



# FCC RF Test Report

APPLICANT : Ubiquiti Networks, Inc.  
EQUIPMENT : NanoBeam AC  
BRAND NAME : UBIQUITI  
MODEL NAME : NBE-5AC-Gen2  
FCC ID : SWX-NBE5ACG2W  
STANDARD : FCC Part 15 Subpart E §15.407  
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure

The product was received on May 30, 2017 and testing was completed on Sep. 05, 2017. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



## SPORTON INTERNATIONAL INC.

No. 52, Hwa Ya 1<sup>st</sup> Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.

SPORTON INTERNATIONAL INC.

TEL : 886-3-327-3456

FAX : 886-3-328-4978

FCC ID : SWX-NBE5ACG2W

Page Number : 1 of 32

Report Issued Date : Sep. 07, 2017

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## REVISION HISTORY

| REPORT NO.   | VERSION | DESCRIPTION                                         | ISSUED DATE   |
|--------------|---------|-----------------------------------------------------|---------------|
| FR561115-03B | Rev. 01 | Initial issue of report                             | Sep. 05, 2017 |
| FR561115-03B | Rev. 02 | Revised the description in section 3.2.1 and 3.3.1. | Sep. 07, 2017 |
|              |         |                                                     |               |
|              |         |                                                     |               |
|              |         |                                                     |               |
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|              |         |                                                     |               |
|              |         |                                                     |               |
|              |         |                                                     |               |
|              |         |                                                     |               |



## SUMMARY OF TEST RESULT

| Report Section | FCC Rule              | Description                            | Limit                                             | Result | Remark                                    |
|----------------|-----------------------|----------------------------------------|---------------------------------------------------|--------|-------------------------------------------|
| 3.1            | 2.1049<br>15.403(i)   | 26dB & 99% Bandwidth                   | -                                                 | Pass   | -                                         |
| 3.2            | 15.407(a)             | Maximum Conducted Output Power         | FCC<br>$\leq 30$ dBm<br>(depend on band)          | Pass   | -                                         |
| 3.3            | 15.407(a)             | Power Spectral Density                 | FCC<br>$\leq 17$ dBm<br>(depend on band)          | Pass   | -                                         |
| 3.4            | 15.407(b)             | Unwanted Emissions                     | $\leq -17, -27$ dBm<br>(depend on band)&15.209(a) | Pass   | Under limit<br>0.34 dB at<br>5149.760 MHz |
| 3.5            | 15.207                | AC Conducted Emission                  | 15.207(a)                                         | Pass   | Under limit<br>8.80 dB at<br>0.150 MHz    |
| 3.6            | 15.407(g)             | Frequency Stability                    | Within Operation Band                             | Pass   | -                                         |
| 3.7            | 15.407(c)             | Automatically Discontinue Transmission | Discontinue Transmission                          | Pass   | -                                         |
| 3.8            | 15.203 &<br>15.407(a) | Antenna Requirement                    | N/A                                               | Pass   | -                                         |



# 1 General Description

## 1.1 Applicant

**Ubiquiti Networks, Inc.**

685 Third Avenue, 27th Floor New York, New York 10017 USA

## 1.2 Manufacturer

**Ubiquiti Networks, Inc.**

685 Third Avenue, 27th Floor New York, New York 10017 USA

## 1.3 Product Feature of Equipment Under Test

Wi-Fi 2.4GHz 802.11b/g/n, Wi-Fi 5GHz 802.11a/n/ac.

| Product Specification subjective to this standard |                        |
|---------------------------------------------------|------------------------|
| Antenna Type                                      | WLAN: Internal Antenna |

## 1.4 Modification of EUT

No modifications are made to the EUT during all test items.



## 1.5 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW0007 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

|                           |                                                                                                                                                                  |         |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| <b>Test Site</b>          | SPORTON INTERNATIONAL INC.                                                                                                                                       |         |
| <b>Test Site Location</b> | No. 52, Hwa Ya 1 <sup>st</sup> Rd., Hwa Ya Technology Park,<br>Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.<br>TEL: +886-3-327-3456<br>FAX: +886-3-328-4978 |         |
| <b>Test Site No.</b>      | <b>Sporton Site No.</b>                                                                                                                                          |         |
|                           | TH02-HY                                                                                                                                                          | CO05-HY |

**Note:** The test site complies with ANSI C63.4 2014 requirement.

|                           |                                                                                                                                        |  |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Test Site</b>          | SPORTON INTERNATIONAL INC.                                                                                                             |  |
| <b>Test Site Location</b> | No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd. Guishan Dist,<br>Taoyuan City, Taiwan (R.O.C.)<br>TEL: +886-3-327-0868<br>FAX: +886-3-327-0855 |  |
| <b>Test Site No.</b>      | <b>Sporton Site No.</b>                                                                                                                |  |
|                           | 03CH13-HY                                                                                                                              |  |

**Note:** The test site complies with ANSI C63.4 2014 requirement.



## **1.6 Applicable Standards**

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ FCC Part 15 Subpart E
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ FCC KDB 644545 D03 Guidance for IEEE 802.11ac New Rules v01.
- ♦ ANSI C63.10-2013

### **Remark:**

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

## 2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.
- b. AC power line Conducted Emission was tested under maximum output power.

### 2.1 Carrier Frequency Channel

| Frequency Band                       | Channel         | Freq. (MHz) | Channel         | Freq. (MHz) |
|--------------------------------------|-----------------|-------------|-----------------|-------------|
| 5150-5250 MHz<br>Band 1<br>(U-NII-1) | 32              | 5160        | 41              | 5205        |
|                                      | 33              | 5165        | 42 <sup>#</sup> | 5210        |
|                                      | 34              | 5170        | 43              | 5215        |
|                                      | 35              | 5175        | 44              | 5220        |
|                                      | 36              | 5180        | 45              | 5225        |
|                                      | 37              | 5185        | 46 <sup>*</sup> | 5230        |
|                                      | 38 <sup>*</sup> | 5190        | 47              | 5235        |
|                                      | 39              | 5195        | 48              | 5240        |
|                                      | 40              | 5200        | 49              | 5245        |

**Note:**

1. The above Frequency and Channel in "\*" were 802.11n HT40 and 802.11ac VHT40.
2. The above Frequency and Channel in "<sup>#</sup>" were 802.11ac VHT80.



## 2.2 Test Mode

Final test mode of conducted test items and radiated spurious emissions are considering the modulation and worse data rates as below table.

| Modulation     | Data Rate |
|----------------|-----------|
| 802.11ac VHT10 | Vt0       |
| 802.11ac VHT20 | Vt0       |
| 802.11ac VHT30 | Vt0       |
| 802.11ac VHT40 | Vf0       |
| 802.11ac VHT50 | Vf0       |
| 802.11ac VHT60 | Vf0       |
| 802.11ac VHT80 | Ve0       |

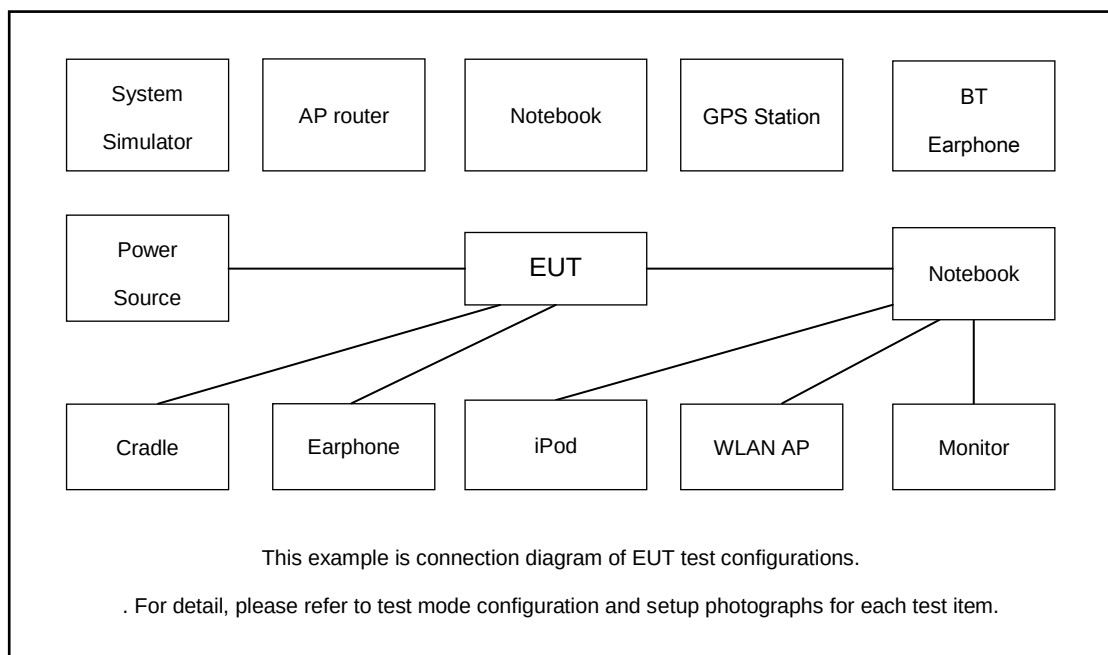
| Test Cases            |                                                                         |
|-----------------------|-------------------------------------------------------------------------|
| AC Conducted Emission | Mode 1 : WLAN (2.4GHz) Idle + WLAN (5GHz) Link + LAN Link + PoE Adapter |

| Ch. # |        | Band I : 5150-5250 MHz | Band I : 5150-5250 MHz | Band I : 5150-5250 MHz |
|-------|--------|------------------------|------------------------|------------------------|
|       |        | 802.11ac VHT10         | 802.11ac VHT20         | 802.11ac VHT30         |
| L     | Low    | 32                     | 33                     | 34                     |
| M     | Middle | 40                     | 40                     | 40                     |
| H     | High   | 49                     | 48                     | 47                     |

| Ch. # |        | Band I : 5150-5250 MHz | Band I : 5150-5250 MHz | Band I : 5150-5250 MHz |
|-------|--------|------------------------|------------------------|------------------------|
|       |        | 802.11ac VHT40         | 802.11ac VHT50         | 802.11ac VHT60         |
| L     | Low    | 35                     | 36                     | 37                     |
| M     | Middle | 40                     | 40                     | 40                     |
| H     | High   | 46                     | 45                     | 44                     |

| Ch. # |        | Band I : 5150-5250 MHz |
|-------|--------|------------------------|
|       |        | 802.11ac VHT80         |
| L     | Low    | 38                     |
| M     | Middle | 40                     |
| H     | High   | 42                     |

## 2.3 Connection Diagram of Test System



## 2.4 Support Unit used in test configuration and system

| Item | Equipment   | Trade Name | Model Name     | FCC ID                                       | Data Cable | Power Cord                                                 |
|------|-------------|------------|----------------|----------------------------------------------|------------|------------------------------------------------------------|
| 1.   | Notebook    | DELL       | Latitude E6320 | FCC DoC/<br>Contains FCC ID:<br>QDS-BRCM1054 | N/A        | AC I/P:<br>Unshielded, 1.2 m<br>DC O/P:<br>Shielded, 1.8 m |
| 2.   | Notebook    | DELL       | Latitude E3340 | FCC DoC/<br>Contains FCC ID:<br>PD97260NGU   | N/A        | AC I/P:<br>Unshielded, 1.2 m<br>DC O/P:<br>Shielded, 1.8 m |
| 3.   | Smart Phone | Apple      | iPhone 6 Plus  | FCC DoC                                      | N/A        | N/A                                                        |

## 2.5 EUT Operation Test Setup

The RF test items, programmed RF utility, "CMD" installed in the notebook make the EUT provide functions like channel selection and power level for continuous transmitting and receiving signals.



## 2.6 Measurement Results Explanation Example

**For all conducted test items:**

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

*Offset = RF cable loss + attenuator factor.*

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

$$\begin{aligned}\text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\ &= 4.2 + 10 = 14.2 \text{ (dB)}\end{aligned}$$

### 3 Test Result

#### 3.1 26dB & 99% Occupied Bandwidth Measurement

##### 3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

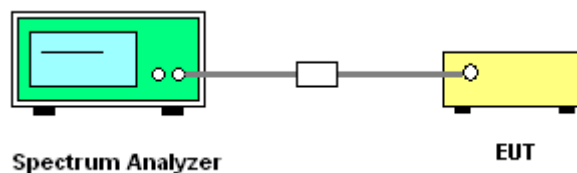
##### 3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

##### 3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1MHz and set the Video bandwidth (VBW)  $\geq 3 * \text{RBW}$ .
8. Measure and record the results in the test report.

##### 3.1.4 Test Setup

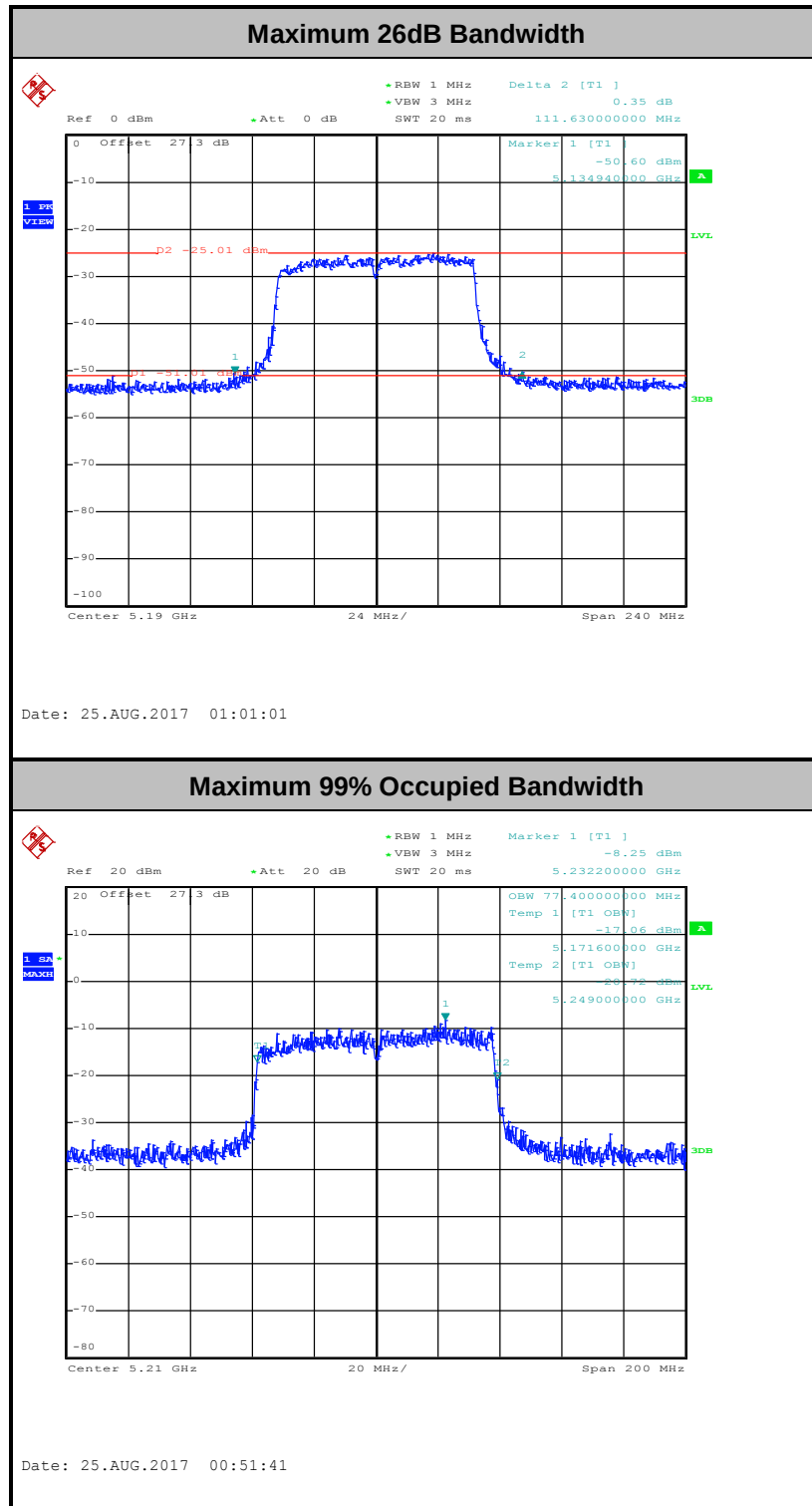




### 3.1.5 Test Result of 26dB & 99% Occupied Bandwidth Plots

Please refer to Appendix A.

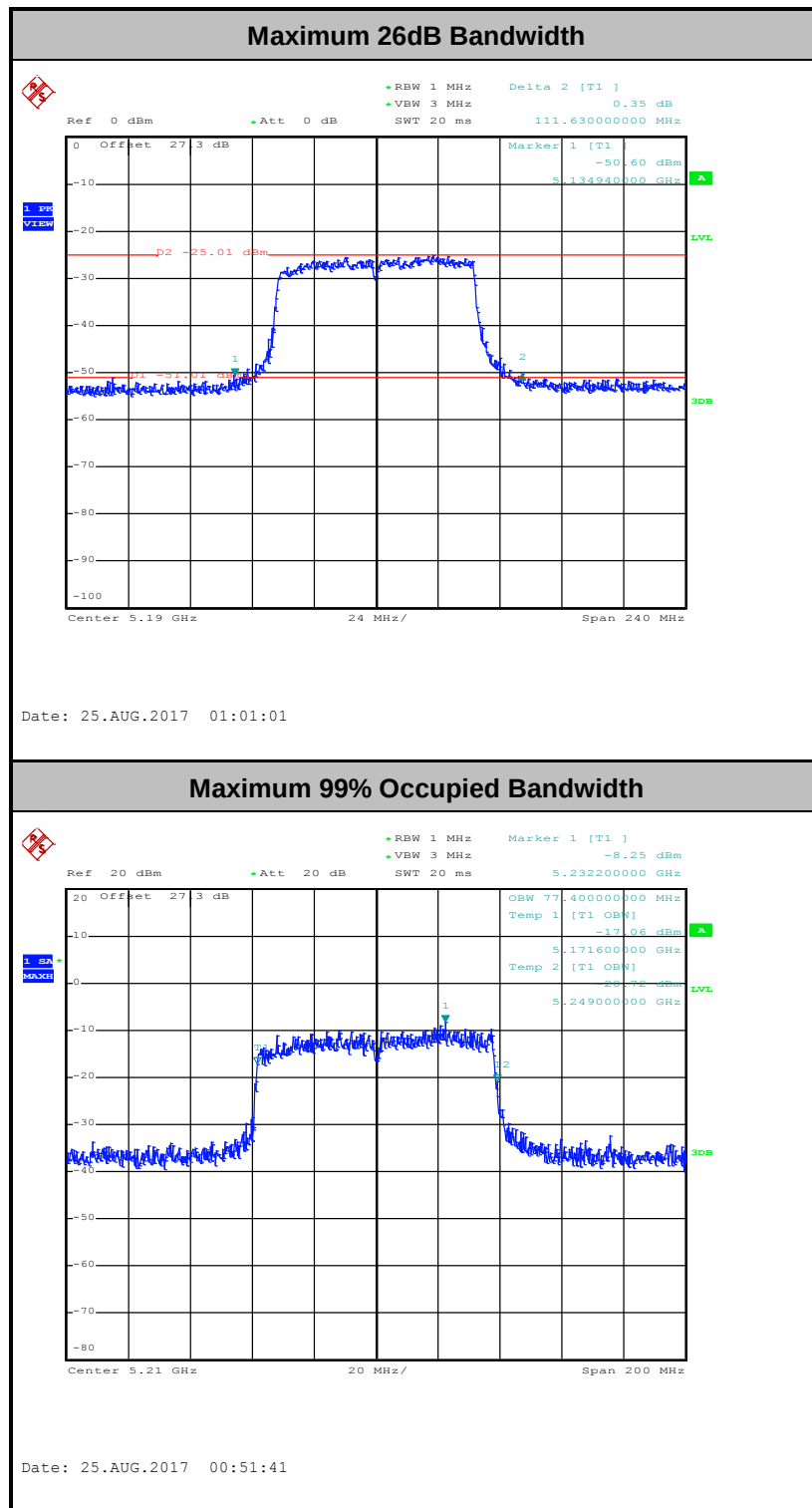
<PTP>



Note : The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



&lt;PTMP&gt;



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



## **3.2 Maximum Conducted Output Power Measurement**

### **3.2.1 Limit of Maximum Conducted Output Power**

#### **PTP**

For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power.

For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power is required for each 1 dB of antenna gain in excess of 23 dBi.

#### **PTMP**

For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

Note that U-NII-2 band, devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

### **3.2.2 Measuring Instruments**

The measuring equipment is listed in the section 4 of this test report.

### 3.2.3 Test Procedures

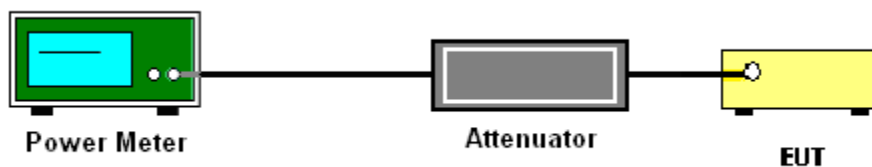
The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.

Method PM (Measurement using an RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor,  $10 \log(1/x)$ , where  $x$  is the duty cycle.

### 3.2.4 Test Setup

For normal channel:



### 3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.



### **3.3 Power Spectral Density Measurement**

#### **3.3.1 Limit of Power Spectral Density**

##### **PTP**

For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi.

##### **PTMP**

For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### **3.3.2 Measuring Instruments**

The measuring equipment is listed in the section 4 of this test report.

### 3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.

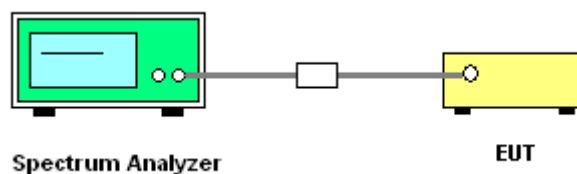
Section F) Maximum power spectral density.

#### # Method SA-2 #

(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

1. The testing follows Method SA-2 of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.
  - Measure the duty cycle.
  - Set span to encompass the entire emission bandwidth (EBW) of the signal.
  - Set RBW = 1 MHz.
  - Set VBW  $\geq$  3 MHz.
  - Number of points in sweep  $\geq$  2 Span / RBW.
  - Sweep time = auto.
  - Detector = RMS
  - Trace average at least 100 traces in power averaging mode.
  - Add  $10 \log(1/x)$ , where  $x$  is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add  $10 \log(1/0.25) = 6$  dB if the duty cycle is 25 percent.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

### 3.3.4 Test Setup

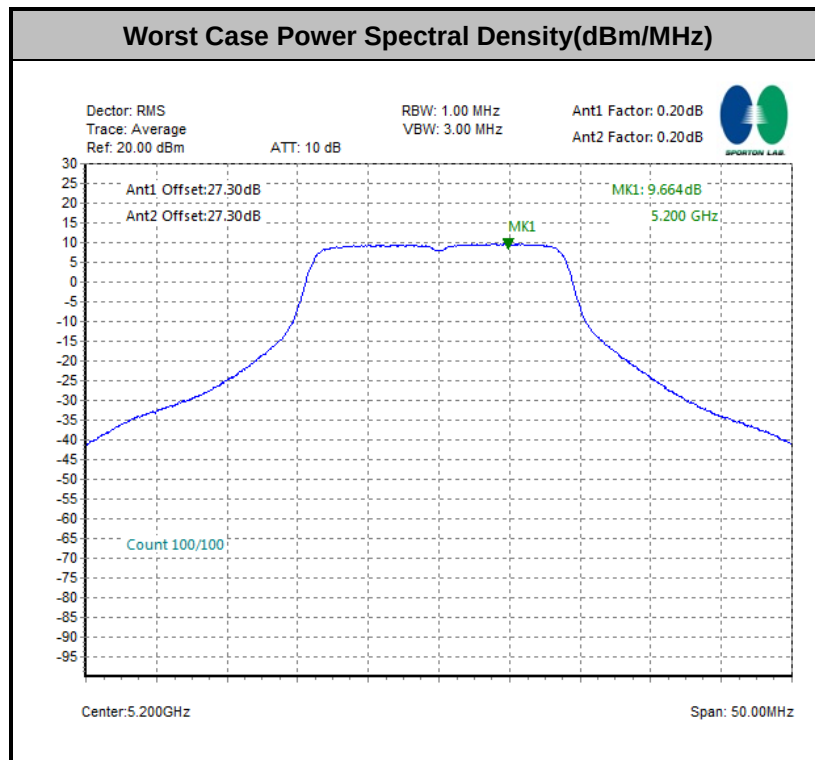


### 3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

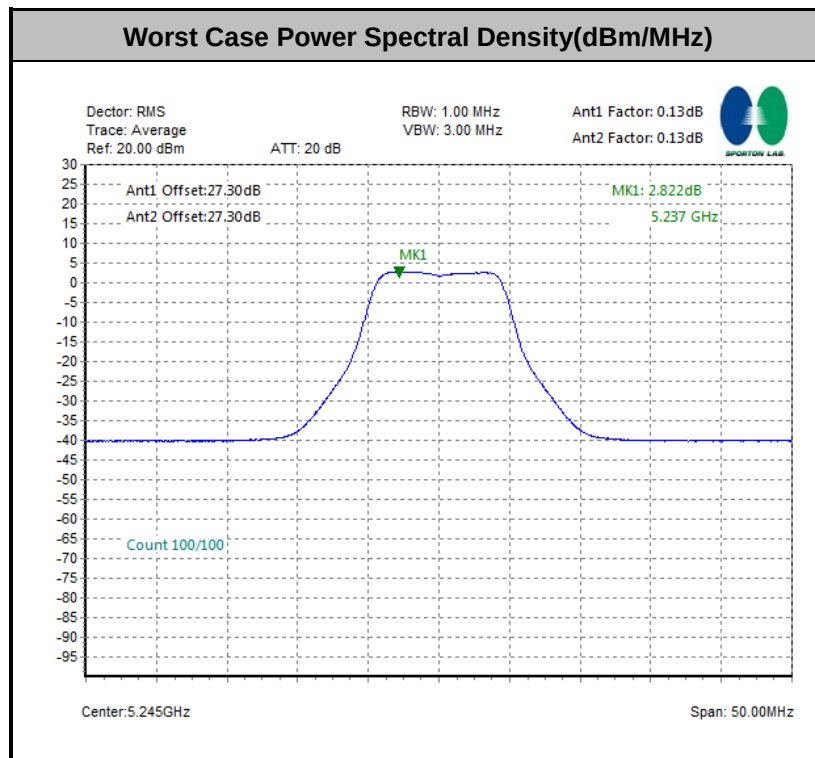


<PTP>



**Note:** Average Power Density (dB) = Measured value+ Duty Factor

<PTMP>



### 3.4 Unwanted Radiated Emission Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

#### 3.4.1 Limit of Unwanted Emissions

- (1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27dBm/MHz.
- (2) Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table,

| Frequency<br>(MHz) | Field Strength<br>(microvolts/meter) | Measurement Distance<br>(meters) |
|--------------------|--------------------------------------|----------------------------------|
| 0.009 – 0.490      | 2400/F(kHz)                          | 300                              |
| 0.490 – 1.705      | 24000/F(kHz)                         | 30                               |
| 1.705 – 30.0       | 30                                   | 30                               |
| 30 – 88            | 100                                  | 3                                |
| 88 – 216           | 150                                  | 3                                |
| 216 - 960          | 200                                  | 3                                |
| Above 960          | 500                                  | 3                                |

**Note:** The following formula is used to convert the EIRP to field strength.

$$E = \frac{1000000\sqrt{30P}}{3} \quad \mu\text{V/m, where P is the eirp (Watts)}$$

| EIRP (dBm) | Field Strength at 3m (dBμV/m) |
|------------|-------------------------------|
| -17        | 78.3                          |
| - 27       | 68.3                          |

(3) KDB789033 D02 v01r04 G)2)c)

- (i) Section 15.407(b)(1-3) specifies the unwanted emissions limit for the U-NII-1 and 2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz. However, an out-of-band emission that complies with both the average and peak limits of Section 15.209 is not required to satisfy the -27 dBm/MHz dBm/MHz peak emission limit.
- (ii) Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). An alternative to the band emissions mask is specified in Section 15.407(b)(4)(ii). The alternative limits are based on the highest antenna gain specified in the filing. There are also marketing and importation restrictions for the alternative limit.

### 3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

### 3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.

Section G) Unwanted emissions measurement.

(1) Procedure for Unwanted Emissions Measurements Below 1000MHz

- RBW = 120 kHz
- VBW = 300 kHz
- Detector = Peak
- Trace mode = max hold

(2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz

- RBW = 1 MHz
- VBW  $\geq$  3 MHz
- Detector = Peak
- Sweep time = auto
- Trace mode = max hold

(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

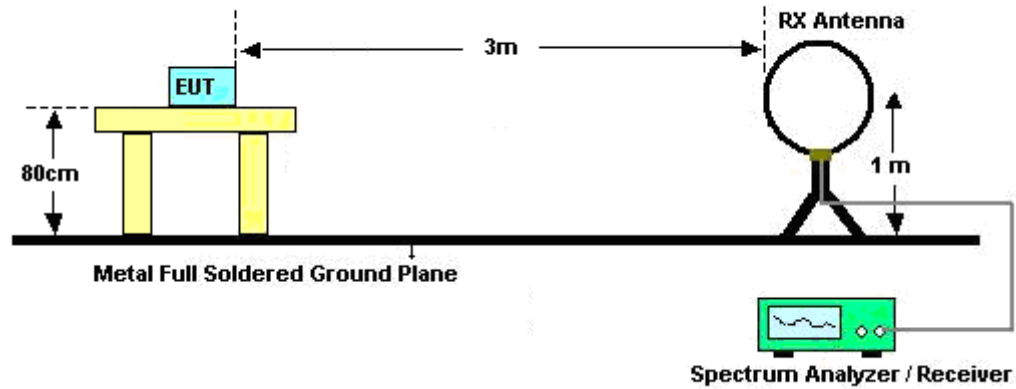
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW  $\geq$  1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.



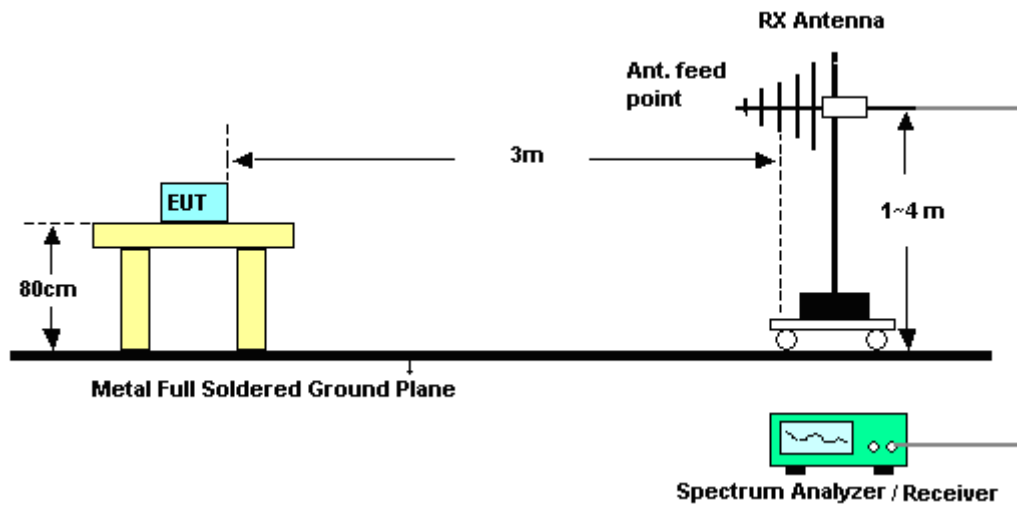
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

### 3.4.4 Test Setup

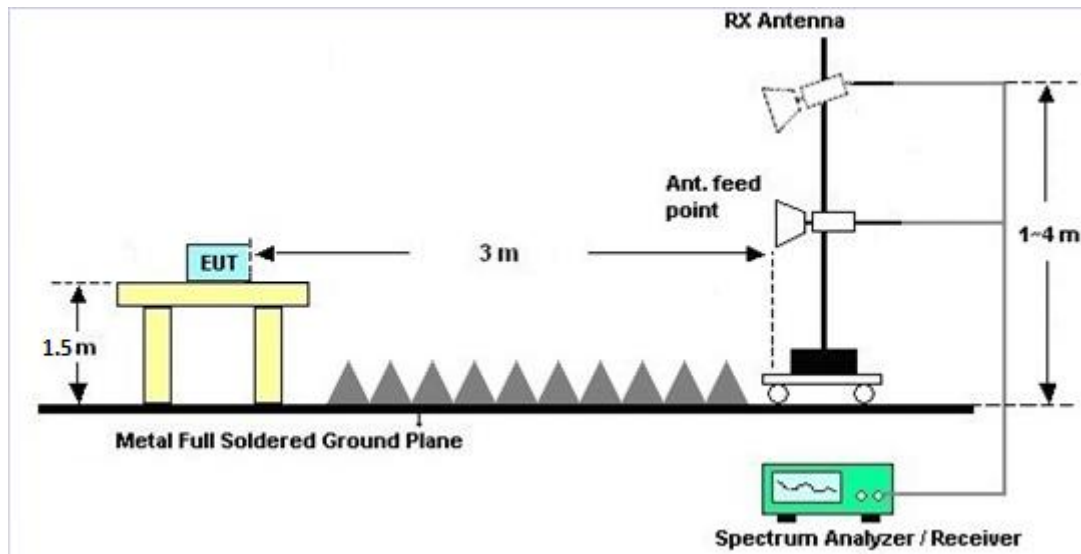
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



### 3.4.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

### 3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

### 3.4.7 Duty Cycle

Please refer to Appendix E.

### 3.4.8 Test Result of Radiated Spurious Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix C and D.

### 3.5 AC Conducted Emission Measurement

#### 3.5.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

| Frequency of emission (MHz) | Conducted limit (dB $\mu$ V) |           |
|-----------------------------|------------------------------|-----------|
|                             | Quasi-peak                   | Average   |
| 0.15-0.5                    | 66 to 56*                    | 56 to 46* |
| 0.5-5                       | 56                           | 46        |
| 5-30                        | 60                           | 50        |

\*Decreases with the logarithm of the frequency.

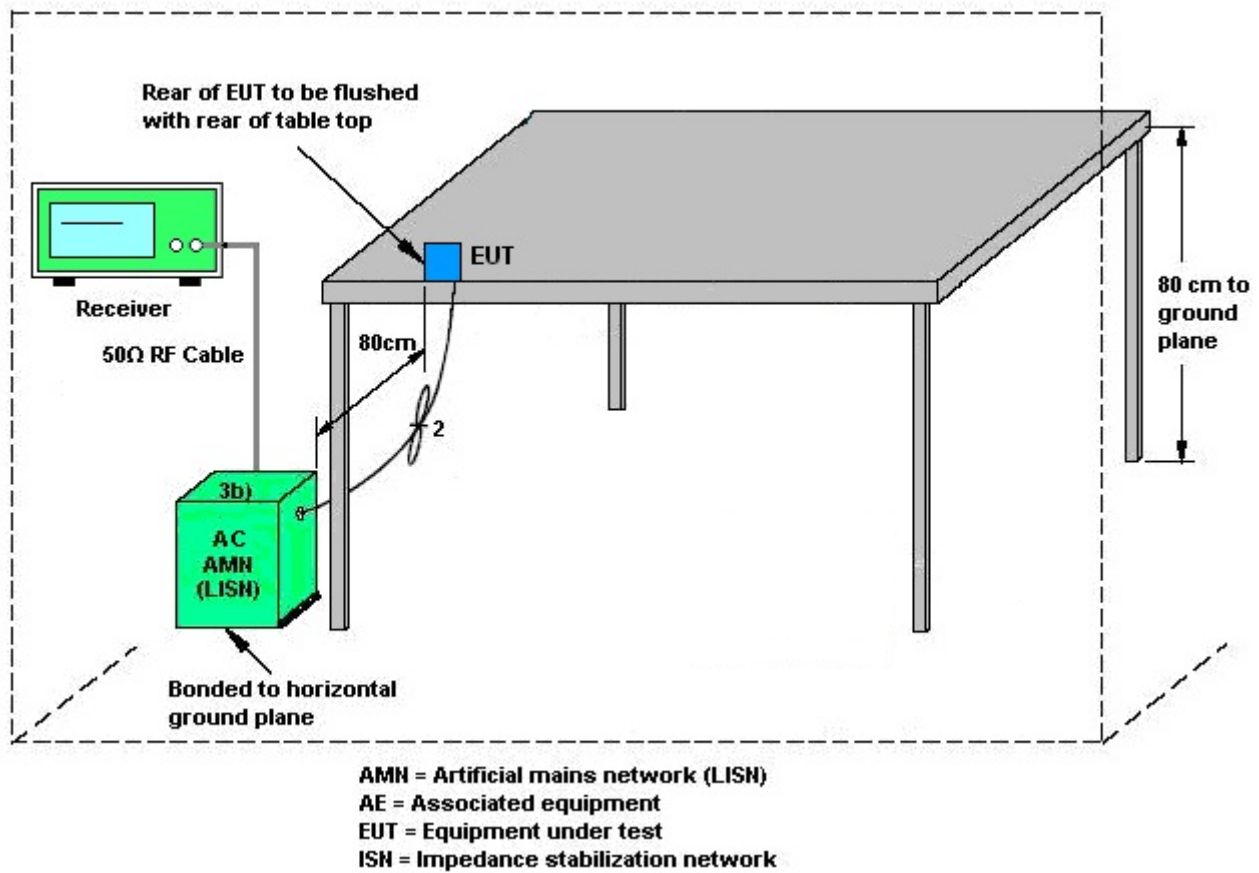
#### 3.5.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

#### 3.5.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

### 3.5.4 Test Setup



### 3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

## 3.6 Frequency Stability Measurement

### 3.6.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

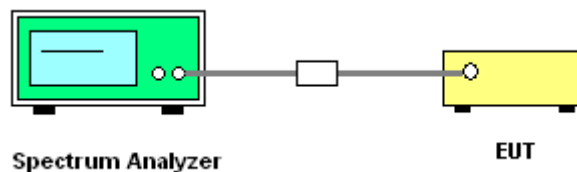
### 3.6.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

### 3.6.3 Test Procedures

1. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
2. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
3. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

### 3.6.4 Test Setup



### 3.6.5 Test Result of Frequency Stability

Please refer to Appendix A.



## **3.7 Automatically Discontinue Transmission**

### **3.7.1 Limit of Automatically Discontinue Transmission**

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

### **3.7.2 Measuring Instruments**

The measuring equipment is listed in the section 4 of this test report.

### **3.7.3 Test Result of Automatically Discontinue Transmission**

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

## 3.8 Antenna Requirements

### 3.8.1 Standard Applicable

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### 3.8.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

### 3.8.3 Antenna Gain

#### CDD modes

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain =  $G_{ANT}$  + Array Gain, where Array Gain is as follows.

For power spectral density (PSD) measurements on all devices,

Array Gain =  $10 \log(N_{ANT}/N_{SS}=1)$  dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for  $N_{ANT} \leq 4$ .

Directional gain may be calculated by using the formulas applicable to equal gain antennas with  $G_{ANT}$  set equal to the gain of the antenna having the highest gain;

The EUT supports CDD mode.

For power, the directional gain  $G_{ANT}$  is set equal to the antenna having the highest gain, i.e., F)2)f)i).

For PSD, the directional gain calculation is following F)2)f)ii) of KDB 662911 D01 v02r01.

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

The directional gain "DG" is calculated as following table.

**<PTP>**

|         |        |        | DG    | DG    | Power     | PSD       |
|---------|--------|--------|-------|-------|-----------|-----------|
|         |        |        | for   | for   | Limit     | Limit     |
|         | Ant. 1 | Ant. 2 | Power | PSD   | Reduction | Reduction |
|         | (dBi)  | (dBi)  | (dBi) | (dBi) | (dB)      | (dB)      |
| 2.4 GHz | 17.00  | 17.00  | 17.00 | 20.01 | 0.00      | 0.00      |

**<PTMP>**

|         |        |        | DG    | DG    | Power     | PSD       |
|---------|--------|--------|-------|-------|-----------|-----------|
|         |        |        | for   | for   | Limit     | Limit     |
|         | Ant. 1 | Ant. 2 | Power | PSD   | Reduction | Reduction |
|         | (dBi)  | (dBi)  | (dBi) | (dBi) | (dB)      | (dB)      |
| 2.4 GHz | 17.00  | 17.00  | 17.00 | 20.01 | 11.00     | 14.01     |

*Power Limit Reduction = DG(Power) – 6dBi, ( min = 0 )*

*PSD Limit Reduction = DG(PSD) – 6dBi, ( min = 0 )*



## 4 List of Measuring Equipment

| Instrument           | Manufacturer      | Model No.                       | Serial No.  | Characteristics | Calibration Date | Test Date                     | Due Date      | Remark                |
|----------------------|-------------------|---------------------------------|-------------|-----------------|------------------|-------------------------------|---------------|-----------------------|
| Power Meter          | Anritsu           | ML2495A                         | 0932001     | 300MHz~40GHz    | Sep. 29, 2016    | Aug. 05, 2017 ~ Sep. 05, 2017 | Sep. 28, 2017 | Conducted (TH05-HY)   |
| Power Sensor         | Anritsu           | MA2411B                         | 0846202     | 300MHz~40GHz    | Sep. 29, 2016    | Aug. 05, 2017 ~ Sep. 05, 2017 | Sep. 28, 2017 | Conducted (TH05-HY)   |
| Spectrum Analyzer    | Rohde & Schwarz   | FSP40                           | 100057      | 9kHz-40GHz      | Nov. 25, 2016    | Aug. 05, 2017 ~ Sep. 05, 2017 | Nov. 24, 2017 | Conducted (TH05-HY)   |
| Temperature Chamber  | ESPEC             | SU-241                          | 92003713    | -30℃ ~95℃       | Jun. 07, 2017    | Aug. 05, 2017 ~ Sep. 05, 2017 | Jun. 06, 2018 | Conducted (TH05-HY)   |
| AC Power Source      | AC POWER          | AFC-500W                        | F104070011  | 50Hz~60Hz       | Dec. 01, 2016    | Aug. 05, 2017 ~ Sep. 05, 2017 | Nov. 30, 2017 | Conducted (TH05-HY)   |
| Loop Antenna         | Rohde & Schwarz   | HFH2-Z2                         | 100315      | 9 kHz~30 MHz    | May 15, 2017     | Aug. 07, 2017 ~ Aug. 24, 2017 | May 14, 2019  | Radiation (03CH13-HY) |
| Amplifier            | Sonoma-Instrument | 310 N                           | 187282      | 9KHz~1GHz       | Dec. 21, 2016    | Aug. 07, 2017 ~ Aug. 24, 2017 | Dec. 20, 2017 | Radiation (03CH13-HY) |
| Bilog Antenna        | TESEQ             | CBL<br>6111D&00800<br>N1D01N-06 | 40103&04    | 30MHz to 1GHz   | Jan. 07, 2017    | Aug. 07, 2017 ~ Aug. 24, 2017 | Jan. 06, 2018 | Radiation (03CH13-HY) |
| Horn Antenna         | SCHWARZBECK       | BBHA 9120 D                     | 9120D-1241  | 1GHz ~ 18GHz    | May 02, 2017     | Aug. 07, 2017 ~ Aug. 24, 2017 | May 01, 2018  | Radiation (03CH13-HY) |
| Preamplifier         | MITEQ             | AMF-7D-0010<br>1800-30-10P      | 1590074     | 1GHz~18GHz      | May 22, 2017     | Aug. 07, 2017 ~ Aug. 24, 2017 | May 21, 2018  | Radiation (03CH13-HY) |
| Preamplifier         | Keysight          | 83017A                          | MY53270147  | 1GHz~26.5GHz    | Jan. 09, 2017    | Aug. 07, 2017 ~ Aug. 24, 2017 | Jan. 08, 2018 | Radiation (03CH13-HY) |
| Spectrum Analyzer    | Keysight          | N9010A                          | MY55370526  | N/A             | Mar. 15, 2017    | Aug. 07, 2017 ~ Aug. 24, 2017 | Mar. 14, 2018 | Radiation (03CH13-HY) |
| Antenna Mast         | EMEC              | AM-BS-4500-B                    | N/A         | 1m~4m           | N/A              | Aug. 07, 2017 ~ Aug. 24, 2017 | N/A           | Radiation (03CH13-HY) |
| Turn Table           | EMEC              | TT2000                          | N/A         | 0~360 Degree    | N/A              | Aug. 07, 2017 ~ Aug. 24, 2017 | N/A           | Radiation (03CH13-HY) |
| EMI Test Receiver    | Agilent           | N9038A(MXE)                     | MY53290053  | 20Hz to 26.5GHz | Jan. 12, 2017    | Aug. 07, 2017 ~ Aug. 24, 2017 | Jan. 11, 2018 | Radiation (03CH13-HY) |
| SHF-EHF Horn Antenna | SCHWARZBECK       | BBHA 9170                       | BBHA9170584 | 18GHz- 40GHz    | Nov. 08, 2016    | Aug. 07, 2017 ~ Aug. 24, 2017 | Nov. 07, 2017 | Radiation (03CH13-HY) |
| Preamplifier         | MITEQ             | TTA<br>1840-35-HG               | 1887435     | 18GHz ~ 40GHz   | Oct. 13, 2016    | Aug. 07, 2017 ~ Aug. 24, 2017 | Oct. 12, 2017 | Radiation (03CH13-HY) |
| AC Power Source      | ChainTek          | APC-1000W                       | N/A         | N/A             | N/A              | Aug. 11, 2017                 | N/A           | Conduction (CO05-HY)  |
| EMI Test Receiver    | Rohde & Schwarz   | ESCI 7                          | 100724      | 9kHz~7GHz       | Aug. 30, 2016    | Aug. 11, 2017                 | Aug. 29, 2017 | Conduction (CO05-HY)  |
| LISN                 | Rohde & Schwarz   | ENV216                          | 100080      | 9kHz~30MHz      | Nov. 29, 2016    | Aug. 11, 2017                 | Nov. 28, 2017 | Conduction (CO05-HY)  |
| LISN                 | Rohde & Schwarz   | ENV216                          | 100081      | 9kHz~30MHz      | Dec. 06, 2016    | Aug. 11, 2017                 | Dec. 05, 2017 | Conduction (CO05-HY)  |

## 5 Uncertainty of Evaluation

### Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

|                                                                            |     |
|----------------------------------------------------------------------------|-----|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2Uc(y)$ ) | 2.7 |
|----------------------------------------------------------------------------|-----|

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

|                                                                            |     |
|----------------------------------------------------------------------------|-----|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2Uc(y)$ ) | 4.9 |
|----------------------------------------------------------------------------|-----|

### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

|                                                                            |     |
|----------------------------------------------------------------------------|-----|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2Uc(y)$ ) | 5.4 |
|----------------------------------------------------------------------------|-----|

### Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

|                                                                            |     |
|----------------------------------------------------------------------------|-----|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2Uc(y)$ ) | 4.3 |
|----------------------------------------------------------------------------|-----|



## **Appendix A. Conducted Test Results**

<PTP>

**Appendix A. Test Result of Conducted Test Items**

|                |                         |                    |       |    |
|----------------|-------------------------|--------------------|-------|----|
| Test Engineer: | Derek Hsu / Kai Liao    | Temperature:       | 21~25 | °C |
| Test Date:     | 2017/08/05 ~ 2017/09/05 | Relative Humidity: | 51~54 | %  |

**TEST RESULTS DATA**  
**26dB and 99% OBW**

| Band I |           |     |     |             |                     |       |                       |        |                                    |       |                                   |       |      |
|--------|-----------|-----|-----|-------------|---------------------|-------|-----------------------|--------|------------------------------------|-------|-----------------------------------|-------|------|
| Mod.   | Data Rate | NTX | CH. | Freq. (MHz) | 99% Bandwidth (MHz) |       | 26 dB Bandwidth (MHz) |        | IC 99% Bandwidth Power Limit (dBm) |       | IC 99% Bandwidth EIRP Limit (dBm) |       | Note |
|        |           |     |     |             | Ant 1               | Ant 2 | Ant 1                 | Ant 2  | Ant 1                              | Ant 2 | Ant 1                             | Ant 2 |      |
| VHT10  | VHT0      | 2   | 32  | 5160        | 10.45               | 10.25 | 15.96                 | 14.73  | -                                  | -     | 20.11                             | 20.11 |      |
| VHT10  | VHT0      | 2   | 40  | 5200        | 10.08               | 10.28 | 14.95                 | 15.24  | -                                  | -     | 20.03                             | 20.03 |      |
| VHT10  | VHT0      | 2   | 49  | 5245        | 10.38               | 10.43 | 14.96                 | 14.72  | -                                  | -     | 20.16                             | 20.16 |      |
| VHT20  | VHT0      | 2   | 33  | 5165        | 18.75               | 18.85 | 25.80                 | 25.33  | -                                  | -     | 22.73                             | 22.73 |      |
| VHT20  | VHT0      | 2   | 40  | 5200        | 18.80               | 18.90 | 25.46                 | 26.24  | -                                  | -     | 22.74                             | 22.74 |      |
| VHT20  | VHT0      | 2   | 48  | 5240        | 18.85               | 18.90 | 25.17                 | 25.76  | -                                  | -     | 22.75                             | 22.75 |      |
| VHT30  | VHT0      | 2   | 34  | 5170        | 28.05               | 28.05 | 38.79                 | 39.67  | -                                  | -     | 23.01                             | 23.01 |      |
| VHT30  | VHT0      | 2   | 40  | 5200        | 27.83               | 28.03 | 40.14                 | 40.25  | -                                  | -     | 23.01                             | 23.01 |      |
| VHT30  | VHT0      | 2   | 47  | 5235        | 28.05               | 27.83 | 40.50                 | 39.52  | -                                  | -     | 23.01                             | 23.01 |      |
| VHT40  | VHT0      | 2   | 35  | 5175        | 37.00               | 37.00 | 49.08                 | 48.00  | -                                  | -     | 23.01                             | 23.01 |      |
| VHT40  | VHT0      | 2   | 40  | 5200        | 36.90               | 37.00 | 49.20                 | 48.72  | -                                  | -     | 23.01                             | 23.01 |      |
| VHT40  | VHT0      | 2   | 46  | 5230        | 37.00               | 37.00 | 48.57                 | 49.81  | -                                  | -     | 23.01                             | 23.01 |      |
| VHT50  | VHT0      | 2   | 36  | 5180        | 45.13               | 45.13 | 58.35                 | 61.61  | -                                  | -     | 23.01                             | 23.01 |      |
| VHT50  | VHT0      | 2   | 40  | 5200        | 45.00               | 45.25 | 58.37                 | 57.30  | -                                  | -     | 23.01                             | 23.01 |      |
| VHT50  | VHT0      | 2   | 45  | 5225        | 45.00               | 45.13 | 59.95                 | 59.10  | -                                  | -     | 23.01                             | 23.01 |      |
| VHT60  | VHT0      | 2   | 37  | 5185        | 55.05               | 55.65 | 72.36                 | 74.01  | -                                  | -     | 23.01                             | 23.01 |      |
| VHT60  | VHT0      | 2   | 40  | 5200        | 56.85               | 55.95 | 73.98                 | 70.92  | -                                  | -     | 23.01                             | 23.01 |      |
| VHT60  | VHT0      | 2   | 44  | 5220        | 55.35               | 55.65 | 72.50                 | 71.74  | -                                  | -     | 23.01                             | 23.01 |      |
| VHT80  | VHT0      | 2   | 38  | 5190        | 76.40               | 76.60 | 111.63                | 103.44 | -                                  | -     | 23.01                             | 23.01 |      |
| VHT80  | VHT0      | 2   | 40  | 5200        | 76.00               | 76.00 | 93.60                 | 100.36 | -                                  | -     | 23.01                             | 23.01 |      |
| VHT80  | VHT0      | 2   | 42  | 5210        | 77.40               | 77.00 | 91.92                 | 96.96  | -                                  | -     | 23.01                             | 23.01 |      |

**TEST RESULTS DATA**  
**Average Power Table**

| FCC Band I |           |     |     |             |                  |       |                               |        |        |                                 |       |          |       |      |           |
|------------|-----------|-----|-----|-------------|------------------|-------|-------------------------------|--------|--------|---------------------------------|-------|----------|-------|------|-----------|
| Mod.       | Data Rate | NTX | CH. | Freq. (MHz) | Duty Factor (dB) |       | Average Conducted Power (dBm) |        |        | FCC Conducted Power Limit (dBm) |       | DG (dBi) |       |      | Pass/Fail |
|            |           |     |     |             | Ant 1            | Ant 2 | Ant 1                         | Ant 2  | SUM    | Ant 1                           | Ant 2 | Ant 1    | Ant 2 |      |           |
| VHT10      | VHT0      | 2   | 32  | 5160        | 0.13             | 0.13  | -2.09                         | -1.61  | 1.17   | 30.00                           | 17.00 |          |       | Pass |           |
| VHT10      | VHT0      | 2   | 40  | 5220        | 0.13             | 0.13  | 16.87                         | 15.74  | 19.36  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT10      | VHT0      | 2   | 49  | 5245        | 0.13             | 0.13  | 10.96                         | 11.44  | 14.22  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT20      | VHT0      | 2   | 33  | 5165        | 0.20             | 0.20  | -8.14                         | -7.59  | -4.85  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT20      | VHT0      | 2   | 40  | 5200        | 0.20             | 0.20  | 20.65                         | 18.62  | 22.76  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT20      | VHT0      | 2   | 48  | 5240        | 0.20             | 0.20  | 10.73                         | 11.42  | 14.10  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT30      | VHT0      | 2   | 34  | 5170        | 0.30             | 0.35  | -12.78                        | -12.30 | -9.52  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT30      | VHT0      | 2   | 40  | 5200        | 0.30             | 0.35  | 17.86                         | 15.57  | 19.87  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT30      | VHT0      | 2   | 47  | 5235        | 0.30             | 0.35  | 11.05                         | 11.70  | 14.40  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT40      | VHT0      | 2   | 35  | 5175        | 0.39             | 0.46  | -10.97                        | -10.66 | -7.80  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT40      | VHT0      | 2   | 40  | 5200        | 0.39             | 0.46  | 11.32                         | 10.46  | 13.92  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT40      | VHT0      | 2   | 46  | 5235        | 0.39             | 0.46  | 11.44                         | 11.68  | 14.57  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT50      | VHT0      | 2   | 36  | 5180        | 0.45             | 0.45  | -10.71                        | -10.65 | -7.67  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT50      | VHT0      | 2   | 40  | 5200        | 0.45             | 0.45  | 9.26                          | 7.67   | 11.55  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT50      | VHT0      | 2   | 45  | 5225        | 0.45             | 0.45  | 11.31                         | 11.77  | 14.55  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT60      | VHT0      | 2   | 37  | 5185        | 0.51             | 0.59  | -10.69                        | -10.27 | -7.47  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT60      | VHT0      | 2   | 40  | 5200        | 0.51             | 0.59  | 2.79                          | 0.82   | 4.92   | 30.00                           | 17.00 |          |       | Pass |           |
| VHT60      | VHT0      | 2   | 44  | 5220        | 0.51             | 0.59  | 11.59                         | 12.09  | 14.85  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT80      | VHT0      | 2   | 38  | 5190        | 0.45             | 0.45  | -16.12                        | -16.01 | -13.05 | 30.00                           | 17.00 |          |       | Pass |           |
| VHT80      | VHT0      | 2   | 40  | 5200        | 0.45             | 0.45  | -8.24                         | -10.39 | -6.17  | 30.00                           | 17.00 |          |       | Pass |           |
| VHT80      | VHT0      | 2   | 42  | 5210        | 0.51             | 0.59  | 0.11                          | 0.54   | 3.34   | 30.00                           | 17.00 |          |       | Pass |           |

**TEST RESULTS DATA**  
**Power Spectral Density**

| FCC Band I |           |     |     |             |                  |       |                                 |        |        |                             |       |          |       |      |            |
|------------|-----------|-----|-----|-------------|------------------|-------|---------------------------------|--------|--------|-----------------------------|-------|----------|-------|------|------------|
| Mod.       | Data Rate | NTX | CH. | Freq. (MHz) | Duty Factor (dB) |       | Average Power Density (dBm/MHz) |        |        | Average PSD Limit (dBm/MHz) |       | DG (dBi) |       |      | Pass /Fail |
|            |           |     |     |             | Ant 1            | Ant 2 | Ant 1                           | Ant 2  | SUM    | Ant 1                       | Ant 2 | Ant 1    | Ant 2 |      |            |
| VHT10      | VHT0      | 2   | 32  | 5160        | 0.13             | 0.13  |                                 |        | -7.62  | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT10      | VHT0      | 2   | 40  | 5220        | 0.13             | 0.13  |                                 |        | 9.03   | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT10      | VHT0      | 2   | 49  | 5245        | 0.13             | 0.13  |                                 |        | 5.67   | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT20      | VHT0      | 2   | 33  | 5165        | 0.20             | 0.20  |                                 |        | -16.50 | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT20      | VHT0      | 2   | 40  | 5200        | 0.20             | 0.20  |                                 |        | 9.66   | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT20      | VHT0      | 2   | 48  | 5240        | 0.20             | 0.20  |                                 |        | -0.14  | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT30      | VHT0      | 2   | 34  | 5170        | 0.30             | 0.35  |                                 |        | -22.89 | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT30      | VHT0      | 2   | 40  | 5200        | 0.30             | 0.35  |                                 |        | 6.01   | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT30      | VHT0      | 2   | 47  | 5235        | 0.30             | 0.35  |                                 |        | -1.39  | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT40      | VHT0      | 2   | 35  | 5175        | 0.39             | 0.46  |                                 |        | -22.51 | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT40      | VHT0      | 2   | 40  | 5200        | 0.39             | 0.46  |                                 |        | -1.56  | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT40      | VHT0      | 2   | 46  | 5235        | 0.39             | 0.46  |                                 |        | -0.08  | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT50      | VHT0      | 2   | 36  | 5180        | 0.45             | 0.45  |                                 |        | -23.45 | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT50      | VHT0      | 2   | 40  | 5200        | 0.45             | 0.45  |                                 |        | -4.56  | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT50      | VHT0      | 2   | 45  | 5225        | 0.45             | 0.45  |                                 |        | -0.55  | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT60      | VHT0      | 2   | 37  | 5185        | 0.51             | 0.59  |                                 |        | -23.99 | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT60      | VHT0      | 2   | 40  | 5200        | 0.51             | 0.59  |                                 |        | -12.03 | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT60      | VHT0      | 2   | 44  | 5220        | 0.51             | 0.59  |                                 |        | -1.03  | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT80      | VHT0      | 2   | 38  | 5190        | 0.76             | 0.76  |                                 |        | -31.75 | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT80      | VHT0      | 2   | 40  | 5200        | 0.76             | 0.76  |                                 |        | -24.69 | 17.00                       |       | 20.01    |       |      | Pass       |
| VHT80      | VHT0      | 2   | 42  | 5210        | 0.76             | 0.76  |                                 | -14.14 | 17.00  |                             | 20.01 |          |       | Pass |            |

**TEST RESULTS DATA**  
**Frequency Stability**

| Band I |           |     |     |             |                        |                           |                           |                  |             |      |
|--------|-----------|-----|-----|-------------|------------------------|---------------------------|---------------------------|------------------|-------------|------|
| Mod.   | Data Rate | NTX | CH. | Freq. (MHz) | Center Frequency (MHz) | Frequency Deviation (MHz) | Frequency Stability (ppm) | Temperature (°C) | Voltage (V) | Note |
| VHT10  | VHT0      | 1   | 32  | 5160        | 5160.000               | 0.000                     | 0.00                      | 80               | 120         |      |
| VHT10  | VHT0      | 1   | 32  | 5160        | 5160.025               | 0.025                     | 4.84                      | -40              | 120         |      |
| VHT10  | VHT0      | 1   | 32  | 5160        | 5160.025               | 0.025                     | 4.84                      | 20               | 132         |      |
| VHT10  | VHT0      | 1   | 32  | 5160        | 5159.988               | -0.012                    | -2.42                     | 20               | 108         |      |
| VHT10  | VHT0      | 1   | 32  | 5160        | 5160.000               | 0.000                     | 0.00                      | 20               | 120         |      |



<PTMP>

**Appendix A. Test Result of Conducted Test Items**

|                |                         |                    |       |    |
|----------------|-------------------------|--------------------|-------|----|
| Test Engineer: | Derek Hsu / Kai Liao    | Temperature:       | 21~25 | °C |
| Test Date:     | 2017/08/05 ~ 2017/09/05 | Relative Humidity: | 51~54 | %  |

**TEST RESULTS DATA**  
**26dB and 99% OBW**

| Band I |           |     |     |             |                     |       |                       |        |                                    |       |                                   |       |      |
|--------|-----------|-----|-----|-------------|---------------------|-------|-----------------------|--------|------------------------------------|-------|-----------------------------------|-------|------|
| Mod.   | Data Rate | NTX | CH. | Freq. (MHz) | 99% Bandwidth (MHz) |       | 26 dB Bandwidth (MHz) |        | IC 99% Bandwidth Power Limit (dBm) |       | IC 99% Bandwidth EIRP Limit (dBm) |       | Note |
|        |           |     |     |             | Ant 1               | Ant 2 | Ant 1                 | Ant 2  | Ant 1                              | Ant 2 | Ant 1                             | Ant 2 |      |
| VHT10  | VHT0      | 2   | 32  | 5160        | 10.45               | 10.25 | 15.96                 | 14.73  | -                                  | -     | 20.11                             | -     |      |
| VHT10  | VHT0      | 2   | 40  | 5200        | 10.45               | 14.64 | 10.43                 | 14.64  | -                                  | -     | 20.19                             | -     |      |
| VHT10  | VHT0      | 2   | 49  | 5245        | 10.50               | 10.33 | 14.58                 | 15.30  | -                                  | -     | 20.14                             | -     |      |
| VHT20  | VHT0      | 2   | 33  | 5165        | 18.75               | 18.85 | 25.80                 | 25.33  | -                                  | -     | 22.73                             | -     |      |
| VHT20  | VHT0      | 2   | 40  | 5200        | 18.95               | 18.85 | 26.28                 | 25.84  | -                                  | -     | 22.75                             | -     |      |
| VHT20  | VHT0      | 2   | 48  | 5240        | 18.85               | 18.90 | 25.17                 | 25.76  | -                                  | -     | 22.75                             | -     |      |
| VHT30  | VHT0      | 2   | 34  | 5170        | 28.05               | 28.05 | 38.79                 | 39.67  | -                                  | -     | 23.01                             | -     |      |
| VHT30  | VHT0      | 2   | 40  | 5200        | 27.68               | 27.90 | 37.78                 | 41.58  | -                                  | -     | 23.01                             | -     |      |
| VHT30  | VHT0      | 2   | 47  | 5235        | 28.05               | 27.83 | 40.50                 | 39.52  | -                                  | -     | 23.01                             | -     |      |
| VHT40  | VHT0      | 2   | 35  | 5175        | 37.00               | 37.00 | 49.08                 | 48.00  | -                                  | -     | 23.01                             | -     |      |
| VHT40  | VHT0      | 2   | 40  | 5200        | 36.90               | 37.00 | 49.20                 | 48.72  | -                                  | -     | 23.01                             | -     |      |
| VHT40  | VHT0      | 2   | 46  | 5235        | 37.00               | 37.00 | 48.57                 | 49.81  | -                                  | -     | 23.01                             | -     |      |
| VHT50  | VHT0      | 2   | 36  | 5180        | 45.13               | 45.13 | 58.35                 | 61.61  | -                                  | -     | 23.01                             | -     |      |
| VHT50  | VHT0      | 2   | 40  | 5200        | 45.00               | 45.25 | 58.37                 | 57.30  | -                                  | -     | 23.01                             | -     |      |
| VHT50  | VHT0      | 2   | 45  | 5225        | 45.00               | 45.13 | 59.95                 | 59.10  | -                                  | -     | 23.01                             | -     |      |
| VHT60  | VHT0      | 2   | 37  | 5185        | 55.05               | 55.65 | 72.36                 | 74.01  | -                                  | -     | 23.01                             | -     |      |
| VHT60  | VHT0      | 2   | 40  | 5200        | 56.85               | 55.95 | 73.98                 | 70.92  | -                                  | -     | 23.01                             | -     |      |
| VHT60  | VHT0      | 2   | 44  | 5220        | 55.35               | 55.65 | 72.50                 | 71.74  | -                                  | -     | 23.01                             | -     |      |
| VHT80  | VHT0      | 2   | 38  | 5190        | 76.40               | 76.60 | 111.63                | 103.44 | -                                  | -     | 23.01                             | -     |      |
| VHT80  | VHT0      | 2   | 40  | 5200        | 76.00               | 76.00 | 93.60                 | 100.36 | -                                  | -     | 23.01                             | -     |      |
| VHT80  | VHT0      | 2   | 42  | 5210        | 77.40               | 77.00 | 91.92                 | 96.96  | -                                  | -     | 23.01                             | -     |      |

**TEST RESULTS DATA**  
**Average Power Table**

| FCC Band I |           |     |     |             |                  |       |                               |        |        |                                 |       |          |       |      |           |
|------------|-----------|-----|-----|-------------|------------------|-------|-------------------------------|--------|--------|---------------------------------|-------|----------|-------|------|-----------|
| Mod.       | Data Rate | NTX | CH. | Freq. (MHz) | Duty Factor (dB) |       | Average Conducted Power (dBm) |        |        | FCC Conducted Power Limit (dBm) |       | DG (dBi) |       |      | Pass/Fail |
|            |           |     |     |             | Ant 1            | Ant 2 | Ant 1                         | Ant 2  | SUM    | Ant 1                           | Ant 2 | Ant 1    | Ant 2 |      |           |
| VHT10      | VHT0      | 2   | 32  | 5160        | 0.13             | 0.13  | -2.09                         | -1.61  | 1.17   | 19.00                           |       | 17.00    |       | Pass |           |
| VHT10      | VHT0      | 2   | 40  | 5200        | 0.13             | 0.13  | 7.85                          | 8.08   | 10.98  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT10      | VHT0      | 2   | 49  | 5245        | 0.13             | 0.13  | 7.77                          | 8.09   | 10.95  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT20      | VHT0      | 2   | 33  | 5165        | 0.20             | 0.20  | -8.14                         | -7.59  | -4.85  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT20      | VHT0      | 2   | 40  | 5200        | 0.20             | 0.20  | 7.98                          | 7.96   | 10.98  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT20      | VHT0      | 2   | 48  | 5240        | 0.20             | 0.20  | 7.04                          | 7.90   | 10.50  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT30      | VHT0      | 2   | 34  | 5170        | 0.30             | 0.35  | -12.78                        | -12.30 | -9.52  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT30      | VHT0      | 2   | 40  | 5200        | 0.30             | 0.35  | 7.30                          | 7.69   | 10.51  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT30      | VHT0      | 2   | 47  | 5235        | 0.30             | 0.35  | 6.90                          | 8.05   | 10.52  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT40      | VHT0      | 2   | 35  | 5175        | 0.39             | 0.46  | -10.97                        | -10.66 | -7.80  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT40      | VHT0      | 2   | 40  | 5200        | 0.39             | 0.46  | 7.77                          | 8.11   | 10.95  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT40      | VHT0      | 2   | 46  | 5230        | 0.39             | 0.46  | 7.59                          | 8.30   | 10.97  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT50      | VHT0      | 2   | 36  | 5180        | 0.45             | 0.45  | -10.71                        | -10.65 | -7.67  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT50      | VHT0      | 2   | 40  | 5200        | 0.45             | 0.45  | 7.87                          | 8.08   | 10.98  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT50      | VHT0      | 2   | 45  | 5225        | 0.45             | 0.45  | 7.70                          | 8.25   | 10.99  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT60      | VHT0      | 2   | 37  | 5185        | 0.51             | 0.59  | -10.69                        | -10.27 | -7.47  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT60      | VHT0      | 2   | 40  | 5200        | 0.51             | 0.59  | 2.79                          | 0.82   | 4.92   | 19.00                           |       | 17.00    |       | Pass |           |
| VHT60      | VHT0      | 2   | 44  | 5220        | 0.51             | 0.59  | 7.52                          | 7.70   | 10.62  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT80      | VHT0      | 2   | 38  | 5190        | 0.45             | 0.45  | -16.12                        | -16.01 | -13.05 | 19.00                           |       | 17.00    |       | Pass |           |
| VHT80      | VHT0      | 2   | 40  | 5200        | 0.45             | 0.45  | -8.24                         | -10.39 | -6.17  | 19.00                           |       | 17.00    |       | Pass |           |
| VHT80      | VHT0      | 2   | 42  | 5210        | 0.51             | 0.59  | 0.11                          | 0.54   | 3.34   | 19.00                           |       | 17.00    |       | Pass |           |

**TEST RESULTS DATA**  
**Power Spectral Density**

| FCC Band I |           |     |     |             |                  |       |                                 |       |        |                             |       |          |       |            |
|------------|-----------|-----|-----|-------------|------------------|-------|---------------------------------|-------|--------|-----------------------------|-------|----------|-------|------------|
| Mod.       | Data Rate | NTX | CH. | Freq. (MHz) | Duty Factor (dB) |       | Average Power Density (dBm/MHz) |       |        | Average PSD Limit (dBm/MHz) |       | DG (dBi) |       | Pass /Fail |
|            |           |     |     |             | Ant 1            | Ant 2 | Ant 1                           | Ant 2 | SUM    | Ant 1                       | Ant 2 | Ant 1    | Ant 2 |            |
| VHT10      | VHT0      | 2   | 32  | 5160        | 0.13             | 0.13  |                                 |       | -7.62  | 2.99                        |       | 20.01    |       | Pass       |
| VHT10      | VHT0      | 2   | 40  | 5200        | 0.13             | 0.13  |                                 |       | 1.53   | 2.99                        |       | 20.01    |       | Pass       |
| VHT10      | VHT0      | 2   | 49  | 5245        | 0.13             | 0.13  |                                 |       | 2.82   | 2.99                        |       | 20.01    |       | Pass       |
| VHT20      | VHT0      | 2   | 33  | 5165        | 0.20             | 0.20  |                                 |       | -16.50 | 2.99                        |       | 20.01    |       | Pass       |
| VHT20      | VHT0      | 2   | 40  | 5200        | 0.20             | 0.20  |                                 |       | -1.26  | 2.99                        |       | 20.01    |       | Pass       |
| VHT20      | VHT0      | 2   | 48  | 5240        | 0.20             | 0.20  |                                 |       | -2.04  | 2.99                        |       | 20.01    |       | Pass       |
| VHT30      | VHT0      | 2   | 34  | 5170        | 0.30             | 0.35  |                                 |       | -22.89 | 2.99                        |       | 20.01    |       | Pass       |
| VHT30      | VHT0      | 2   | 40  | 5200        | 0.30             | 0.35  |                                 |       | -3.79  | 2.99                        |       | 20.01    |       | Pass       |
| VHT30      | VHT0      | 2   | 47  | 5235        | 0.30             | 0.35  |                                 |       | -3.58  | 2.99                        |       | 20.01    |       | Pass       |
| VHT40      | VHT0      | 2   | 35  | 5175        | 0.39             | 0.46  |                                 |       | -22.51 | 2.99                        |       | 20.01    |       | Pass       |
| VHT40      | VHT0      | 2   | 40  | 5200        | 0.39             | 0.46  |                                 |       | -4.44  | 2.99                        |       | 20.01    |       | Pass       |
| VHT40      | VHT0      | 2   | 46  | 5230        | 0.39             | 0.46  |                                 |       | -3.97  | 2.99                        |       | 20.01    |       | Pass       |
| VHT50      | VHT0      | 2   | 36  | 5180        | 0.45             | 0.45  |                                 |       | -23.45 | 2.99                        |       | 20.01    |       | Pass       |
| VHT50      | VHT0      | 2   | 40  | 5200        | 0.45             | 0.45  |                                 |       | -5.23  | 2.99                        |       | 20.01    |       | Pass       |
| VHT50      | VHT0      | 2   | 45  | 5225        | 0.45             | 0.45  |                                 |       | -4.81  | 2.99                        |       | 20.01    |       | Pass       |
| VHT60      | VHT0      | 2   | 37  | 5185        | 0.51             | 0.59  |                                 |       | -23.99 | 2.99                        |       | 20.01    |       | Pass       |
| VHT60      | VHT0      | 2   | 40  | 5200        | 0.51             | 0.59  |                                 |       | -12.03 | 2.99                        |       | 20.01    |       | Pass       |
| VHT60      | VHT0      | 2   | 44  | 5220        | 0.51             | 0.59  |                                 |       | -6.23  | 2.99                        |       | 20.01    |       | Pass       |
| VHT80      | VHT0      | 2   | 38  | 5190        | 0.76             | 0.76  |                                 |       | -31.75 | 2.99                        |       | 20.01    |       | Pass       |
| VHT80      | VHT0      | 2   | 40  | 5200        | 0.76             | 0.76  |                                 |       | -24.69 | 2.99                        |       | 20.01    |       | Pass       |
| VHT80      | VHT0      | 2   | 42  | 5210        | 0.76             | 0.76  |                                 |       | -14.14 | 2.99                        |       | 20.01    |       | Pass       |

**TEST RESULTS DATA**  
**Frequency Stability**

| Band I |           |     |     |             |                        |                           |                           |                  |             |      |
|--------|-----------|-----|-----|-------------|------------------------|---------------------------|---------------------------|------------------|-------------|------|
| Mod.   | Data Rate | NTX | CH. | Freq. (MHz) | Center Frequency (MHz) | Frequency Deviation (MHz) | Frequency Stability (ppm) | Temperature (°C) | Voltage (V) | Note |
| VHT10  | VHT0      | 1   | 32  | 5160        | 5160.000               | 0.000                     | 0.00                      | 80               | 120         |      |
| VHT10  | VHT0      | 1   | 32  | 5160        | 5160.025               | 0.025                     | 4.84                      | -40              | 120         |      |
| VHT10  | VHT0      | 1   | 32  | 5160        | 5160.025               | 0.025                     | 4.84                      | 20               | 132         |      |
| VHT10  | VHT0      | 1   | 32  | 5160        | 5159.988               | -0.012                    | -2.42                     | 20               | 108         |      |
| VHT10  | VHT0      | 1   | 32  | 5160        | 5160.000               | 0.000                     | 0.00                      | 20               | 120         |      |



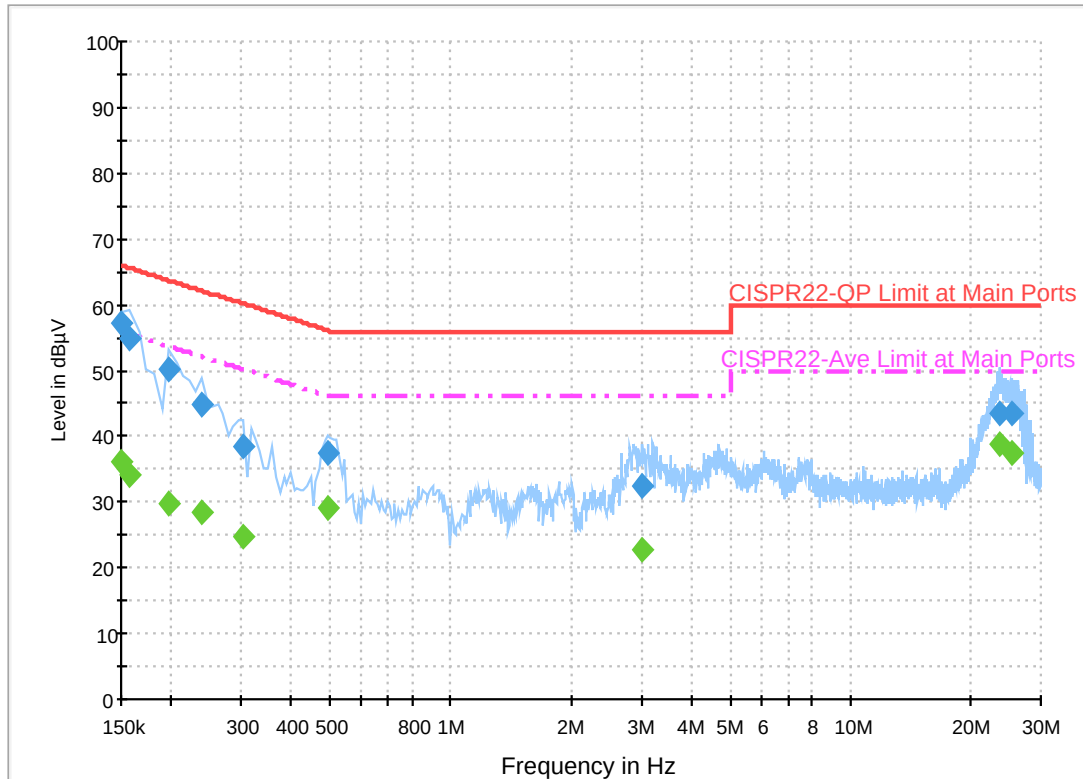
## **Appendix B. AC Conducted Emission Test Results**

|                        |           |                            |         |
|------------------------|-----------|----------------------------|---------|
| <b>Test Engineer :</b> | Eric Jeng | <b>Temperature :</b>       | 26~28°C |
|                        |           | <b>Relative Humidity :</b> | 52~55%  |

## EUT Information

Report NO : 561115-03  
Test Mode : Mode 1  
Test Voltage : 120Vac/60Hz  
Phase : Line

ENV216 Auto Test FCC Power Bar - L



## Final Result 1

| Frequency (MHz) | QuasiPeak (dBµV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBµV) |
|-----------------|------------------|--------|------|------------|-------------|--------------|
| 0.150000        | 57.2             | Off    | L1   | 19.6       | 8.8         | 66.0         |
| 0.158000        | 54.7             | Off    | L1   | 19.6       | 10.9        | 65.6         |
| 0.198000        | 50.1             | Off    | L1   | 19.6       | 13.6        | 63.7         |
| 0.238000        | 44.8             | Off    | L1   | 19.6       | 17.4        | 62.2         |
| 0.302000        | 38.4             | Off    | L1   | 19.6       | 21.8        | 60.2         |
| 0.494000        | 37.3             | Off    | L1   | 19.6       | 18.8        | 56.1         |
| 3.006000        | 32.6             | Off    | L1   | 19.6       | 23.4        | 56.0         |
| 23.550000       | 43.5             | Off    | L1   | 20.7       | 16.5        | 60.0         |
| 25.318000       | 43.6             | Off    | L1   | 20.8       | 16.4        | 60.0         |

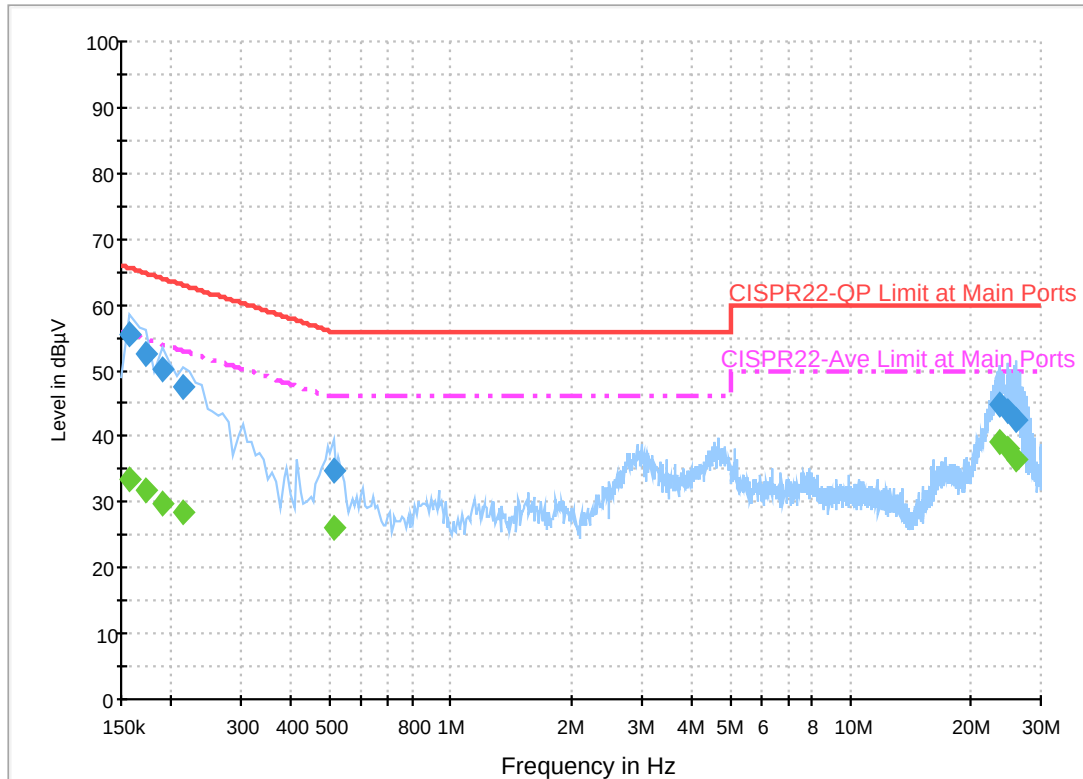
## Final Result 2

| Frequency (MHz) | Average (dBµV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBµV) |
|-----------------|----------------|--------|------|------------|-------------|--------------|
| 0.150000        | 36.0           | Off    | L1   | 19.6       | 20.0        | 56.0         |
| 0.158000        | 34.1           | Off    | L1   | 19.6       | 21.5        | 55.6         |
| 0.198000        | 29.7           | Off    | L1   | 19.6       | 24.0        | 53.7         |
| 0.238000        | 28.3           | Off    | L1   | 19.6       | 23.9        | 52.2         |
| 0.302000        | 24.6           | Off    | L1   | 19.6       | 25.6        | 50.2         |
| 0.494000        | 29.0           | Off    | L1   | 19.6       | 17.1        | 46.1         |
| 3.006000        | 22.7           | Off    | L1   | 19.6       | 23.3        | 46.0         |
| 23.550000       | 38.8           | Off    | L1   | 20.7       | 11.2        | 50.0         |
| 25.318000       | 37.6           | Off    | L1   | 20.8       | 12.4        | 50.0         |

## EUT Information

Report NO : 561115-03  
Test Mode : Mode 1  
Test Voltage : 120Vac/60Hz  
Phase : Neutral

ENV216 Auto Test FCC Power Bar - N



## Final Result 1

| Frequency (MHz) | QuasiPeak (dBµV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBµV) |
|-----------------|------------------|--------|------|------------|-------------|--------------|
| 0.158000        | 55.4             | Off    | N    | 19.5       | 10.2        | 65.6         |
| 0.174000        | 52.6             | Off    | N    | 19.5       | 12.2        | 64.8         |
| 0.190000        | 50.2             | Off    | N    | 19.5       | 13.8        | 64.0         |
| 0.214000        | 47.6             | Off    | N    | 19.5       | 15.4        | 63.0         |
| 0.510000        | 34.8             | Off    | N    | 19.5       | 21.2        | 56.0         |
| 23.710000       | 44.9             | Off    | N    | 20.9       | 15.1        | 60.0         |
| 24.926000       | 43.7             | Off    | N    | 21.0       | 16.3        | 60.0         |
| 26.062000       | 42.6             | Off    | N    | 21.0       | 17.4        | 60.0         |

## Final Result 2

| Frequency (MHz) | Average (dBµV) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBµV) |
|-----------------|----------------|--------|------|------------|-------------|--------------|
| 0.158000        | 33.6           | Off    | N    | 19.5       | 22.0        | 55.6         |
| 0.174000        | 31.8           | Off    | N    | 19.5       | 23.0        | 54.8         |
| 0.190000        | 29.9           | Off    | N    | 19.5       | 24.1        | 54.0         |
| 0.214000        | 28.6           | Off    | N    | 19.5       | 24.4        | 53.0         |
| 0.510000        | 26.2           | Off    | N    | 19.5       | 19.8        | 46.0         |
| 23.710000       | 39.1           | Off    | N    | 20.9       | 10.9        | 50.0         |
| 24.926000       | 38.3           | Off    | N    | 21.0       | 11.7        | 50.0         |
| 26.062000       | 36.3           | Off    | N    | 21.0       | 13.7        | 50.0         |



## Appendix C. Radiated Spurious Emission

|                 |                                       |                     |         |
|-----------------|---------------------------------------|---------------------|---------|
| Test Engineer : | Alex Jheng, Bill Chang, and Wilson Wu | Temperature :       | 25~26°C |
|                 |                                       | Relative Humidity : | 50~52%  |

### Band 1 - 5150~5250MHz

#### WIFI 802.11ac VHT10 (Band Edge @ 3m)

| WIFI Ant.                              | Note | Frequency | Level      | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Ant Pos | Table Pos | Peak Avg. | Pol.    |
|----------------------------------------|------|-----------|------------|------------|------------|------------|----------------|------------|---------------|---------|-----------|-----------|---------|
| 1                                      |      | ( MHz )   | ( dBμV/m ) | ( dB )     | ( dBμV/m ) | ( dBμV )   | ( dB/m )       | ( dB )     | ( dB )        | ( cm )  | ( deg )   | ( P/A )   | ( H/V ) |
| 802.11ac<br>VHT 10<br>CH 32<br>5160MHz |      | 5143.78   | 66.54      | -7.46      | 74         | 57.77      | 31.98          | 7.35       | 30.56         | 186     | 360       | P         | H       |
|                                        |      | 5150      | 52.44      | -1.56      | 54         | 43.67      | 31.98          | 7.35       | 30.56         | 186     | 360       | A         | H       |
|                                        | *    | 5160      | 107.43     |            |            | 98.64      | 32             | 7.35       | 30.56         | 186     | 360       | P         | H       |
|                                        | *    | 5160      | 98.82      |            |            | 90.03      | 32             | 7.35       | 30.56         | 186     | 360       | A         | H       |
|                                        |      | 5375.16   | 53.22      | -20.78     | 74         | 44.1       | 32.24          | 7.47       | 30.59         | 186     | 360       | P         | H       |
|                                        |      | 5385.8    | 43.33      | -10.67     | 54         | 34.18      | 32.26          | 7.48       | 30.59         | 186     | 360       | A         | H       |
|                                        |      |           |            |            |            |            |                |            |               |         |           |           | H       |
|                                        |      |           |            |            |            |            |                |            |               |         |           |           | H       |
|                                        |      | 5148.72   | 66.21      | -7.79      | 74         | 57.44      | 31.98          | 7.35       | 30.56         | 215     | 0         | P         | V       |
|                                        |      | 5150      | 52.42      | -1.58      | 54         | 43.65      | 31.98          | 7.35       | 30.56         | 215     | 0         | A         | V       |
|                                        | *    | 5160      | 107.6      |            |            | 98.81      | 32             | 7.35       | 30.56         | 215     | 0         | P         | V       |
|                                        | *    | 5160      | 98.85      |            |            | 90.06      | 32             | 7.35       | 30.56         | 215     | 0         | A         | V       |
|                                        |      | 5355      | 52         | -22        | 74         | 42.91      | 32.22          | 7.46       | 30.59         | 215     | 0         | P         | V       |
|                                        |      | 5459.16   | 41.28      | -12.72     | 54         | 32         | 32.34          | 7.54       | 30.6          | 215     | 0         | A         | V       |
|                                        |      |           |            |            |            |            |                |            |               |         |           |           | V       |
|                                        |      |           |            |            |            |            |                |            |               |         |           |           | V       |



| WIFI<br>Ant.<br>1                      | Note                                                                                        | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|----------------------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|-------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11ac<br>VHT 10<br>CH 40<br>5200MHz |                                                                                             | 5141.44              | 71.45               | -2.55                   | 74                          | 62.69                     | 31.98                         | 7.34                    | 30.56                      | 200                  | 0                       | P                       | H               |
|                                        |                                                                                             | 5150                 | 52.1                | -1.9                    | 54                          | 43.33                     | 31.98                         | 7.35                    | 30.56                      | 200                  | 0                       | A                       | H               |
|                                        | *                                                                                           | 5200                 | 125.77              |                         |                             | 116.92                    | 32.04                         | 7.38                    | 30.57                      | 200                  | 0                       | P                       | H               |
|                                        | *                                                                                           | 5200                 | 117.61              |                         |                             | 108.76                    | 32.04                         | 7.38                    | 30.57                      | 200                  | 0                       | A                       | H               |
|                                        |                                                                                             | 5506                 | 62.27               | -11.73                  | 74                          | 52.89                     | 32.4                          | 7.59                    | 30.61                      | 200                  | 0                       | P                       | H               |
|                                        |                                                                                             | 5506                 | 47.84               | -6.16                   | 54                          | 38.46                     | 32.4                          | 7.59                    | 30.61                      | 200                  | 0                       | A                       | H               |
|                                        |                                                                                             | 5350.24              | 68.81               | -5.19                   | 74                          | 59.72                     | 32.22                         | 7.46                    | 30.59                      | 200                  | 0                       | P                       | H               |
|                                        |                                                                                             | 5353.6               | 49.29               | -4.71                   | 54                          | 40.2                      | 32.22                         | 7.46                    | 30.59                      | 200                  | 0                       | A                       | H               |
|                                        |                                                                                             | 5141.18              | 71.15               | -2.85                   | 74                          | 62.39                     | 31.98                         | 7.34                    | 30.56                      | 209                  | 0                       | P                       | V               |
|                                        |                                                                                             | 5149.24              | 51.88               | -2.12                   | 54                          | 43.11                     | 31.98                         | 7.35                    | 30.56                      | 209                  | 0                       | A                       | V               |
|                                        | *                                                                                           | 5200                 | 125.31              |                         |                             | 116.46                    | 32.04                         | 7.38                    | 30.57                      | 209                  | 0                       | P                       | V               |
|                                        | *                                                                                           | 5200                 | 116.98              |                         |                             | 108.13                    | 32.04                         | 7.38                    | 30.57                      | 209                  | 0                       | A                       | V               |
|                                        |                                                                                             | 5500                 | 60.46               | -13.54                  | 74                          | 51.09                     | 32.4                          | 7.58                    | 30.61                      | 209                  | 0                       | P                       | V               |
|                                        |                                                                                             | 5500                 | 45.08               | -8.92                   | 54                          | 35.71                     | 32.4                          | 7.58                    | 30.61                      | 209                  | 0                       | A                       | V               |
|                                        |                                                                                             | 5362.56              | 63.47               | -10.53                  | 74                          | 54.35                     | 32.24                         | 7.47                    | 30.59                      | 209                  | 0                       | P                       | V               |
|                                        |                                                                                             | 5357.52              | 45.27               | -8.73                   | 54                          | 36.18                     | 32.22                         | 7.46                    | 30.59                      | 209                  | 0                       | A                       | V               |
| 802.11ac<br>VHT 10<br>CH 49<br>5245MHz |                                                                                             | 5136.24              | 60.93               | -13.07                  | 74                          | 52.19                     | 31.96                         | 7.34                    | 30.56                      | 197                  | 360                     | P                       | H               |
|                                        |                                                                                             | 5149.76              | 44.11               | -9.89                   | 54                          | 35.34                     | 31.98                         | 7.35                    | 30.56                      | 197                  | 360                     | A                       | H               |
|                                        | *                                                                                           | 5245                 | 121.12              |                         |                             | 112.2                     | 32.1                          | 7.4                     | 30.58                      | 197                  | 360                     | P                       | H               |
|                                        | *                                                                                           | 5245                 | 113.04              |                         |                             | 104.12                    | 32.1                          | 7.4                     | 30.58                      | 197                  | 360                     | A                       | H               |
|                                        |                                                                                             | 5353.04              | 65.04               | -8.96                   | 74                          | 55.95                     | 32.22                         | 7.46                    | 30.59                      | 197                  | 360                     | P                       | H               |
|                                        |                                                                                             | 5353.32              | 46.46               | -7.54                   | 54                          | 37.37                     | 32.22                         | 7.46                    | 30.59                      | 197                  | 360                     | A                       | H               |
|                                        |                                                                                             | 5147.94              | 63.31               | -10.69                  | 74                          | 54.54                     | 31.98                         | 7.35                    | 30.56                      | 206                  | 0                       | P                       | V               |
|                                        |                                                                                             | 5149.5               | 45.56               | -8.44                   | 54                          | 36.79                     | 31.98                         | 7.35                    | 30.56                      | 206                  | 0                       | A                       | V               |
|                                        | *                                                                                           | 5245                 | 121.31              |                         |                             | 112.39                    | 32.1                          | 7.4                     | 30.58                      | 206                  | 0                       | P                       | V               |
|                                        | *                                                                                           | 5245                 | 113.06              |                         |                             | 104.14                    | 32.1                          | 7.4                     | 30.58                      | 206                  | 0                       | A                       | V               |
|                                        |                                                                                             | 5350                 | 61.41               | -12.59                  | 74                          | 52.32                     | 32.22                         | 7.46                    | 30.59                      | 206                  | 0                       | P                       | V               |
|                                        |                                                                                             | 5368.72              | 44.03               | -9.97                   | 54                          | 34.91                     | 32.24                         | 7.47                    | 30.59                      | 206                  | 0                       | A                       | V               |
| Remark                                 | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         |                 |



## Band 1 5150~5250MHz

## WIFI 802. 11ac VHT10 (Harmonic @ 3m)

| WIFI<br>Ant.<br>1                      | Note                                                                                        | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|----------------------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|-------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11ac<br>VHT 10<br>CH 32<br>5160MHz |                                                                                             | 10320                | 45.85               | -22.35                  | 68.2                        | 52.41                     | 39.21                         | 10.73                   | 57.04                      | 100                  | 0                       | P                       | H               |
|                                        |                                                                                             | 15480                | 44.94               | -29.06                  | 74                          | 49.25                     | 38.47                         | 12.96                   | 56.5                       | 100                  | 0                       | P                       | H               |
|                                        |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                        |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                        |                                                                                             | 10320                | 45.98               | -22.22                  | 68.2                        | 52.54                     | 39.21                         | 10.73                   | 57.04                      | 100                  | 0                       | P                       | V               |
|                                        |                                                                                             | 15480                | 44.18               | -29.82                  | 74                          | 48.49                     | 38.47                         | 12.96                   | 56.5                       | 100                  | 0                       | P                       | V               |
|                                        |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                        |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| 802.11ac<br>VHT 10<br>CH 40<br>5200MHz |                                                                                             | 10400                | 49.76               | -18.44                  | 68.2                        | 56.12                     | 39.34                         | 10.78                   | 57.02                      | 100                  | 0                       | P                       | H               |
|                                        |                                                                                             | 15600                | 46.81               | -27.19                  | 74                          | 51.34                     | 38.13                         | 13.03                   | 56.44                      | 100                  | 0                       | P                       | H               |
|                                        |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                        |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                        |                                                                                             | 10400                | 47.87               | -20.33                  | 68.2                        | 54.23                     | 39.34                         | 10.78                   | 57.02                      | 100                  | 0                       | P                       | V               |
|                                        |                                                                                             | 15600                | 45.64               | -28.36                  | 74                          | 50.17                     | 38.13                         | 13.03                   | 56.44                      | 100                  | 0                       | P                       | V               |
|                                        |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                        |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| 802.11ac<br>VHT 10<br>CH 49<br>5200MHz |                                                                                             | 10490                | 47.59               | -20.61                  | 68.2                        | 53.75                     | 39.47                         | 10.83                   | 57                         | 100                  | 0                       | P                       | H               |
|                                        |                                                                                             | 15735                | 45.25               | -28.75                  | 74                          | 49.99                     | 37.77                         | 13.11                   | 56.36                      | 100                  | 0                       | P                       | H               |
|                                        |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                        |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                        |                                                                                             | 10490                | 46.67               | -21.53                  | 68.2                        | 52.83                     | 39.47                         | 10.83                   | 57                         | 100                  | 0                       | P                       | V               |
|                                        |                                                                                             | 15735                | 46.14               | -27.86                  | 74                          | 50.88                     | 37.77                         | 13.11                   | 56.36                      | 100                  | 0                       | P                       | V               |
|                                        |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                        |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| Remark                                 | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         |                 |



**Band 1 5150~5250MHz**  
**WIFI 802.11ac VHT20 (Band Edge @ 3m)**

| WIFI<br>Ant.<br>1                               | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|-------------------------------------------------|------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|-------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| <b>802.11ac<br/>VHT20<br/>CH 33<br/>5165MHz</b> |      | 5148.98              | 62.52               | -11.48                  | 74                          | 53.75                     | 31.98                         | 7.35                    | 30.56                      | 203                  | 360                     | P                       | H               |
|                                                 |      | 5150                 | 53.4                | -0.6                    | 54                          | 44.63                     | 31.98                         | 7.35                    | 30.56                      | 203                  | 360                     | A                       | H               |
|                                                 | *    | 5165                 | 97.86               |                         |                             | 89.06                     | 32                            | 7.36                    | 30.56                      | 203                  | 360                     | P                       | H               |
|                                                 | *    | 5165                 | 89.83               |                         |                             | 81.03                     | 32                            | 7.36                    | 30.56                      | 203                  | 360                     | A                       | H               |
|                                                 |      | 5449.08              | 52.48               | -21.52                  | 74                          | 43.2                      | 32.34                         | 7.54                    | 30.6                       | 203                  | 360                     | P                       | H               |
|                                                 |      | 5414.64              | 42.75               | -11.25                  | 54                          | 33.54                     | 32.3                          | 7.51                    | 30.6                       | 203                  | 360                     | A                       | H               |
|                                                 |      | 5150                 | 60.94               | -13.06                  | 74                          | 52.17                     | 31.98                         | 7.35                    | 30.56                      | 210                  | 0                       | P                       | V               |
|                                                 |      | 5150                 | 52.47               | -1.53                   | 54                          | 43.7                      | 31.98                         | 7.35                    | 30.56                      | 210                  | 0                       | A                       | V               |
|                                                 | *    | 5165                 | 98.17               |                         |                             | 89.37                     | 32                            | 7.36                    | 30.56                      | 210                  | 0                       | P                       | V               |
|                                                 | *    | 5165                 | 90.73               |                         |                             | 81.93                     | 32                            | 7.36                    | 30.56                      | 210                  | 0                       | A                       | V               |
|                                                 |      | 5401.2               | 50.45               | -23.55                  | 74                          | 41.28                     | 32.28                         | 7.49                    | 30.6                       | 210                  | 0                       | P                       | V               |
|                                                 |      | 5439.56              | 40.92               | -13.08                  | 54                          | 31.68                     | 32.32                         | 7.52                    | 30.6                       | 210                  | 0                       | A                       | V               |
| <b>802.11ac<br/>VHT20<br/>CH 40<br/>5200MHz</b> |      | 5146.38              | 68.11               | -5.89                   | 74                          | 59.34                     | 31.98                         | 7.35                    | 30.56                      | 217                  | 0                       | P                       | H               |
|                                                 |      | 5147.68              | 48.55               | -5.45                   | 54                          | 39.78                     | 31.98                         | 7.35                    | 30.56                      | 217                  | 0                       | A                       | H               |
|                                                 | *    | 5200                 | 121.29              |                         |                             | 112.44                    | 32.04                         | 7.38                    | 30.57                      | 217                  | 0                       | P                       | H               |
|                                                 | *    | 5200                 | 115.16              |                         |                             | 106.31                    | 32.04                         | 7.38                    | 30.57                      | 217                  | 0                       | A                       | H               |
|                                                 |      | 5506                 | 58.9                | -15.1                   | 74                          | 49.52                     | 32.4                          | 7.59                    | 30.61                      | 205                  | 0                       | P                       | H               |
|                                                 |      | 5506                 | 49.38               | -4.62                   | 54                          | 40                        | 32.4                          | 7.59                    | 30.61                      | 205                  | 0                       | A                       | H               |
|                                                 |      | 5354.72              | 62.97               | -11.03                  | 74                          | 53.88                     | 32.22                         | 7.46                    | 30.59                      | 217                  | 0                       | P                       | H               |
|                                                 |      | 5353.32              | 47.62               | -6.38                   | 54                          | 38.53                     | 32.22                         | 7.46                    | 30.59                      | 217                  | 0                       | A                       | H               |
|                                                 |      | 5143.26              | 67.12               | -6.88                   | 74                          | 58.35                     | 31.98                         | 7.35                    | 30.56                      | 226                  | 1                       | P                       | V               |
|                                                 |      | 5149.24              | 48.91               | -5.09                   | 54                          | 40.14                     | 31.98                         | 7.35                    | 30.56                      | 226                  | 1                       | A                       | V               |
|                                                 | *    | 5200                 | 122.11              |                         |                             | 113.26                    | 32.04                         | 7.38                    | 30.57                      | 226                  | 1                       | P                       | V               |
|                                                 | *    | 5200                 | 114.25              |                         |                             | 105.4                     | 32.04                         | 7.38                    | 30.57                      | 226                  | 1                       | A                       | V               |
|                                                 |      | 5464                 | 57.63               | -16.37                  | 74                          | 48.34                     | 32.36                         | 7.54                    | 30.61                      | 211                  | 1                       | P                       | V               |
|                                                 |      | 5464                 | 47.24               | -6.76                   | 54                          | 37.95                     | 32.36                         | 7.54                    | 30.61                      | 211                  | 1                       | A                       | V               |
|                                                 |      | 5361.44              | 58.02               | -15.98                  | 74                          | 48.9                      | 32.24                         | 7.47                    | 30.59                      | 226                  | 1                       | P                       | V               |
|                                                 |      | 5355.28              | 44.5                | -9.5                    | 54                          | 35.41                     | 32.22                         | 7.46                    | 30.59                      | 226                  | 1                       | A                       | V               |



|                                                                   |                                                                                             |         |        |        |    |        |       |      |       |     |     |   |   |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|--------|-------|------|-------|-----|-----|---|---|
| <b>802.11ac</b><br><b>VHT20</b><br><b>CH 48</b><br><b>5240MHz</b> |                                                                                             | 5140.92 | 58.47  | -15.53 | 74 | 49.71  | 31.98 | 7.34 | 30.56 | 207 | 360 | P | H |
|                                                                   |                                                                                             | 5149.24 | 43.46  | -10.54 | 54 | 34.69  | 31.98 | 7.35 | 30.56 | 207 | 360 | A | H |
|                                                                   | *                                                                                           | 5240    | 114.81 |        |    | 105.91 | 32.08 | 7.4  | 30.58 | 207 | 360 | P | H |
|                                                                   | *                                                                                           | 5240    | 107.69 |        |    | 98.79  | 32.08 | 7.4  | 30.58 | 207 | 360 | A | H |
|                                                                   |                                                                                             | 5369.28 | 59.87  | -14.13 | 74 | 50.75  | 32.24 | 7.47 | 30.59 | 207 | 360 | P | H |
|                                                                   |                                                                                             | 5351.36 | 45.58  | -8.42  | 54 | 36.49  | 32.22 | 7.46 | 30.59 | 207 | 360 | A | H |
|                                                                   |                                                                                             | 5142.22 | 59.58  | -14.42 | 74 | 50.82  | 31.98 | 7.34 | 30.56 | 204 | 0   | P | V |
|                                                                   |                                                                                             | 5149.24 | 44.64  | -9.36  | 54 | 35.87  | 31.98 | 7.35 | 30.56 | 204 | 0   | A | V |
|                                                                   | *                                                                                           | 5240    | 117.92 |        |    | 109.02 | 32.08 | 7.4  | 30.58 | 204 | 0   | P | V |
|                                                                   | *                                                                                           | 5240    | 110.1  |        |    | 101.2  | 32.08 | 7.4  | 30.58 | 204 | 0   | A | V |
|                                                                   |                                                                                             | 5350.24 | 57.86  | -16.14 | 74 | 48.77  | 32.22 | 7.46 | 30.59 | 204 | 0   | P | V |
|                                                                   |                                                                                             | 5356.4  | 43.55  | -10.45 | 54 | 34.46  | 32.22 | 7.46 | 30.59 | 204 | 0   | A | V |
| <b>Remark</b>                                                     | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |         |        |        |    |        |       |      |       |     |     |   |   |



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

| WIFI<br>Ant.<br>1                     | Note                                                                                        | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|---------------------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|-------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11ac<br>VHT20<br>CH 33<br>5165MHz |                                                                                             | 10330                | 45.98               | -22.22                  | 68.2                        | 52.51                     | 39.23                         | 10.73                   | 57.03                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             | 15495                | 44.89               | -29.11                  | 74                          | 49.25                     | 38.4                          | 12.98                   | 56.5                       | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             | 10330                | 46.15               | -22.05                  | 68.2                        | 52.68                     | 39.23                         | 10.73                   | 57.03                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             | 15495                | 44.75               | -29.25                  | 74                          | 49.11                     | 38.4                          | 12.98                   | 56.5                       | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| 802.11ac<br>VHT20<br>CH 40<br>5200MHz |                                                                                             | 10400                | 46.98               | -21.22                  | 68.2                        | 53.34                     | 39.34                         | 10.78                   | 57.02                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             | 15600                | 46.1                | -27.9                   | 74                          | 50.63                     | 38.13                         | 13.03                   | 56.44                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             | 10400                | 47.23               | -20.97                  | 68.2                        | 53.59                     | 39.34                         | 10.78                   | 57.02                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             | 15600                | 45.78               | -28.22                  | 74                          | 50.31                     | 38.13                         | 13.03                   | 56.44                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| 802.11ac<br>VHT20<br>CH 48<br>5240MHz |                                                                                             | 10480                | 46.7                | -21.5                   | 68.2                        | 52.86                     | 39.47                         | 10.83                   | 57                         | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             | 15720                | 46                  | -28                     | 74                          | 50.71                     | 37.82                         | 13.1                    | 56.37                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             | 10480                | 46.82               | -21.38                  | 68.2                        | 52.98                     | 39.47                         | 10.83                   | 57                         | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             | 15720                | 46.74               | -27.26                  | 74                          | 51.45                     | 37.82                         | 13.1                    | 56.37                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| Remark                                | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         |                 |



## WIFI 802.11ac VHT30 (Band Edge @ 3m)

| WIFI<br>Ant.<br>1                     | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|---------------------------------------|------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|-------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11ac<br>VHT30<br>CH 34<br>5170MHz |      | 5150                 | 60.64               | -13.36                  | 74                          | 51.87                     | 31.98                         | 7.35                    | 30.56                      | 205                  | 360                     | P                       | H               |
|                                       |      | 5150                 | 52.78               | -1.22                   | 54                          | 44.01                     | 31.98                         | 7.35                    | 30.56                      | 205                  | 360                     | A                       | H               |
|                                       | *    | 5170                 | 90.37               |                         |                             | 81.57                     | 32                            | 7.36                    | 30.56                      | 205                  | 360                     | P                       | H               |
|                                       | *    | 5170                 | 83.58               |                         |                             | 74.78                     | 32                            | 7.36                    | 30.56                      | 205                  | 360                     | A                       | H               |
|                                       |      | 5454.68              | 52.16               | -21.84                  | 74                          | 42.88                     | 32.34                         | 7.54                    | 30.6                       | 205                  | 360                     | P                       | H               |
|                                       |      | 5456.36              | 43.43               | -10.57                  | 54                          | 34.15                     | 32.34                         | 7.54                    | 30.6                       | 205                  | 360                     | A                       | H               |
|                                       |      | 5150                 | 59.52               | -14.48                  | 74                          | 50.75                     | 31.98                         | 7.35                    | 30.56                      | 225                  | 0                       | P                       | V               |
|                                       |      | 5150                 | 52.76               | -1.24                   | 54                          | 43.99                     | 31.98                         | 7.35                    | 30.56                      | 225                  | 0                       | A                       | V               |
|                                       | *    | 5170                 | 90.67               |                         |                             | 81.87                     | 32                            | 7.36                    | 30.56                      | 225                  | 0                       | P                       | V               |
|                                       | *    | 5170                 | 83.94               |                         |                             | 75.14                     | 32                            | 7.36                    | 30.56                      | 225                  | 0                       | A                       | V               |
|                                       |      | 5437.32              | 50.4                | -23.6                   | 74                          | 41.16                     | 32.32                         | 7.52                    | 30.6                       | 225                  | 0                       | P                       | V               |
|                                       |      | 5361.72              | 41.67               | -12.33                  | 54                          | 32.55                     | 32.24                         | 7.47                    | 30.59                      | 225                  | 0                       | A                       | V               |
| 802.11ac<br>VHT30<br>CH 40<br>5200MHz |      | 5143                 | 68.7                | -5.3                    | 74                          | 59.93                     | 31.98                         | 7.35                    | 30.56                      | 250                  | 0                       | P                       | H               |
|                                       |      | 5149.76              | 53.27               | -0.73                   | 54                          | 44.5                      | 31.98                         | 7.35                    | 30.56                      | 250                  | 0                       | A                       | H               |
|                                       | *    | 5200                 | 120.16              |                         |                             | 111.31                    | 32.04                         | 7.38                    | 30.57                      | 250                  | 0                       | P                       | H               |
|                                       | *    | 5200                 | 113.11              |                         |                             | 104.26                    | 32.04                         | 7.38                    | 30.57                      | 250                  | 0                       | A                       | H               |
|                                       |      | 5464                 | 61.02               | -12.98                  | 74                          | 51.73                     | 32.36                         | 7.54                    | 30.61                      | 156                  | 0                       | P                       | H               |
|                                       |      | 5464                 | 49.8                | -4.2                    | 54                          | 40.51                     | 32.36                         | 7.54                    | 30.61                      | 156                  | 0                       | A                       | H               |
|                                       |      | 5356.68              | 62.82               | -11.18                  | 74                          | 53.73                     | 32.22                         | 7.46                    | 30.59                      | 250                  | 0                       | P                       | H               |
|                                       |      | 5350.8               | 49.51               | -4.49                   | 54                          | 40.42                     | 32.22                         | 7.46                    | 30.59                      | 250                  | 0                       | A                       | H               |
|                                       |      | 5147.68              | 69.96               | -4.04                   | 74                          | 61.19                     | 31.98                         | 7.35                    | 30.56                      | 226                  | 0                       | P                       | V               |
|                                       |      | 5150                 | 53.02               | -0.98                   | 54                          | 44.25                     | 31.98                         | 7.35                    | 30.56                      | 226                  | 0                       | A                       | V               |
|                                       | *    | 5200                 | 119.41              |                         |                             | 110.56                    | 32.04                         | 7.38                    | 30.57                      | 226                  | 0                       | P                       | V               |
|                                       | *    | 5200                 | 112.66              |                         |                             | 103.81                    | 32.04                         | 7.38                    | 30.57                      | 226                  | 0                       | A                       | V               |
|                                       |      | 5470                 | 57.81               | -16.19                  | 74                          | 48.5                      | 32.36                         | 7.56                    | 30.61                      | 193                  | 0                       | P                       | V               |
|                                       |      | 5470                 | 46.73               | -7.27                   | 54                          | 37.42                     | 32.36                         | 7.56                    | 30.61                      | 193                  | 0                       | A                       | V               |
|                                       |      | 5367.6               | 60.06               | -13.94                  | 74                          | 50.94                     | 32.24                         | 7.47                    | 30.59                      | 226                  | 0                       | P                       | V               |
|                                       |      | 5350.52              | 45.95               | -8.05                   | 54                          | 36.86                     | 32.22                         | 7.46                    | 30.59                      | 226                  | 0                       | A                       | V               |



|                                                                   |                                                                                             |         |        |        |    |        |       |      |       |     |     |   |   |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|--------|-------|------|-------|-----|-----|---|---|
| <b>802.11ac</b><br><b>VHT30</b><br><b>CH 47</b><br><b>5235MHz</b> |                                                                                             | 5132.34 | 56.65  | -17.35 | 74 | 47.91  | 31.96 | 7.34 | 30.56 | 205 | 360 | P | H |
|                                                                   |                                                                                             | 5149.76 | 44.59  | -9.41  | 54 | 35.82  | 31.98 | 7.35 | 30.56 | 205 | 360 | A | H |
|                                                                   | *                                                                                           | 5235    | 114.12 |        |    | 105.21 | 32.08 | 7.4  | 30.57 | 205 | 360 | P | H |
|                                                                   | *                                                                                           | 5235    | 107.18 |        |    | 98.27  | 32.08 | 7.4  | 30.57 | 205 | 360 | A | H |
|                                                                   |                                                                                             | 5397    | 58.04  | -15.96 | 74 | 48.87  | 32.28 | 7.49 | 30.6  | 205 | 360 | P | H |
|                                                                   |                                                                                             | 5351.08 | 46.02  | -7.98  | 54 | 36.93  | 32.22 | 7.46 | 30.59 | 205 | 360 | A | H |
|                                                                   |                                                                                             | 5141.7  | 58.62  | -15.38 | 74 | 49.86  | 31.98 | 7.34 | 30.56 | 194 | 360 | P | V |
|                                                                   |                                                                                             | 5148.46 | 45.78  | -8.22  | 54 | 37.01  | 31.98 | 7.35 | 30.56 | 194 | 360 | A | V |
|                                                                   | *                                                                                           | 5235    | 115.61 |        |    | 106.7  | 32.08 | 7.4  | 30.57 | 194 | 360 | P | V |
|                                                                   | *                                                                                           | 5235    | 108.29 |        |    | 99.38  | 32.08 | 7.4  | 30.57 | 194 | 360 | A | V |
|                                                                   |                                                                                             | 5351.92 | 57.01  | -16.99 | 74 | 47.92  | 32.22 | 7.46 | 30.59 | 194 | 360 | P | V |
|                                                                   |                                                                                             | 5357.24 | 44.37  | -9.63  | 54 | 35.28  | 32.22 | 7.46 | 30.59 | 194 | 360 | A | V |
| <b>Remark</b>                                                     | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |         |        |        |    |        |       |      |       |     |     |   |   |



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT30 (Harmonic @ 3m)

| WIFI<br>Ant.<br>1                     | Note                                                                                        | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|---------------------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|-------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11ac<br>VHT30<br>CH 34<br>5170MHz |                                                                                             | 10470                | 47.23               | -20.97                  | 68.2                        | 53.43                     | 39.45                         | 10.82                   | 57.01                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             | 15705                | 46.84               | -27.16                  | 74                          | 51.53                     | 37.86                         | 13.09                   | 56.38                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             | 10470                | 47.46               | -20.74                  | 68.2                        | 53.66                     | 39.45                         | 10.82                   | 57.01                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             | 15705                | 45.35               | -28.65                  | 74                          | 50.04                     | 37.86                         | 13.09                   | 56.38                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| 802.11ac<br>VHT30<br>CH 40<br>5200MHz |                                                                                             | 10400                | 47.8                | -20.4                   | 68.2                        | 54.16                     | 39.34                         | 10.78                   | 57.02                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             | 15600                | 45.62               | -28.38                  | 74                          | 50.15                     | 38.13                         | 13.03                   | 56.44                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             | 10400                | 48.06               | -20.14                  | 68.2                        | 54.42                     | 39.34                         | 10.78                   | 57.02                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             | 15600                | 45.36               | -28.64                  | 74                          | 49.89                     | 38.13                         | 13.03                   | 56.44                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| 802.11ac<br>VHT30<br>CH 47<br>5235MHz |                                                                                             | 10470                | 47.23               | -20.97                  | 68.2                        | 53.43                     | 39.45                         | 10.82                   | 57.01                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             | 15705                | 46.84               | -27.16                  | 74                          | 51.53                     | 37.86                         | 13.09                   | 56.38                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             | 10470                | 47.46               | -20.74                  | 68.2                        | 53.66                     | 39.45                         | 10.82                   | 57.01                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             | 15705                | 45.35               | -28.65                  | 74                          | 50.04                     | 37.86                         | 13.09                   | 56.38                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| Remark                                | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         |                 |



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

| WIFI<br>Ant.<br>1                     | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|---------------------------------------|------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|-------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11ac<br>VHT40<br>CH 35<br>5175MHz |      | 5149.76              | 61.63               | -12.37                  | 74                          | 52.86                     | 31.98                         | 7.35                    | 30.56                      | 190                  | 0                       | P                       | H               |
|                                       |      | 5149.76              | 53.14               | -0.86                   | 54                          | 44.37                     | 31.98                         | 7.35                    | 30.56                      | 190                  | 0                       | A                       | H               |
|                                       | *    | 5175                 | 91.93               |                         |                             | 83.11                     | 32.02                         | 7.36                    | 30.56                      | 190                  | 0                       | P                       | H               |
|                                       | *    | 5175                 | 84.01               |                         |                             | 75.19                     | 32.02                         | 7.36                    | 30.56                      | 190                  | 0                       | A                       | H               |
|                                       |      | 5392.8               | 51.93               | -22.07                  | 74                          | 42.79                     | 32.26                         | 7.48                    | 30.6                       | 190                  | 0                       | P                       | H               |
|                                       |      | 5414.08              | 43.27               | -10.73                  | 54                          | 34.06                     | 32.3                          | 7.51                    | 30.6                       | 190                  | 0                       | A                       | H               |
|                                       |      | 5150                 | 63.01               | -10.99                  | 74                          | 54.24                     | 31.98                         | 7.35                    | 30.56                      | 213                  | 360                     | P                       | V               |
|                                       |      | 5150                 | 52.41               | -1.59                   | 54                          | 43.64                     | 31.98                         | 7.35                    | 30.56                      | 213                  | 360                     | A                       | V               |
|                                       | *    | 5175                 | 92.09               |                         |                             | 83.27                     | 32.02                         | 7.36                    | 30.56                      | 213                  | 360                     | P                       | V               |
|                                       | *    | 5175                 | 84.35               |                         |                             | 75.53                     | 32.02                         | 7.36                    | 30.56                      | 213                  | 360                     | A                       | V               |
|                                       |      | 5423.04              | 51.52               | -22.48                  | 74                          | 42.31                     | 32.3                          | 7.51                    | 30.6                       | 213                  | 360                     | P                       | V               |
|                                       |      | 5372.64              | 42.01               | -11.99                  | 54                          | 32.89                     | 32.24                         | 7.47                    | 30.59                      | 213                  | 360                     | A                       | V               |
| 802.11ac<br>VHT40<br>CH 40<br>5200MHz |      | 5146.12              | 64.86               | -9.14                   | 74                          | 56.09                     | 31.98                         | 7.35                    | 30.56                      | 212                  | 0                       | P                       | H               |
|                                       |      | 5150                 | 52.21               | -1.79                   | 54                          | 43.44                     | 31.98                         | 7.35                    | 30.56                      | 212                  | 0                       | A                       | H               |
|                                       | *    | 5200                 | 113.98              |                         |                             | 105.13                    | 32.04                         | 7.38                    | 30.57                      | 212                  | 0                       | P                       | H               |
|                                       | *    | 5200                 | 106.12              |                         |                             | 97.27                     | 32.04                         | 7.38                    | 30.57                      | 212                  | 0                       | A                       | H               |
|                                       |      | 5354.16              | 61.05               | -12.95                  | 74                          | 51.96                     | 32.22                         | 7.46                    | 30.59                      | 212                  | 0                       | P                       | H               |
|                                       |      | 5365.64              | 45.68               | -8.32                   | 54                          | 36.56                     | 32.24                         | 7.47                    | 30.59                      | 212                  | 0                       | A                       | H               |
|                                       |      | 5148.98              | 63.47               | -10.53                  | 74                          | 54.7                      | 31.98                         | 7.35                    | 30.56                      | 211                  | 0                       | P                       | V               |
|                                       |      | 5150                 | 48.19               | -5.81                   | 54                          | 39.42                     | 31.98                         | 7.35                    | 30.56                      | 211                  | 0                       | A                       | V               |
|                                       | *    | 5200                 | 114.05              |                         |                             | 105.2                     | 32.04                         | 7.38                    | 30.57                      | 211                  | 0                       | P                       | V               |
|                                       | *    | 5200                 | 106.23              |                         |                             | 97.38                     | 32.04                         | 7.38                    | 30.57                      | 211                  | 0                       | A                       | V               |
|                                       |      | 5370.96              | 54.23               | -19.77                  | 74                          | 45.11                     | 32.24                         | 7.47                    | 30.59                      | 211                  | 0                       | P                       | V               |
|                                       |      | 5351.08              | 46.55               | -7.45                   | 54                          | 37.46                     | 32.22                         | 7.46                    | 30.59                      | 211                  | 0                       | A                       | V               |



|                                                                               |                                                                                             |         |        |        |    |        |       |      |       |     |     |   |   |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|--------|-------|------|-------|-----|-----|---|---|
| <b>802.11ac</b><br><br><b>VHT40</b><br><br><b>CH 46</b><br><br><b>5230MHz</b> |                                                                                             | 5145.08 | 60.1   | -13.9  | 74 | 51.33  | 31.98 | 7.35 | 30.56 | 201 | 358 | P | H |
|                                                                               |                                                                                             | 5147.68 | 46.14  | -7.86  | 54 | 37.37  | 31.98 | 7.35 | 30.56 | 201 | 358 | A | H |
|                                                                               | *                                                                                           | 5230    | 115.06 |        |    | 106.16 | 32.08 | 7.39 | 30.57 | 201 | 358 | P | H |
|                                                                               | *                                                                                           | 5230    | 107.29 |        |    | 98.39  | 32.08 | 7.39 | 30.57 | 201 | 358 | A | H |
|                                                                               |                                                                                             | 5350.52 | 60.84  | -13.16 | 74 | 51.75  | 32.22 | 7.46 | 30.59 | 201 | 358 | P | H |
|                                                                               |                                                                                             | 5351.36 | 47.51  | -6.49  | 54 | 38.42  | 32.22 | 7.46 | 30.59 | 201 | 358 | A | H |
|                                                                               |                                                                                             | 5146.64 | 62.97  | -11.03 | 74 | 54.2   | 31.98 | 7.35 | 30.56 | 195 | 360 | P | V |
|                                                                               |                                                                                             | 5148.98 | 44.88  | -9.12  | 54 | 36.11  | 31.98 | 7.35 | 30.56 | 195 | 360 | A | V |
|                                                                               | *                                                                                           | 5230    | 115.61 |        |    | 106.71 | 32.08 | 7.39 | 30.57 | 195 | 360 | P | V |
|                                                                               | *                                                                                           | 5230    | 107.68 |        |    | 98.78  | 32.08 | 7.39 | 30.57 | 195 | 360 | A | V |
|                                                                               |                                                                                             | 5382.44 | 51.9   | -22.1  | 74 | 42.75  | 32.26 | 7.48 | 30.59 | 195 | 360 | P | V |
|                                                                               |                                                                                             | 5351.92 | 45.13  | -8.87  | 54 | 36.04  | 32.22 | 7.46 | 30.59 | 195 | 360 | A | V |
| <b>Remark</b>                                                                 | 3. No other spurious found.<br>4. All results are PASS against Peak and Average limit line. |         |        |        |    |        |       |      |       |     |     |   |   |



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

| WIFI<br>Ant.<br>1                     | Note                                                                                        | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|---------------------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|-------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11ac<br>VHT40<br>CH 35<br>5175MHz |                                                                                             | 10350                | 46.11               | -22.09                  | 68.2                        | 52.6                      | 39.26                         | 10.74                   | 57.03                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             | 15525                | 46.28               | -27.72                  | 74                          | 50.66                     | 38.36                         | 12.99                   | 56.49                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             | 10350                | 46.69               | -21.51                  | 68.2                        | 53.18                     | 39.26                         | 10.74                   | 57.03                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             | 15525                | 46.07               | -27.93                  | 74                          | 50.45                     | 38.36                         | 12.99                   | 56.49                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| 802.11ac<br>VHT40<br>CH 40<br>5200MHz |                                                                                             | 10400                | 48.02               | -20.18                  | 68.2                        | 54.38                     | 39.34                         | 10.78                   | 57.02                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             | 15600                | 45.92               | -28.08                  | 74                          | 50.45                     | 38.13                         | 13.03                   | 56.44                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             | 10400                | 46.63               | -21.57                  | 68.2                        | 52.99                     | 39.34                         | 10.78                   | 57.02                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             | 15600                | 45.32               | -28.68                  | 74                          | 49.85                     | 38.13                         | 13.03                   | 56.44                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| 802.11ac<br>VHT40<br>CH 46<br>5230MHz |                                                                                             | 10460                | 47.13               | -21.07                  | 68.2                        | 53.37                     | 39.42                         | 10.81                   | 57.01                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             | 15690                | 45.83               | -28.17                  | 74                          | 50.49                     | 37.91                         | 13.08                   | 56.39                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             | 10460                | 47.31               | -20.89                  | 68.2                        | 53.55                     | 39.42                         | 10.81                   | 57.01                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             | 15690                | 46.49               | -27.51                  | 74                          | 51.15                     | 37.91                         | 13.08                   | 56.39                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| Remark                                | 3. No other spurious found.<br>4. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         |                 |



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT50 (Band Edge @ 3m)

| WIFI<br>Ant.<br>1                     | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|---------------------------------------|------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|-------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11ac<br>VHT50<br>CH 36<br>5180MHz |      | 5148.46              | 58.81               | -15.19                  | 74                          | 50.04                     | 31.98                         | 7.35                    | 30.56                      | 200                  | 4                       | P                       | H               |
|                                       |      | 5150                 | 51.67               | -2.33                   | 54                          | 42.9                      | 31.98                         | 7.35                    | 30.56                      | 200                  | 4                       | A                       | H               |
|                                       | *    | 5180                 | 91.34               |                         |                             | 82.51                     | 32.02                         | 7.37                    | 30.56                      | 200                  | 4                       | P                       | H               |
|                                       | *    | 5180                 | 84.02               |                         |                             | 75.19                     | 32.02                         | 7.37                    | 30.56                      | 200                  | 4                       | A                       | H               |
|                                       |      | 5408.76              | 51.39               | -22.61                  | 74                          | 42.22                     | 32.28                         | 7.49                    | 30.6                       | 200                  | 4                       | P                       | H               |
|                                       |      | 5390.28              | 42.69               | -11.31                  | 54                          | 33.55                     | 32.26                         | 7.48                    | 30.6                       | 200                  | 4                       | A                       | H               |
|                                       |      | 5150                 | 59.88               | -14.12                  | 74                          | 51.11                     | 31.98                         | 7.35                    | 30.56                      | 208                  | 360                     | P                       | V               |
|                                       |      | 5150                 | 53.32               | -0.68                   | 54                          | 44.55                     | 31.98                         | 7.35                    | 30.56                      | 208                  | 360                     | A                       | V               |
|                                       | *    | 5180                 | 91.92               |                         |                             | 83.09                     | 32.02                         | 7.37                    | 30.56                      | 208                  | 360                     | P                       | V               |
|                                       | *    | 5180                 | 84.65               |                         |                             | 75.82                     | 32.02                         | 7.37                    | 30.56                      | 208                  | 360                     | A                       | V               |
|                                       |      | 5381.88              | 50.87               | -23.13                  | 74                          | 41.72                     | 32.26                         | 7.48                    | 30.59                      | 208                  | 360                     | P                       | V               |
|                                       |      | 5384.96              | 42.09               | -11.91                  | 54                          | 32.94                     | 32.26                         | 7.48                    | 30.59                      | 208                  | 360                     | A                       | V               |
| 802.11ac<br>VHT50<br>CH 40<br>5200MHz |      | 5139.88              | 62.31               | -11.69                  | 74                          | 53.55                     | 31.98                         | 7.34                    | 30.56                      | 212                  | 1                       | P                       | H               |
|                                       |      | 5150                 | 53.42               | -0.58                   | 54                          | 44.65                     | 31.98                         | 7.35                    | 30.56                      | 212                  | 1                       | A                       | H               |
|                                       | *    | 5200                 | 110.07              |                         |                             | 101.22                    | 32.04                         | 7.38                    | 30.57                      | 212                  | 1                       | P                       | H               |
|                                       | *    | 5200                 | 103.53              |                         |                             | 94.68                     | 32.04                         | 7.38                    | 30.57                      | 212                  | 1                       | A                       | H               |
|                                       |      | 5363.68              | 56.67               | -17.33                  | 74                          | 47.55                     | 32.24                         | 7.47                    | 30.59                      | 212                  | 1                       | P                       | H               |
|                                       |      | 5396.72              | 48.15               | -5.85                   | 54                          | 38.98                     | 32.28                         | 7.49                    | 30.6                       | 212                  | 1                       | A                       | H               |
|                                       |      | 5148.2               | 63.28               | -10.72                  | 74                          | 54.51                     | 31.98                         | 7.35                    | 30.56                      | 204                  | 0                       | P                       | V               |
|                                       |      | 5150                 | 50.69               | -3.31                   | 54                          | 41.92                     | 31.98                         | 7.35                    | 30.56                      | 204                  | 0                       | A                       | V               |
|                                       | *    | 5200                 | 109.11              |                         |                             | 100.26                    | 32.04                         | 7.38                    | 30.57                      | 204                  | 0                       | P                       | V               |
|                                       | *    | 5200                 | 102.31              |                         |                             | 93.46                     | 32.04                         | 7.38                    | 30.57                      | 204                  | 0                       | A                       | V               |
|                                       |      | 5351.92              | 55                  | -19                     | 74                          | 45.91                     | 32.22                         | 7.46                    | 30.59                      | 204                  | 0                       | P                       | V               |
|                                       |      | 5365.64              | 46.3                | -7.7                    | 54                          | 37.18                     | 32.24                         | 7.47                    | 30.59                      | 204                  | 0                       | A                       | V               |



|                                                                   |                                                                                             |         |        |        |    |        |       |      |       |     |     |   |   |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|--------|-------|------|-------|-----|-----|---|---|
| <b>802.11ac</b><br><b>VHT50</b><br><b>CH 45</b><br><b>5225MHz</b> |                                                                                             | 5147.68 | 61.52  | -12.48 | 74 | 52.75  | 31.98 | 7.35 | 30.56 | 225 | 355 | P | H |
|                                                                   |                                                                                             | 5149.24 | 46.55  | -7.45  | 54 | 37.78  | 31.98 | 7.35 | 30.56 | 225 | 355 | A | H |
|                                                                   | *                                                                                           | 5225    | 114.47 |        |    | 105.57 | 32.08 | 7.39 | 30.57 | 225 | 355 | P | H |
|                                                                   | *                                                                                           | 5225    | 106.75 |        |    | 97.85  | 32.08 | 7.39 | 30.57 | 225 | 355 | A | H |
|                                                                   |                                                                                             | 5355.56 | 61.41  | -12.59 | 74 | 52.32  | 32.22 | 7.46 | 30.59 | 225 | 355 | P | H |
|                                                                   |                                                                                             | 5351.08 | 46.77  | -7.23  | 54 | 37.68  | 32.22 | 7.46 | 30.59 | 225 | 355 | A | H |
|                                                                   |                                                                                             | 5148.98 | 63.12  | -10.88 | 74 | 54.35  | 31.98 | 7.35 | 30.56 | 204 | 360 | P | V |
|                                                                   |                                                                                             | 5149.24 | 47.8   | -6.2   | 54 | 39.03  | 31.98 | 7.35 | 30.56 | 204 | 360 | A | V |
|                                                                   | *                                                                                           | 5225    | 113.5  |        |    | 104.6  | 32.08 | 7.39 | 30.57 | 204 | 360 | P | V |
|                                                                   | *                                                                                           | 5225    | 105.16 |        |    | 96.26  | 32.08 | 7.39 | 30.57 | 204 | 360 | A | V |
|                                                                   |                                                                                             | 5381.88 | 58.55  | -15.45 | 74 | 49.4   | 32.26 | 7.48 | 30.59 | 204 | 360 | P | V |
|                                                                   |                                                                                             | 5353.32 | 44.88  | -9.12  | 54 | 35.79  | 32.22 | 7.46 | 30.59 | 204 | 360 | A | V |
| <b>Remark</b>                                                     | 5. No other spurious found.<br>6. All results are PASS against Peak and Average limit line. |         |        |        |    |        |       |      |       |     |     |   |   |



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT50 (Harmonic @ 3m)

| WIFI<br>Ant.<br>1                     | Note                                                                                        | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|---------------------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|-------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11ac<br>VHT50<br>CH 36<br>5180MHz |                                                                                             | 10360                | 45.94               | -22.26                  | 68.2                        | 52.39                     | 39.29                         | 10.75                   | 57.03                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             | 15540                | 45.88               | -28.12                  | 74                          | 50.29                     | 38.31                         | 13                      | 56.48                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             | 10360                | 46.19               | -22.01                  | 68.2                        | 52.64                     | 39.29                         | 10.75                   | 57.03                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             | 15540                | 46.68               | -27.32                  | 74                          | 51.09                     | 38.31                         | 13                      | 56.48                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| 802.11ac<br>VHT50<br>CH 40<br>5200MHz |                                                                                             | 10400                | 47.53               | -20.67                  | 68.2                        | 53.89                     | 39.34                         | 10.78                   | 57.02                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             | 15600                | 46.06               | -27.94                  | 74                          | 50.59                     | 38.13                         | 13.03                   | 56.44                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             | 10400                | 47.17               | -21.03                  | 68.2                        | 53.53                     | 39.34                         | 10.78                   | 57.02                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             | 15600                | 45.61               | -28.39                  | 74                          | 50.14                     | 38.13                         | 13.03                   | 56.44                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| 802.11ac<br>VHT50<br>CH 45<br>5225MHz |                                                                                             | 10450                | 47.34               | -20.86                  | 68.2                        | 53.58                     | 39.42                         | 10.81                   | 57.01                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             | 15675                | 45.6                | -28.4                   | 74                          | 50.22                     | 37.95                         | 13.08                   | 56.4                       | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             | 10450                | 47.15               | -21.05                  | 68.2                        | 53.39                     | 39.42                         | 10.81                   | 57.01                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             | 15675                | 46.46               | -27.54                  | 74                          | 51.08                     | 37.95                         | 13.08                   | 56.4                       | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| Remark                                | 5. No other spurious found.<br>6. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         |                 |



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT60 (Band Edge @ 3m)

| WIFI<br>Ant.<br>1                     | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|---------------------------------------|------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|-------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11ac<br>VHT60<br>CH 37<br>5185MHz |      | 5149.76              | 61.11               | -12.89                  | 74                          | 52.34                     | 31.98                         | 7.35                    | 30.56                      | 260                  | 354                     | P                       | H               |
|                                       |      | 5150                 | 52.8                | -1.2                    | 54                          | 44.03                     | 31.98                         | 7.35                    | 30.56                      | 260                  | 354                     | A                       | H               |
|                                       | *    | 5185                 | 88.4                |                         |                             | 79.57                     | 32.02                         | 7.37                    | 30.56                      | 260                  | 354                     | P                       | H               |
|                                       | *    | 5185                 | 81.75               |                         |                             | 72.92                     | 32.02                         | 7.37                    | 30.56                      | 260                  | 354                     | A                       | H               |
|                                       |      | 5404                 | 52.19               | -21.81                  | 74                          | 43.02                     | 32.28                         | 7.49                    | 30.6                       | 260                  | 354                     | P                       | H               |
|                                       |      | 5407.08              | 42.92               | -11.08                  | 54                          | 33.75                     | 32.28                         | 7.49                    | 30.6                       | 260                  | 354                     | A                       | H               |
|                                       |      | 5148.98              | 58.29               | -15.71                  | 74                          | 49.52                     | 31.98                         | 7.35                    | 30.56                      | 237                  | 360                     | P                       | V               |
|                                       |      | 5149.5               | 52.58               | -1.42                   | 54                          | 43.81                     | 31.98                         | 7.35                    | 30.56                      | 237                  | 360                     | A                       | V               |
|                                       | *    | 5185                 | 90.04               |                         |                             | 81.21                     | 32.02                         | 7.37                    | 30.56                      | 237                  | 360                     | P                       | V               |
|                                       | *    | 5185                 | 83.42               |                         |                             | 74.59                     | 32.02                         | 7.37                    | 30.56                      | 237                  | 360                     | A                       | V               |
|                                       |      | 5410.44              | 50.67               | -23.33                  | 74                          | 41.5                      | 32.28                         | 7.49                    | 30.6                       | 237                  | 360                     | P                       | V               |
|                                       |      | 5459.44              | 41.92               | -12.08                  | 54                          | 32.64                     | 32.34                         | 7.54                    | 30.6                       | 237                  | 360                     | A                       | V               |
| 802.11ac<br>VHT60<br>CH 40<br>5200MHz |      | 5149.76              | 60.35               | -13.65                  | 74                          | 51.58                     | 31.98                         | 7.35                    | 30.56                      | 208                  | 2                       | P                       | H               |
|                                       |      | 5150                 | 53.21               | -0.79                   | 54                          | 44.44                     | 31.98                         | 7.35                    | 30.56                      | 208                  | 2                       | A                       | H               |
|                                       | *    | 5200                 | 102.68              |                         |                             | 93.83                     | 32.04                         | 7.38                    | 30.57                      | 208                  | 2                       | P                       | H               |
|                                       | *    | 5200                 | 96                  |                         |                             | 87.15                     | 32.04                         | 7.38                    | 30.57                      | 208                  | 2                       | A                       | H               |
|                                       |      | 5369                 | 57.18               | -16.82                  | 74                          | 48.06                     | 32.24                         | 7.47                    | 30.59                      | 208                  | 2                       | P                       | H               |
|                                       |      | 5372.36              | 47.88               | -6.12                   | 54                          | 38.76                     | 32.24                         | 7.47                    | 30.59                      | 208                  | 2                       | A                       | H               |
|                                       |      | 5148.72              | 59                  | -15                     | 74                          | 50.23                     | 31.98                         | 7.35                    | 30.56                      | 209                  | 0                       | P                       | V               |
|                                       |      | 5150                 | 50.5                | -3.5                    | 54                          | 41.73                     | 31.98                         | 7.35                    | 30.56                      | 209                  | 0                       | A                       | V               |
|                                       | *    | 5200                 | 101.45              |                         |                             | 92.6                      | 32.04                         | 7.38                    | 30.57                      | 209                  | 0                       | P                       | V               |
|                                       | *    | 5200                 | 95.21               |                         |                             | 86.36                     | 32.04                         | 7.38                    | 30.57                      | 209                  | 0                       | A                       | V               |
|                                       |      | 5431.16              | 50.98               | -23.02                  | 74                          | 41.74                     | 32.32                         | 7.52                    | 30.6                       | 209                  | 0                       | P                       | V               |
|                                       |      | 5352.48              | 42.62               | -11.38                  | 54                          | 33.53                     | 32.22                         | 7.46                    | 30.59                      | 209                  | 0                       | A                       | V               |



|                                                                   |                                                                                             |         |        |        |    |        |       |      |       |     |     |   |   |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|--------|-------|------|-------|-----|-----|---|---|
| <b>802.11ac</b><br><b>VHT60</b><br><b>CH 44</b><br><b>5220MHz</b> |                                                                                             | 5149.76 | 62.06  | -11.94 | 74 | 53.29  | 31.98 | 7.35 | 30.56 | 232 | 357 | P | H |
|                                                                   |                                                                                             | 5150    | 53.32  | -0.68  | 54 | 44.55  | 31.98 | 7.35 | 30.56 | 232 | 357 | A | H |
|                                                                   | *                                                                                           | 5220    | 112.48 |        |    | 103.6  | 32.06 | 7.39 | 30.57 | 232 | 357 | P | H |
|                                                                   | *                                                                                           | 5220    | 105.91 |        |    | 97.03  | 32.06 | 7.39 | 30.57 | 232 | 357 | A | H |
|                                                                   |                                                                                             | 5388.32 | 58.57  | -15.43 | 74 | 49.43  | 32.26 | 7.48 | 30.6  | 232 | 357 | P | H |
|                                                                   |                                                                                             | 5350.52 | 47.07  | -6.93  | 54 | 37.98  | 32.22 | 7.46 | 30.59 | 232 | 357 | A | H |
|                                                                   |                                                                                             | 5145.08 | 62.14  | -11.86 | 74 | 53.37  | 31.98 | 7.35 | 30.56 | 242 | 360 | P | V |
|                                                                   |                                                                                             | 5149.76 | 53.66  | -0.34  | 54 | 44.89  | 31.98 | 7.35 | 30.56 | 242 | 360 | A | V |
|                                                                   | *                                                                                           | 5220    | 112.47 |        |    | 103.59 | 32.06 | 7.39 | 30.57 | 242 | 360 | P | V |
|                                                                   | *                                                                                           | 5220    | 105.6  |        |    | 96.72  | 32.06 | 7.39 | 30.57 | 242 | 360 | A | V |
|                                                                   |                                                                                             | 5423.04 | 55.91  | -18.09 | 74 | 46.7   | 32.3  | 7.51 | 30.6  | 242 | 360 | P | V |
|                                                                   |                                                                                             | 5358.36 | 44.79  | -9.21  | 54 | 35.69  | 32.22 | 7.47 | 30.59 | 242 | 360 | A | V |
| <b>Remark</b>                                                     | 7. No other spurious found.<br>8. All results are PASS against Peak and Average limit line. |         |        |        |    |        |       |      |       |     |     |   |   |



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT60 (Harmonic @ 3m)

| WIFI<br>Ant.<br>1                     | Note                                                                                        | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|---------------------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|-------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11ac<br>VHT60<br>CH 37<br>5185MHz |                                                                                             | 10370                | 47.44               | -20.76                  | 68.2                        | 53.89                     | 39.29                         | 10.75                   | 57.03                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             | 15555                | 47.17               | -26.83                  | 74                          | 51.6                      | 38.27                         | 13.01                   | 56.47                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             | 10370                | 45.77               | -22.43                  | 68.2                        | 52.22                     | 39.29                         | 10.75                   | 57.03                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             | 15555                | 47.27               | -26.73                  | 74                          | 51.7                      | 38.27                         | 13.01                   | 56.47                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| 802.11ac<br>VHT60<br>CH 40<br>5200MHz |                                                                                             | 10400                | 48.01               | -20.19                  | 68.2                        | 54.37                     | 39.34                         | 10.78                   | 57.02                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             | 15600                | 48.43               | -25.57                  | 74                          | 52.96                     | 38.13                         | 13.03                   | 56.44                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             | 10400                | 47.6                | -20.6                   | 68.2                        | 53.96                     | 39.34                         | 10.78                   | 57.02                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             | 15600                | 45.37               | -28.63                  | 74                          | 49.9                      | 38.13                         | 13.03                   | 56.44                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| 802.11ac<br>VHT60<br>CH 44<br>5220MHz |                                                                                             | 10440                | 47.13               | -21.07                  | 68.2                        | 53.41                     | 39.39                         | 10.8                    | 57.01                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             | 15660                | 46.86               | -27.14                  | 74                          | 51.45                     | 38                            | 13.07                   | 56.41                      | 100                  | 0                       | P                       | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | H               |
|                                       |                                                                                             | 10440                | 47.55               | -20.65                  | 68.2                        | 53.83                     | 39.39                         | 10.8                    | 57.01                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             | 15660                | 45.68               | -28.32                  | 74                          | 50.27                     | 38                            | 13.07                   | 56.41                      | 100                  | 0                       | P                       | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
|                                       |                                                                                             |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         | V               |
| Remark                                | 7. No other spurious found.<br>8. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                         |                            |                      |                         |                         |                 |



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT80 (Band Edge @ 3m)

| WIFI<br>Ant.<br>1                     | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>( P/A ) | Pol.<br>( H/V ) |
|---------------------------------------|------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|-------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11ac<br>VHT80<br>CH 38<br>5190MHz |      | 5150                 | 59.25               | -14.75                  | 74                          | 50.48                     | 31.98                         | 7.35                    | 30.56                      | 250                  | 356                     | P                       | H               |
|                                       |      | 5150                 | 53.23               | -0.77                   | 54                          | 44.46                     | 31.98                         | 7.35                    | 30.56                      | 250                  | 356                     | A                       | H               |
|                                       | *    | 5190                 | 83.27               |                         |                             | 74.45                     | 32.02                         | 7.37                    | 30.57                      | 250                  | 356                     | P                       | H               |
|                                       | *    | 5190                 | 76.09               |                         |                             | 67.27                     | 32.02                         | 7.37                    | 30.57                      | 250                  | 356                     | A                       | H               |
|                                       |      | 5456.92              | 51.9                | -22.1                   | 74                          | 42.62                     | 32.34                         | 7.54                    | 30.6                       | 250                  | 356                     | P                       | H               |
|                                       |      | 5390                 | 45.3                | -8.7                    | 54                          | 36.16                     | 32.26                         | 7.48                    | 30.6                       | 250                  | 356                     | A                       | H               |
|                                       |      | 5149.76              | 60.63               | -13.37                  | 74                          | 51.86                     | 31.98                         | 7.35                    | 30.56                      | 274                  | 360                     | P                       | V               |
|                                       |      | 5147.94              | 52.05               | -1.95                   | 54                          | 43.28                     | 31.98                         | 7.35                    | 30.56                      | 274                  | 360                     | A                       | V               |
|                                       | *    | 5190                 | 83.74               |                         |                             | 74.92                     | 32.02                         | 7.37                    | 30.57                      | 274                  | 360                     | P                       | V               |
|                                       | *    | 5190                 | 77.06               |                         |                             | 68.24                     | 32.02                         | 7.37                    | 30.57                      | 274                  | 360                     | A                       | V               |
|                                       |      | 5454.68              | 50.8                | -23.2                   | 74                          | 41.52                     | 32.34                         | 7.54                    | 30.6                       | 274                  | 360                     | P                       | V               |
|                                       |      | 5401.48              | 43.12               | -10.88                  | 54                          | 33.95                     | 32.28                         | 7.49                    | 30.6                       | 274                  | 360                     | A                       | V               |
| 802.11ac<br>VHT80<br>CH 40<br>5200MHz |      | 5149.24              | 59.2                | -14.8                   | 74                          | 50.43                     | 31.98                         | 7.35                    | 30.56                      | 212                  | 0                       | P                       | H               |
|                                       |      | 5149.5               | 53.42               | -0.58                   | 54                          | 44.65                     | 31.98                         | 7.35                    | 30.56                      | 212                  | 0                       | A                       | H               |
|                                       | *    | 5200                 | 90.88               |                         |                             | 82.03                     | 32.04                         | 7.38                    | 30.57                      | 212                  | 0                       | P                       | H               |
|                                       | *    | 5200                 | 84.53               |                         |                             | 75.68                     | 32.04                         | 7.38                    | 30.57                      | 212                  | 0                       | A                       | H               |
|                                       |      | 5448.8               | 52.29               | -21.71                  | 74                          | 43.01                     | 32.34                         | 7.54                    | 30.6                       | 212                  | 0                       | P                       | H               |
|                                       |      | 5371.8               | 44.54               | -9.46                   | 54                          | 35.42                     | 32.24                         | 7.47                    | 30.59                      | 212                  | 0                       | A                       | H               |
|                                       |      | 5150                 | 59.39               | -14.61                  | 74                          | 50.62                     | 31.98                         | 7.35                    | 30.56                      | 234                  | 0                       | P                       | V               |
|                                       |      | 5150                 | 52.72               | -1.28                   | 54                          | 43.95                     | 31.98                         | 7.35                    | 30.56                      | 234                  | 0                       | A                       | V               |
|                                       | *    | 5200                 | 89.6                |                         |                             | 80.75                     | 32.04                         | 7.38                    | 30.57                      | 234                  | 0                       | P                       | V               |
|                                       | *    | 5200                 | 83.57               |                         |                             | 74.72                     | 32.04                         | 7.38                    | 30.57                      | 234                  | 0                       | A                       | V               |
|                                       |      | 5427.8               | 50.46               | -23.54                  | 74                          | 41.25                     | 32.3                          | 7.51                    | 30.6                       | 234                  | 0                       | P                       | V               |
|                                       |      | 5458.32              | 43.34               | -10.66                  | 54                          | 34.06                     | 32.34                         | 7.54                    | 30.6                       | 234                  | 0                       | A                       | V               |



|                                                                   |                                                                                              |         |        |        |    |       |       |      |       |     |     |   |   |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------|--------|--------|----|-------|-------|------|-------|-----|-----|---|---|
| <b>802.11ac</b><br><b>VHT80</b><br><b>CH 42</b><br><b>5210MHz</b> |                                                                                              | 5150    | 57.68  | -16.32 | 74 | 48.91 | 31.98 | 7.35 | 30.56 | 259 | 359 | P | H |
|                                                                   |                                                                                              | 5149.76 | 53.44  | -0.56  | 54 | 44.67 | 31.98 | 7.35 | 30.56 | 259 | 359 | A | H |
|                                                                   | *                                                                                            | 5210    | 100.04 |        |    | 91.17 | 32.06 | 7.38 | 30.57 | 259 | 359 | P | H |
|                                                                   | *                                                                                            | 5210    | 93.24  |        |    | 84.37 | 32.06 | 7.38 | 30.57 | 259 | 359 | A | H |
|                                                                   |                                                                                              | 5405.68 | 52.96  | -21.04 | 74 | 43.79 | 32.28 | 7.49 | 30.6  | 259 | 359 | P | H |
|                                                                   |                                                                                              | 5376.28 | 45.88  | -8.12  | 54 | 36.75 | 32.24 | 7.48 | 30.59 | 259 | 359 | A | H |
|                                                                   |                                                                                              | 5147.68 | 59.48  | -14.52 | 74 | 50.71 | 31.98 | 7.35 | 30.56 | 262 | 360 | P | V |
|                                                                   |                                                                                              | 5147.68 | 53.22  | -0.78  | 54 | 44.45 | 31.98 | 7.35 | 30.56 | 262 | 360 | A | V |
|                                                                   | *                                                                                            | 5210    | 101.65 |        |    | 92.78 | 32.06 | 7.38 | 30.57 | 262 | 360 | P | V |
|                                                                   | *                                                                                            | 5210    | 94.53  |        |    | 85.66 | 32.06 | 7.38 | 30.57 | 262 | 360 | A | V |
|                                                                   |                                                                                              | 5410.16 | 52.44  | -21.56 | 74 | 43.27 | 32.28 | 7.49 | 30.6  | 262 | 360 | P | V |
|                                                                   |                                                                                              | 5455.24 | 43.69  | -10.31 | 54 | 34.41 | 32.34 | 7.54 | 30.6  | 262 | 360 | A | V |
| <b>Remark</b>                                                     | 9. No other spurious found.<br>10. All results are PASS against Peak and Average limit line. |         |        |        |    |       |       |      |       |     |     |   |   |



## Band 1 5150~5250MHz

## WIFI 802.11ac VHT80 (Harmonic @ 3m)

| WIFI<br>Ant.<br>1                     | Note                                                                                         | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>(dBμV) | Antenna<br>Factor<br>( dB/m ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|---------------------------------------|----------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11ac<br>VHT80<br>CH 38<br>5190MHz |                                                                                              | 10380                | 46.25               | -21.95                  | 68.2                        | 52.66                   | 39.31                         | 10.76                   | 57.02                      | 100                  | 0                       | P                     | H             |
|                                       |                                                                                              | 15570                | 47.41               | -26.59                  | 74                          | 51.88                   | 38.22                         | 13.02                   | 56.46                      | 100                  | 0                       | P                     | H             |
|                                       |                                                                                              |                      |                     |                         |                             |                         |                               |                         |                            |                      |                         |                       | H             |
|                                       |                                                                                              |                      |                     |                         |                             |                         |                               |                         |                            |                      |                         |                       | H             |
|                                       |                                                                                              | 10380                | 46.28               | -21.92                  | 68.2                        | 52.69                   | 39.31                         | 10.76                   | 57.02                      | 100                  | 0                       | P                     | V             |
|                                       |                                                                                              | 15570                | 46.48               | -27.52                  | 74                          | 50.95                   | 38.22                         | 13.02                   | 56.46                      | 100                  | 0                       | P                     | V             |
|                                       |                                                                                              |                      |                     |                         |                             |                         |                               |                         |                            |                      |                         |                       | V             |
|                                       |                                                                                              |                      |                     |                         |                             |                         |                               |                         |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT80<br>CH 40<br>5200MHz |                                                                                              | 10400                | 47.46               | -20.74                  | 68.2                        | 53.82                   | 39.34                         | 10.78                   | 57.02                      | 100                  | 0                       | P                     | H             |
|                                       |                                                                                              | 15600                | 45.93               | -28.07                  | 74                          | 50.46                   | 38.13                         | 13.03                   | 56.44                      | 100                  | 0                       | P                     | H             |
|                                       |                                                                                              |                      |                     |                         |                             |                         |                               |                         |                            |                      |                         |                       | H             |
|                                       |                                                                                              |                      |                     |                         |                             |                         |                               |                         |                            |                      |                         |                       | H             |
|                                       |                                                                                              | 10400                | 47.61               | -20.59                  | 68.2                        | 53.97                   | 39.34                         | 10.78                   | 57.02                      | 100                  | 0                       | P                     | V             |
|                                       |                                                                                              | 15600                | 45.5                | -28.5                   | 74                          | 50.03                   | 38.13                         | 13.03                   | 56.44                      | 100                  | 0                       | P                     | V             |
|                                       |                                                                                              |                      |                     |                         |                             |                         |                               |                         |                            |                      |                         |                       | V             |
|                                       |                                                                                              |                      |                     |                         |                             |                         |                               |                         |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT80<br>CH 42<br>5210MHz |                                                                                              | 10420                | 47.15               | -21.05                  | 68.2                        | 53.47                   | 39.37                         | 10.79                   | 57.02                      | 100                  | 0                       | P                     | H             |
|                                       |                                                                                              | 15630                | 44.48               | -29.52                  | 74                          | 49.06                   | 38.04                         | 13.05                   | 56.42                      | 100                  | 0                       | P                     | H             |
|                                       |                                                                                              |                      |                     |                         |                             |                         |                               |                         |                            |                      |                         |                       | H             |
|                                       |                                                                                              |                      |                     |                         |                             |                         |                               |                         |                            |                      |                         |                       | H             |
|                                       |                                                                                              | 10420                | 47.39               | -20.81                  | 68.2                        | 53.71                   | 39.37                         | 10.79                   | 57.02                      | 100                  | 0                       | P                     | V             |
|                                       |                                                                                              | 15630                | 45.06               | -28.94                  | 74                          | 49.64                   | 38.04                         | 13.05                   | 56.42                      | 100                  | 0                       | P                     | V             |
|                                       |                                                                                              |                      |                     |                         |                             |                         |                               |                         |                            |                      |                         |                       | V             |
|                                       |                                                                                              |                      |                     |                         |                             |                         |                               |                         |                            |                      |                         |                       | V             |
| Remark                                | 9. No other spurious found.<br>10. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                         |                               |                         |                            |                      |                         |                       |               |



## Band 1 5150~5250MHz

## Emission below 1GHz

## WIFI 802.11ac VHT60 (LF @ 3m)

| WIFI Ant.               | Note                                                                       | Frequency | Level      | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Ant Pos | Table Pos | Peak Avg. | Pol.    |
|-------------------------|----------------------------------------------------------------------------|-----------|------------|------------|------------|------------|----------------|------------|---------------|---------|-----------|-----------|---------|
| 1                       |                                                                            | ( MHz )   | ( dBμV/m ) | ( dB )     | ( dBμV/m ) | ( dBμV )   | ( dB/m )       | ( dB )     | ( dB )        | ( cm )  | ( deg )   | ( P/A )   | ( H/V ) |
| 802.11ac<br>VHT60<br>LF |                                                                            | 111.81    | 32.2       | -11.3      | 43.5       | 48.94      | 14.37          | 1.09       | 32.29         |         |           | P         | H       |
|                         |                                                                            | 192       | 30.37      | -13.13     | 43.5       | 49.63      | 11.52          | 1.42       | 32.27         |         |           | P         | H       |
|                         |                                                                            | 250.05    | 29.32      | -16.68     | 46         | 44.69      | 15.16          | 1.59       | 32.2          |         |           | P         | H       |
|                         |                                                                            | 374.9     | 32.03      | -13.97     | 46         | 44.62      | 17.58          | 1.89       | 32.15         |         |           | P         | H       |
|                         |                                                                            | 624.8     | 36.56      | -9.44      | 46         | 43.22      | 22.98          | 2.45       | 32.2          |         |           | P         | H       |
|                         |                                                                            | 899.9     | 37.67      | -8.33      | 46         | 39.66      | 26.47          | 2.94       | 31.51         | 100     | 0         | P         | H       |
|                         |                                                                            |           |            |            |            |            |                |            |               |         |           |           | H       |
|                         |                                                                            |           |            |            |            |            |                |            |               |         |           |           | H       |
|                         |                                                                            |           |            |            |            |            |                |            |               |         |           |           | H       |
|                         |                                                                            |           |            |            |            |            |                |            |               |         |           |           | H       |
|                         |                                                                            |           |            |            |            |            |                |            |               |         |           |           | H       |
|                         |                                                                            | 34.59     | 36.23      | -3.77      | 40         | 49.52      | 18.48          | 0.59       | 32.34         | 100     | 0         | P         | V       |
|                         |                                                                            | 113.7     | 29.54      | -13.96     | 43.5       | 46.44      | 14.21          | 1.09       | 32.29         |         |           | P         | V       |
|                         |                                                                            | 154.47    | 28.47      | -15.03     | 43.5       | 45.93      | 13.5           | 1.27       | 32.28         |         |           | P         | V       |
|                         |                                                                            | 500.2     | 35         | -11        | 46         | 44         | 20.92          | 2.2        | 32.2          |         |           | P         | V       |
|                         |                                                                            | 624.8     | 36.34      | -9.66      | 46         | 43         | 22.98          | 2.45       | 32.2          |         |           | P         | V       |
|                         |                                                                            | 874.7     | 33.39      | -12.61     | 46         | 35.86      | 26.14          | 2.9        | 31.63         |         |           | P         | V       |
|                         |                                                                            |           |            |            |            |            |                |            |               |         |           |           | V       |
|                         |                                                                            |           |            |            |            |            |                |            |               |         |           |           | V       |
|                         |                                                                            |           |            |            |            |            |                |            |               |         |           |           | V       |
|                         |                                                                            |           |            |            |            |            |                |            |               |         |           |           | V       |
|                         |                                                                            |           |            |            |            |            |                |            |               |         |           |           | V       |
|                         |                                                                            |           |            |            |            |            |                |            |               |         |           |           | V       |
|                         |                                                                            |           |            |            |            |            |                |            |               |         |           |           | V       |
| Remark                  | 1. No other spurious found.<br>2. All results are PASS against limit line. |           |            |            |            |            |                |            |               |         |           |           |         |



**Note symbol**

|     |                                                                                                                                                          |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| *   | <b>Fundamental Frequency</b> which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency. |
| !   | Test result is <b>over limit</b> line.                                                                                                                   |
| P/A | <b>Peak</b> or <b>Average</b>                                                                                                                            |
| H/V | <b>Horizontal</b> or <b>Vertical</b>                                                                                                                     |



A calculation example for radiated spurious emission is shown as below:

| WIFI    | Note | Frequency | Level      | Over   | Limit      | Read     | Antenna  | Cable  | Preamp | Ant    | Table   | Peak    | Pol.    |
|---------|------|-----------|------------|--------|------------|----------|----------|--------|--------|--------|---------|---------|---------|
| Ant.    |      |           |            | Limit  | Line       | Level    | Factor   | Loss   | Factor | Pos    | Pos     | Avg.    |         |
| 1       |      | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | ( dBμV ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | ( P/A ) | ( H/V ) |
| 802.11b |      | 2390      | 55.45      | -18.55 | 74         | 54.51    | 32.22    | 4.58   | 35.86  | 103    | 308     | P       | H       |
| CH 01   |      |           |            |        |            |          |          |        |        |        |         |         |         |
| 2412MHz |      | 2390      | 43.54      | -10.46 | 54         | 42.6     | 32.22    | 4.58   | 35.86  | 103    | 308     | A       | H       |

1. Level(dBμV/m) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

**For Peak Limit @ 2390MHz:**

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

**For Average Limit @ 2390MHz:**

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

**Both peak and average measured complies with the limit line, so test result is “PASS”.**



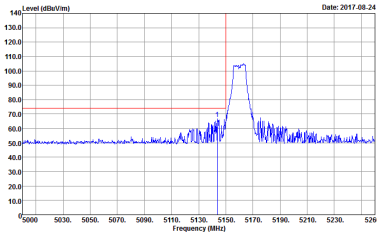
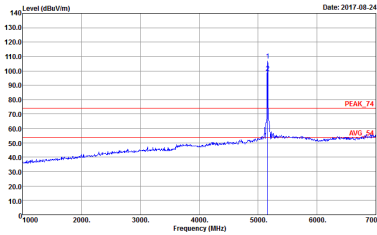
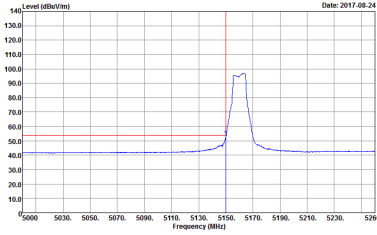
## Appendix D. Radiated Spurious Emission

|                        |                                       |                            |         |
|------------------------|---------------------------------------|----------------------------|---------|
| <b>Test Engineer :</b> | Alex Jheng, Bill Chang, and Wilson Wu | <b>Temperature :</b>       | 25~26°C |
|                        |                                       | <b>Relative Humidity :</b> | 50~52%  |

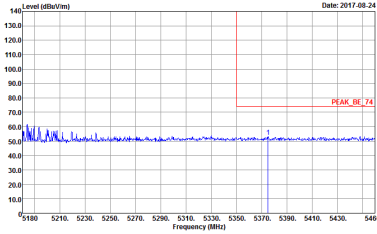
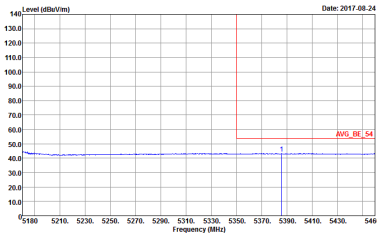
### Note symbol

|    |                       |
|----|-----------------------|
| -L | Low channel location  |
| -R | High channel location |

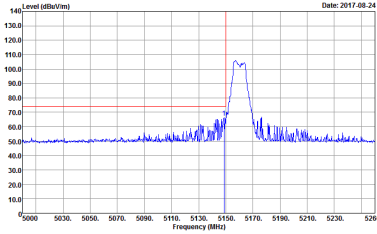
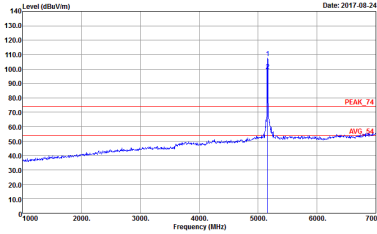
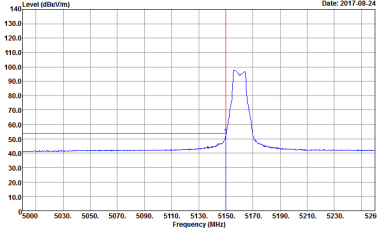
**Band 1 - 5150~5250MHz**  
**WIFI 802.11ac VHT10 (Band Edge @ 3m)**

| WIFI        | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                               |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT         | 802.11ac VHT10 CH32 5160MHz - L                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                               |
| 1           | Horizontal                                                                                                                                                                                                                                                                                      | Fundamental                                                                                                                                                                                                                                                                                   |
| <b>Peak</b> |  <p>Site : 03CH13-HY<br/> Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/> RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 1<br/> Power : 18.5</p> |  <p>Site : 03CH13-HY<br/> Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/> RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 1<br/> Power : 18.5</p> |
| <b>Avg.</b> |  <p>Site : 03CH13-HY<br/> Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/> RBW:1000.000KHz VBW:1.000KHz SWT:Auto<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 1<br/> Power : 18.5</p>   | <b>Left blank</b>                                                                                                                                                                                                                                                                             |

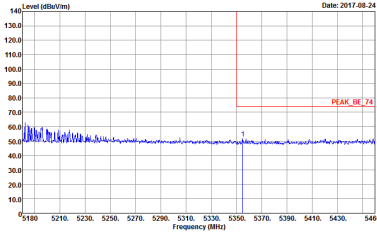
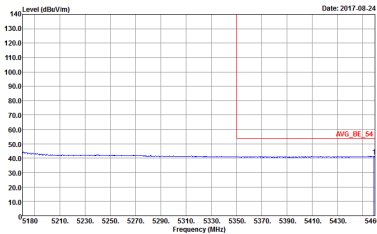


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                      |             |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT10 CH32 5160MHz - R                                                                                                                                                                                                                         |             |
| 1    | Horizontal                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 1<br/>Power : 18.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 1<br/>Power : 18.5</p></div> | Left blank  |

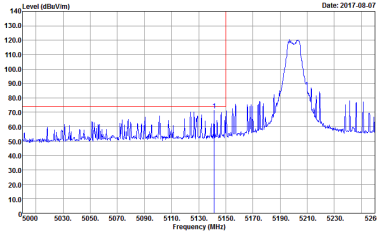
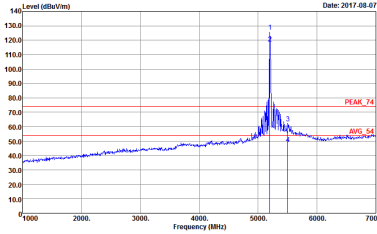
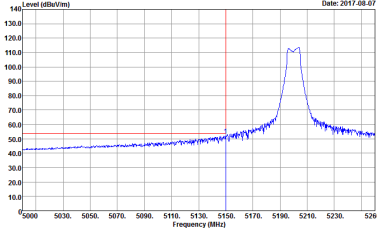


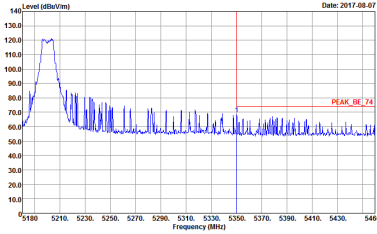
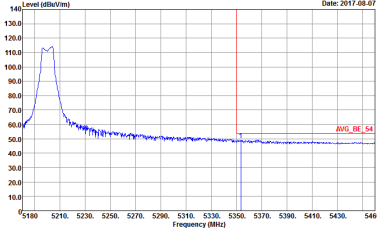
| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT10 CH32 5160MHz - L                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                     |
| 1    | Vertical                                                                                                                                                                                                                                               | Fundamental                                                                                                                                                                                                                                         |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORNL_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 1<br/>Power : 18.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORNL_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 1<br/>Power : 18.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORNL_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 1<br/>Power : 18.5</p></div> | Left blank                                                                                                                                                                                                                                          |



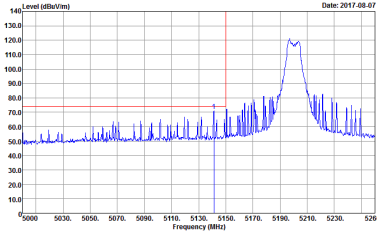
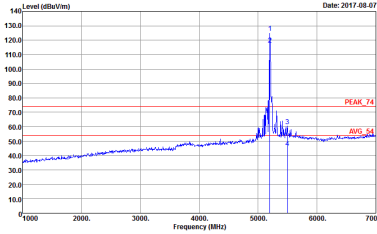
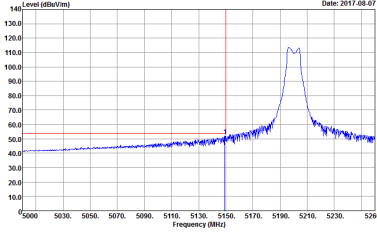
| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |             |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT10 CH32 5160MHz - R                                                                                                                                                                                                                       |             |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 1<br/>Power : 18.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 1<br/>Power : 18.5</p></div> | Left blank  |



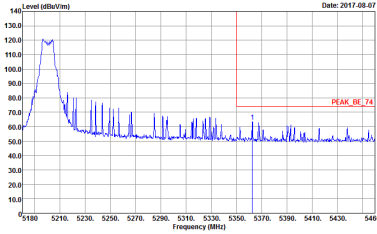
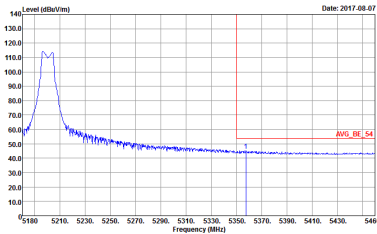
| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                      |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT10 CH40 5200MHz - L                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                      |
| 1    | Horizontal                                                                                                                                                                                                                                              | Fundamental                                                                                                                                                                                                                                          |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 2<br/>Power : 31.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 2<br/>Power : 31.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 2<br/>Power : 31.5</p></div> | Left blank                                                                                                                                                                                                                                           |

| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                            |             |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT10 CH40 5200MHz - R                                                                                                                                                                                                               |             |
| 1    | Horizontal                                                                                                                                                                                                                                    | Fundamental |
| Peak |  <p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 2<br/>Power : 31.5</p>  | Left blank  |
| Avg. |  <p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 2<br/>Power : 31.5</p> | Left blank  |

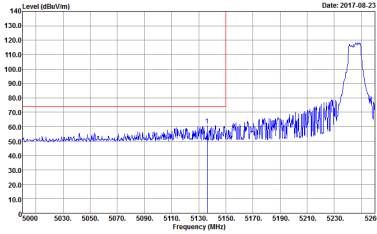
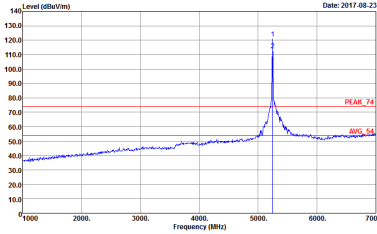
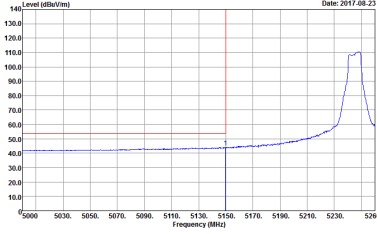


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                    |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT10 CH40 5200MHz - L                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                    |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental                                                                                                                                                                                                                                        |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 2<br/>Power : 31.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 2<br/>Power : 31.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 2<br/>Power : 31.5</p></div> | Left blank                                                                                                                                                                                                                                         |

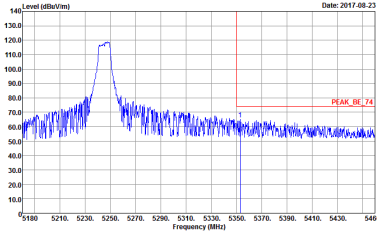
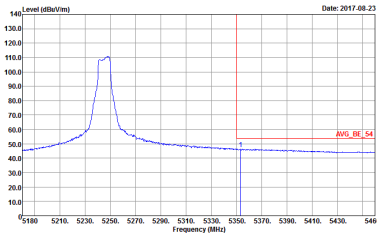


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |             |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT10 CH40 5200MHz - R                                                                                                                                                                                                                       |             |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 2<br/>Power : 31.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 2<br/>Power : 31.5</p></div> | Left blank  |

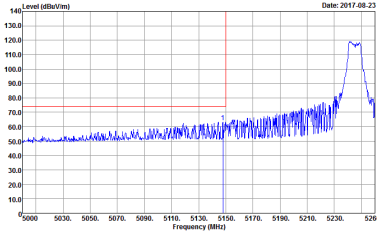
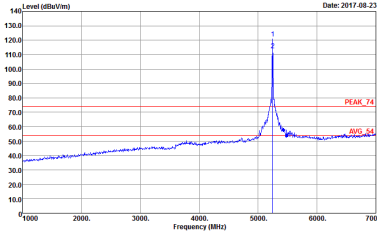
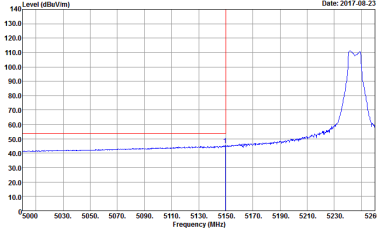


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                   |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT10 CH49 5245MHz - L                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                   |
| 1    | Horizontal                                                                                                                                                                                                                                                                                          | Fundamental                                                                                                                                                                                                                                                                                       |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 3<br/>Power : 31.5</p></div> | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 3<br/>Power : 31.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:1.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 3<br/>Power : 31.5</p></div>   | Left blank                                                                                                                                                                                                                                                                                        |

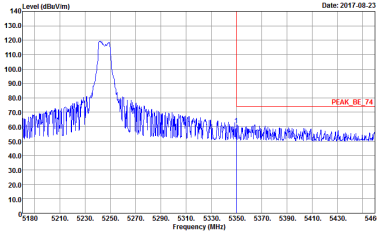
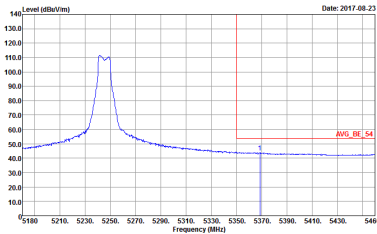


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                      |             |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT10 CH49 5245MHz - R                                                                                                                                                                                                                         |             |
| 1    | Horizontal                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 3<br/>Power : 31.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 3<br/>Power : 31.5</p></div> | Left blank  |

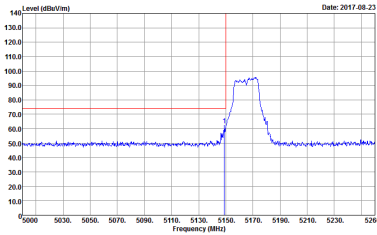
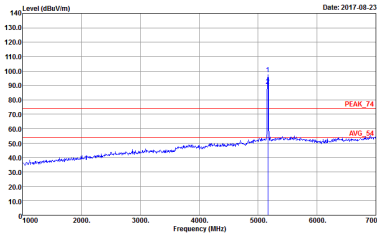
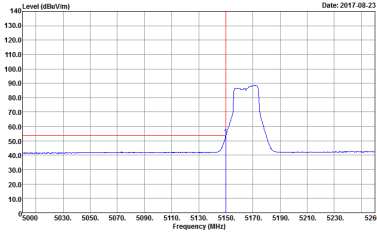


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                    |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT10 CH49 5245MHz - L                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                    |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental                                                                                                                                                                                                                                        |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 3<br/>Power : 31.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 3<br/>Power : 31.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 3<br/>Power : 31.5</p></div> | Left blank                                                                                                                                                                                                                                         |

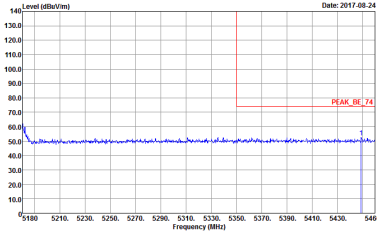
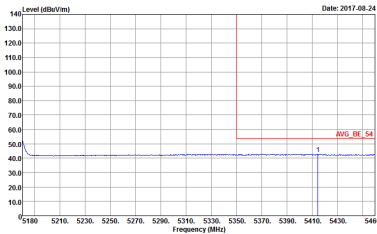


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |             |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT10 CH49 5245MHz - R                                                                                                                                                                                                                       |             |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 3<br/>Power : 31.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 3<br/>Power : 31.5</p></div> | Left blank  |

**Band 1 5150~5250MHz**  
**WIFI 802.11ac VHT20 (Band Edge @ 3m)**

| WIFI        | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                 |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT         | 802.11ac VHT20 CH33 5165MHz - L                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                 |
| 1           | Horizontal                                                                                                                                                                                                                                         | Fundamental                                                                                                                                                                                                                                     |
| <b>Peak</b> |  <p>Site : 03CH13-HV<br/> Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 4<br/> Power : 12.5</p>  |  <p>Site : 03CH13-HV<br/> Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 4<br/> Power : 12.5</p> |
| <b>Avg.</b> |  <p>Site : 03CH13-HV<br/> Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 4<br/> Power : 12.5</p> | <b>Left blank</b>                                                                                                                                                                                                                               |

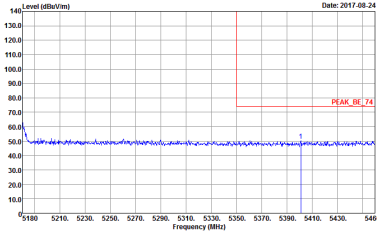
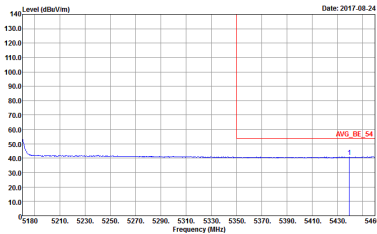


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                      |             |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT20 CH33 5165MHz - R                                                                                                                                                                                                                         |             |
| 1    | Horizontal                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 4<br/>Power : 12.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 4<br/>Power : 12.5</p></div> | Left blank  |

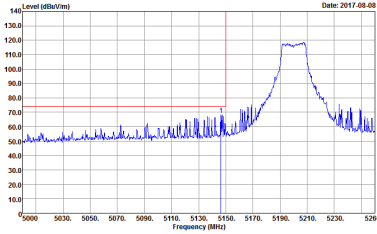
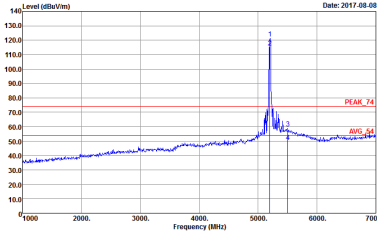
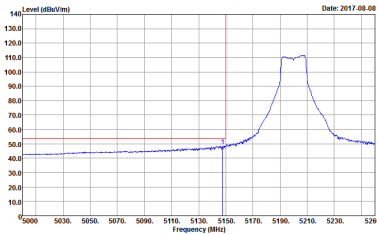


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                               |                                                                                                                                                                                                               |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT20 CH33 5165MHz - L                                                                                                                                                                                  |                                                                                                                                                                                                               |
| 1    | Vertical                                                                                                                                                                                                         | Fundamental                                                                                                                                                                                                   |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 4<br/>Power : 12.5</p></div> | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 4<br/>Power : 12.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.000KHz VBW:1.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 4<br/>Power : 12.5</p></div>     | Left blank                                                                                                                                                                                                    |

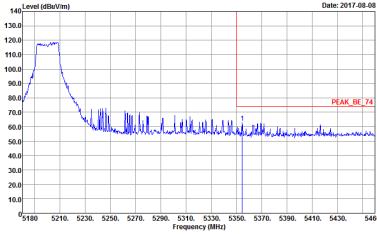
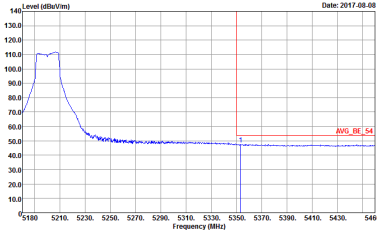


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |             |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT20 CH33 5165MHz - R                                                                                                                                                                                                                       |             |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 4<br/>Power : 12.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 4<br/>Power : 12.5</p></div> | Left blank  |

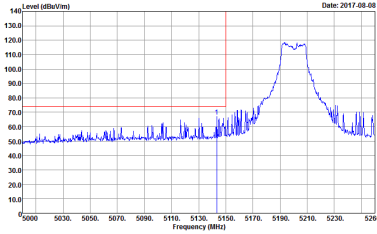
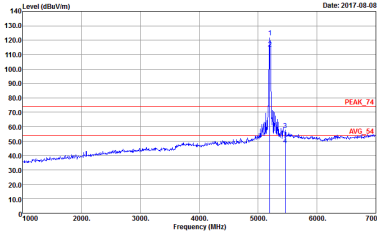
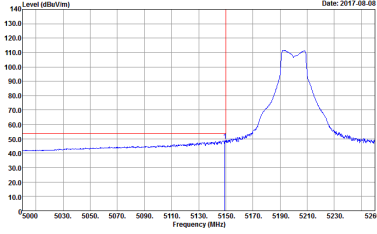


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                   |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT20 CH40 5200MHz - L                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                   |
| 1    | Horizontal                                                                                                                                                                                                                                                                                          | Fundamental                                                                                                                                                                                                                                                                                       |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 5<br/>Power : 31.5</p></div> | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 5<br/>Power : 31.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:1.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 5<br/>Power : 31.5</p></div>   | Left blank                                                                                                                                                                                                                                                                                        |

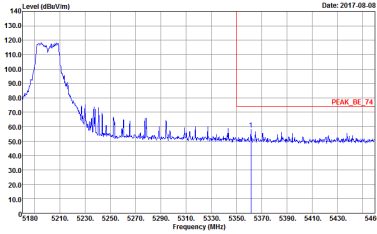
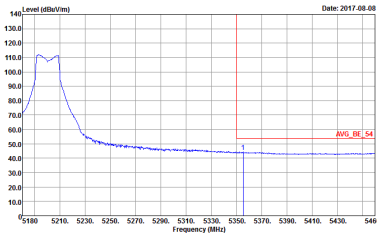


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                      |             |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT20 CH40 5200MHz - R                                                                                                                                                                                                                         |             |
| 1    | Horizontal                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 5<br/>Power : 31.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 5<br/>Power : 31.5</p></div> | Left blank  |

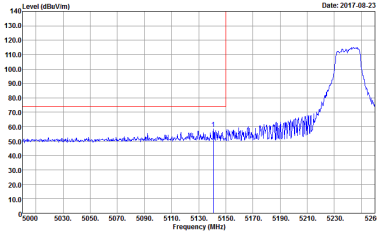
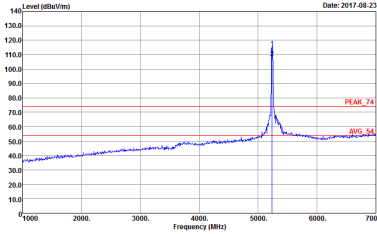
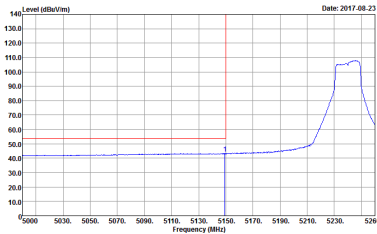


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                    |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT20 CH40 5200MHz - L                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                    |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental                                                                                                                                                                                                                                        |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 5<br/>Power : 31.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 5<br/>Power : 31.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 5<br/>Power : 31.5</p></div> | Left blank                                                                                                                                                                                                                                         |

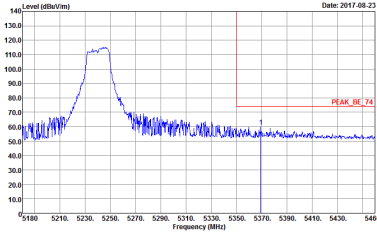
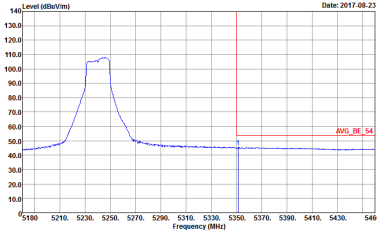


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |             |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT20 CH40 5200MHz - R                                                                                                                                                                                                                       |             |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 5<br/>Power : 31.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 5<br/>Power : 31.5</p></div> | Left blank  |

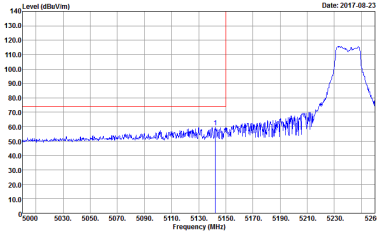
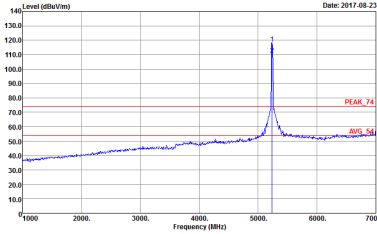
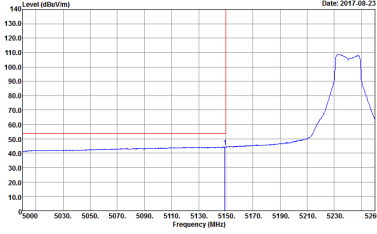


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                      |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT20 CH48 5240MHz - L                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                      |
| 1    | Horizontal                                                                                                                                                                                                                                              | Fundamental                                                                                                                                                                                                                                          |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 6<br/>Power : 31.5</p></div>  | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 6<br/>Power : 31.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 6<br/>Power : 31.5</p></div> | Left blank                                                                                                                                                                                                                                           |

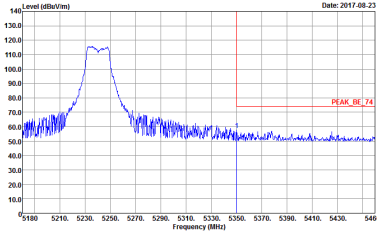
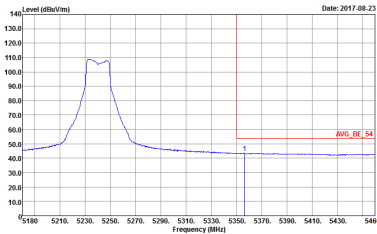


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                      |             |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT20 CH48 5240MHz - R                                                                                                                                                                                                                         |             |
| 1    | Horizontal                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 6<br/>Power : 31.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 6<br/>Power : 31.5</p></div> | Left blank  |

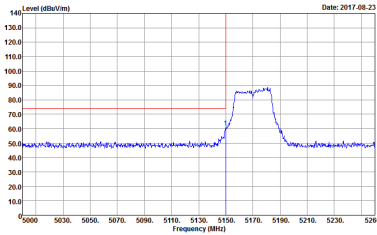
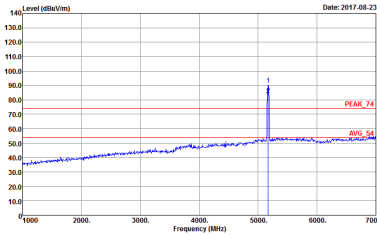
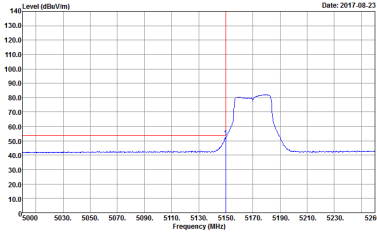


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                    |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT20 CH48 5240MHz - L                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                    |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental                                                                                                                                                                                                                                        |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 6<br/>Power : 31.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 6<br/>Power : 31.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 6<br/>Power : 31.5</p></div> | Left blank                                                                                                                                                                                                                                         |

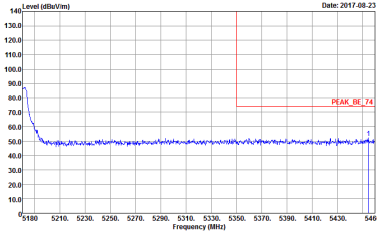
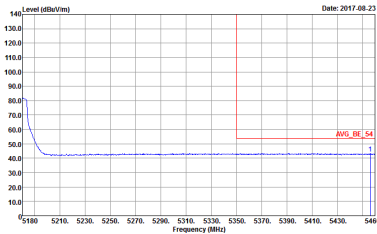


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |             |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT20 CH48 5240MHz - R                                                                                                                                                                                                                       |             |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 6<br/>Power : 31.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 6<br/>Power : 31.5</p></div> | Left blank  |

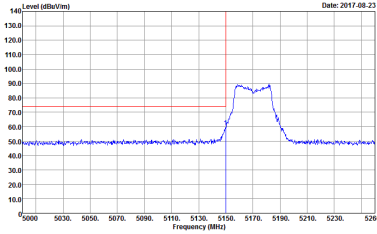
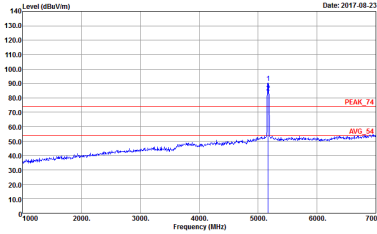
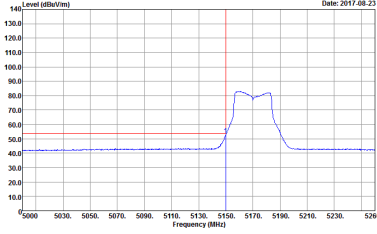
**Band 1 5150~5250MHz**  
**WIFI 802.11ac VHT30 (Band Edge @ 3m)**

| WIFI        | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                |                                                                                                                                                                                                                                                |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT         | 802.11ac VHT30 CH34 5170MHz - L                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                |
| 1           | Horizontal                                                                                                                                                                                                                                        | Fundamental                                                                                                                                                                                                                                    |
| <b>Peak</b> |  <p>Site : 03CH13-HV<br/> Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 7<br/> Power : 7.5</p>  |  <p>Site : 03CH13-HV<br/> Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 7<br/> Power : 7.5</p> |
| <b>Avg.</b> |  <p>Site : 03CH13-HV<br/> Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 7<br/> Power : 7.5</p> | <b>Left blank</b>                                                                                                                                                                                                                              |

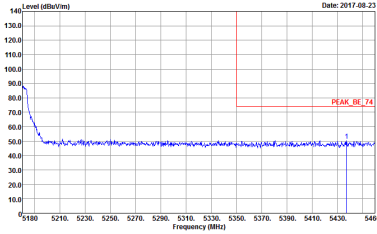
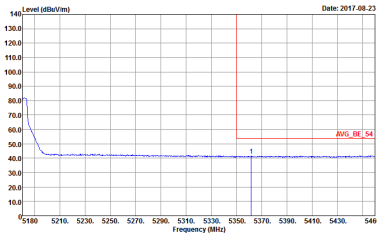


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                     |             |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT30 CH34 5170MHz - R                                                                                                                                                                                                                        |             |
| 1    | Horizontal                                                                                                                                                                                                                                             | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 7<br/>Power : 7.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 7<br/>Power : 7.5</p></div> | Left blank  |

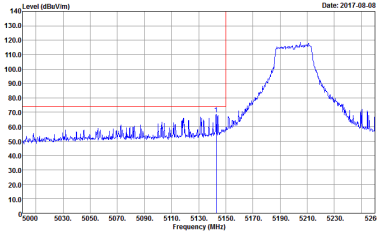
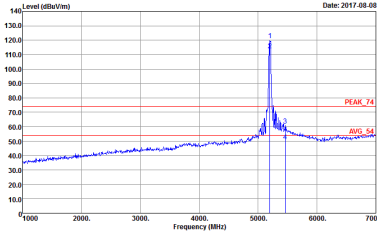
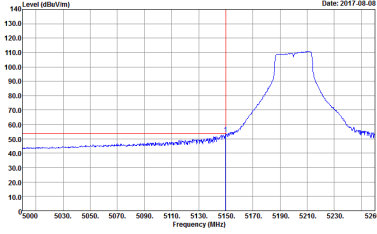


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                   |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT30 CH34 5170MHz - L                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                   |
| 1    | Vertical                                                                                                                                                                                                                                             | Fundamental                                                                                                                                                                                                                                       |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 7<br/>Power : 7.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 7<br/>Power : 7.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 7<br/>Power : 7.5</p></div> | Left blank                                                                                                                                                                                                                                        |

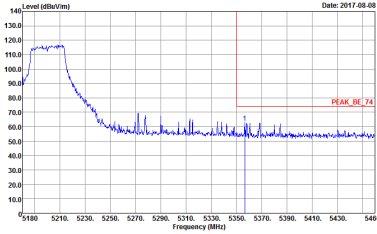
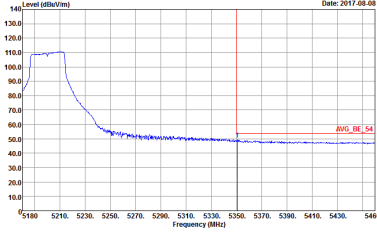


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                   |             |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT30 CH34 5170MHz - R                                                                                                                                                                                                                      |             |
| 1    | Vertical                                                                                                                                                                                                                                             | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 7<br/>Power : 7.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 7<br/>Power : 7.5</p></div> | Left blank  |

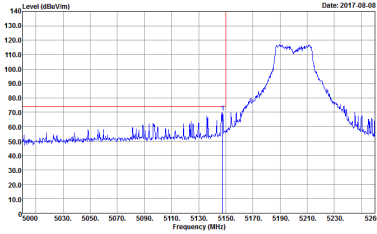
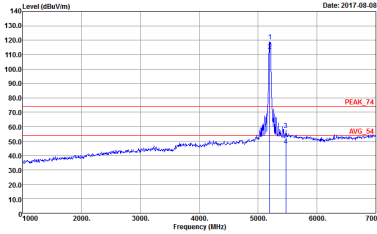
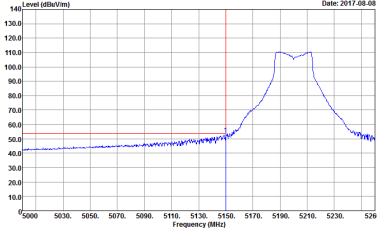


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                    |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT30 CH40 5200MHz - L                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                    |
| 1    | Horizontal                                                                                                                                                                                                                                            | Fundamental                                                                                                                                                                                                                                        |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 8<br/>Power : 31</p></div>  | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 8<br/>Power : 31</p></div> |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 8<br/>Power : 31</p></div> | Left blank                                                                                                                                                                                                                                         |

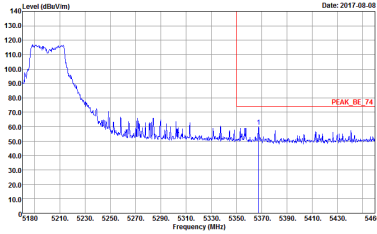
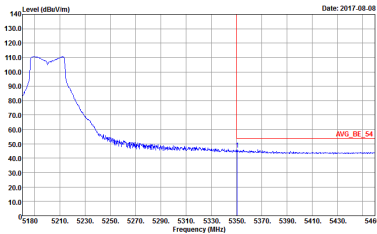


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |             |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT30 CH40 5200MHz - R                                                                                                                                                                                                                       |             |
| 1    | Horizontal                                                                                                                                                                                                                                            | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 8<br/>Power : 31</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 8<br/>Power : 31</p></div> | Left blank  |

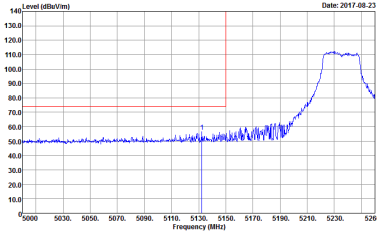
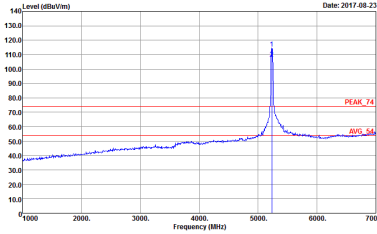
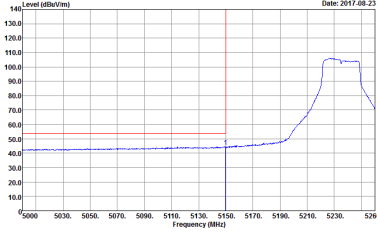


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                  |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT30 CH40 5200MHz - L                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                  |
| 1    | Vertical                                                                                                                                                                                                                                            | Fundamental                                                                                                                                                                                                                                      |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 8<br/>Power : 31</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 8<br/>Power : 31</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 8<br/>Power : 31</p></div> | Left blank                                                                                                                                                                                                                                       |

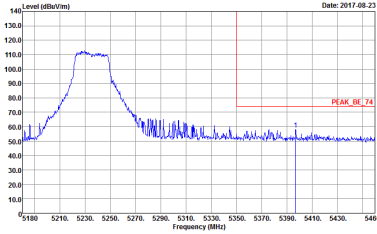
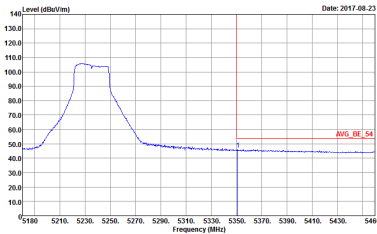


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                  |             |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT30 CH40 5200MHz - R                                                                                                                                                                                                                     |             |
| 1    | Vertical                                                                                                                                                                                                                                            | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 8<br/>Power : 31</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 8<br/>Power : 31</p></div> | Left blank  |



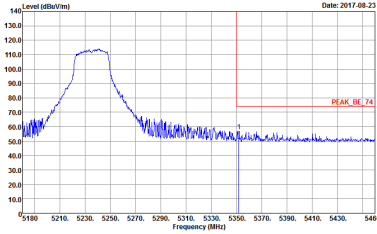
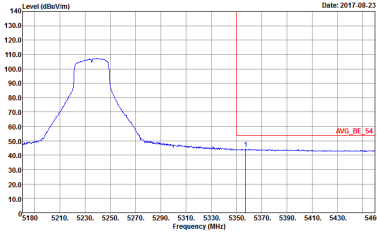
| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                      |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT30 CH47 5235MHz - L                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                      |
| 1    | Horizontal                                                                                                                                                                                                                                              | Fundamental                                                                                                                                                                                                                                          |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 9<br/>Power : 31.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 9<br/>Power : 31.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 9<br/>Power : 31.5</p></div> | Left blank                                                                                                                                                                                                                                           |



| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                      |             |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT30 CH47 5235MHz - R                                                                                                                                                                                                                         |             |
| 1    | Horizontal                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 9<br/>Power : 31.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 9<br/>Power : 31.5</p></div> | Left blank  |

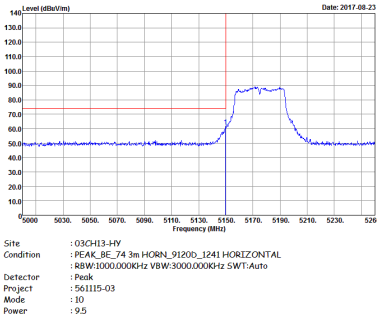
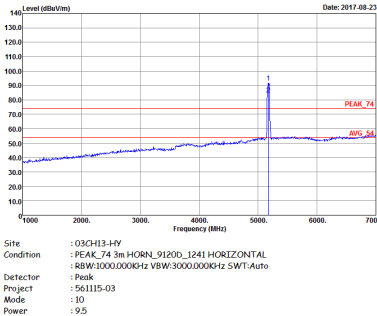
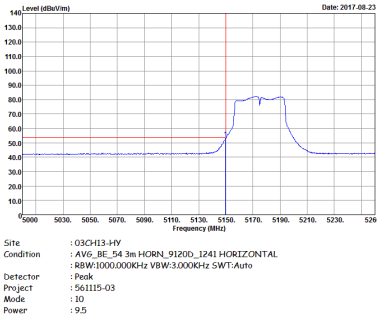
| WIFI |                                                                                                                                                          | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                    |  |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| ANT  |                                                                                                                                                          | 802.11ac VHT30 CH47 5235MHz - L                                                                                                                       |  |
| 1    | Vertical                                                                                                                                                 | Fundamental                                                                                                                                           |  |
| Peak | <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 9<br/>Power : 31.5</p> | <p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 9<br/>Power : 31.5</p> |  |
| Avg. | <p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 9<br/>Power : 31.5</p>  | Left blank                                                                                                                                            |  |



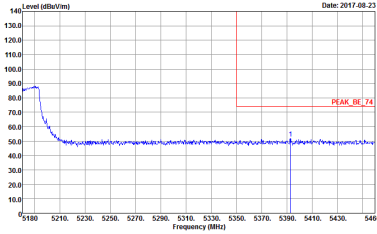
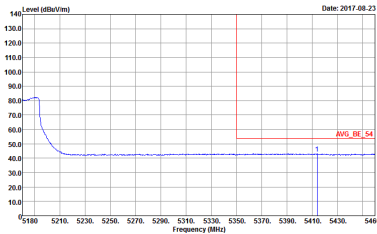
| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |             |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT30 CH47 5235MHz - R                                                                                                                                                                                                                       |             |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 9<br/>Power : 31.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 9<br/>Power : 31.5</p></div> | Left blank  |



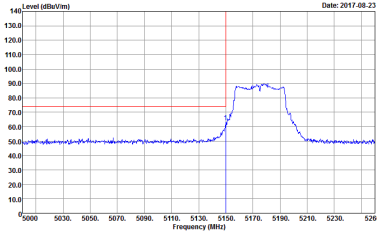
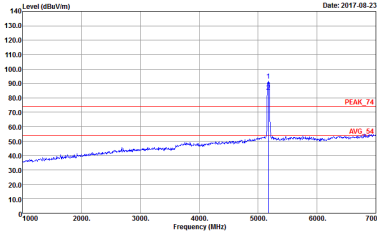
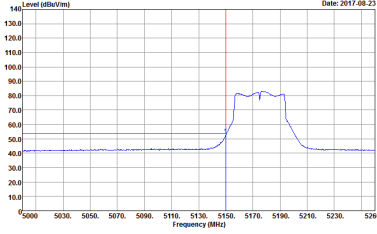
Band 1 5150~5250MHz  
WIFI 802.11ac VHT40 (Band Edge @ 3m)

| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                            |                                                                                                                                                                                                                                            |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT40 CH35 5175MHz - L                                                                                                                                                                                                               |                                                                                                                                                                                                                                            |
| 1    | Horizontal                                                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                                                |
| Peak |  <p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 10<br/>Power : 9.5</p>  |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 10<br/>Power : 9.5</p> |
| Avg. |  <p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 10<br/>Power : 9.5</p> | Left blank                                                                                                                                                                                                                                 |

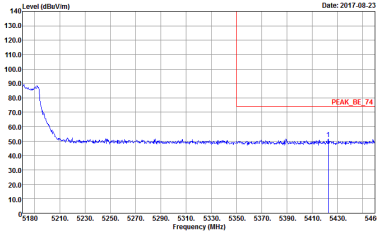
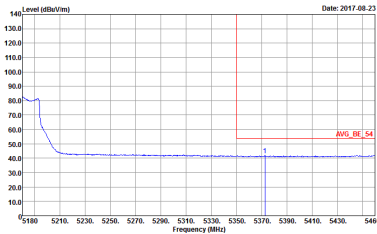


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                      |             |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT40 CH35 5175MHz - R                                                                                                                                                                                                                         |             |
| 1    | Horizontal                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 10<br/>Power : 9.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 10<br/>Power : 9.5</p></div> | Left blank  |

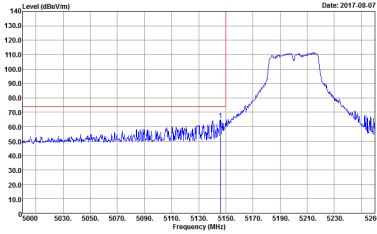
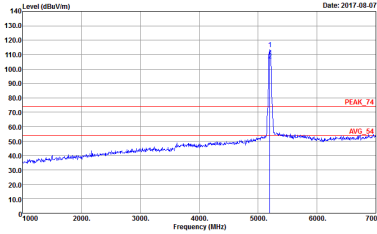
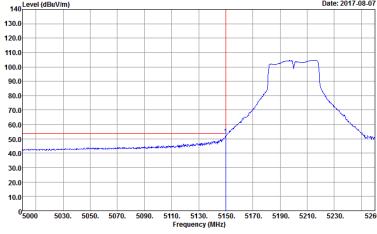


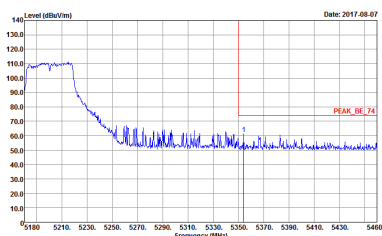
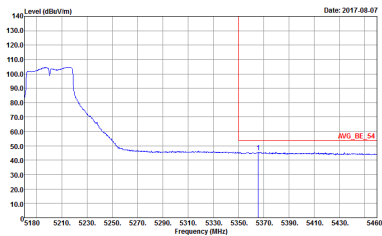
| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                    |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT40 CH35 5175MHz - L                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                    |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental                                                                                                                                                                                                                                        |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 10<br/>Power : 9.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 10<br/>Power : 9.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 10<br/>Power : 9.5</p></div> | Left blank                                                                                                                                                                                                                                         |



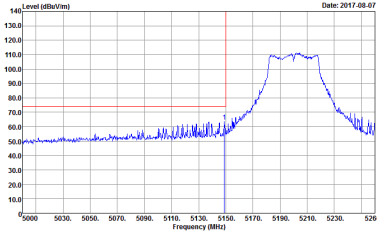
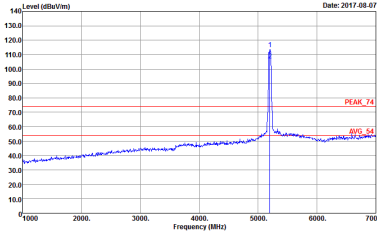
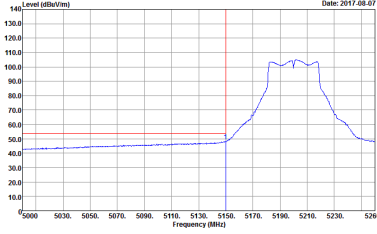
| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |             |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT40 CH35 5175MHz - R                                                                                                                                                                                                                       |             |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 10<br/>Power : 9.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 10<br/>Power : 9.5</p></div> | Left blank  |



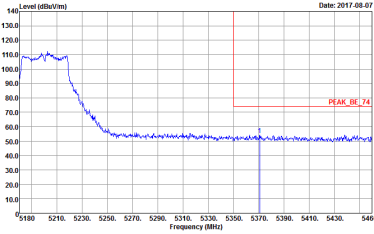
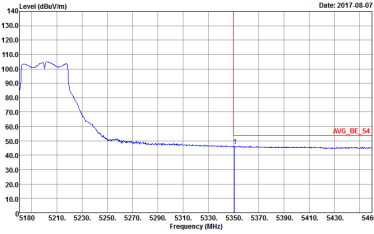
| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                       |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT40 CH40 5200MHz - L                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                       |
| 1    | Horizontal                                                                                                                                                                                                                                               | Fundamental                                                                                                                                                                                                                                           |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 11<br/>Power : 25.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 11<br/>Power : 25.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 11<br/>Power : 25.5</p></div> | Left blank                                                                                                                                                                                                                                            |

| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                             |             |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT40 CH40 5200MHz - R                                                                                                                                                                                                                |             |
| 1    | Horizontal                                                                                                                                                                                                                                     | Fundamental |
| Peak |  <p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 11<br/>Power : 25.5</p>  | Left blank  |
| Avg. |  <p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 11<br/>Power : 25.5</p> | Left blank  |

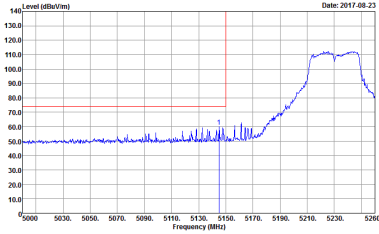
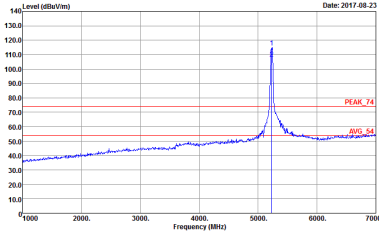
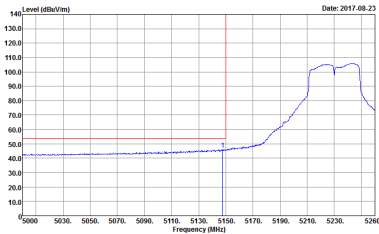


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT40 CH40 5200MHz - L                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                     |
| 1    | Vertical                                                                                                                                                                                                                                               | Fundamental                                                                                                                                                                                                                                         |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 11<br/>Power : 25.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 11<br/>Power : 25.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 11<br/>Power : 25.5</p></div> | Left blank                                                                                                                                                                                                                                          |

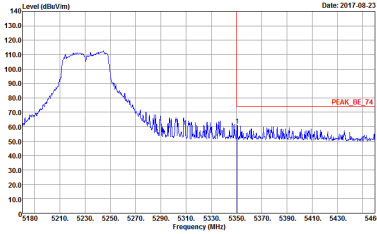
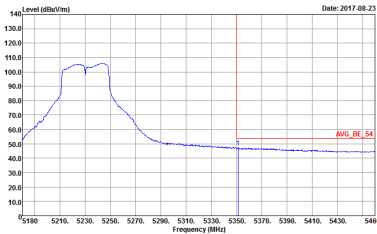


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                     |             |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT40 CH40 5200MHz - R                                                                                                                                                                                                                        |             |
| 1    | Vertical                                                                                                                                                                                                                                               | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 11<br/>Power : 25.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 11<br/>Power : 25.5</p></div> | Left blank  |

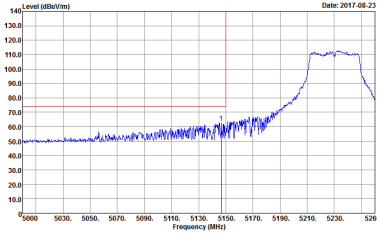
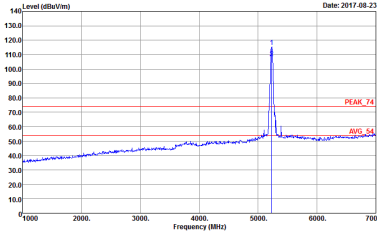
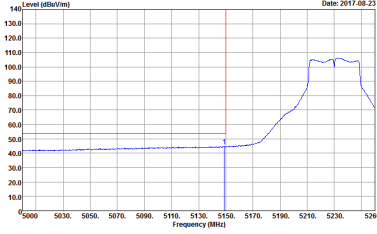


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                       |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT40 CH46 5230MHz - L                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                       |
| 1    | Horizontal                                                                                                                                                                                                                                               | Fundamental                                                                                                                                                                                                                                           |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 12<br/>Power : 31.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 12<br/>Power : 31.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 12<br/>Power : 31.5</p></div> | Left blank                                                                                                                                                                                                                                            |

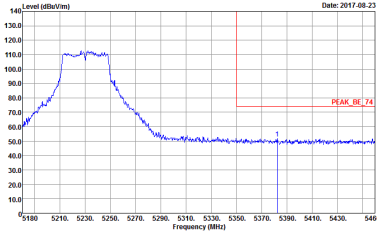
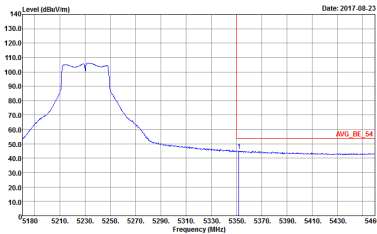


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                       |             |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT40 CH46 5230MHz - R                                                                                                                                                                                                                          |             |
| 1    | Horizontal                                                                                                                                                                                                                                               | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 12<br/>Power : 31.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 12<br/>Power : 31.5</p></div> | Left blank  |

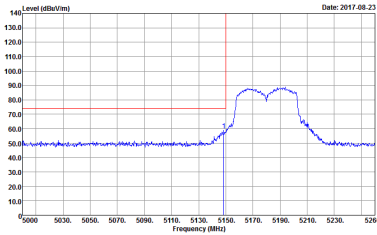
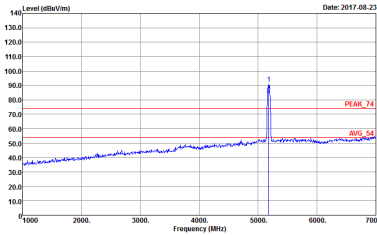
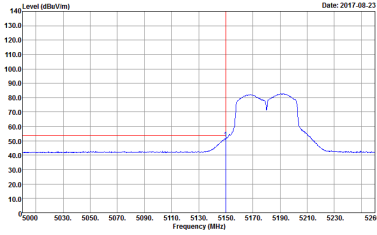


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT40 CH46 5230MHz - L                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                     |
| 1    | Vertical                                                                                                                                                                                                                                               | Fundamental                                                                                                                                                                                                                                         |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 12<br/>Power : 31.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 12<br/>Power : 31.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 12<br/>Power : 31.5</p></div> | Left blank                                                                                                                                                                                                                                          |

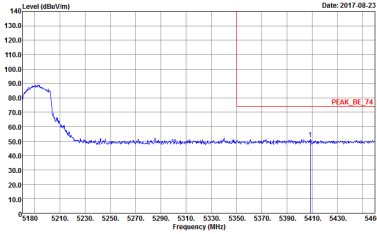
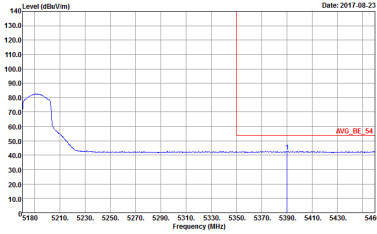


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                     |             |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT40 CH46 5230MHz - R                                                                                                                                                                                                                        |             |
| 1    | Vertical                                                                                                                                                                                                                                               | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 12<br/>Power : 31.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 12<br/>Power : 31.5</p></div> | Left blank  |

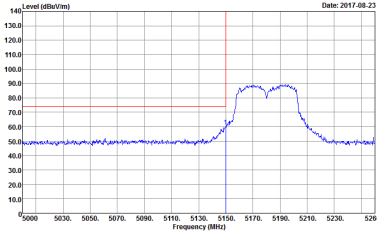
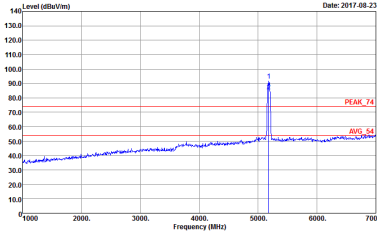
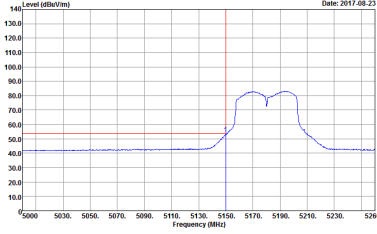
**Band 1 5150~5250MHz**  
**WIFI 802.11ac VHT50 (Band Edge @ 3m)**

| WIFI        | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                 |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT         | 802.11ac VHT50 CH36 5180MHz - L                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                 |
| 1           | Horizontal                                                                                                                                                                                                                                         | Fundamental                                                                                                                                                                                                                                     |
| <b>Peak</b> |  <p>Site : 03CH13-HV<br/> Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 13<br/> Power : 9.5</p>  |  <p>Site : 03CH13-HV<br/> Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 13<br/> Power : 9.5</p> |
| <b>Avg.</b> |  <p>Site : 03CH13-HV<br/> Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 13<br/> Power : 9.5</p> | <b>Left blank</b>                                                                                                                                                                                                                               |

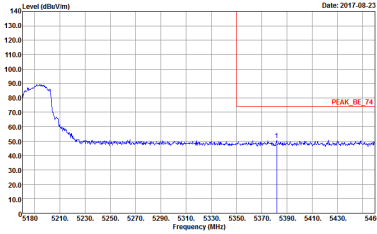
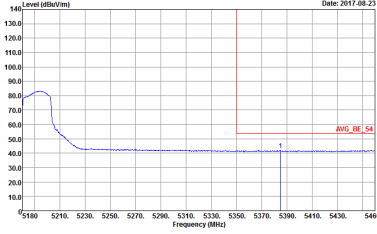


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                      |             |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT50 CH36 5180MHz - R                                                                                                                                                                                                                         |             |
| 1    | Horizontal                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 13<br/>Power : 9.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 13<br/>Power : 9.5</p></div> | Left blank  |

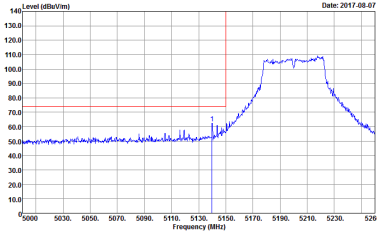
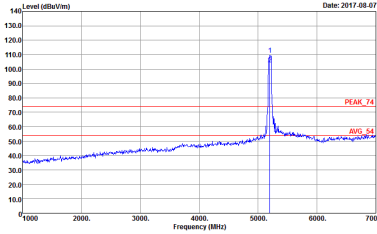
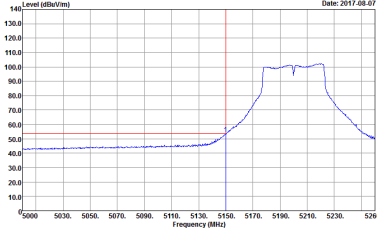


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                    |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT50 CH36 5180MHz - L                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                    |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental                                                                                                                                                                                                                                        |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 13<br/>Power : 9.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 13<br/>Power : 9.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 13<br/>Power : 9.5</p></div> | Left blank                                                                                                                                                                                                                                         |

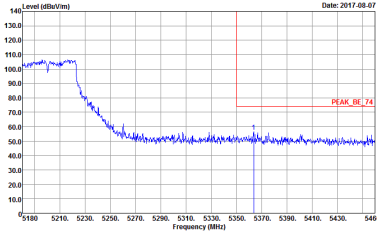
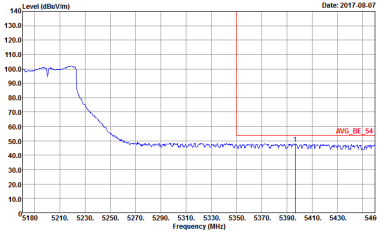


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |             |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT50 CH36 5180MHz - R                                                                                                                                                                                                                       |             |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 13<br/>Power : 9.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 13<br/>Power : 9.5</p></div> | Left blank  |

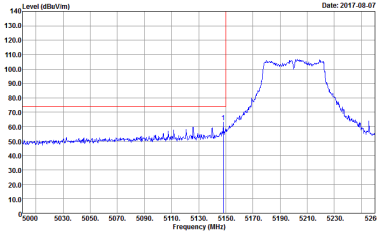
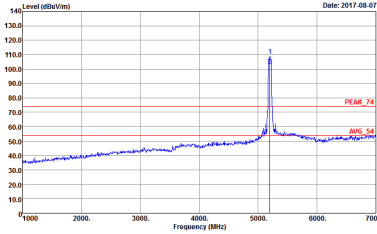
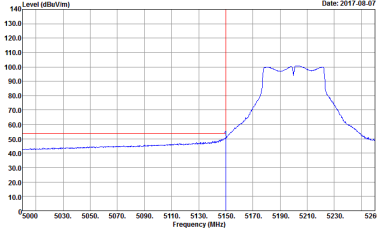


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                       |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT50 CH40 5200MHz - L                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                       |
| 1    | Horizontal                                                                                                                                                                                                                                               | Fundamental                                                                                                                                                                                                                                           |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 14<br/>Power : 22.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 14<br/>Power : 22.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 14<br/>Power : 22.5</p></div> | Left blank                                                                                                                                                                                                                                            |

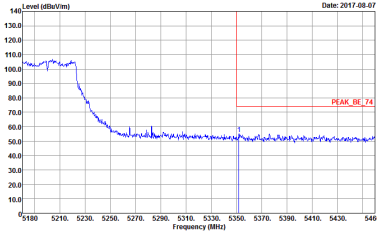
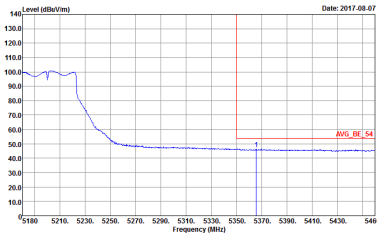


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                       |             |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT50 CH40 5200MHz - R                                                                                                                                                                                                                          |             |
| 1    | Horizontal                                                                                                                                                                                                                                               | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 14<br/>Power : 22.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 14<br/>Power : 22.5</p></div> | Left blank  |

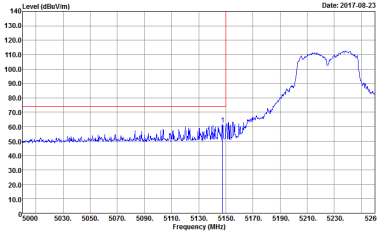
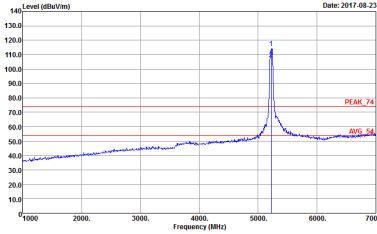
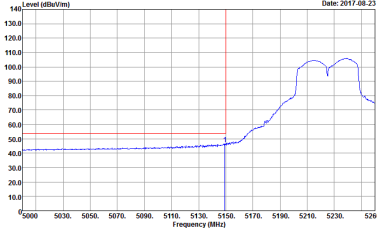


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT50 CH40 5200MHz - L                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                     |
| 1    | Vertical                                                                                                                                                                                                                                               | Fundamental                                                                                                                                                                                                                                         |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 14<br/>Power : 22.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 14<br/>Power : 22.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 14<br/>Power : 22.5</p></div> | Left blank                                                                                                                                                                                                                                          |

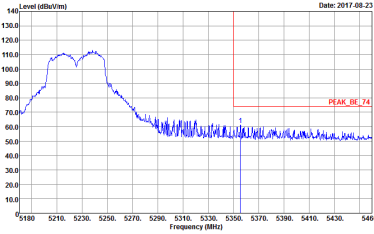
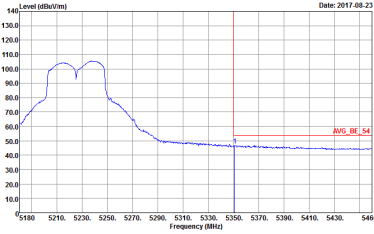


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                     |             |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT50 CH40 5200MHz - R                                                                                                                                                                                                                        |             |
| 1    | Vertical                                                                                                                                                                                                                                               | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 14<br/>Power : 22.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 14<br/>Power : 22.5</p></div> | Left blank  |

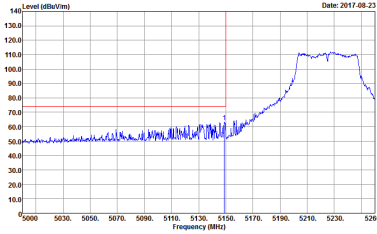
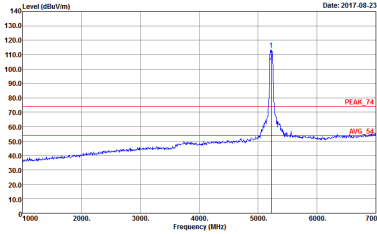
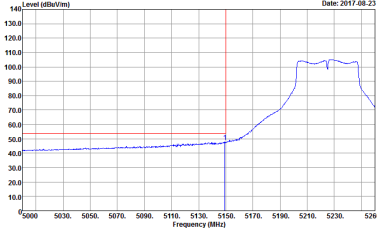


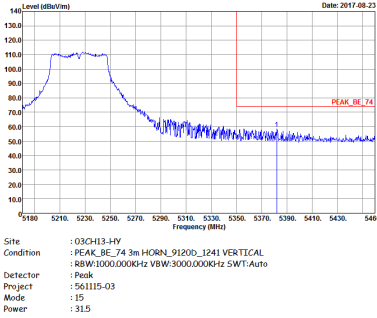
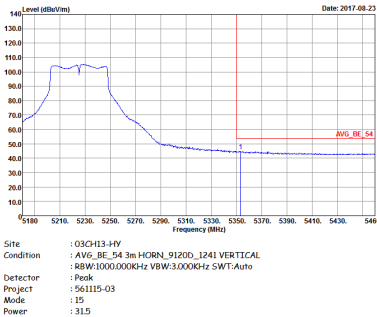
| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                    |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT50 CH45 5225MHz - L                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                    |
| 1    | Horizontal                                                                                                                                                                                                                                                                                           | Fundamental                                                                                                                                                                                                                                                                                        |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 15<br/>Power : 31.5</p></div> | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 15<br/>Power : 31.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 15<br/>Power : 31.5</p></div>   | Left blank                                                                                                                                                                                                                                                                                         |



| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                       |             |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT50 CH45 5225MHz - R                                                                                                                                                                                                                          |             |
| 1    | Horizontal                                                                                                                                                                                                                                               | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 15<br/>Power : 31.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 15<br/>Power : 31.5</p></div> | Left blank  |

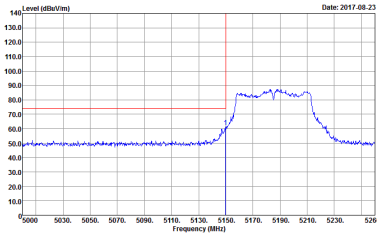
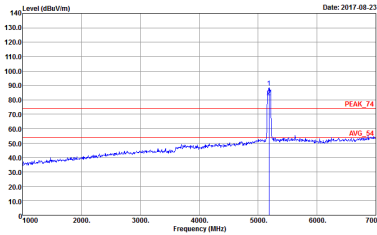
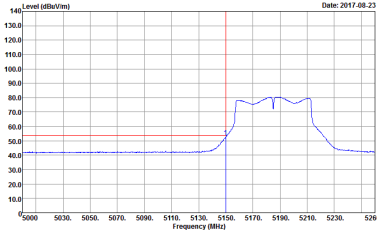


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT50 CH45 5225MHz - L                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                     |
| 1    | Vertical                                                                                                                                                                                                                                               | Fundamental                                                                                                                                                                                                                                         |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 15<br/>Power : 31.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 15<br/>Power : 31.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 15<br/>Power : 31.5</p></div> | Left blank                                                                                                                                                                                                                                          |

| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                  |             |
|------|-------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT50 CH45 5225MHz - R                                                     |             |
| 1    | Vertical                                                                            | Fundamental |
| Peak |    | Left blank  |
| Avg. |  | Left blank  |



Band 1 5150~5250MHz  
WIFI 802.11ac VHT60 (Band Edge @ 3m)

| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                            |                                                                                                                                                                                                                                            |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT60 CH37 5185MHz - L                                                                                                                                                                                                               |                                                                                                                                                                                                                                            |
| 1    | Horizontal                                                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                                                |
| Peak |  <p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 16<br/>Power : 9.5</p>  |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 16<br/>Power : 9.5</p> |
| Avg. |  <p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 16<br/>Power : 9.5</p> | Left blank                                                                                                                                                                                                                                 |

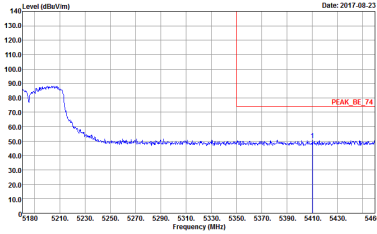
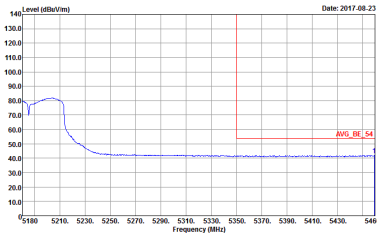


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                    |             |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT60 CH37 5185MHz - R                                                                                                                                       |             |
| 1    | Horizontal                                                                                                                                                            | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 16<br/>Power : 9.5</p></div> | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 16<br/>Power : 9.5</p></div>  | Left blank  |

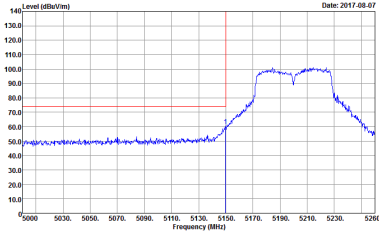
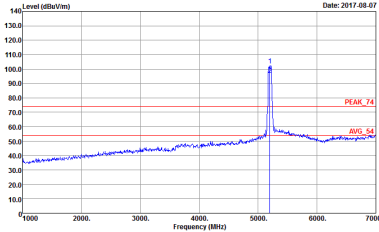
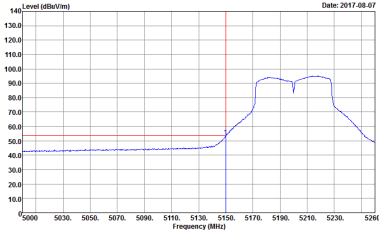


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                  |                                                                                                                                                                  |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT60 CH37 5185MHz - L                                                                                                                                     |                                                                                                                                                                  |
| 1    | Vertical                                                                                                                                                            | Fundamental                                                                                                                                                      |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 16<br/>Power : 9.5</p></div> | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 16<br/>Power : 9.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 16<br/>Power : 9.5</p></div>  | Left blank                                                                                                                                                       |

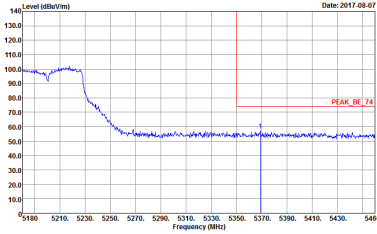
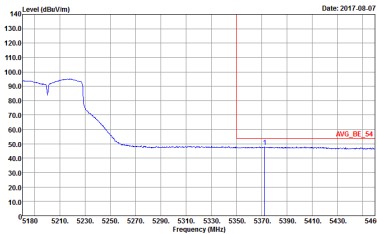


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |             |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT60 CH37 5185MHz - R                                                                                                                                                                                                                       |             |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 16<br/>Power : 9.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 16<br/>Power : 9.5</p></div> | Left blank  |

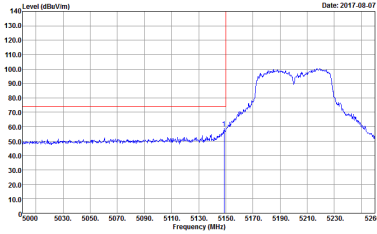
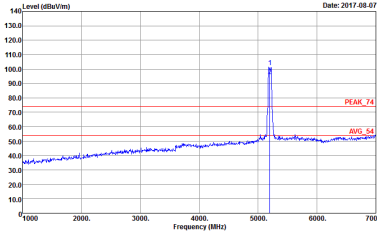
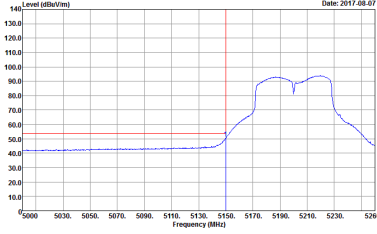


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                     |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT60 CH40 5200MHz - L                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                     |
| 1    | Horizontal                                                                                                                                                                                                                                             | Fundamental                                                                                                                                                                                                                                         |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 17<br/>Power : 15</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 17<br/>Power : 15</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 17<br/>Power : 15</p></div> | Left blank                                                                                                                                                                                                                                          |

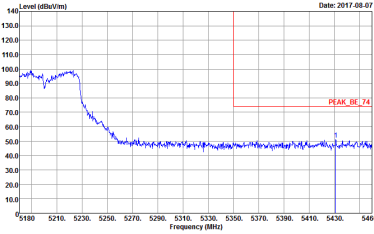
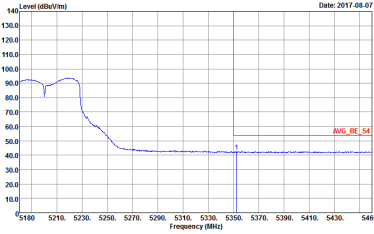


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                     |             |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT60 CH40 5200MHz - R                                                                                                                                                                                                                        |             |
| 1    | Horizontal                                                                                                                                                                                                                                             | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 17<br/>Power : 15</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 17<br/>Power : 15</p></div> | Left blank  |

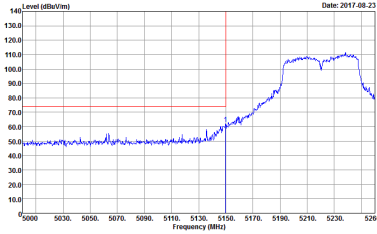
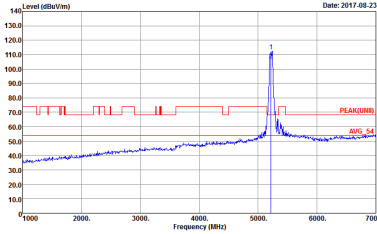
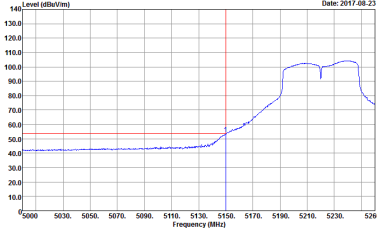


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                   |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT60 CH40 5200MHz - L                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                   |
| 1    | Vertical                                                                                                                                                                                                                                             | Fundamental                                                                                                                                                                                                                                       |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 17<br/>Power : 15</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 17<br/>Power : 15</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 17<br/>Power : 15</p></div> | Left blank                                                                                                                                                                                                                                        |

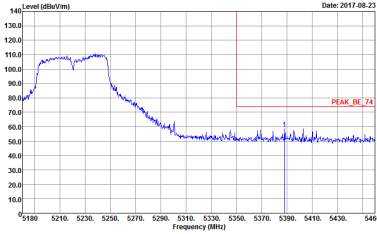
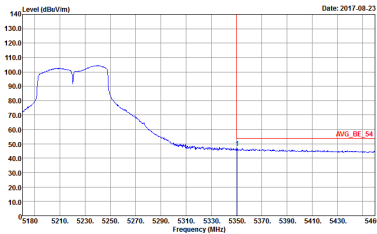


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                   |             |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT60 CH40 5200MHz - R                                                                                                                                                                                                                      |             |
| 1    | Vertical                                                                                                                                                                                                                                             | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 17<br/>Power : 15</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 17<br/>Power : 15</p></div> | Left blank  |

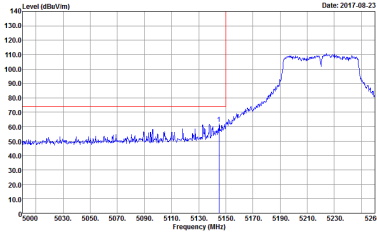
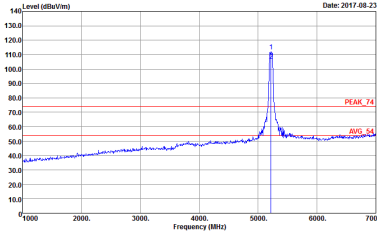
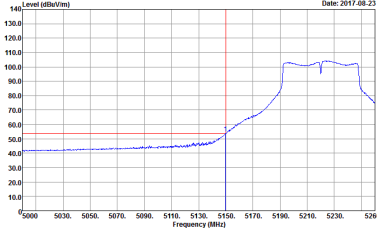


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                     |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT60 CH44 5220MHz - L                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                     |
| 1    | Horizontal                                                                                                                                                                                                                                                                                         | Fundamental                                                                                                                                                                                                                                                                                         |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 18<br/>Power : 31</p></div> | <div><p>Site : 03CH13-HY<br/>Condition : PEAK(UNII) 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 18<br/>Power : 31</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 18<br/>Power : 31</p></div>   | Left blank                                                                                                                                                                                                                                                                                          |



| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                     |             |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT60 CH44 5220MHz - R                                                                                                                                                                                                                        |             |
| 1    | Horizontal                                                                                                                                                                                                                                             | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 18<br/>Power : 31</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 18<br/>Power : 31</p></div> | Left blank  |

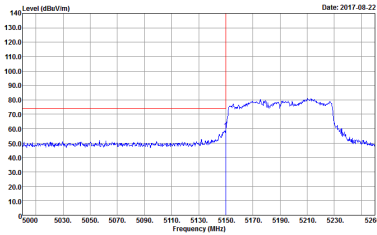
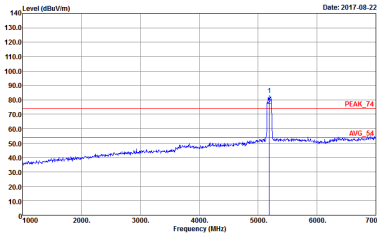
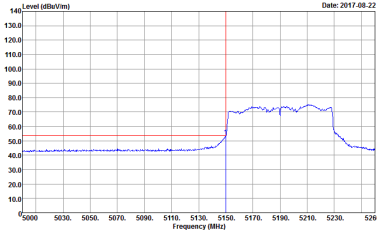


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                   |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT60 CH44 5220MHz - L                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                   |
| 1    | Vertical                                                                                                                                                                                                                                             | Fundamental                                                                                                                                                                                                                                       |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 18<br/>Power : 31</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 18<br/>Power : 31</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 18<br/>Power : 31</p></div> | Left blank                                                                                                                                                                                                                                        |

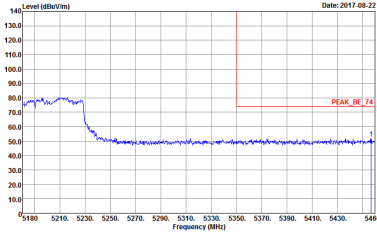
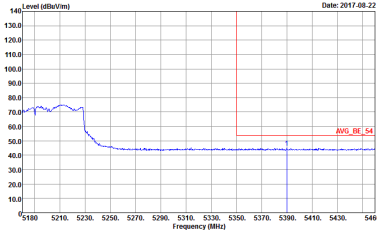


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                 |             |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT60 CH44 5220MHz - R                                                                                                                                    |             |
| 1    | Vertical                                                                                                                                                           | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 18<br/>Power : 31</p></div> | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 18<br/>Power : 31</p></div>  | Left blank  |

**Band 1 5150~5250MHz**  
**WIFI 802.11ac VHT80 (Band Edge @ 3m)**

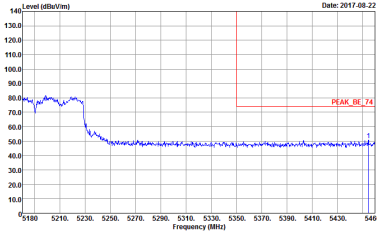
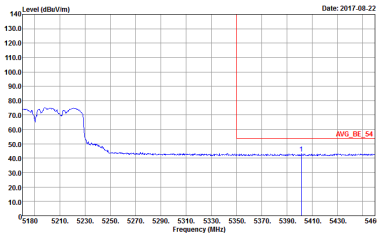
| WIFI        | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                 |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT         | 802.11ac VHT80 CH38 5190MHz - L                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                 |
| 1           | Horizontal                                                                                                                                                                                                                                         | Fundamental                                                                                                                                                                                                                                     |
| <b>Peak</b> |  <p>Site : 03CH13-HV<br/> Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 19<br/> Power : 3.5</p>  |  <p>Site : 03CH13-HV<br/> Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 19<br/> Power : 3.5</p> |
| <b>Avg.</b> |  <p>Site : 03CH13-HV<br/> Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 19<br/> Power : 3.5</p> | <b>Left blank</b>                                                                                                                                                                                                                               |



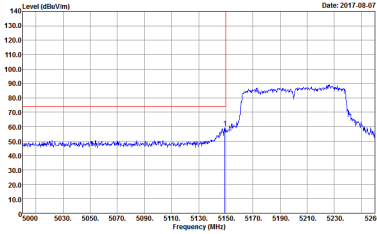
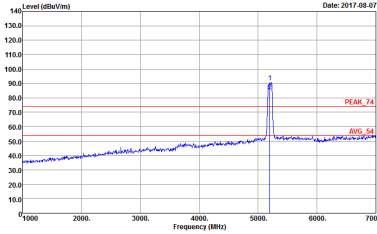
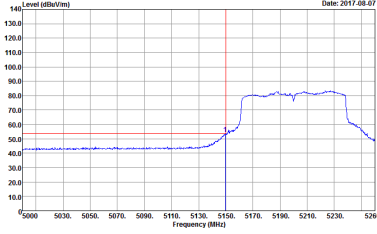
| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                       |             |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT80 CH38 5190MHz - R                                                                                                                                                                                                                          |             |
| 1    | Horizontal                                                                                                                                                                                                                                               | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZ.ONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 19<br/>Power : 3.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZ.ONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 19<br/>Power : 3.5</p></div> | Left blank  |



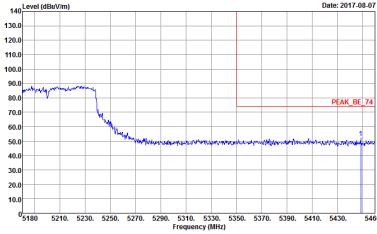
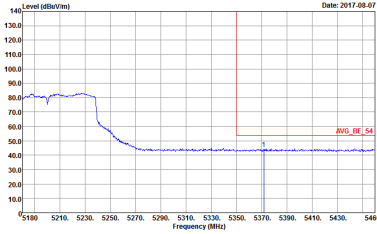


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |             |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT80 CH38 5190MHz - R                                                                                                                                                                                                                       |             |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 19<br/>Power : 3.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 19<br/>Power : 3.5</p></div> | Left blank  |

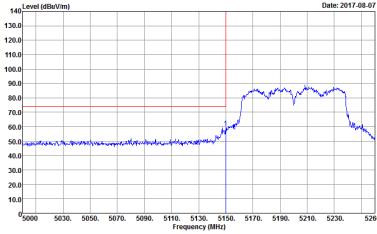
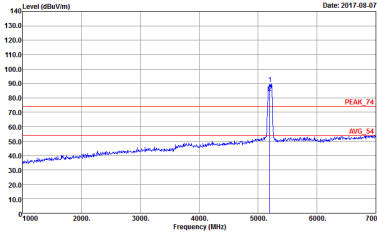
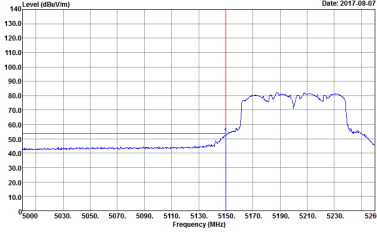


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                   |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT80 CH40 5200MHz - L                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                   |
| 1    | Horizontal                                                                                                                                                                                                                                                                                          | Fundamental                                                                                                                                                                                                                                                                                       |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 20<br/>Power : 4.5</p></div> | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 20<br/>Power : 4.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:10.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 20<br/>Power : 4.5</p></div>  | Left blank                                                                                                                                                                                                                                                                                        |

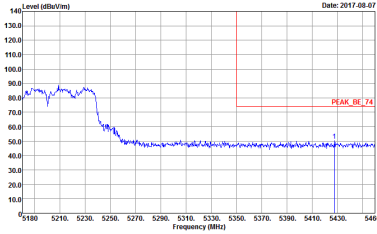
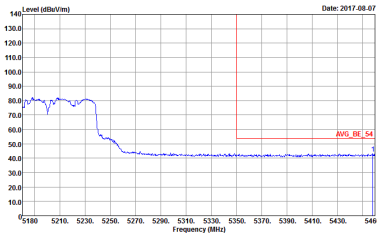


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                      |             |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT80 CH40 5200MHz - R                                                                                                                                                                                                                         |             |
| 1    | Horizontal                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 20<br/>Power : 4.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 20<br/>Power : 4.5</p></div> | Left blank  |

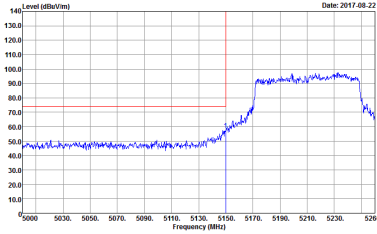
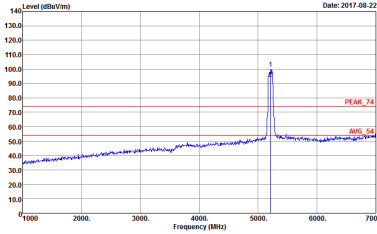
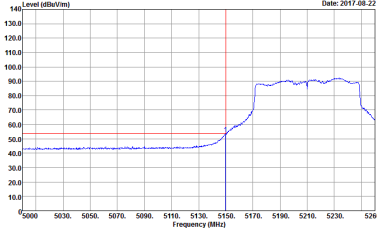


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                    |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT80 CH40 5200MHz - L                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                    |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental                                                                                                                                                                                                                                        |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 20<br/>Power : 4.5</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 20<br/>Power : 4.5</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 20<br/>Power : 4.5</p></div> | Left blank                                                                                                                                                                                                                                         |

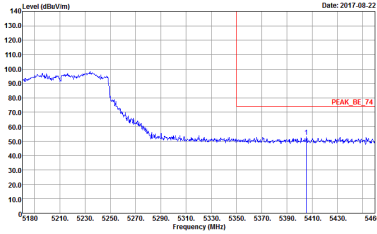
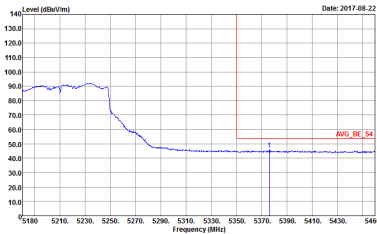


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                    |             |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT80 CH40 5200MHz - R                                                                                                                                                                                                                       |             |
| 1    | Vertical                                                                                                                                                                                                                                              | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 20<br/>Power : 4.5</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 20<br/>Power : 4.5</p></div> | Left blank  |

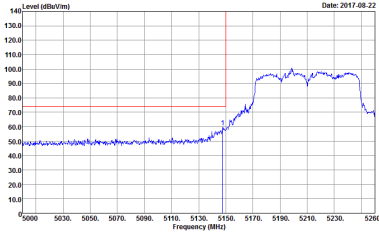
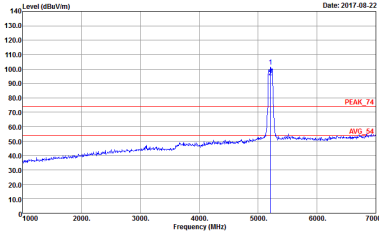
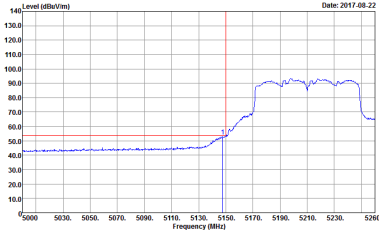


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                  |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT80 CH42 5210MHz - L                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                  |
| 1    | Horizontal                                                                                                                                                                                                                                                                                         | Fundamental                                                                                                                                                                                                                                                                                      |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : Z1<br/>Power : Z0</p></div> | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : Z1<br/>Power : Z0</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:10.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : Z1<br/>Power : Z0</p></div>  | Left blank                                                                                                                                                                                                                                                                                       |

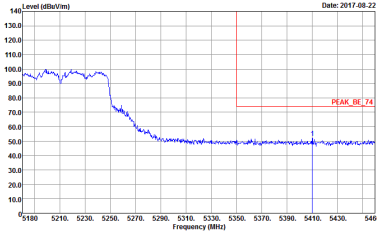
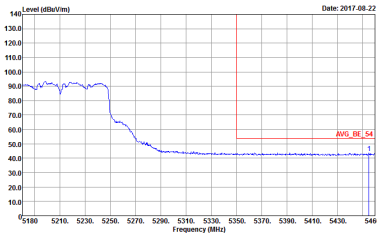


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                     |             |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT80 CH42 5210MHz - R                                                                                                                                                                                                                        |             |
| 1    | Horizontal                                                                                                                                                                                                                                             | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : Z1<br/>Power : Z0</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : Z1<br/>Power : Z0</p></div> | Left blank  |

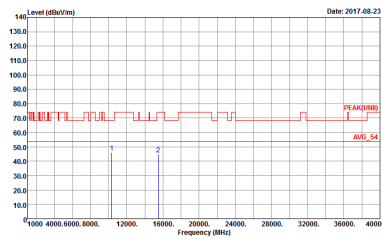
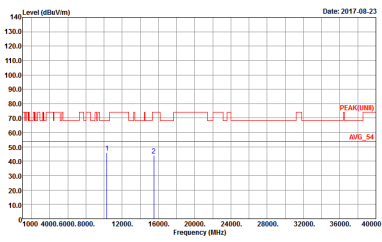


| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                   |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11ac VHT80 CH42 5210MHz - L                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                   |
| 1    | Vertical                                                                                                                                                                                                                                             | Fundamental                                                                                                                                                                                                                                       |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : Z1<br/>Power : Z0</p></div>  | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : Z1<br/>Power : Z0</p></div> |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : Z1<br/>Power : Z0</p></div> | Left blank                                                                                                                                                                                                                                        |

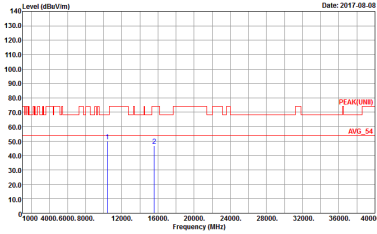
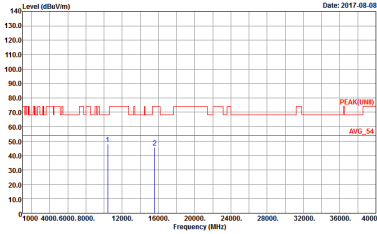


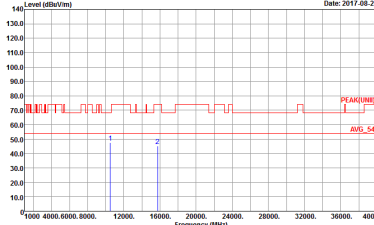
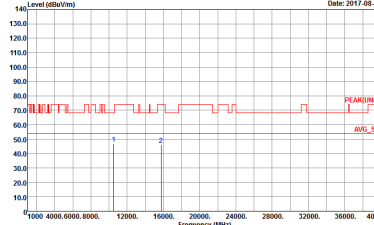
| WIFI | Band 1 5150~5250MHz Band Edge @ 3m                                                                                                                                                                                                                   |             |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11ac VHT80 CH42 5210MHz - R                                                                                                                                                                                                                      |             |
| 1    | Vertical                                                                                                                                                                                                                                             | Fundamental |
| Peak | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : Z1<br/>Power : Z0</p></div>  | Left blank  |
| Avg. | <div><p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : Z1<br/>Power : Z0</p></div> | Left blank  |

**Band 1 - 5150~5250MHz**  
**WIFI 802.11ac VHT10 (Harmonic @ 3m)**

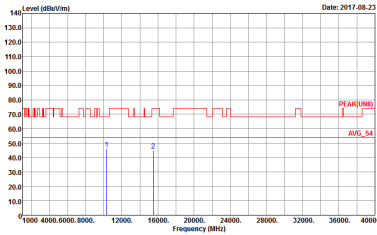
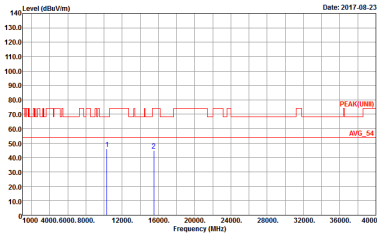
| WIFI                           | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                     |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT                            | 802.11ac VHT10 CH32 5160MHz                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                     |
| 1                              | Horizontal                                                                                                                                                                                                                                                                                                           | Vertical                                                                                                                                                                                                                                                                                                            |
| <b>Peak</b><br><br><b>Avg.</b> |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/>           Detector : Peak<br/>           Project : 561115-03<br/>           Mode : 1<br/>           Power : 18.5         </p> |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/>           Detector : Peak<br/>           Project : 561115-03<br/>           Mode : 1<br/>           Power : 18.5         </p> |



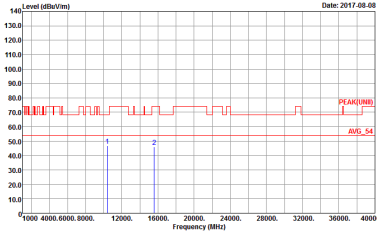
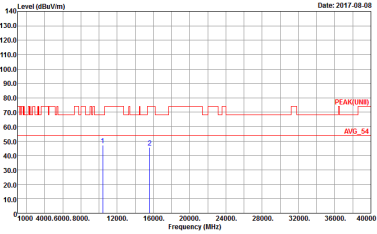
|              |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                    |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI         | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                    |
| ANT          | 802.11ac VHT10 CH40 5200MHz                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                    |
| 1            | Horizontal                                                                                                                                                                                                                                          | Vertical                                                                                                                                                                                                                                           |
| Peak<br>Avg. | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 2<br/>Power : 31.5</p></div> | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 2<br/>Power : 31.5</p></div> |

| WIFI                           | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                         |                                                                                                                                                                                                                                          |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT                            | 802.11ac VHT10 CH49 5245MHz                                                                                                                                                                                                               |                                                                                                                                                                                                                                          |
| 1                              | Horizontal                                                                                                                                                                                                                                | Vertical                                                                                                                                                                                                                                 |
| <b>Peak</b><br><br><b>Avg.</b> |  <p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 3<br/>Power : 31.5</p> |  <p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 3<br/>Power : 31.5</p> |

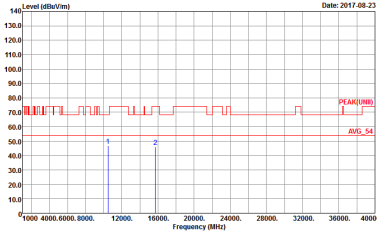
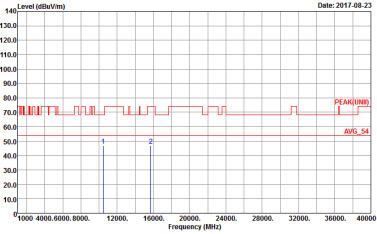
**Band 1 5150~5250MHz**  
**WIFI 802.11ac VHT20 (Harmonic @ 3m)**

| WIFI                           | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                                |                                                                                                                                                                                                                                                 |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT                            | 802.11ac VHT20 CH33 5165MHz                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                 |
| 1                              | Horizontal                                                                                                                                                                                                                                       | Vertical                                                                                                                                                                                                                                        |
| <b>Peak</b><br><br><b>Avg.</b> |  <p> Site : 03CH13-HY<br/> Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 4<br/> Power : 12.5 </p> |  <p> Site : 03CH13-HY<br/> Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 4<br/> Power : 12.5 </p> |

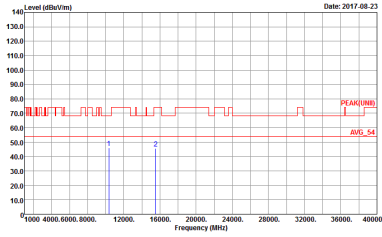
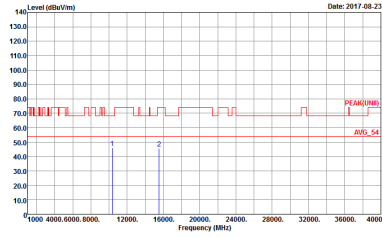


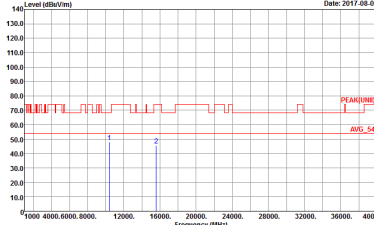
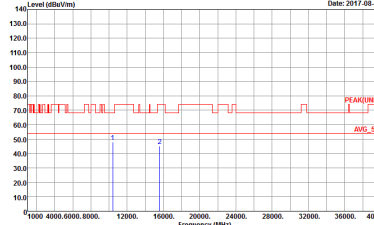
|              |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                    |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI         | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                    |
| ANT          | 802.11ac VHT20 CH40 5200MHz                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                    |
| 1            | Horizontal                                                                                                                                                                                                                                          | Vertical                                                                                                                                                                                                                                           |
| Peak<br>Avg. | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 5<br/>Power : 31.5</p></div> | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 5<br/>Power : 31.5</p></div> |

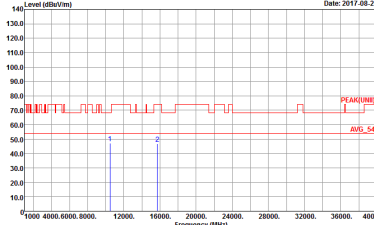
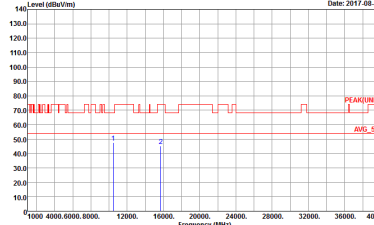


|              |                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                   |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI         | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                   |
| ANT          | 802.11ac VHT20 CH48 5240MHz                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                   |
| 1            | Horizontal                                                                                                                                                                                                                                         | Vertical                                                                                                                                                                                                                                          |
| Peak<br>Avg. | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNB) 3m SHF_HORN_584 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 6<br/>Power : 31.5</p></div> | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNB) 3m SHF_HORN_584 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 6<br/>Power : 31.5</p></div> |

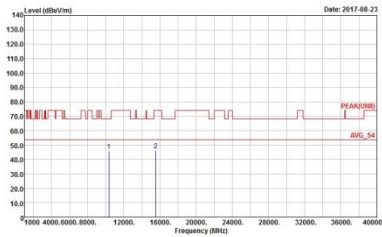
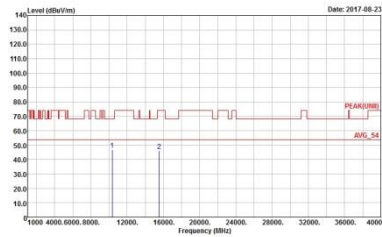
**Band 1 5150~5250MHz**  
**WIFI 802.11ac VHT30 (Harmonic @ 3m)**

| WIFI                           | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                               |                                                                                                                                                                                                                                                |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT                            | 802.11ac VHT30 CH34 5170MHz                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                |
| 1                              | Horizontal                                                                                                                                                                                                                                      | Vertical                                                                                                                                                                                                                                       |
| <b>Peak</b><br><br><b>Avg.</b> |  <p> Site : 03CH13-HY<br/> Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 7<br/> Power : 7.5 </p> |  <p> Site : 03CH13-HY<br/> Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 7<br/> Power : 7.5 </p> |

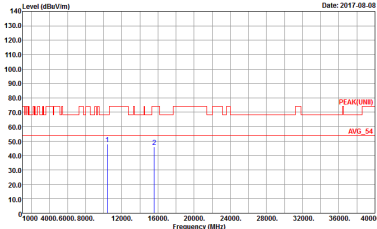
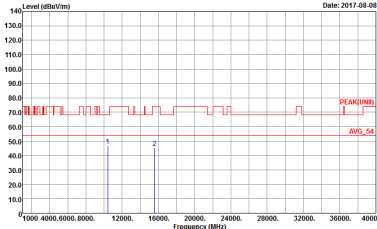
| WIFI                           | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                            |                                                                                                                                                                                                                                             |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT                            | 802.11ac VHT30 CH40 5200MHz                                                                                                                                                                                                                  |                                                                                                                                                                                                                                             |
| 1                              | Horizontal                                                                                                                                                                                                                                   | Vertical                                                                                                                                                                                                                                    |
| <b>Peak</b><br><br><b>Avg.</b> |  <p>Site : 03CH13-1V<br/> Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 8<br/> Power : 31</p> |  <p>Site : 03CH13-1V<br/> Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 8<br/> Power : 31</p> |

| WIFI                           | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                         |                                                                                                                                                                                                                                          |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT                            | 802.11ac VHT30 CH47 5235MHz                                                                                                                                                                                                               |                                                                                                                                                                                                                                          |
| 1                              | Horizontal                                                                                                                                                                                                                                | Vertical                                                                                                                                                                                                                                 |
| <b>Peak</b><br><br><b>Avg.</b> |  <p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 9<br/>Power : 31.5</p> |  <p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 9<br/>Power : 31.5</p> |

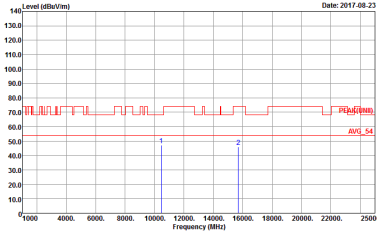
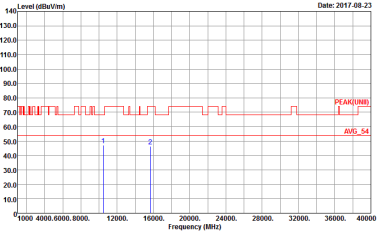
**Band 1 5150~5250MHz**  
**WIFI 802.11ac VHT40 (Harmonic @ 3m)**

| WIFI                           | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                       |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT                            | 802.11ac VHT40 CH35 5175MHz                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                       |
| 1                              | Horizontal                                                                                                                                                                                                                                                                             | Vertical                                                                                                                                                                                                                                                                              |
| <b>Peak</b><br><br><b>Avg.</b> |  <p>Site : 03CH13-HY<br/>         Condition : PEAK(UNIT) 3m SHF_HORN_584 HORIZONTAL<br/>         Detector : Peak<br/>         Project : 561115-03<br/>         Mode : 10<br/>         Power : 9.5</p> |  <p>Site : 03CH13-HY<br/>         Condition : PEAK(UNIT) 3m SHF_HORN_584 VERTICAL<br/>         Detector : Peak<br/>         Project : 561115-03<br/>         Mode : 10<br/>         Power : 9.5</p> |



|              |                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                     |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI         | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                     |
| ANT          | 802.11ac VHT40 CH40 5200MHz                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                     |
| 1            | Horizontal                                                                                                                                                                                                                                           | Vertical                                                                                                                                                                                                                                            |
| Peak<br>Avg. | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : II<br/>Power : 25.5</p></div> | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : II<br/>Power : 25.5</p></div> |



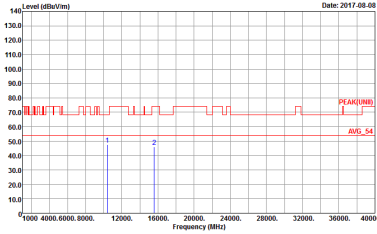
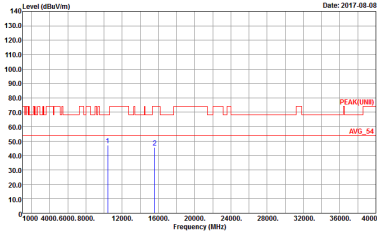
|              |                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                     |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI         | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                     |
| ANT          | 802.11ac VHT40 CH46 5230MHz                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                     |
| 1            | Horizontal                                                                                                                                                                                                                                           | Vertical                                                                                                                                                                                                                                            |
| Peak<br>Avg. | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 12<br/>Power : 31.5</p></div> | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 12<br/>Power : 31.5</p></div> |



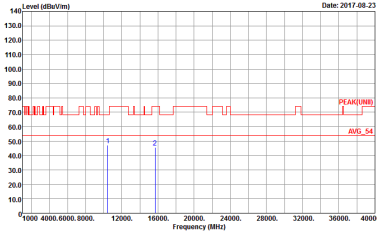
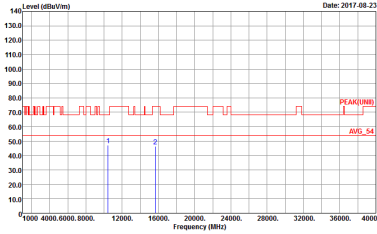
Band 1 5150~5250MHz  
WIFI 802.11ac VHT50 (Harmonic @ 3m)

| WIFI         | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                  |                                                                                                                                                                  |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT          | c                                                                                                                                                                  |                                                                                                                                                                  |
| 1            | Horizontal                                                                                                                                                         | Vertical                                                                                                                                                         |
| Peak<br>Avg. | <div><p>Site : 03CH13-HY<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 13<br/>Power : 9.5</p></div> | <div><p>Site : 03CH13-HY<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 13<br/>Power : 9.5</p></div> |

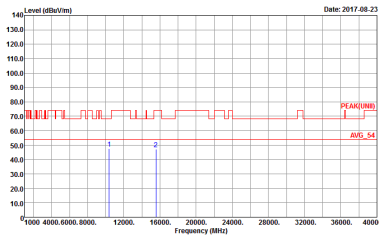
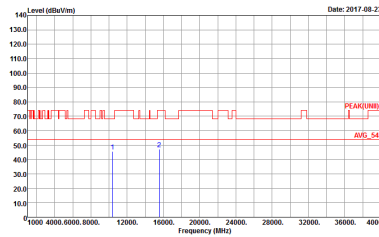


|              |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                    |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI         | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                    |
| ANT          | 802.11ac VHT50 CH40 5200MHz                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                    |
| 1            | Horizontal                                                                                                                                                                                                                                          | Vertical                                                                                                                                                                                                                                           |
| Peak<br>Avg. | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNB) 3m SHF_HORN_584 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 14<br/>Power : 22.5</p></div> | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNB) 3m SHF_HORN_584 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 14<br/>Power : 22.5</p></div> |

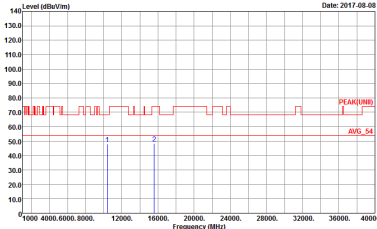
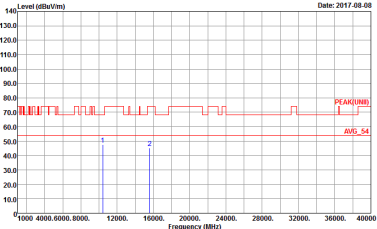


|              |                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                     |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI         | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                     |
| ANT          | 802.11ac VHT50 CH45 5225MHz                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                     |
| 1            | Horizontal                                                                                                                                                                                                                                           | Vertical                                                                                                                                                                                                                                            |
| Peak<br>Avg. | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 15<br/>Power : 31.5</p></div> | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 15<br/>Power : 31.5</p></div> |

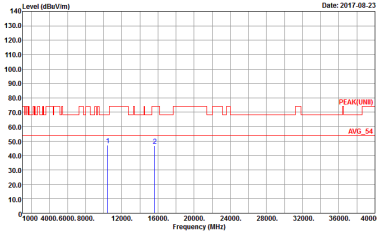
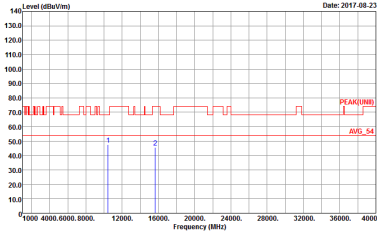
**Band 1 5150~5250MHz**  
**WIFI 802.11ac VHT60 (Harmonic @ 3m)**

| WIFI                           | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                                |                                                                                                                                                                                                                                                 |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT                            | 802.11ac VHT60 CH37 5185MHz                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                 |
| 1                              | Horizontal                                                                                                                                                                                                                                       | Vertical                                                                                                                                                                                                                                        |
| <b>Peak</b><br><br><b>Avg.</b> |  <p> Site : 03CH13-HY<br/> Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 16<br/> Power : 9.5 </p> |  <p> Site : 03CH13-HY<br/> Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 16<br/> Power : 9.5 </p> |

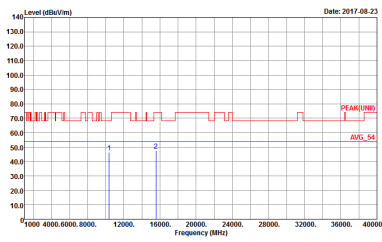
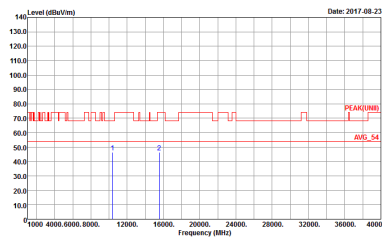


|              |                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                   |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI         | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                   |
| ANT          | 802.11ac VHT60 CH40 5200MHz                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                   |
| 1            | Horizontal                                                                                                                                                                                                                                         | Vertical                                                                                                                                                                                                                                          |
| Peak<br>Avg. | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 17<br/>Power : 15</p></div> | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 17<br/>Power : 15</p></div> |

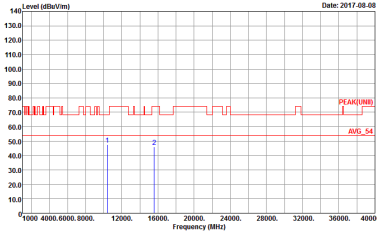
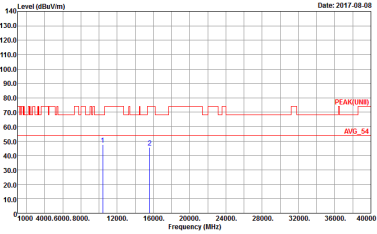


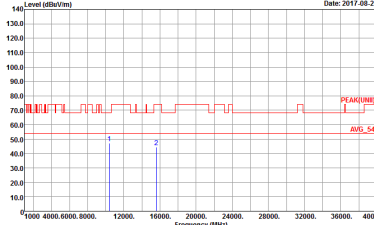
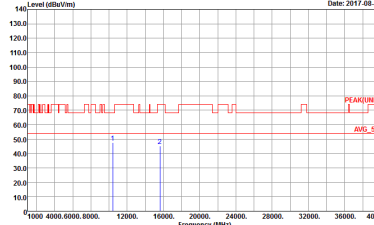
|              |                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                  |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI         | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                  |
| ANT          | 802.11ac VHT60 CH44 5220MHz                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                  |
| 1            | Horizontal                                                                                                                                                                                                                                        | Vertical                                                                                                                                                                                                                                         |
| Peak<br>Avg. | <div><p>Site : 03CH13-1V<br/>Condition : PEAK(UNB) 3m SHF_HORN_584 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 18<br/>Power : 31</p></div> | <div><p>Site : 03CH13-1V<br/>Condition : PEAK(UNB) 3m SHF_HORN_584 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 18<br/>Power : 31</p></div> |

**Band 1 5150~5250MHz**  
**WIFI 802.11ac VHT80 (Harmonic @ 3m)**

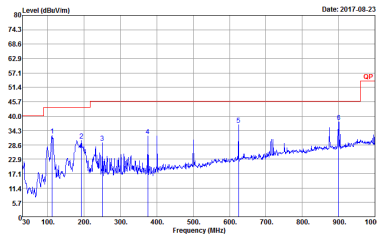
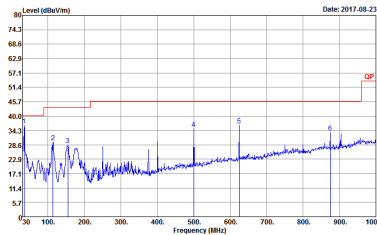
| WIFI                           | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                 |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT                            | 802.11ac VHT80 CH38 5190MHz                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                 |
| 1                              | Horizontal                                                                                                                                                                                                                                                                                       | Vertical                                                                                                                                                                                                                                                                                        |
| <b>Peak</b><br><br><b>Avg.</b> |  <p>Site : 03CH13-HY<br/>           Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/>           Detector : Peak<br/>           Project : 561115-03<br/>           Mode : 19<br/>           Power : 3.5</p> |  <p>Site : 03CH13-HY<br/>           Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/>           Detector : Peak<br/>           Project : 561115-03<br/>           Mode : 19<br/>           Power : 3.5</p> |



|              |                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                   |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI         | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                   |
| ANT          | 802.11ac VHT80 CH40 5200MHz                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                   |
| 1            | Horizontal                                                                                                                                                                                                                                         | Vertical                                                                                                                                                                                                                                          |
| Peak<br>Avg. | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNB) 3m SHF_HORN_584 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 20<br/>Power : 4.5</p></div> | <div><p>Site : 03CH13-HV<br/>Condition : PEAK(UNB) 3m SHF_HORN_584 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 20<br/>Power : 4.5</p></div> |

| WIFI                           | Band 1 5150~5250MHz Harmonic @ 3m                                                                                                                                                                                                        |                                                                                                                                                                                                                                         |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT                            | 802.11ac VHT80 CH42 5210MHz                                                                                                                                                                                                              |                                                                                                                                                                                                                                         |
| 1                              | Horizontal                                                                                                                                                                                                                               | Vertical                                                                                                                                                                                                                                |
| <b>Peak</b><br><br><b>Avg.</b> |  <p>Site : 03CH13-1V<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 HORIZONTAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 21<br/>Power : 20</p> |  <p>Site : 03CH13-1V<br/>Condition : PEAK(UNII) 3m SHF_HORN_584 VERTICAL<br/>Detector : Peak<br/>Project : 561115-03<br/>Mode : 21<br/>Power : 20</p> |

**Emission below 1GHz**  
**5GHz WIFI 802.11ac VHT60 (LF)**

| WIFI                 | 5GHz WIFI                                                                                                                                                                                                            |                                                                                                                                                                                                                     |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT                  | 802.11ac VHT60 LF                                                                                                                                                                                                    |                                                                                                                                                                                                                     |
| 1                    | Horizontal                                                                                                                                                                                                           | Vertical                                                                                                                                                                                                            |
| <b>QP /<br/>Peak</b> |  <p>Site : 03CH13-HY<br/> Condition : QP 3m B1LOG_40103 HORIZONTAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 22</p> |  <p>Site : 03CH13-HY<br/> Condition : QP 3m B1LOG_40103 VERTICAL<br/> Detector : Peak<br/> Project : 561115-03<br/> Mode : 22</p> |
|                      |                                                                                                                                                                                                                      |                                                                                                                                                                                                                     |

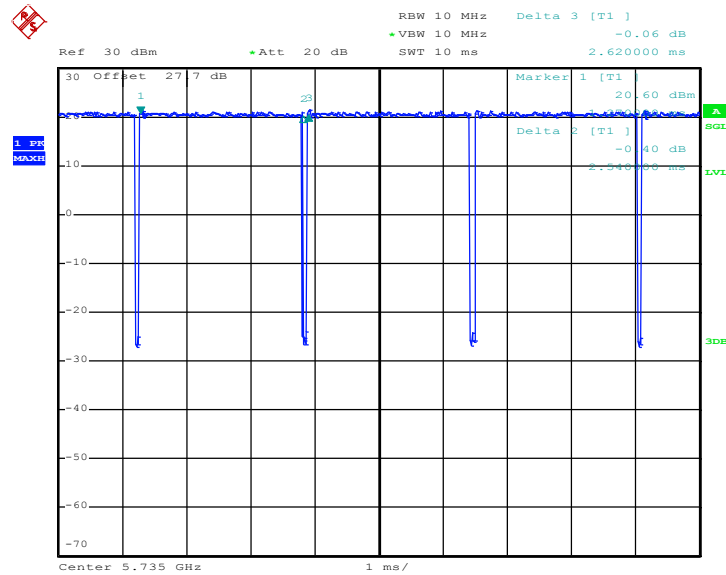
## Appendix E. Duty Cycle Plots

| Antenna | Band                       | Duty Cycle(%) | T(us) | 1/T(kHz) | VBW Setting |
|---------|----------------------------|---------------|-------|----------|-------------|
| 1+2     | 5GHz 802.11ac10 for Ant. 1 | 96.95         | 2540  | 0.39     | 1kHz        |
| 1+2     | 5GHz 802.11ac10 for Ant. 2 | 96.95         | 2540  | 0.39     |             |
| 1+2     | 5GHz 802.11ac20 for Ant. 1 | 95.49         | 1270  | 0.79     |             |
| 1+2     | 5GHz 802.11ac20 for Ant. 2 | 95.49         | 1270  | 0.79     |             |
| 1+2     | 5GHz 802.11ac30 for Ant. 1 | 93.33         | 840   | 1.19     | 3kHz        |
| 1+2     | 5GHz 802.11ac30 for Ant. 2 | 92.22         | 830   | 1.20     |             |
| 1+2     | 5GHz 802.11ac40 for Ant. 1 | 91.43         | 640   | 1.56     |             |
| 1+2     | 5GHz 802.11ac40 for Ant. 2 | 90.00         | 630   | 1.59     |             |
| 1+2     | 5GHz 802.11ac50 for Ant. 1 | 90.21         | 516   | 1.94     |             |
| 1+2     | 5GHz 802.11ac50 for Ant. 2 | 90.21         | 516   | 1.94     |             |
| 1+2     | 5GHz 802.11ac60 for Ant. 1 | 88.98         | 420   | 2.38     |             |
| 1+2     | 5GHz 802.11ac60 for Ant. 2 | 87.40         | 416   | 2.40     |             |
| 1+2     | 5GHz 802.11ac80 for Ant. 1 | 83.87         | 312   | 3.21     | 10kHz       |
| 1+2     | 5GHz 802.11ac80 for Ant. 2 | 83.87         | 312   | 3.21     |             |



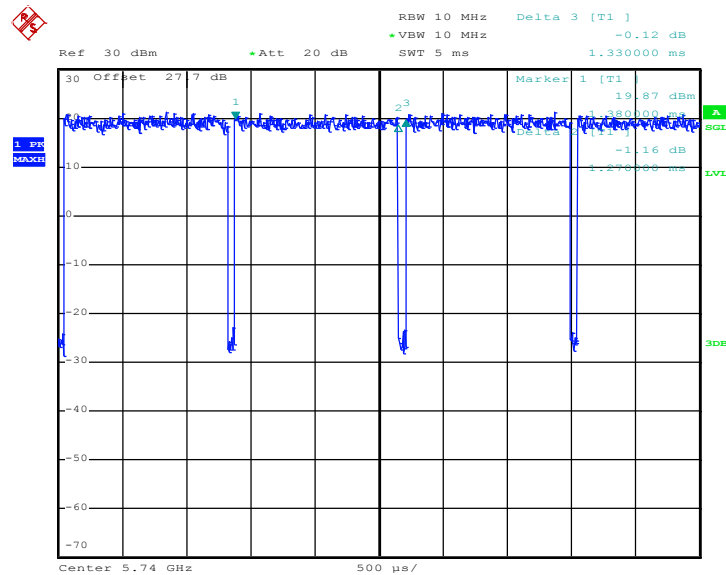
MIMO <Ant. 1+2(1)>

802.11ac VHT10

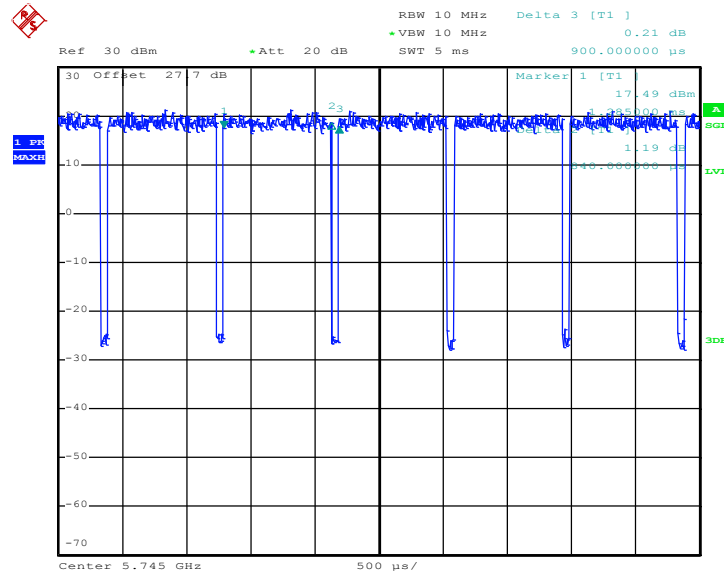


Date: 5.AUG.2017 00:22:59

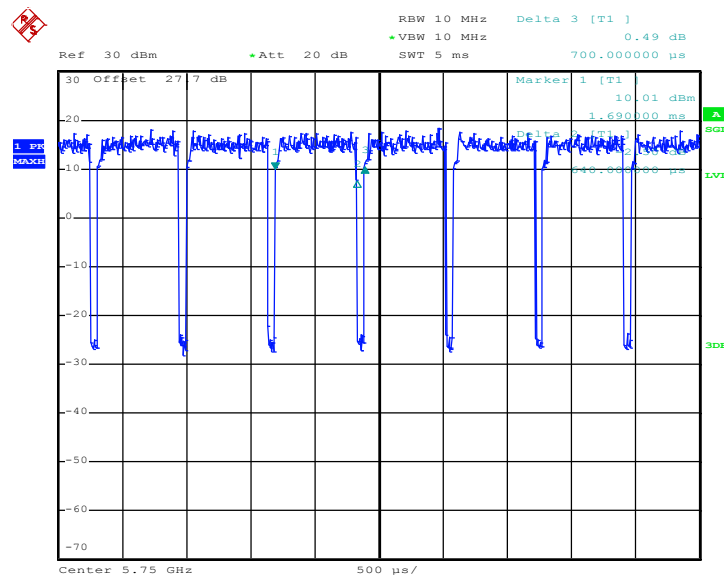
802.11ac VHT20



Date: 5.AUG.2017 00:28:16

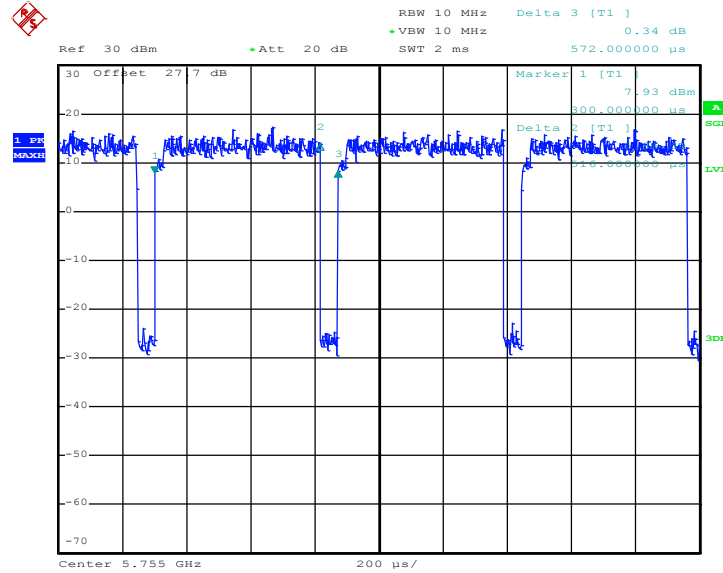
**802.11ac VHT30**


Date: 5.AUG.2017 00:32:31

**802.11ac VHT40**


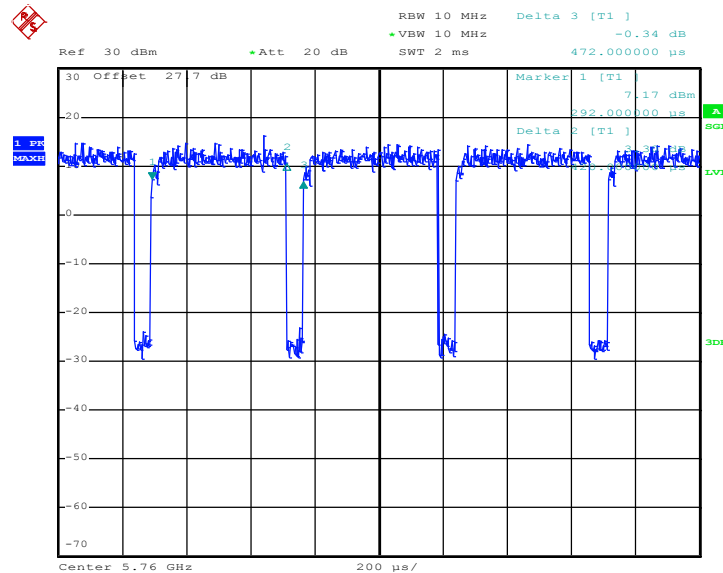
Date: 5.AUG.2017 00:42:53

## 802.11ac VHT50



Date: 5.AUG.2017 00:50:22

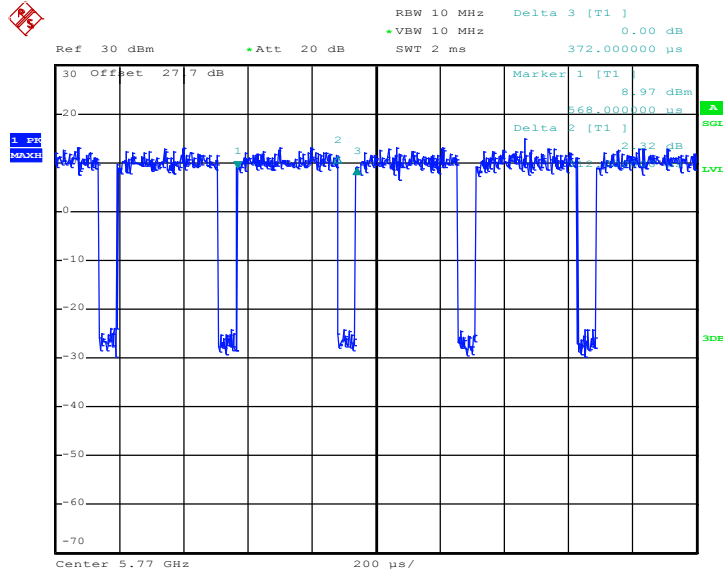
## 802.11ac VHT60



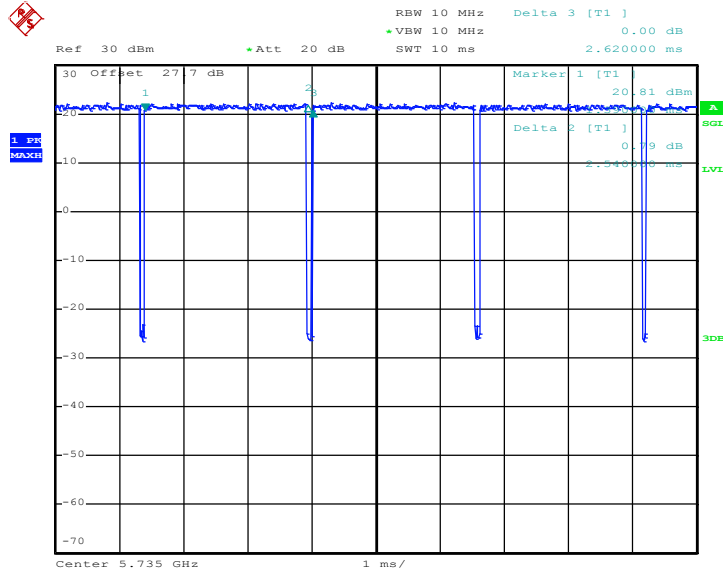
Date: 5.AUG.2017 00:56:06



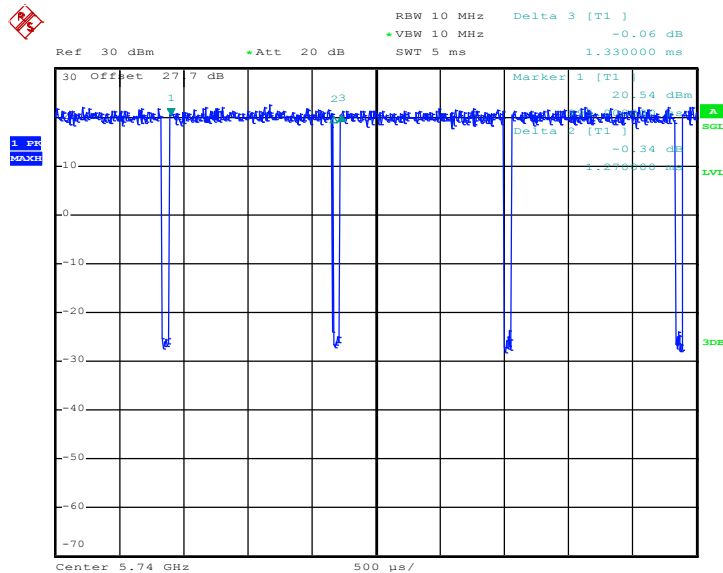
802.11ac VHT80



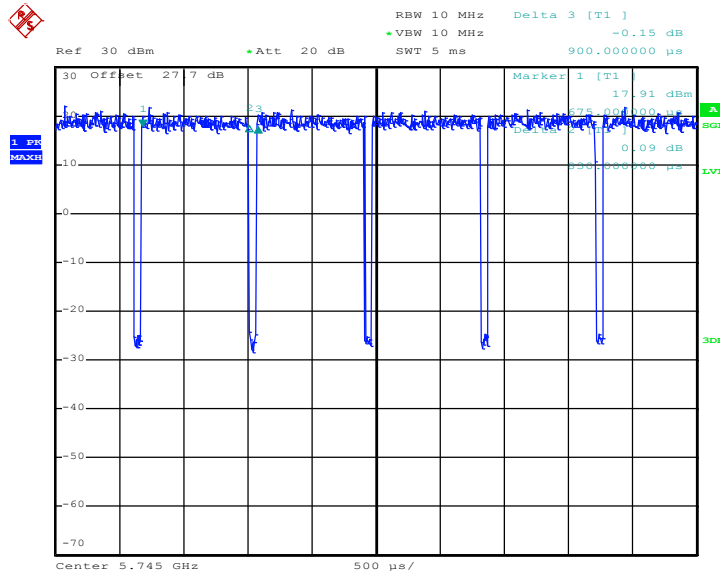
Date: 5.AUG.2017 01:00:54

**MIMO <Ant. 1+2(2)>**
**802.11ac VHT10**


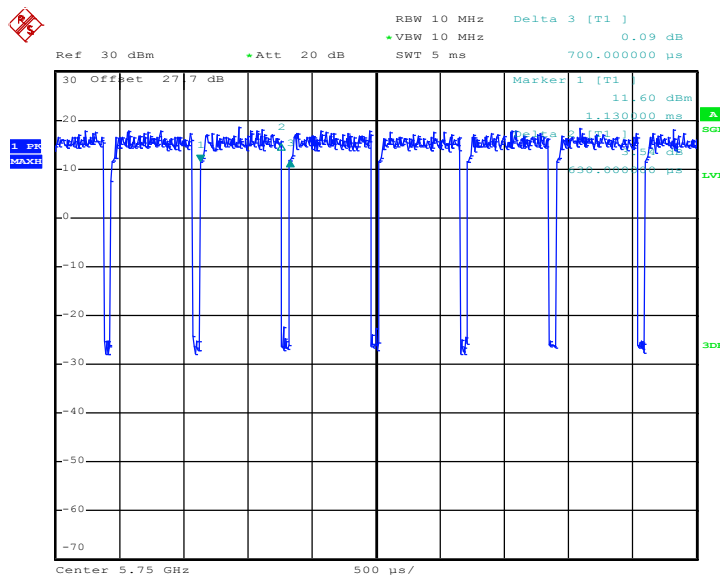
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**802.11ac VHT20**


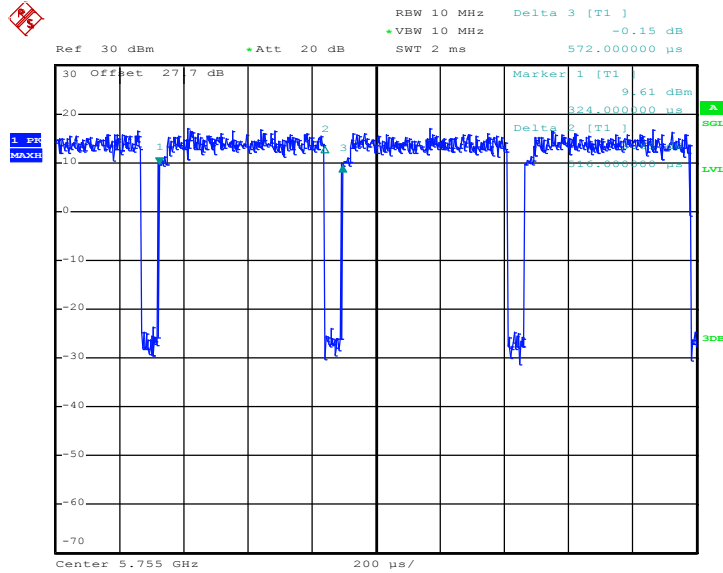
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**802.11ac VHT30**


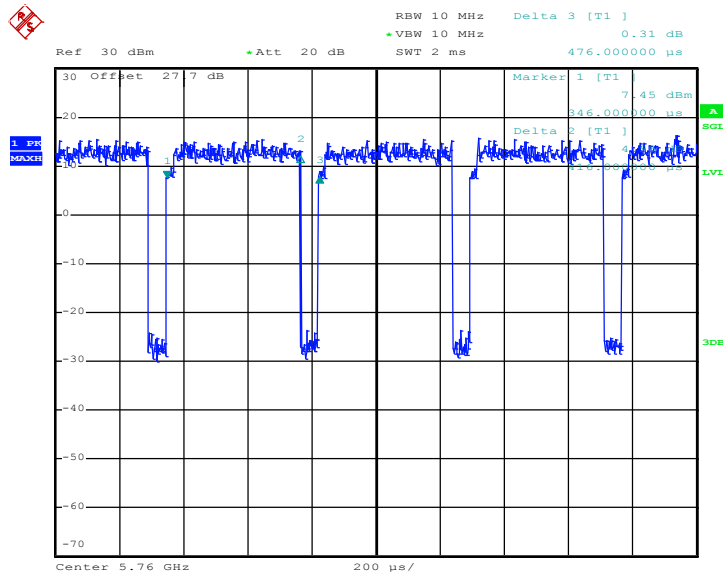
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**802.11ac VHT40**


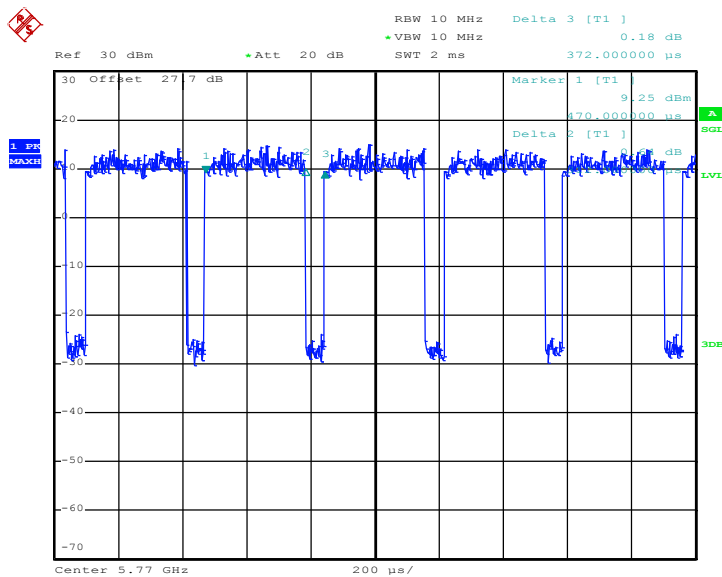
Date: 5.AUG.2017 00:45:38

**802.11ac VHT50**


Date: 5.AUG.2017 00:51:18

**802.11ac VHT60**


Date: 5.AUG.2017 00:53:15



Date: 5.AUG.2017 01:02:08