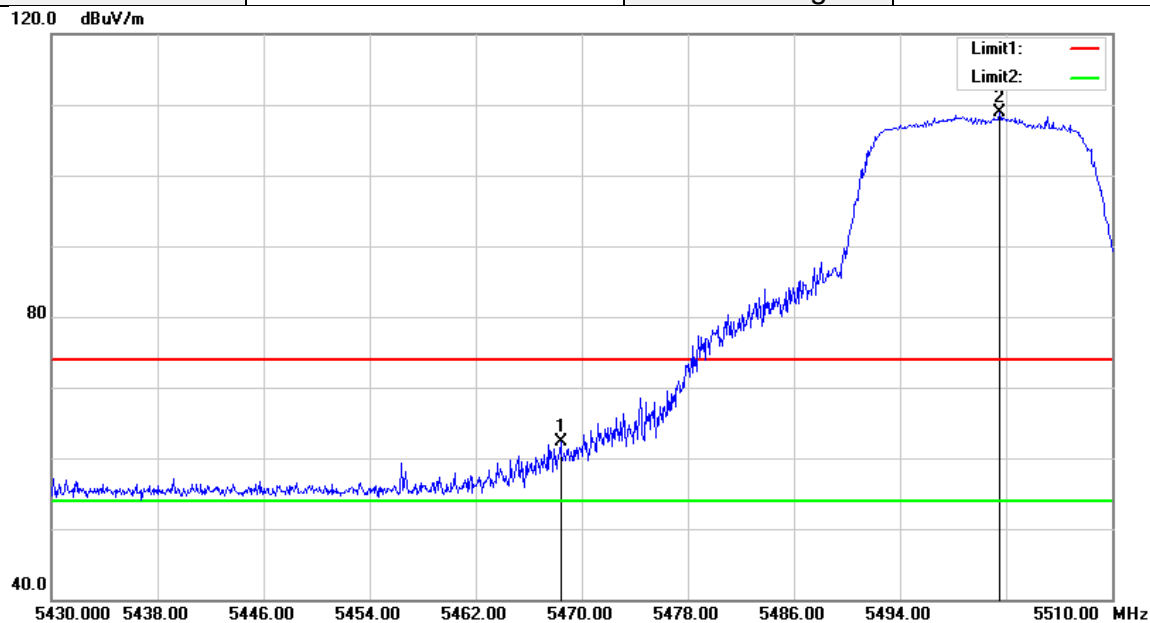
|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 High CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Average                   | Test Voltage  | 120Vac / 60Hz |



| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5315.200        | 90.89          | 4.98                  | 95.87           | -              | -           | AVG    |
| 5350.390        | 46.98          | 5.31                  | 52.29           | 54.00          | -1.71       | AVG    |

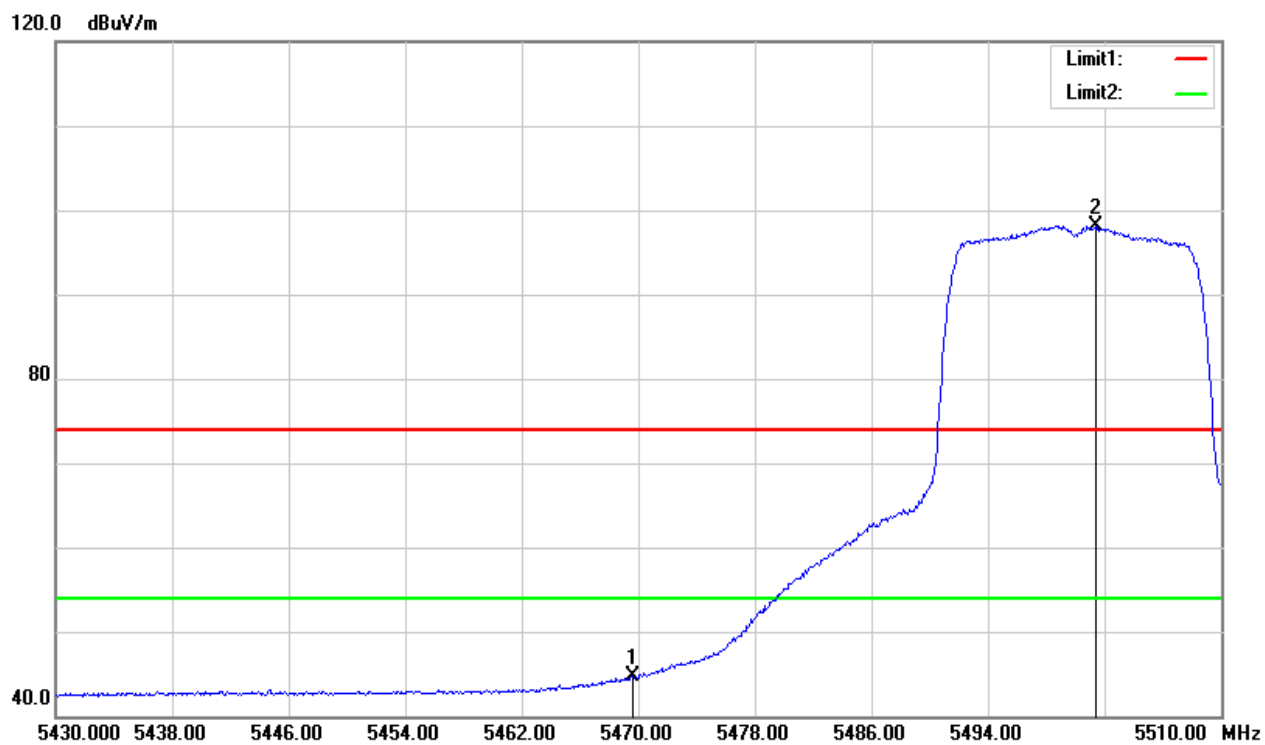
**Test Data****Band Edge Test Data for UNII-2c**

|           |                     |               |               |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Low CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge           | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal          | Test Engineer | Kevin Kuo     |
| Detector  | Peak                | Test Voltage  | 120Vac / 60Hz |



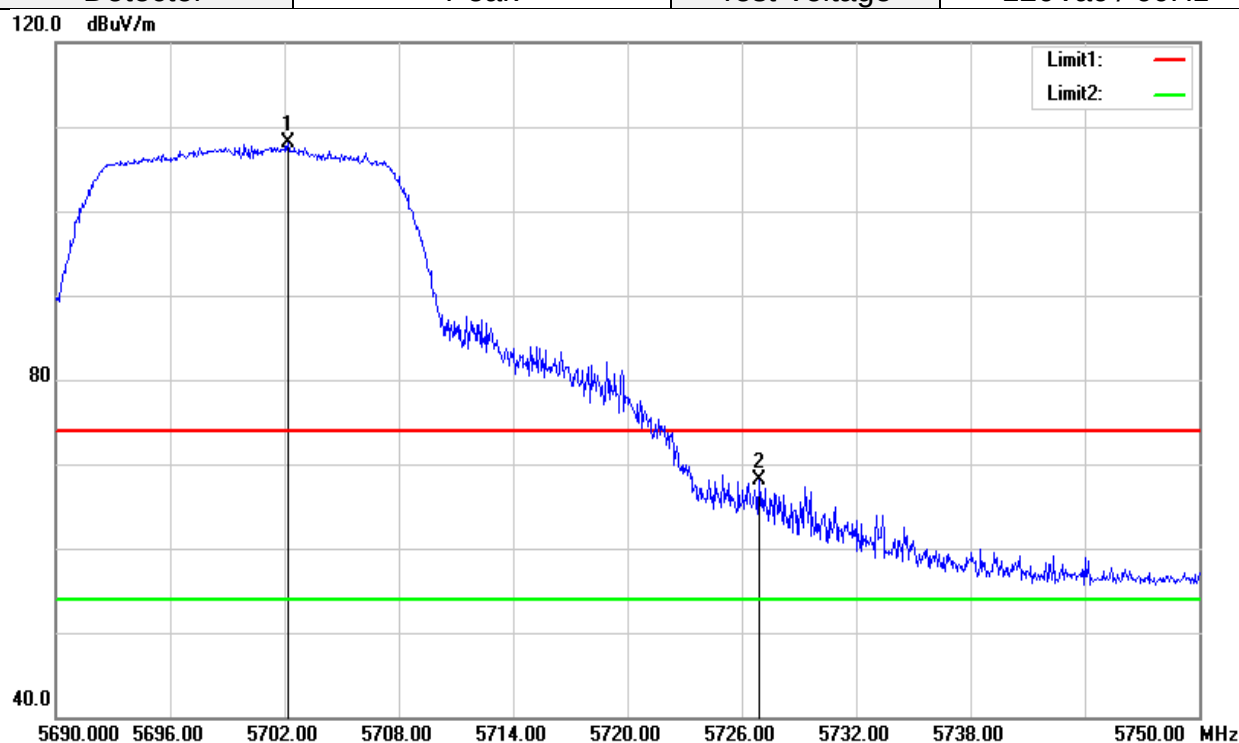
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5468.400        | 56.88          | 5.40                  | 62.28           | 74.00          | -11.72      | peak   |
| 5501.520        | 103.56         | 5.26                  | 108.82          | -              | -           | peak   |

|           |                     |               |               |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Low CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge           | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal          | Test Engineer | Kevin Kuo     |
| Detector  | Average             | Test Voltage  | 120Vac / 60Hz |



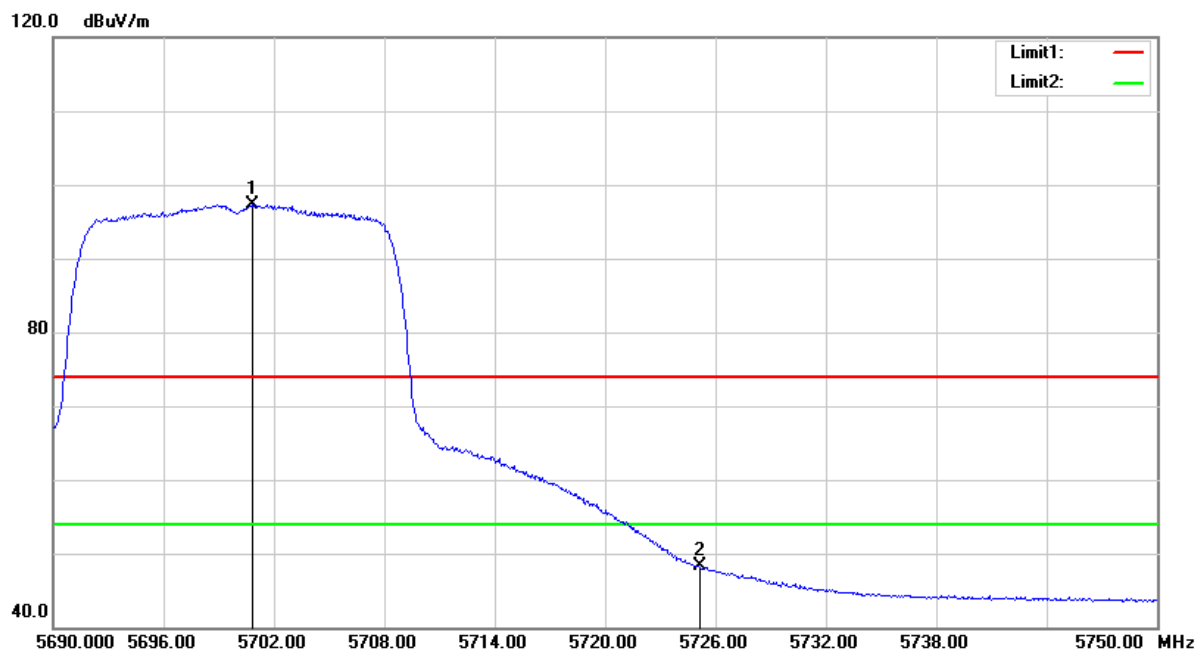
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5469.600        | 39.32          | 5.39                  | 44.71           | 54.00          | -9.29       | AVG    |
| 5501.360        | 92.88          | 5.26                  | 98.14           | -              | -           | AVG    |

|           |                      |               |               |
|-----------|----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a High CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge            | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal           | Test Engineer | Kevin Kuo     |
| Detector  | Peak                 | Test Voltage  | 120Vac / 60Hz |



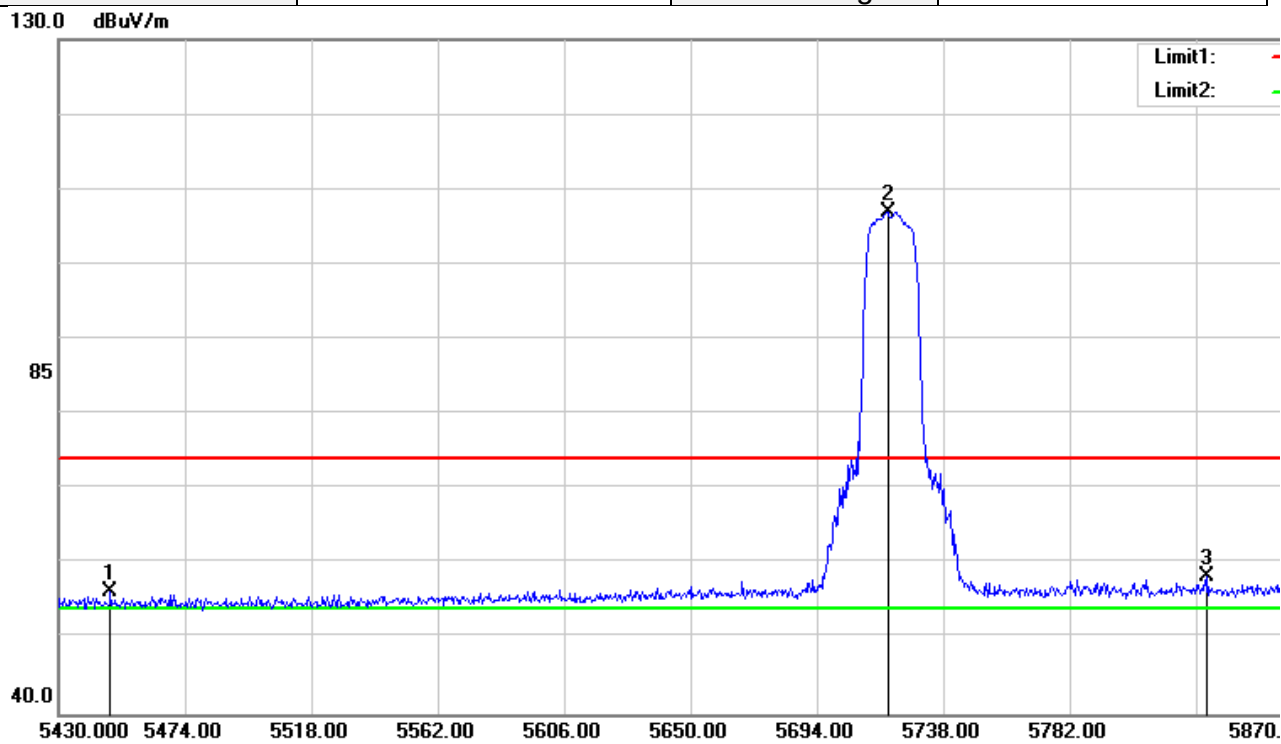
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5702.180        | 101.98         | 6.11                  | 108.09          | -              | -           | peak   |
| 5726.900        | 61.94          | 6.22                  | 68.16           | 74.00          | -5.84       | peak   |

|           |                      |               |               |
|-----------|----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a High CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge            | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal           | Test Engineer | Kevin Kuo     |
| Detector  | Average              | Test Voltage  | 120Vac / 60Hz |



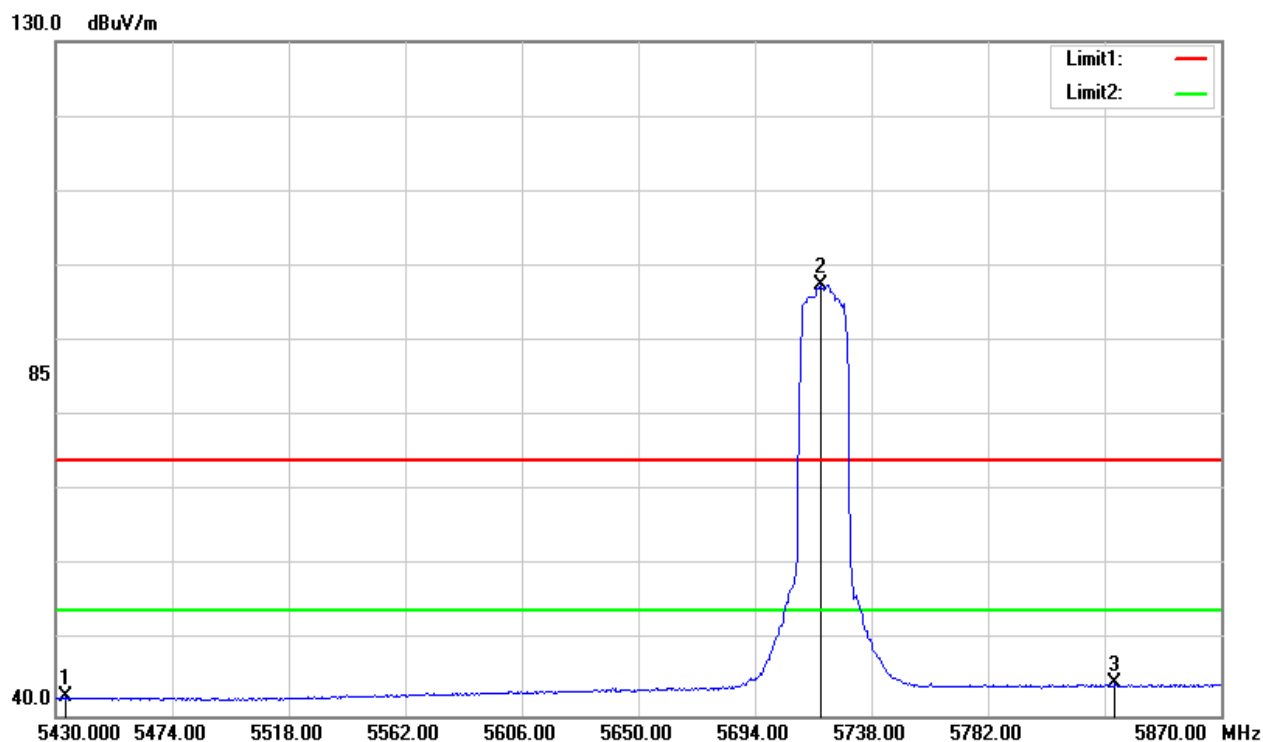
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5700.860        | 91.20          | 6.11                  | 97.31           | -              | -           | AVG    |
| 5725.160        | 41.99          | 6.21                  | 48.20           | 54.00          | -5.80       | AVG    |

|           |                       |               |               |
|-----------|-----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Cross CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge             | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal            | Test Engineer | Kevin Kuo     |
| Detector  | Peak                  | Test Voltage  | 120Vac / 60Hz |



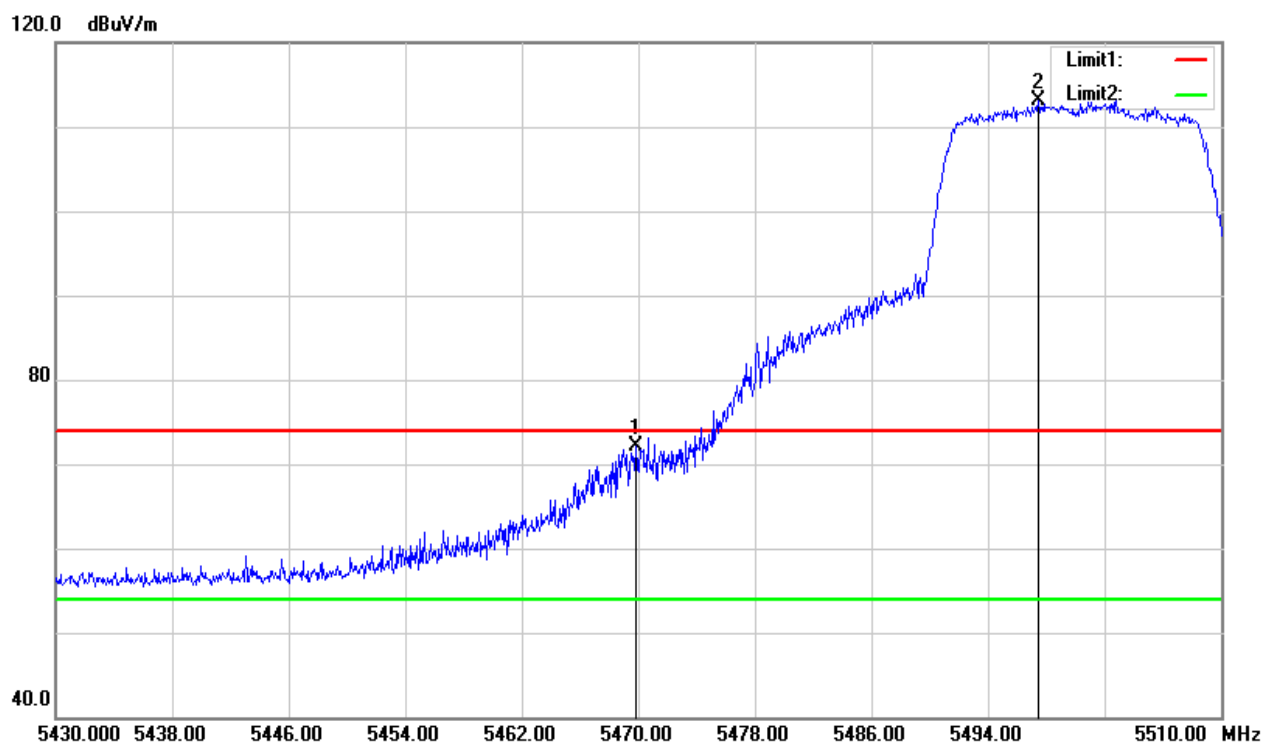
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5448.040        | 50.92          | 5.49                  | 56.41           | 74.00          | -17.59      | peak   |
| 5718.640        | 100.76         | 6.18                  | 106.94          | -              | -           | peak   |
| 5829.960        | 51.69          | 6.66                  | 58.35           | 74.00          | -15.65      | peak   |

|           |                       |               |               |
|-----------|-----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Cross CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge             | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal            | Test Engineer | Kevin Kuo     |
| Detector  | Average               | Test Voltage  | 120Vac / 60Hz |



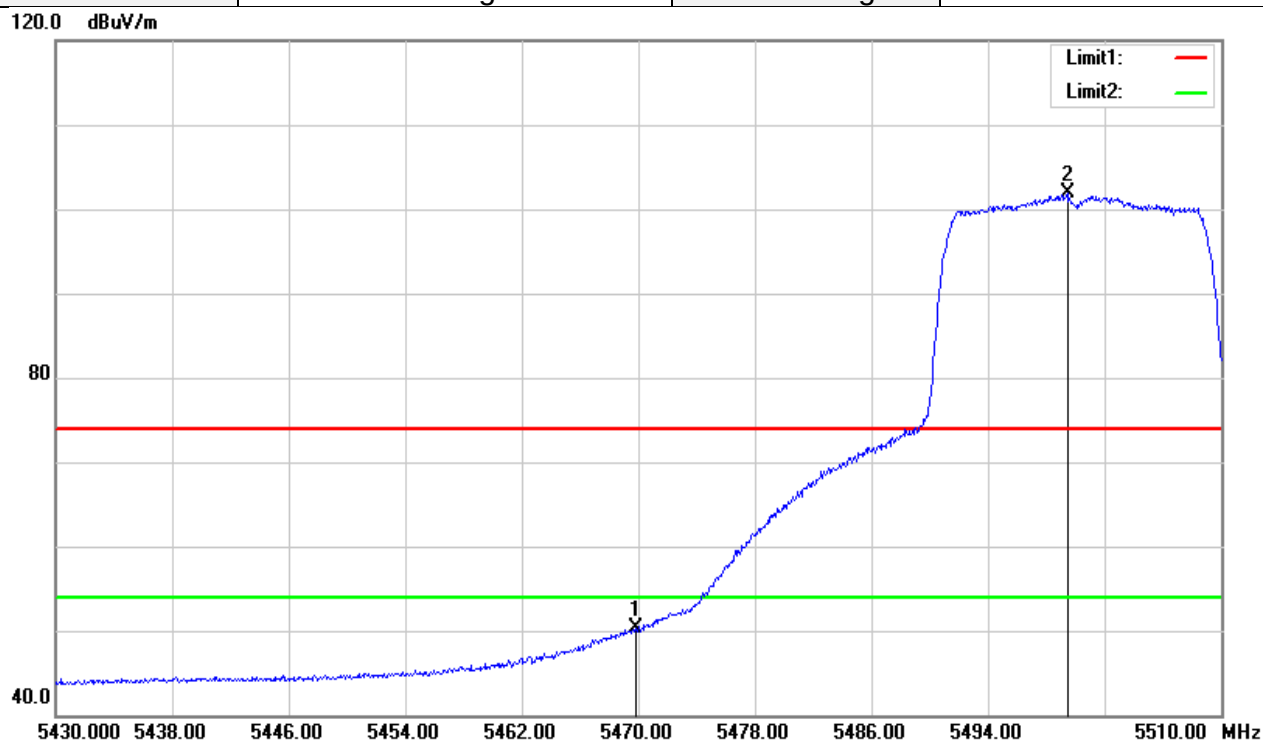
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5433.520        | 36.96          | 5.56                  | 42.52           | 54.00          | -11.48      | AVG    |
| 5718.640        | 91.38          | 6.18                  | 97.56           | -              | -           | AVG    |
| 5829.960        | 37.63          | 6.66                  | 44.29           | 54.00          | -9.71       | AVG    |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Low CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Peak                     | Test Voltage  | 120Vac / 60Hz |



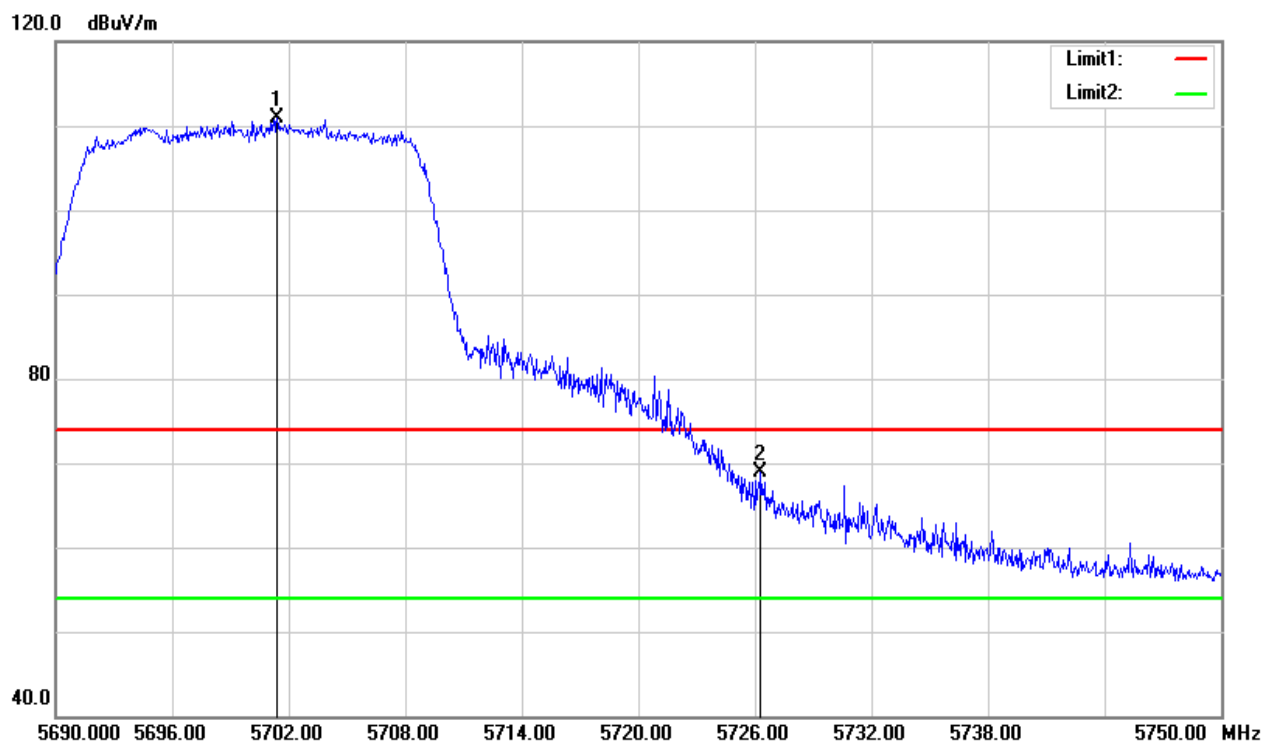
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5469.840        | 66.73          | 5.39                  | 72.12           | 74.00          | -1.88       | peak   |
| 5497.440        | 107.88         | 5.26                  | 113.14          | -              | -           | peak   |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Low CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Average                  | Test Voltage  | 120Vac / 60Hz |



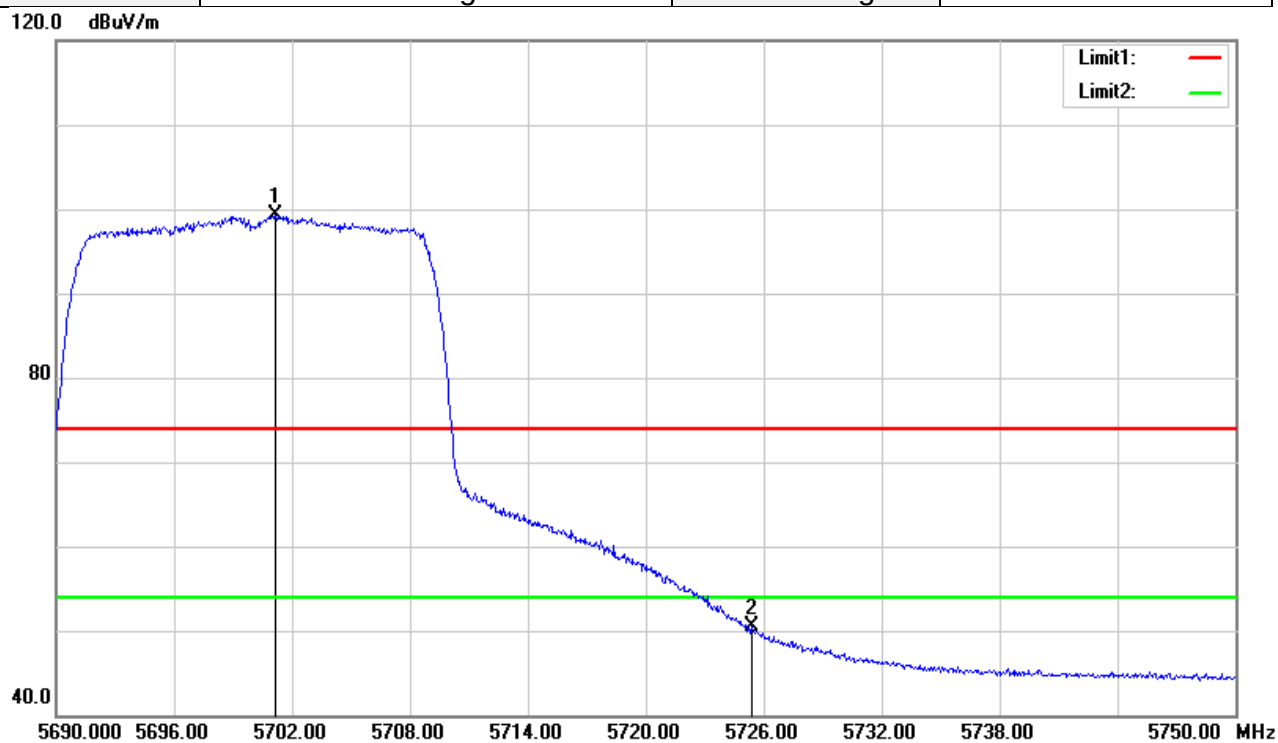
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5469.840        | 44.98          | 5.39                  | 50.37           | 54.00          | -3.63       | AVG    |
| 5499.440        | 96.56          | 5.25                  | 101.81          | -              | -           | AVG    |

|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 High CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Peak                      | Test Voltage  | 120Vac / 60Hz |



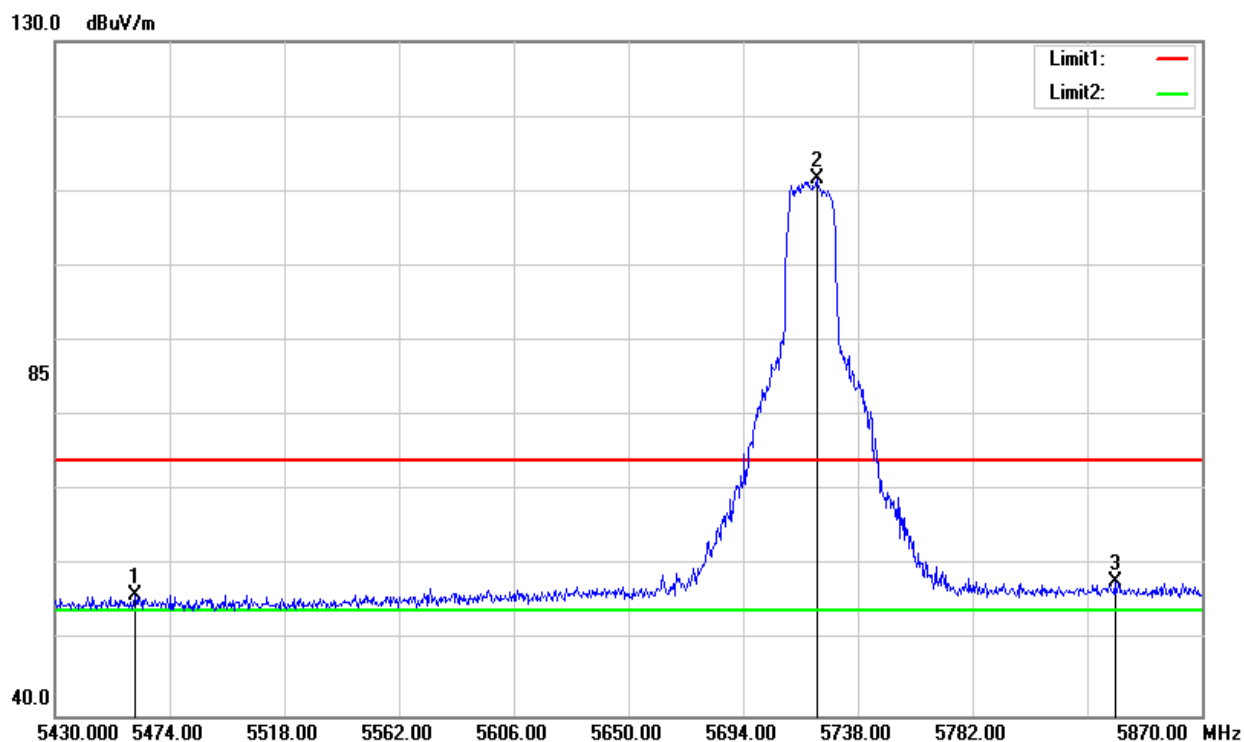
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5701.400        | 104.72         | 6.11                  | 110.83          | -              | -           | peak   |
| 5726.300        | 62.63          | 6.21                  | 68.84           | 74.00          | -5.16       | peak   |

|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 High CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Average                   | Test Voltage  | 120Vac / 60Hz |



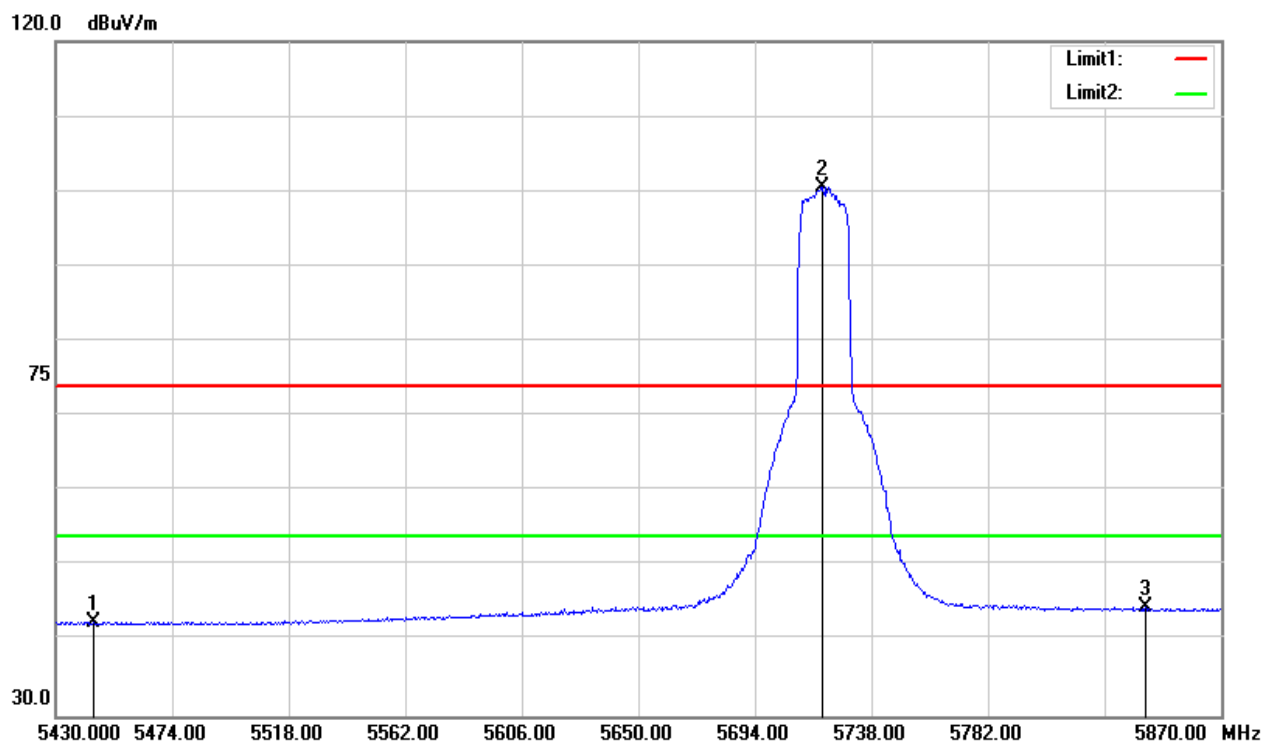
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5701.160        | 93.16          | 6.11                  | 99.27           | -              | -           | AVG    |
| 5725.400        | 44.22          | 6.21                  | 50.43           | 54.00          | -3.57       | AVG    |

|           |                            |               |               |
|-----------|----------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Cross CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                  | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                 | Test Engineer | Kevin Kuo     |
| Detector  | Peak                       | Test Voltage  | 120Vac / 60Hz |



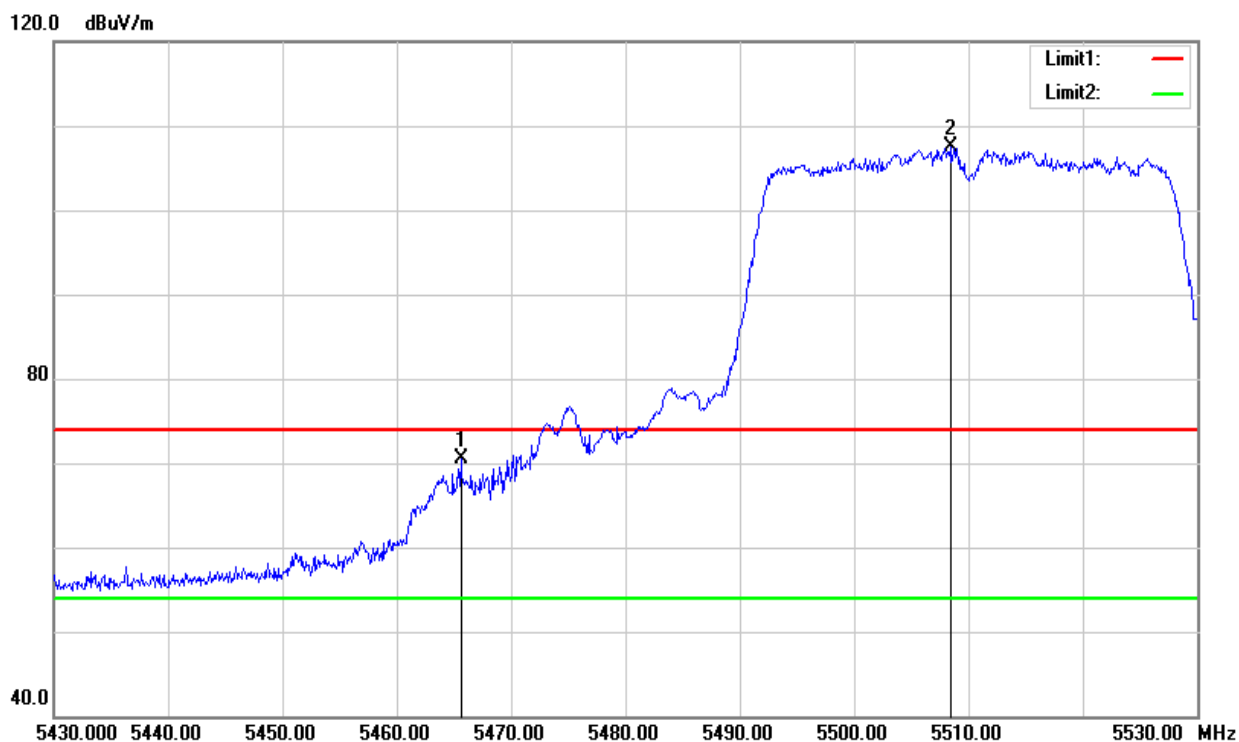
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5460.800        | 50.56          | 5.43                  | 55.99           | 74.00          | -18.01      | peak   |
| 5722.160        | 105.39         | 6.20                  | 111.59          | -              | -           | peak   |
| 5836.560        | 51.18          | 6.68                  | 57.86           | 74.00          | -16.14      | peak   |

|           |                            |               |               |
|-----------|----------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Cross CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                  | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                 | Test Engineer | Kevin Kuo     |
| Detector  | Average                    | Test Voltage  | 120Vac / 60Hz |



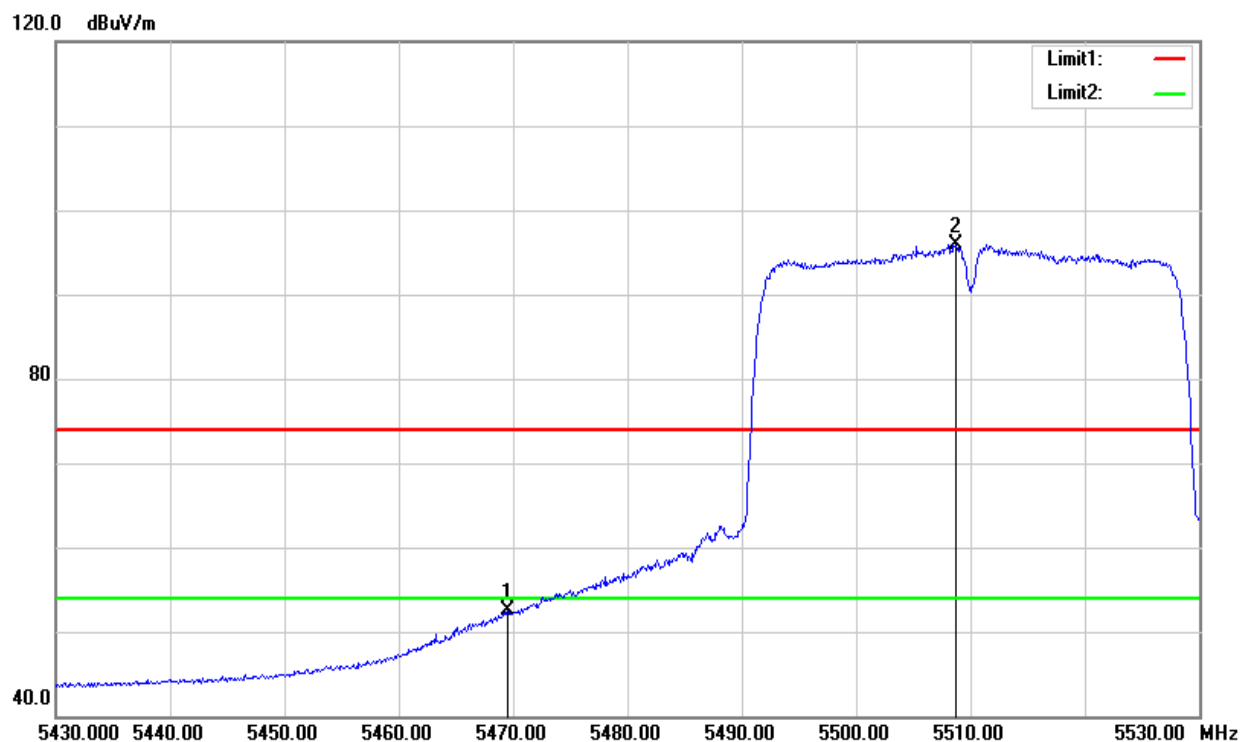
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5444.080        | 37.07          | 5.51                  | 42.58           | 54.00          | -11.42      | AVG    |
| 5719.520        | 94.42          | 6.19                  | 100.61          | -              | -           | AVG    |
| 5841.400        | 37.72          | 6.70                  | 44.42           | 54.00          | -9.58       | AVG    |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Low CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Peak                     | Test Voltage  | 120Vac / 60Hz |



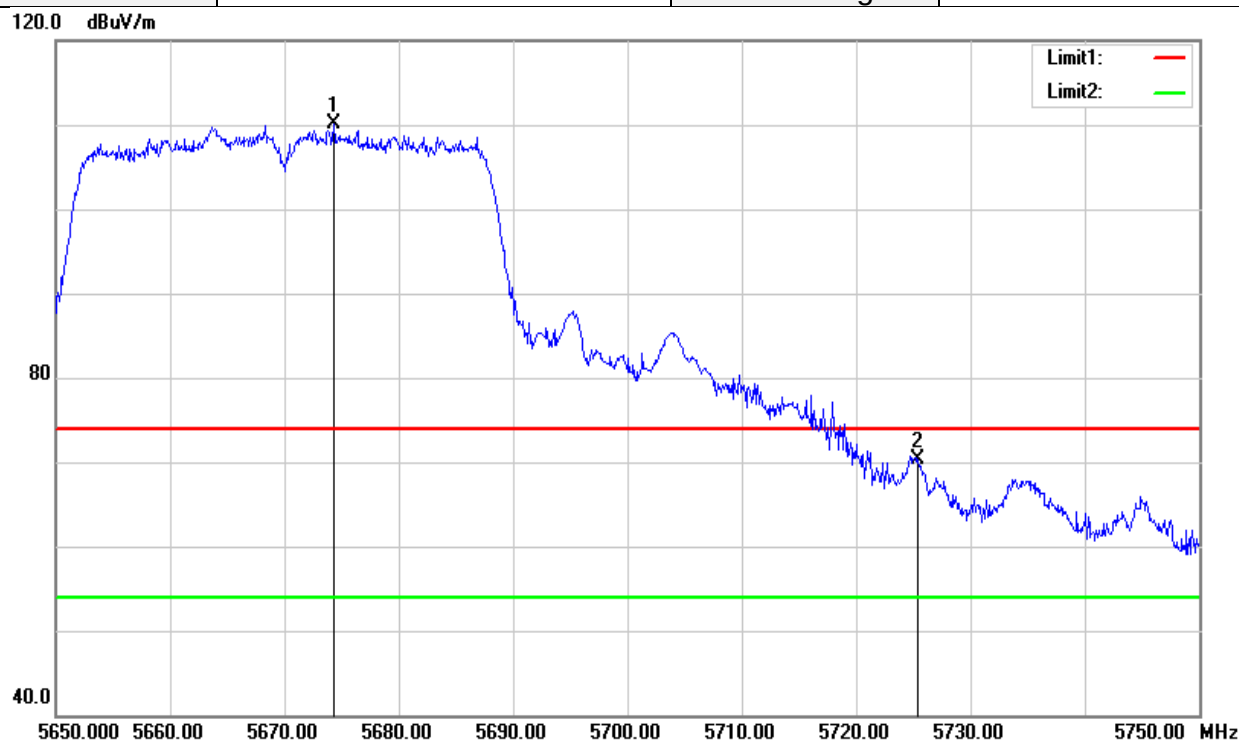
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5465.600        | 65.14          | 5.41                  | 70.55           | 74.00          | -3.45       | peak   |
| 5508.400        | 102.20         | 5.29                  | 107.49          | -              | -           | peak   |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Low CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Average                  | Test Voltage  | 120Vac / 60Hz |



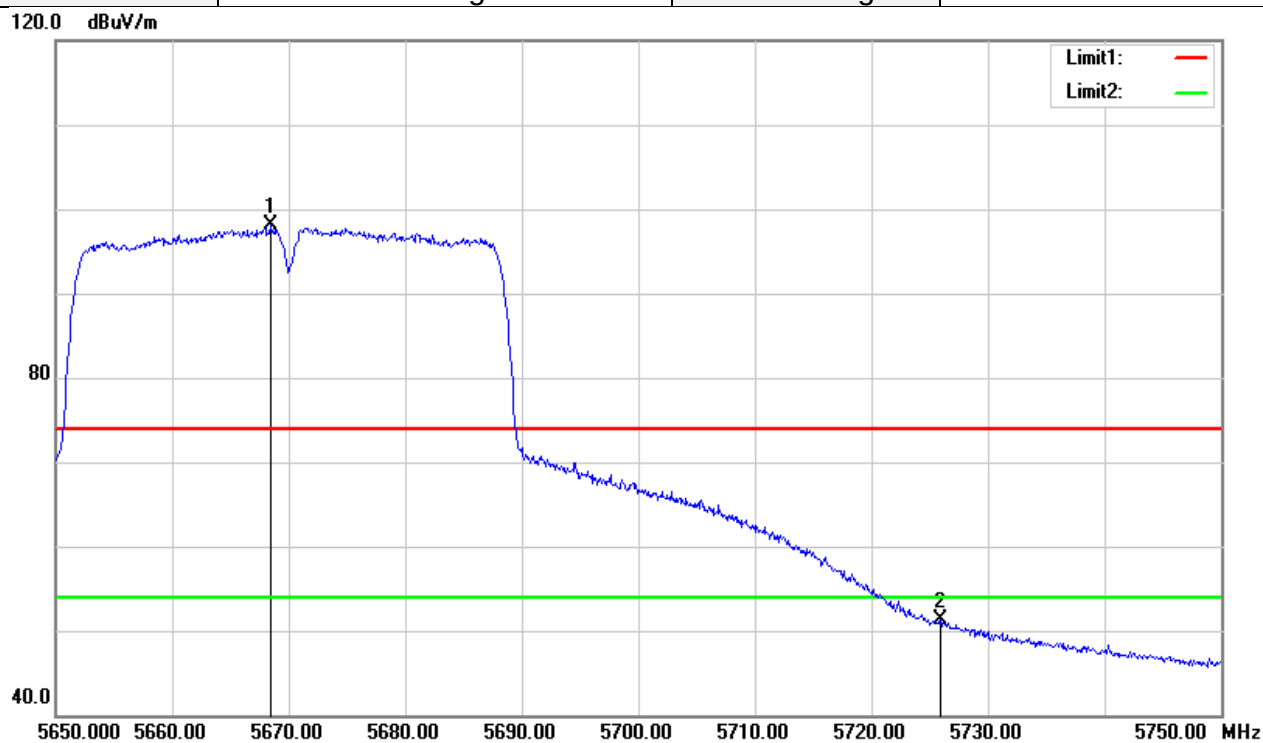
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5469.500        | 47.16          | 5.39                  | 52.55           | 54.00          | -1.45       | AVG    |
| 5508.700        | 90.65          | 5.29                  | 95.94           | -              | -           | AVG    |

|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 High CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Peak                      | Test Voltage  | 120Vac / 60Hz |



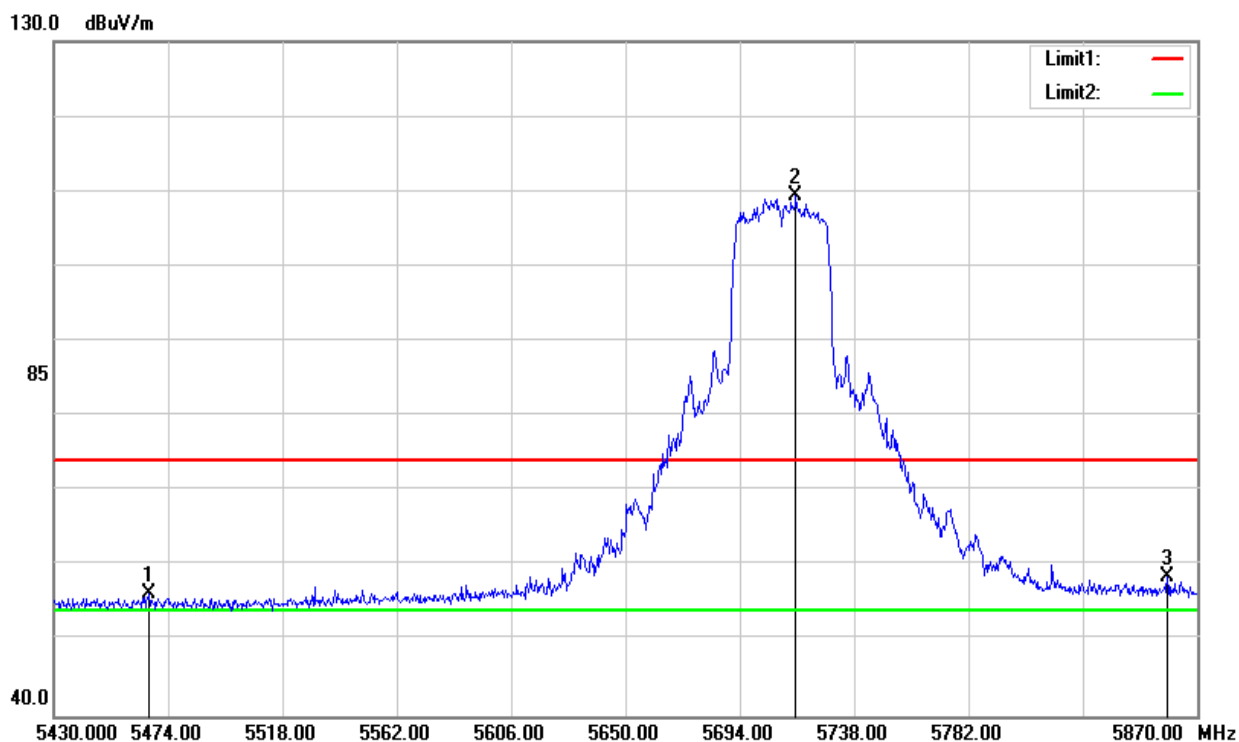
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5674.300        | 104.02         | 5.99                  | 110.01          | -              | -           | peak   |
| 5725.400        | 64.07          | 6.21                  | 70.28           | 74.00          | -3.72       | peak   |

|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 High CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Average                   | Test Voltage  | 120Vac / 60Hz |



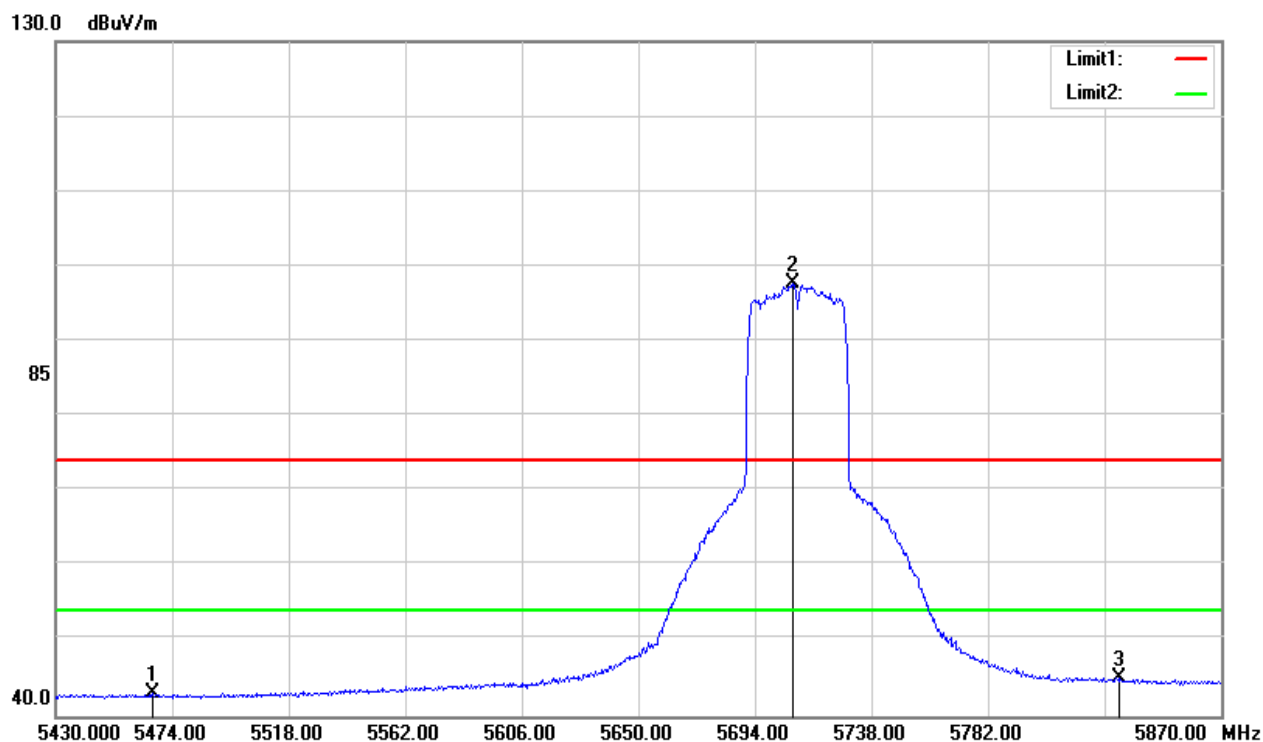
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5668.400        | 92.05          | 5.97                  | 98.02           | -              | -           | AVG    |
| 5725.900        | 45.10          | 6.21                  | 51.31           | 54.00          | -2.69       | AVG    |

|           |                            |               |               |
|-----------|----------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Cross CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                  | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                 | Test Engineer | Kevin Kuo     |
| Detector  | Peak                       | Test Voltage  | 120Vac / 60Hz |



| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5466.520        | 51.00          | 5.41                  | 56.41           | 74.00          | -17.59      | peak   |
| 5715.560        | 103.22         | 6.17                  | 109.39          | -              | -           | peak   |
| 5858.560        | 51.77          | 6.78                  | 58.55           | 74.00          | -15.45      | peak   |

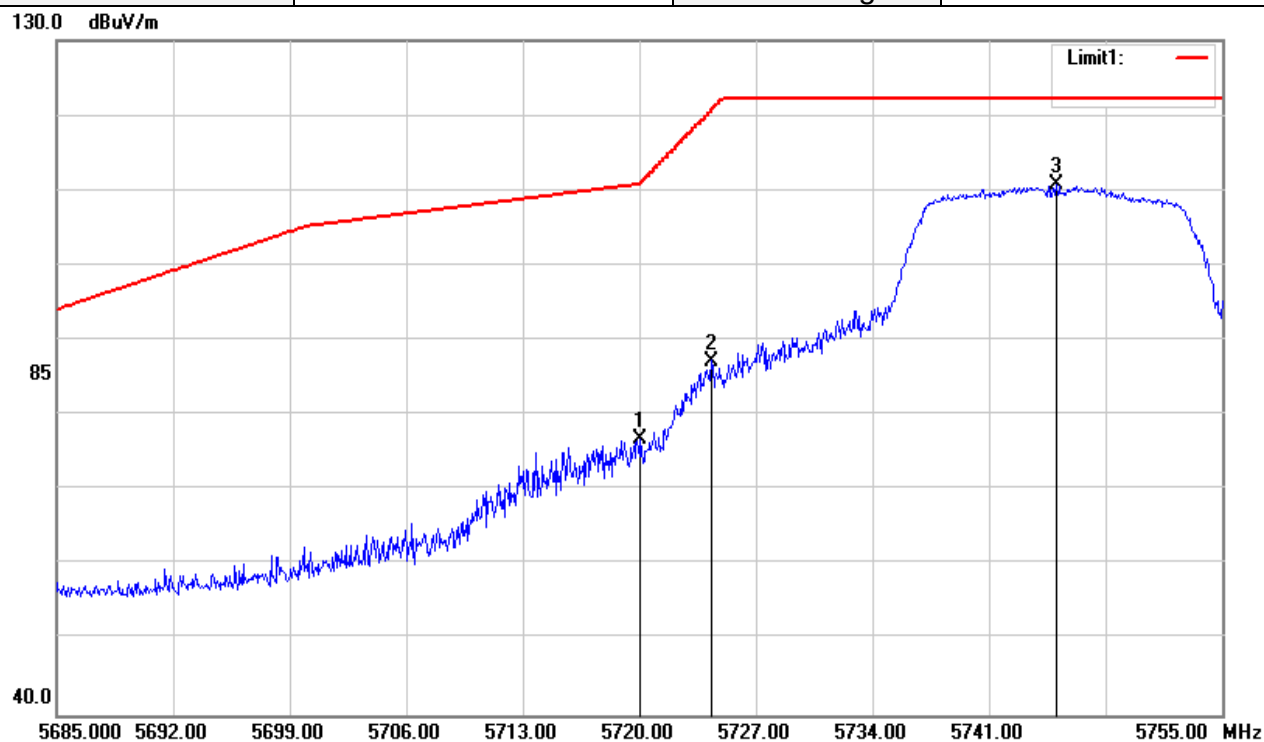
|           |                            |               |               |
|-----------|----------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Cross CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                  | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                 | Test Engineer | Kevin Kuo     |
| Detector  | Average                    | Test Voltage  | 120Vac / 60Hz |



| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5466.520        | 37.52          | 5.41                  | 42.93           | 54.00          | -11.07      | AVG    |
| 5708.080        | 91.49          | 6.14                  | 97.63           | -              | -           | AVG    |
| 5831.280        | 38.40          | 6.66                  | 45.06           | 54.00          | -8.94       | AVG    |

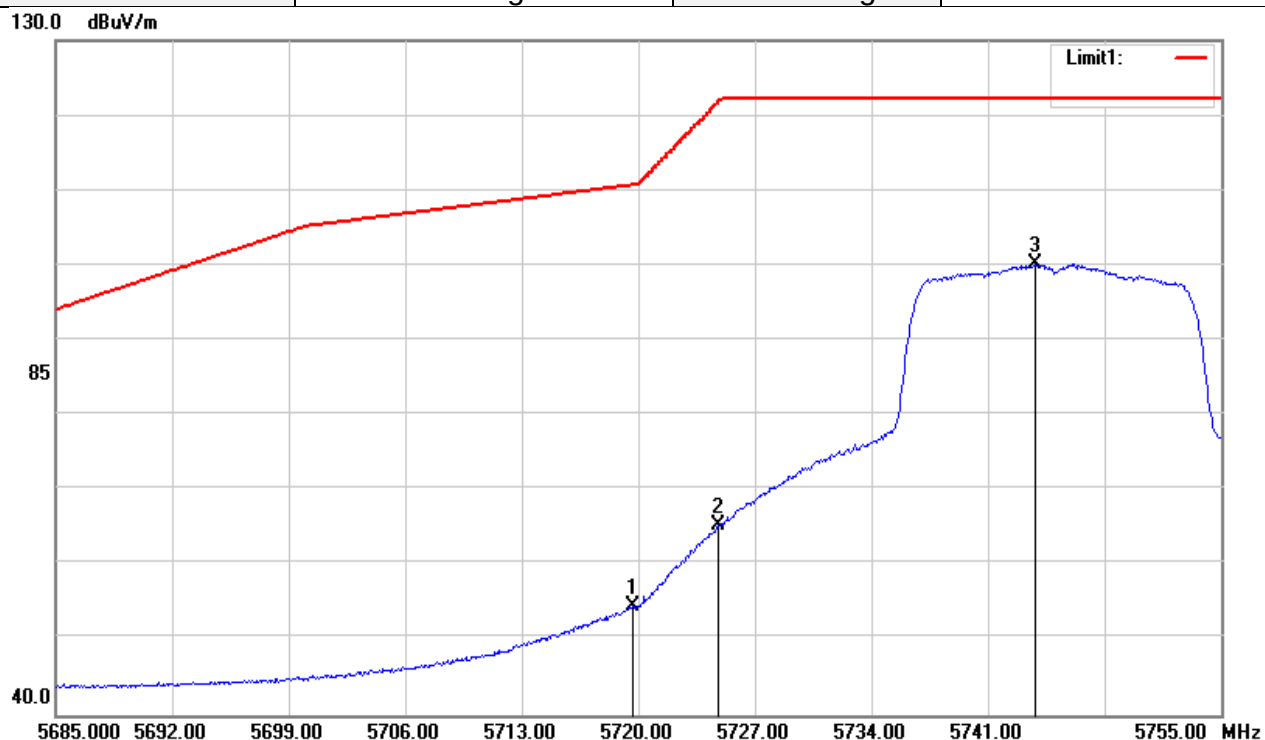
**Band Edge Test Data for UNII-3****For FCC**

|           |                     |               |               |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Low CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge           | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal          | Test Engineer | Kevin Kuo     |
| Detector  | Peak                | Test Voltage  | 120Vac / 60Hz |



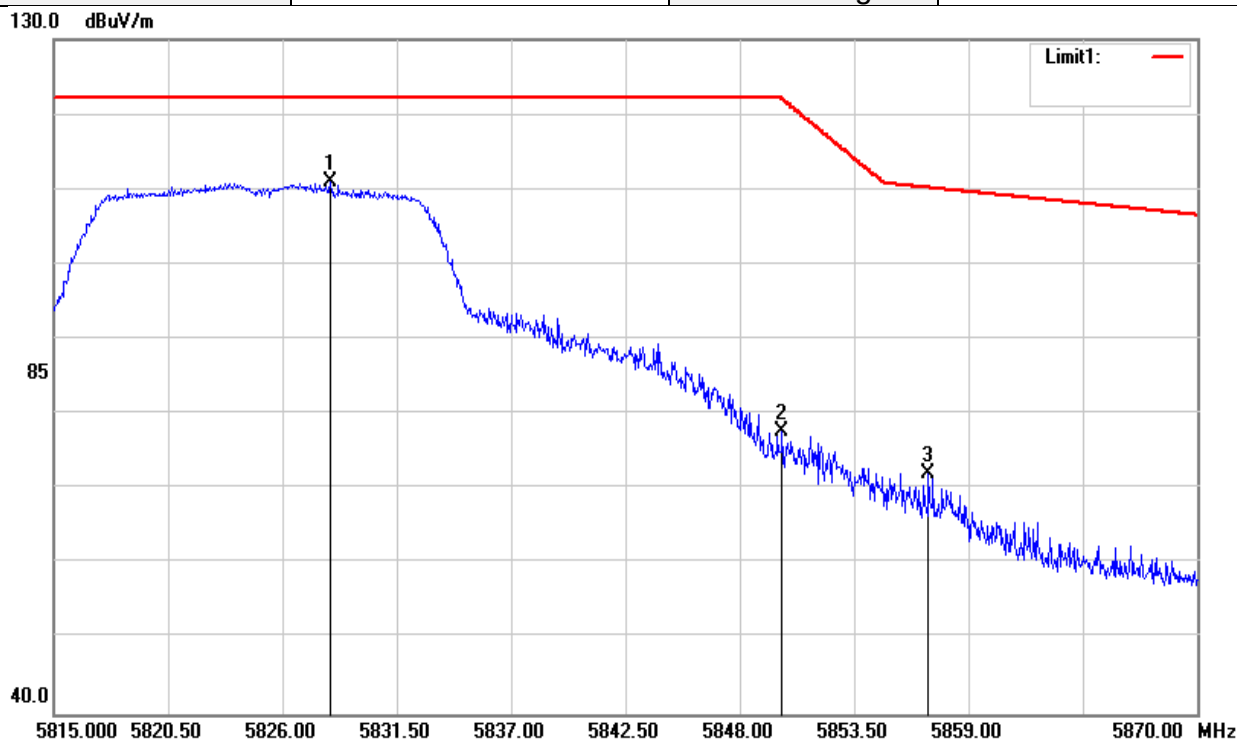
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5720.070        | 70.58          | 6.19                  | 76.77           | 110.96         | -34.19      | peak   |
| 5724.340        | 81.04          | 6.21                  | 87.25           | 120.70         | -33.45      | peak   |
| 5745.060        | 104.53         | 6.29                  | 110.82          | 122.20         | -11.38      | peak   |

|           |                     |               |               |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Low CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge           | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal          | Test Engineer | Kevin Kuo     |
| Detector  | Average             | Test Voltage  | 120Vac / 60Hz |



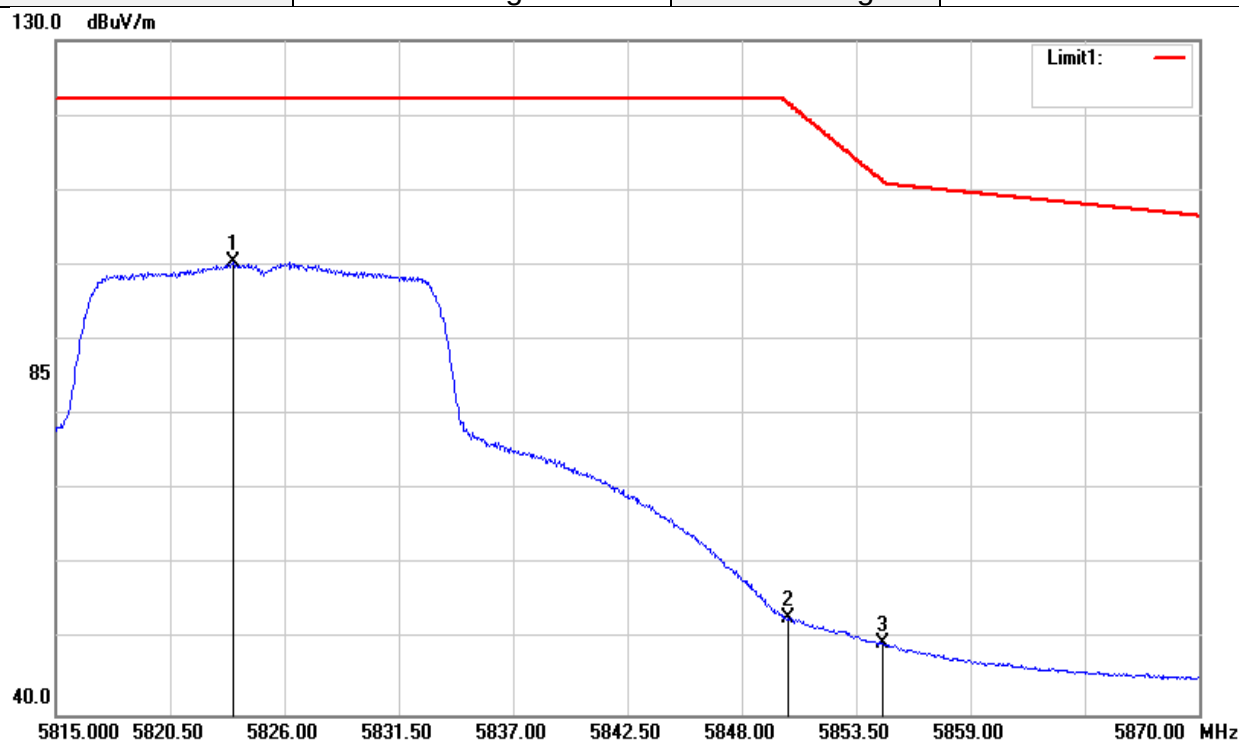
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5719.650        | 48.30          | 6.19                  | 54.49           | 110.70         | -56.21      | AVG    |
| 5724.760        | 59.06          | 6.21                  | 65.27           | 121.65         | -56.38      | AVG    |
| 5743.800        | 93.93          | 6.29                  | 100.22          | 122.20         | -21.98      | AVG    |

|           |                      |               |               |
|-----------|----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a High CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge            | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal           | Test Engineer | Kevin Kuo     |
| Detector  | Peak                 | Test Voltage  | 120Vac / 60Hz |



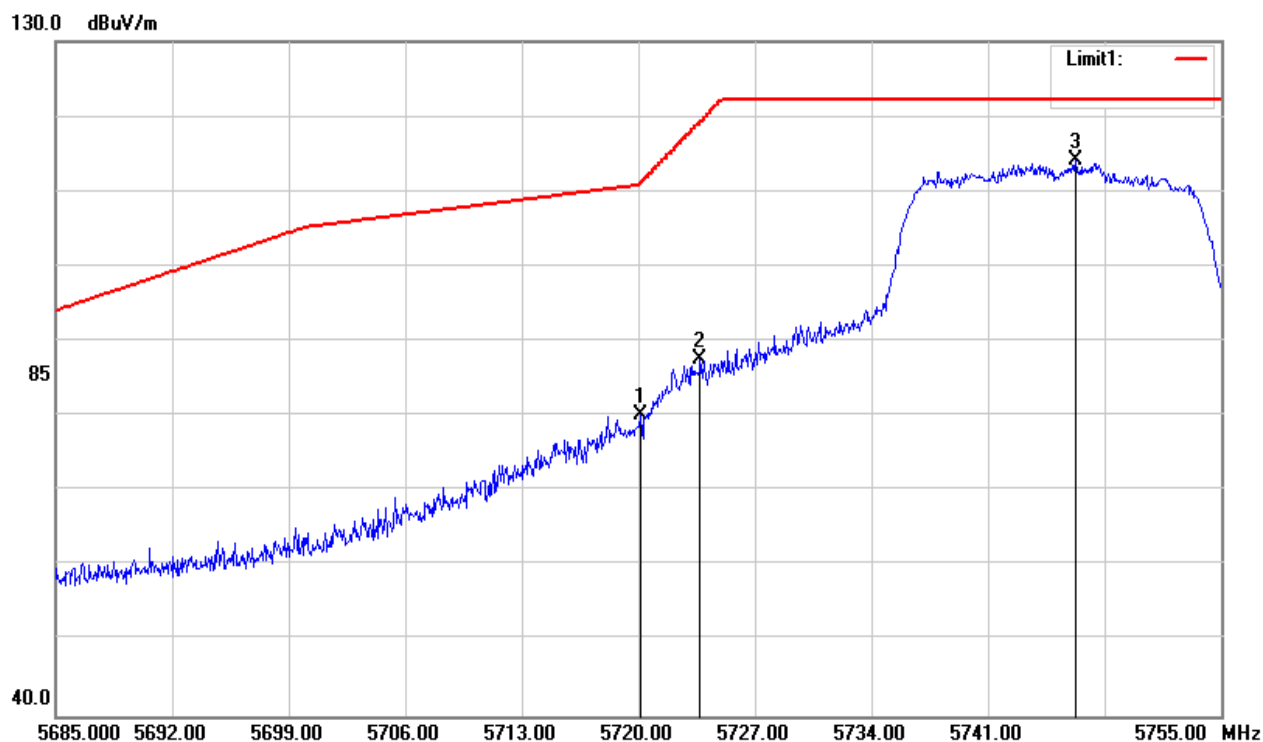
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5828.310        | 104.40         | 6.65                  | 111.05          | 122.20         | -11.15      | peak   |
| 5850.035        | 71.02          | 6.74                  | 77.76           | 122.12         | -44.36      | peak   |
| 5857.075        | 65.29          | 6.77                  | 72.06           | 110.22         | -38.16      | peak   |

|           |                      |               |               |
|-----------|----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a High CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge            | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal           | Test Engineer | Kevin Kuo     |
| Detector  | Average              | Test Voltage  | 120Vac / 60Hz |



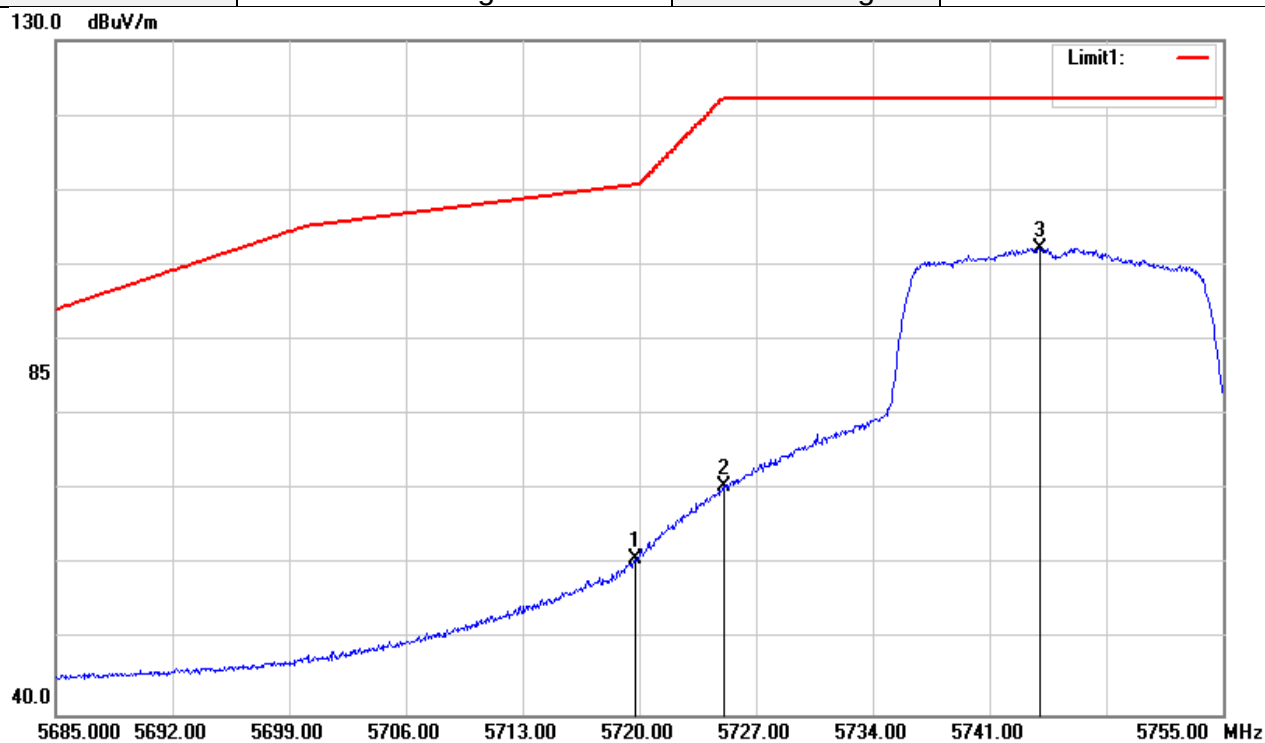
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5823.525        | 93.69          | 6.63                  | 100.32          | 122.20         | -21.88      | AVG    |
| 5850.255        | 46.18          | 6.74                  | 52.92           | 121.62         | -68.70      | AVG    |
| 5854.765        | 42.73          | 6.76                  | 49.49           | 111.34         | -61.85      | AVG    |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Low CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Peak                     | Test Voltage  | 120Vac / 60Hz |



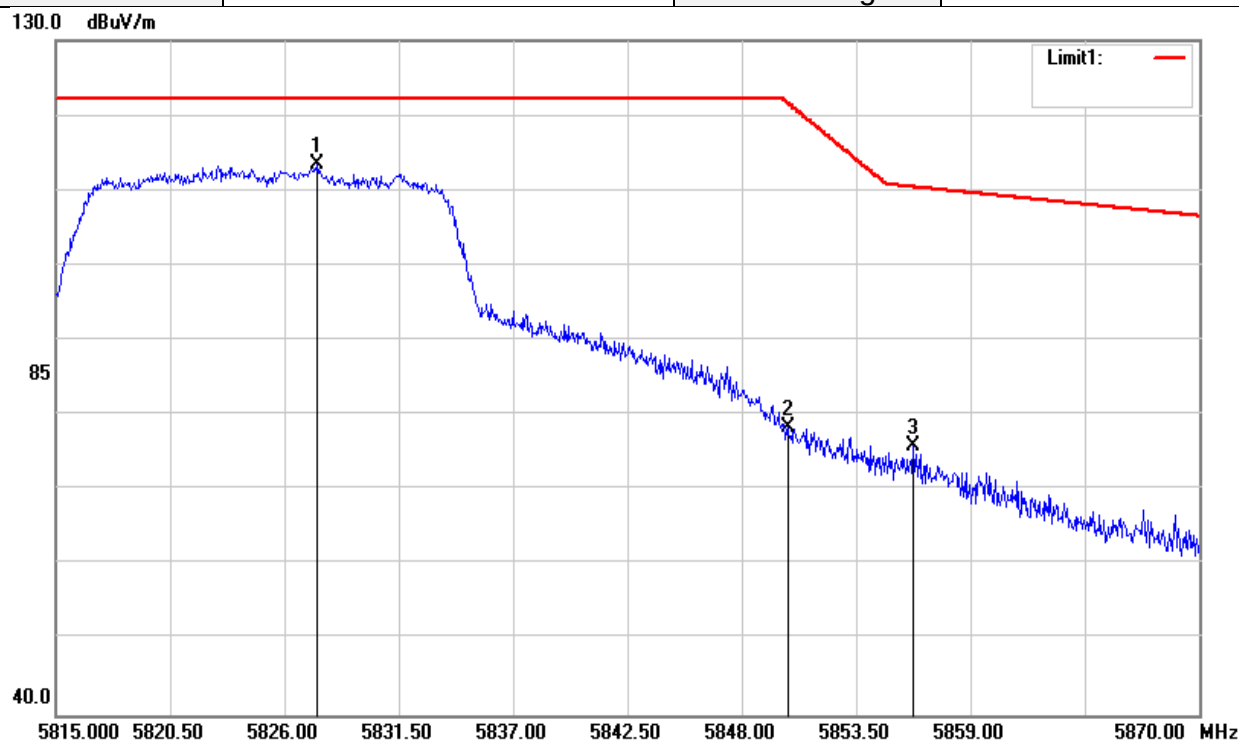
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5720.140        | 73.92          | 6.19                  | 80.11           | 111.12         | -31.01      | peak   |
| 5723.710        | 81.44          | 6.20                  | 87.64           | 119.26         | -31.62      | peak   |
| 5746.250        | 107.89         | 6.30                  | 114.19          | 122.20         | -8.01       | peak   |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Low CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Average                  | Test Voltage  | 120Vac / 60Hz |



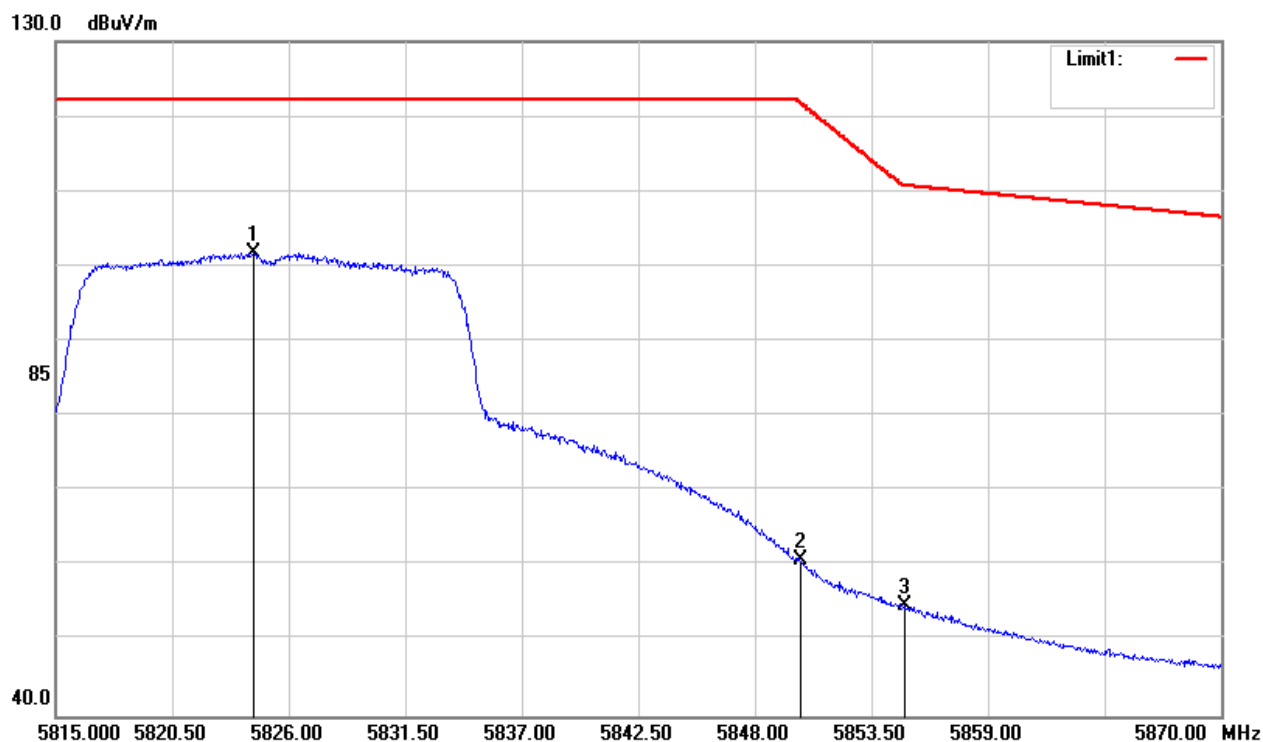
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5719.790        | 54.66          | 6.19                  | 60.85           | 110.74         | -49.89      | AVG    |
| 5725.040        | 64.17          | 6.21                  | 70.38           | 122.20         | -51.82      | AVG    |
| 5744.010        | 95.94          | 6.29                  | 102.23          | 122.20         | -19.97      | AVG    |

|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 High CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Peak                      | Test Voltage  | 120Vac / 60Hz |



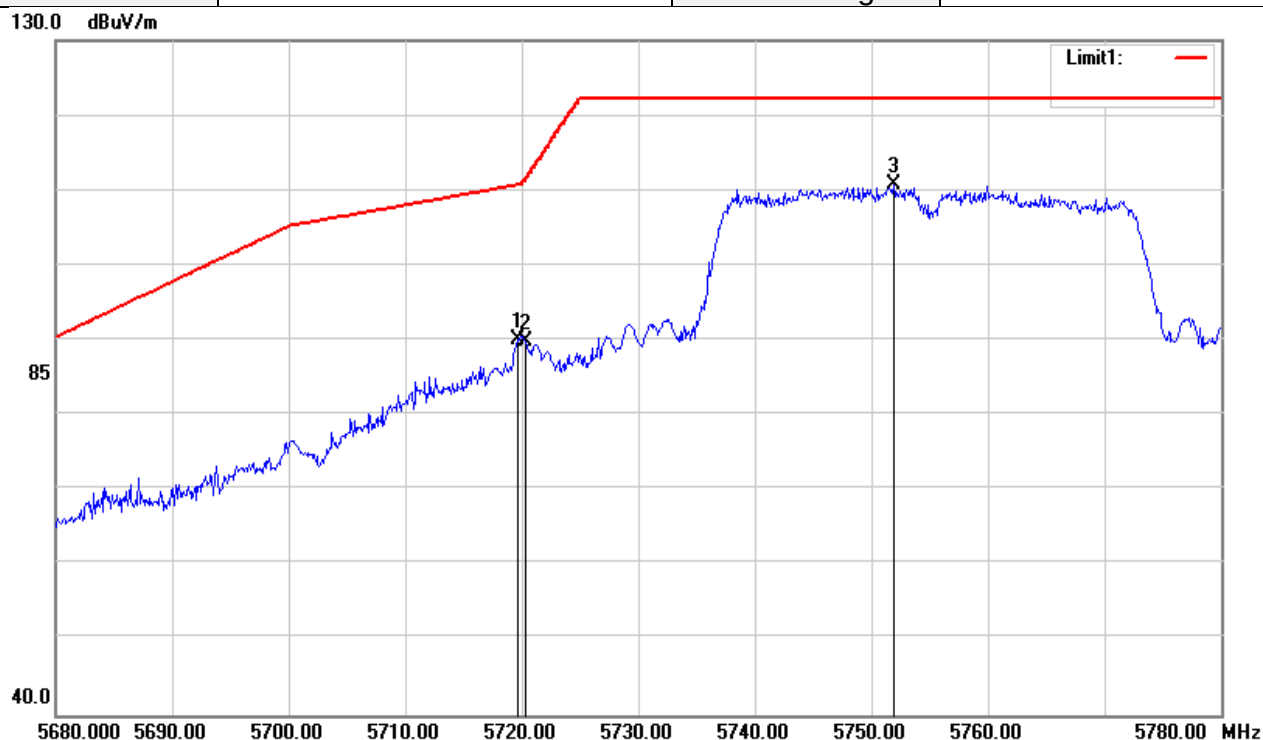
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5827.595        | 106.79         | 6.65                  | 113.44          | 122.20         | -8.76       | peak   |
| 5850.200        | 71.57          | 6.74                  | 78.31           | 121.74         | -43.43      | peak   |
| 5856.250        | 69.14          | 6.77                  | 75.91           | 110.45         | -34.54      | peak   |

|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 High CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Average                   | Test Voltage  | 120Vac / 60Hz |



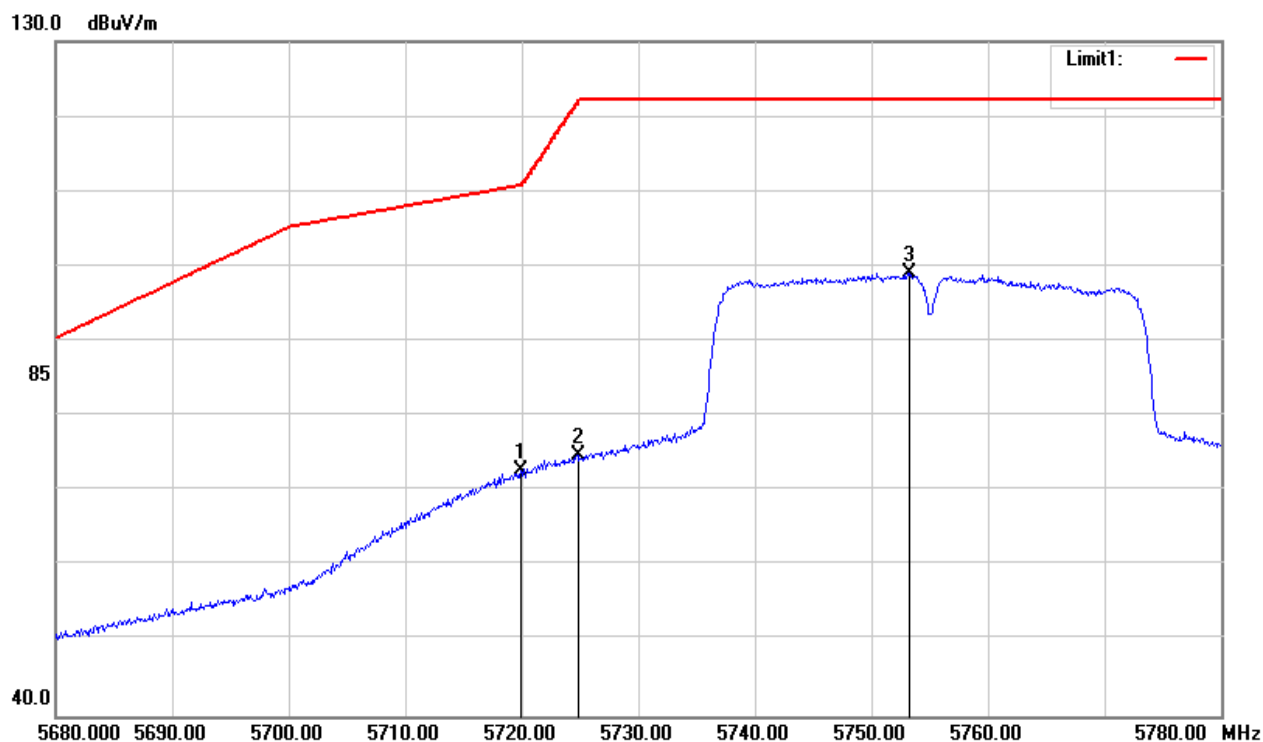
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5824.350        | 95.10          | 6.63                  | 101.73          | 122.20         | -20.47      | AVG    |
| 5850.145        | 53.96          | 6.74                  | 60.70           | 121.87         | -61.17      | AVG    |
| 5855.095        | 47.98          | 6.76                  | 54.74           | 110.77         | -56.03      | AVG    |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Low CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Peak                     | Test Voltage  | 120Vac / 60Hz |



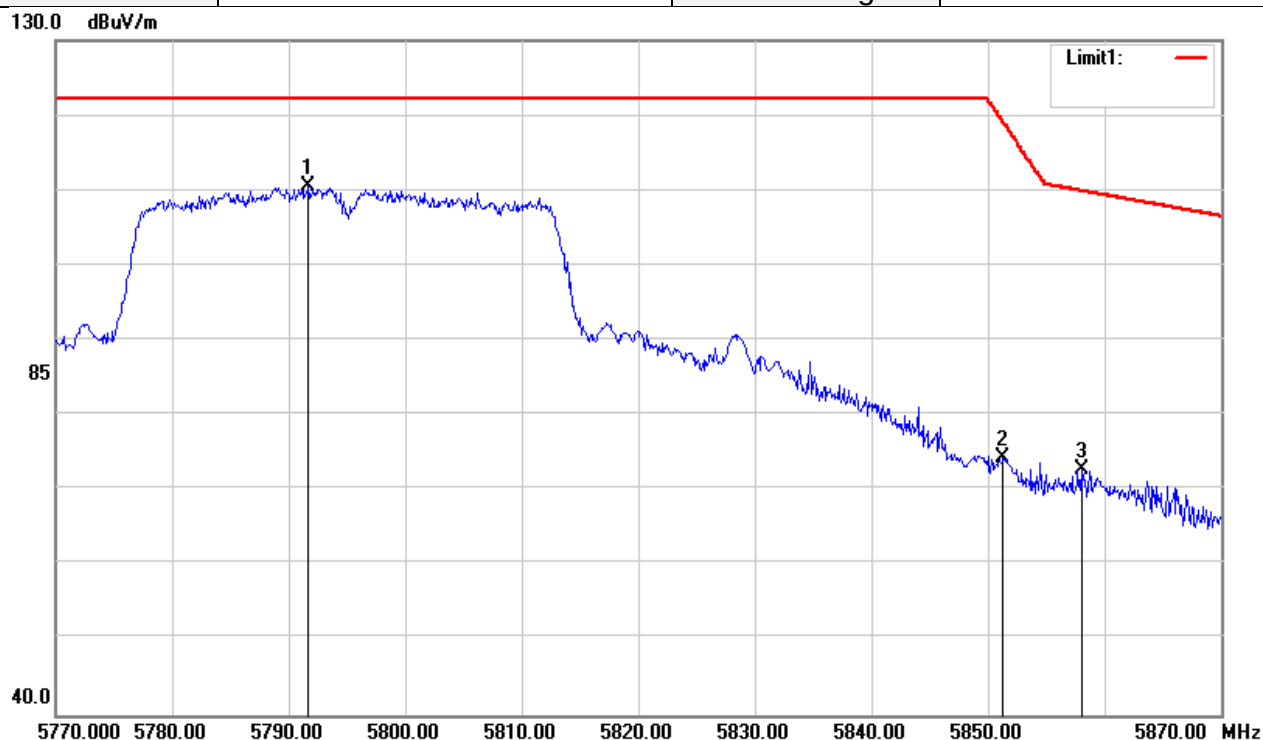
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5719.700        | 83.95          | 6.19                  | 90.14           | 110.72         | -20.58      | peak   |
| 5720.300        | 83.54          | 6.19                  | 89.73           | 111.48         | -21.75      | peak   |
| 5751.900        | 104.50         | 6.32                  | 110.82          | 122.20         | -11.38      | peak   |

|           |                          |               |               |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Low CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal               | Test Engineer | Kevin Kuo     |
| Detector  | Average                  | Test Voltage  | 120Vac / 60Hz |



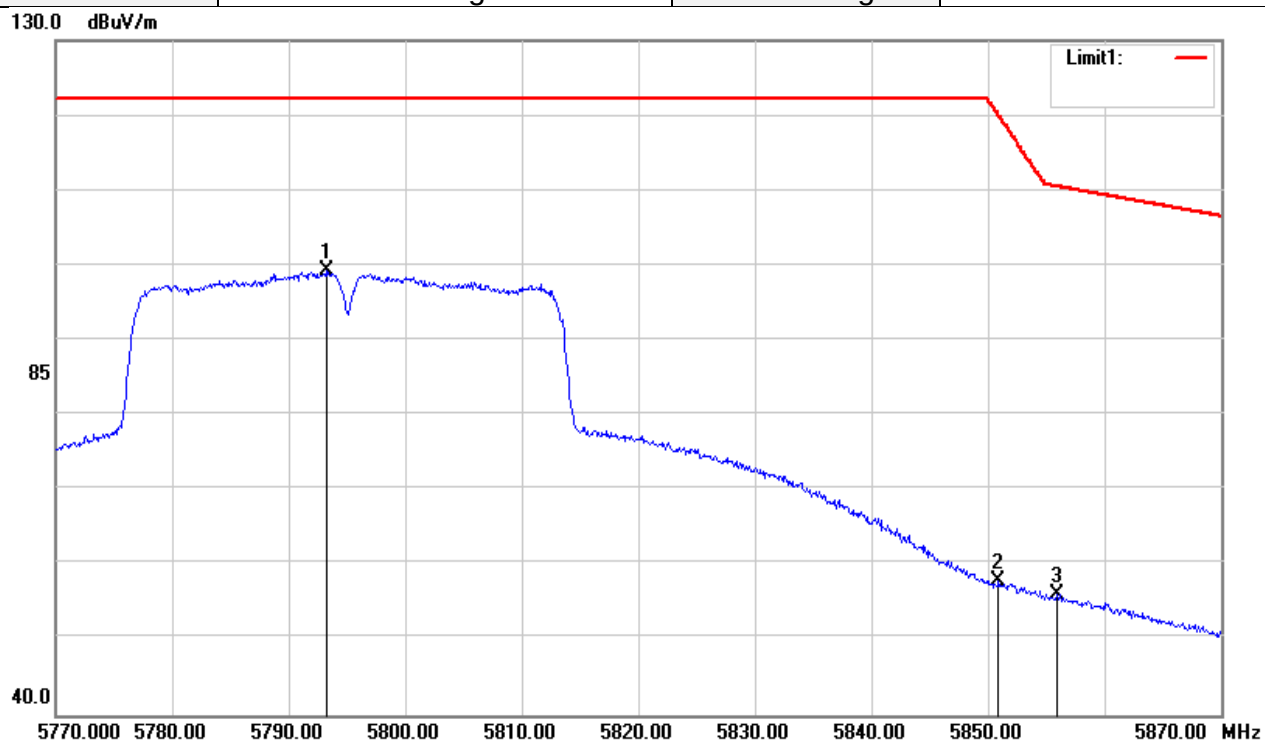
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5719.900        | 66.56          | 6.19                  | 72.75           | 110.77         | -38.02      | AVG    |
| 5724.800        | 68.55          | 6.21                  | 74.76           | 121.74         | -46.98      | AVG    |
| 5753.200        | 92.72          | 6.33                  | 99.05           | 122.20         | -23.15      | AVG    |

|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 High CH | Temp/Hum      | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Peak                      | Test Voltage  | 120Vac / 60Hz |



| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5791.700        | 104.05         | 6.49                  | 110.54          | 122.20         | -11.66      | peak   |
| 5851.300        | 67.56          | 6.75                  | 74.31           | 119.24         | -44.93      | peak   |
| 5858.000        | 66.06          | 6.78                  | 72.84           | 109.96         | -37.12      | peak   |

|           |                           |               |               |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 High CH | Temperature   | 27(°C)/ 53%RH |
| Test Item | Band Edge                 | Test Date     | Jan 26, 2017  |
| Polarize  | Horizontal                | Test Engineer | Kevin Kuo     |
| Detector  | Average                   | Test Voltage  | 120Vac / 60Hz |



| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5793.200        | 92.80          | 6.50                  | 99.30           | 122.20         | -22.90      | AVG    |
| 5850.900        | 51.18          | 6.74                  | 57.92           | 120.15         | -62.23      | AVG    |
| 5855.900        | 49.31          | 6.77                  | 56.08           | 110.55         | -54.47      | AVG    |