



# FCC CO-LOCATION RADIO TEST REPORT

**FCC ID** : A4RGXCA6  
**Equipment** : Wireless Device  
**Model Name** : GXCA6  
**Applicant** : Google LLC  
1600 Amphitheatre Parkway,  
Mountain View, California, 94043 USA  
**Standard** : FCC Part 15 Subpart E §15.407

The product was received on Apr. 09, 2020 and testing was started from May 05, 2020 and completed on May 11, 2020. We, SPORTON INTERNATIONAL INC., EMC & Wireless Communications Laboratory, 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. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

*Louis Wu*

Approved by: Louis Wu

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**  
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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## History of this test report

| Report No.   | Version | Description                                 | Issued Date   |
|--------------|---------|---------------------------------------------|---------------|
| FR990608-02F | 01      | Initial issue of report                     | May 22, 2020  |
| FR990608-02F | 02      | Revising the TAF description in cover page. | Jul. 01, 2020 |
|              |         |                                             |               |
|              |         |                                             |               |
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|              |         |                                             |               |
|              |         |                                             |               |
|              |         |                                             |               |

## Summary of Test Result

| Report Clause | Ref Std. Clause     | Test Items          | Result (PASS/FAIL) | Remark                                    |
|---------------|---------------------|---------------------|--------------------|-------------------------------------------|
| 3.1           | 15.407(b)           | Unwanted Emissions  | Pass               | Under limit<br>1.53 dB at<br>5149.760 MHz |
| 3.2           | 15.203<br>15.407(a) | Antenna Requirement | Pass               | -                                         |

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and Explanations:**

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang

Report Producer: Fiona Wu



# 1 General Description

## 1.1 Product Feature of Equipment Under Test

| Product Feature                 |                                                                                                 |
|---------------------------------|-------------------------------------------------------------------------------------------------|
| Equipment                       | Wireless Device                                                                                 |
| Model Name                      | GXCA6                                                                                           |
| FCC ID                          | A4RGXCA6                                                                                        |
| EUT supports Radios application | WLAN 11b/g/n HT20<br>WLAN 11a/n HT20/HT40<br>WLAN 11ac VHT20/VHT40/VHT80<br>Bluetooth BR/EDR/LE |

**Remark:** The above EUT's information was declared by manufacturer.

| EUT Information List |                            |
|----------------------|----------------------------|
| S/N                  | Performed Test Item        |
| 01211HFDL015YK       | Radiated Spurious Emission |

## 1.2 Product Specification of Equipment Under Test

| Standards-related Product Specification |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tx/Rx Frequency Range</b>            | 2400 MHz ~ 2483.5 MHz<br>5180 MHz ~ 5240 MHz<br>5260 MHz ~ 5320 MHz<br>5500 MHz ~ 5720 MHz<br>5745 MHz ~ 5825 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Antenna Type / Gain</b>              | <b>Bluetooth:</b><br><b>Ant. 1 :</b> PCB PIFA Antenna type with gain 3.8 dBi<br><b>Ant. 2 :</b> PCB PIFA Antenna type with gain 3.9 dBi<br><b>WLAN:</b><br><b>&lt;2400 MHz ~ 2483.5 MHz&gt;</b><br><b>Ant. 1 :</b> PCB PIFA Antenna type with gain 3.8 dBi<br><b>Ant. 2 :</b> PCB PIFA Antenna type with gain 3.9 dBi<br><b>&lt;5180 MHz ~ 5240 MHz&gt;</b><br><b>Ant. 1 :</b> PCB PIFA Antenna type with gain 7.6 dBi<br><b>Ant. 2 :</b> PCB PIFA Antenna type with gain 7.7 dBi<br><b>&lt;5260 MHz ~ 5320 MHz&gt;</b><br><b>Ant. 1 :</b> PCB PIFA Antenna type with gain 7.6 dBi<br><b>Ant. 2 :</b> PCB PIFA Antenna type with gain 7.7 dBi<br><b>&lt;5500 MHz ~ 5720 MHz &gt;</b><br><b>Ant. 1 :</b> PCB PIFA Antenna type with gain 7.3 dBi<br><b>Ant. 2 :</b> PCB PIFA Antenna type with gain 6.6 dBi<br><b>&lt;5745 MHz ~ 5825 MHz&gt;</b><br><b>Ant. 1 :</b> PCB PIFA Antenna type with gain 7.2 dBi<br><b>Ant. 2 :</b> PCB PIFA Antenna type with gain 6.4 dBi |
| <b>Type of Modulation</b>               | Bluetooth BR (1Mbps) : GFSK<br>Bluetooth EDR (2Mbps) : $\pi/4$ -DQPSK<br>Bluetooth EDR (3Mbps) : 8-DPSK<br>Bluetooth LE : GFSK<br>802.11b : DSSS (DBPSK / DQPSK / CCK)<br>802.11a : OFDM (BPSK / QPSK / 16QAM / 64QAM)<br>802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## 1.3 Modification of EUT

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



## 1.4 Testing Location

|                           |                                                                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Test Site</b>          | SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory                                                                       |
| <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>                                                                                                                   |
|                           | 03CH16-HY                                                                                                                                 |

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

FCC designation No.: TW0007

## 1.5 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 Publication No. 558074 D01 DTS Meas. Guidance v05r02
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ 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. The TAF code is not including all the FCC KDB listed without accreditation

## 2 Test Configuration of Equipment Under Test

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: radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

### 2.1 Carrier Frequency and Channel

| 2400-2483.5 MHz<br>Bluetooth |             | 2400-2483.5 MHz<br>Bluetooth-LE |             | 2400-2483.5 MHz<br>802.11b |             |
|------------------------------|-------------|---------------------------------|-------------|----------------------------|-------------|
| Channel                      | Freq. (MHz) | Channel                         | Freq. (MHz) | Channel                    | Freq. (MHz) |
| 78                           | 2480        | 39                              | 2480        | 11                         | 2462        |

| 5150-5250 MHz<br>802.11a |             | 5500-5720 MHz<br>802.11ac VHT80 |             |
|--------------------------|-------------|---------------------------------|-------------|
| Channel                  | Freq. (MHz) | Channel                         | Freq. (MHz) |
| 36                       | 5180        | 106                             | 5530        |

### 2.2 Test Mode

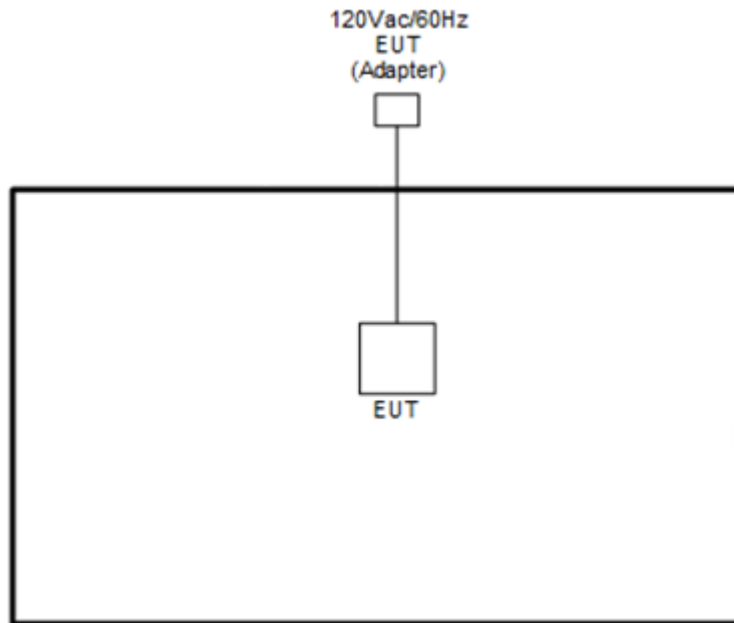
Final test modes are considering the modulation and worse data rates as below table.

#### <Co-Location>

| Modulation                                    | Data Rate     |
|-----------------------------------------------|---------------|
| Bluetooth Ant. 1 + 5GHz 802.11a Ant. 2        | 1Mbps + 6Mbps |
| Bluetooth-LE Ant. 1 + 5GHz 802.11a Ant. 2     | 1Mbps + 6Mbps |
| Bluetooth Ant. 1 + 2.4GHz 802.11b Ant. 2      | 1Mbps + 1Mbps |
| Bluetooth-LE Ant. 1 + 2.4GHz 802.11b Ant. 2   | 1Mbps + 1Mbps |
| Bluetooth Ant. 2 + 5GHz 802.11ac VHT80 Ant. 1 | 1Mbps + MCS0  |
| Bluetooth-LE Ant. 2 + 5GHz 802.11a Ant. 1     | 1Mbps + 6Mbps |
| Bluetooth Ant. 2 + 2.4GHz 802.11b Ant. 1      | 1Mbps + 1Mbps |
| Bluetooth-LE Ant. 2 + 2.4GHz 802.11b Ant. 1   | 1Mbps + 1Mbps |

**Remark:** For Radiated Test Cases, the tests were performed with Adapter 1.

## 2.3 Connection Diagram of Test System



## 2.4 EUT Operation Test Setup

The RF test items, utility "CMD" was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

### 3 Test Result

#### 3.1 Unwanted Emissions Measurement

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

##### 3.1.1 Limit of Unwanted Emissions

- (1) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits 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.

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

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

- (3) KDB789033 D02 v02r01 G)2)c)

- (i) Sections 15.407(b)(1-3) specifies the unwanted emissions limit for the U-NII-1 and U-NII-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.
- (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). The emission limits are based on the use of a peak detector.

##### 3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

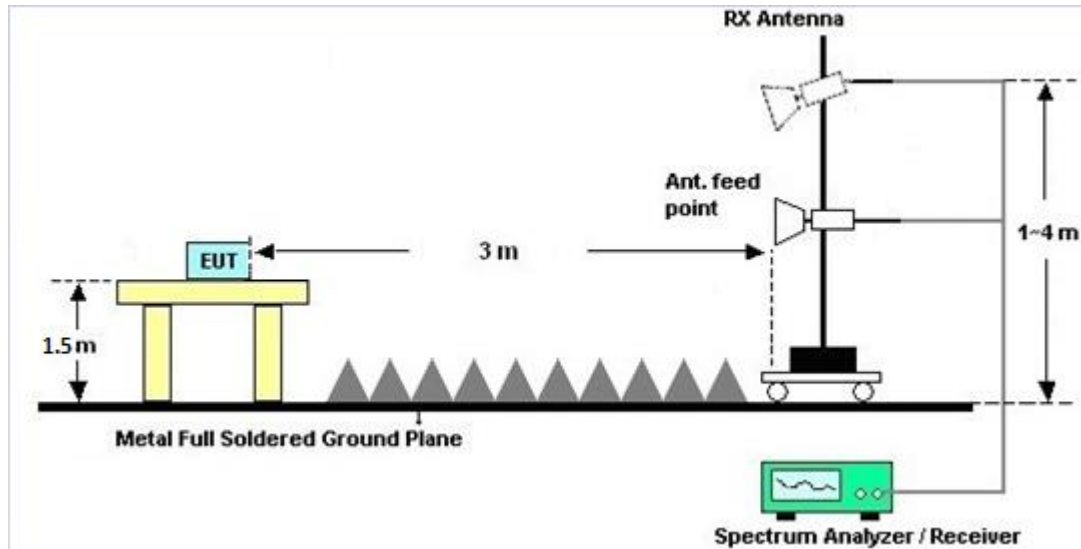


### 3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.  
Section G) Unwanted emissions measurement.  
(1) 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(2) 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 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 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.

### 3.1.4 Test Setup

For radiated emissions above 1GHz



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

Please refer to Appendix A and B.

### 3.1.6 Duty Cycle

Please refer to Appendix C.

### 3.1.7 Test Result of Radiated Spurious Emissions

Please refer to Appendix A and B.



## **3.2 Antenna Requirements**

### **3.2.1 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.

### **3.2.2 Antenna Anti-Replacement Construction**

An embedded-in antenna design is used.

### **3.2.3 Antenna Gain**

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.



## 4 List of Measuring Equipment

| Instrument        | Manufacturer      | Model No.          | Serial No.           | Characteristics | Calibration Date | Test Date                     | Due Date      | Remark                   |
|-------------------|-------------------|--------------------|----------------------|-----------------|------------------|-------------------------------|---------------|--------------------------|
| Horn Antenna      | SCHWARZBECK       | BBHA 9120 D        | 9120D-1522           | 1G~18GHz        | Sep. 19, 2019    | May 05.,2020~<br>May 11.,2020 | Sep. 18, 2020 | Radiation<br>(03CH16-HY) |
| Preamplifier      | Jet-Power         | JPA0118-55-3<br>03 | 171000180005<br>5007 | 1GHz~18GHz      | Mar. 31, 2020    | May 05.,2020~<br>May 11.,2020 | Mar. 30, 2021 | Radiation<br>(03CH16-HY) |
| Preamplifier      | EMEC              | EMC184045B         | 980192               | 18GHz~40GHz     | Jul. 10, 2019    | May 05.,2020~<br>May 11.,2020 | Jul. 09, 2020 | Radiation<br>(03CH16-HY) |
| Preamplifier      | Keysight          | 83017A             | MY53270264           | 1GHz~26.5GHz    | Dec. 11, 2019    | May 05.,2020~<br>May 11.,2020 | Dec. 10, 2020 | Radiation<br>(03CH16-HY) |
| EMI Test Receiver | Keysight          | N9038A(MXE)        | MY57290111           | 3Hz~26.5GHz     | Dec. 05, 2019    | May 05.,2020~<br>May 11.,2020 | Dec. 04, 2020 | Radiation<br>(03CH16-HY) |
| RF Cable          | HUBER +<br>SUHNER | SUCOFLEX<br>104    | MY11680/4PE          | NA              | Aug. 30, 2019    | May 05.,2020~<br>May 11.,2020 | Aug. 29, 2020 | Radiation<br>(03CH16-HY) |
| RF Cable          | HUBER +<br>SUHNER | SUCOFLEX<br>104    | MY11688/4PE          | NA              | Aug. 30, 2019    | May 05.,2020~<br>May 11.,2020 | Aug. 29, 2020 | Radiation<br>(03CH16-HY) |
| RF Cable          | HUBER +<br>SUHNER | SUCOFLEX<br>102    | EC-A5-300-575<br>7   | NA              | Aug. 30, 2019    | May 05.,2020~<br>May 11.,2020 | Aug. 29, 2020 | Radiation<br>(03CH16-HY) |
| Hygrometer        | TECPEL            | DTM-303B           | TP161243             | N/A             | Jun. 17, 2019    | May 05.,2020~<br>May 11.,2020 | Jun. 16, 2020 | Radiation<br>(03CH16-HY) |
| Software          | Audix             | E3<br>6.2009-8-24  | RK-001136            | N/A             | N/A              | May 05.,2020~<br>May 11.,2020 | N/A           | Radiation<br>(03CH16-HY) |

## 5 Uncertainty of Evaluation

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

|                                                                            |     |
|----------------------------------------------------------------------------|-----|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2Uc(y)$ ) | 6.7 |
|----------------------------------------------------------------------------|-----|

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

|                                                                            |     |
|----------------------------------------------------------------------------|-----|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2Uc(y)$ ) | 3.9 |
|----------------------------------------------------------------------------|-----|



## Appendix A. Radiated Spurious Emission

|                 |                       |                     |         |
|-----------------|-----------------------|---------------------|---------|
| Test Engineer : | Andy Yang and CR Liao | Temperature :       | 20~25°C |
|                 |                       | Relative Humidity : | 50~60%  |

### WLAN 5G Band 1 (Band edge @ 3m)

| WIFI                                                                                                                                       | Note                                                         | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                       |                                                              |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                             |                                                              | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT2</b><br><b>802.11a</b><br><b>CH 36</b><br><b>5180 MHz</b><br><b>+</b><br><b>ANT1</b><br><b>BT</b><br><b>CH78</b><br><b>2480 MHz</b> |                                                              | 5149.5    | 65.39      | -8.61  | 74         | 50.22  | 31.7     | 12.32  | 28.85  | 138    | 11      | P     | H     |
|                                                                                                                                            |                                                              | 5149.24   | 50.46      | -3.54  | 54         | 35.29  | 31.7     | 12.32  | 28.85  | 138    | 11      | A     | H     |
|                                                                                                                                            | *                                                            | 5180      | 109.24     | -      | -          | 94.17  | 31.58    | 12.36  | 28.87  | 138    | 11      | P     | H     |
|                                                                                                                                            | *                                                            | 5180      | 101.26     | -      | -          | 86.19  | 31.58    | 12.36  | 28.87  | 138    | 11      | A     | H     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            |                                                              | 5150      | 70.22      | -3.78  | 74         | 55.05  | 31.7     | 12.32  | 28.85  | 200    | 24      | P     | V     |
|                                                                                                                                            |                                                              | 5149.76   | 52.47      | -1.53  | 54         | 37.3   | 31.7     | 12.32  | 28.85  | 200    | 24      | A     | V     |
|                                                                                                                                            | *                                                            | 5180      | 112.39     | -      | -          | 97.32  | 31.58    | 12.36  | 28.87  | 200    | 24      | P     | V     |
|                                                                                                                                            | *                                                            | 5180      | 104.47     | -      | -          | 89.4   | 31.58    | 12.36  | 28.87  | 200    | 24      | A     | V     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | V     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                              | 1. No other spurious found.                                  |           |            |        |            |        |          |        |        |        |         |       |       |
|                                                                                                                                            | 2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



**BT (Band edge @ 3m)**

| WIFI                                                                                                                                       | Note                                                         | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                       |                                                              |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                             |                                                              | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT2</b><br><b>802.11a</b><br><b>CH 36</b><br><b>5180 MHz</b><br><b>+</b><br><b>ANT1</b><br><b>BT</b><br><b>CH78</b><br><b>2480 MHz</b> | *                                                            | 2480      | 103.95     | -      | -          | 95.94  | 27.54    | 75     | 29.82  | 185    | 229     | P     | H     |
|                                                                                                                                            | *                                                            | 2480      | 103.95     | -      | -          | 54     | -        | -      | -      | -      | -       | A     | H     |
|                                                                                                                                            |                                                              | 2483.6    | 55.85      | -18.15 | 74         | 47.85  | 27.53    | 75     | 29.82  | 185    | 229     | P     | H     |
|                                                                                                                                            |                                                              | 2483.6    | 31.06      | -22.94 | 54         | -      | -        | -      | -      | -      | -       | A     | H     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            | *                                                            | 2480      | 103.49     | -      | -          | 95.48  | 27.54    | 75     | 29.82  | 237    | 147     | P     | V     |
|                                                                                                                                            | *                                                            | 2480      | 78.7       | -      | -          | -      | -        | -      | -      | -      | -       | A     | V     |
|                                                                                                                                            |                                                              | 2484.24   | 56.37      | -17.63 | 74         | 48.37  | 27.53    | 75     | 29.82  | 237    | 147     | P     | V     |
|                                                                                                                                            |                                                              | 2484.24   | 31.58      | -22.42 | 54         | -      | -        | -      | -      | -      | -       | A     | V     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | V     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                              | 1. No other spurious found.                                  |           |            |        |            |        |          |        |        |        |         |       |       |
|                                                                                                                                            | 2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



**BT and WLAN 5G Band1 (Harmonic @ 3m)**

| WIFI                                                                                                                                       | Note                                                                                        | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                       |                                                                                             |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                             |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT2</b><br><b>802.11a</b><br><b>CH 36</b><br><b>5180 MHz</b><br><b>+</b><br><b>ANT1</b><br><b>BT</b><br><b>CH78</b><br><b>2480 MHz</b> |                                                                                             | 4960      | 55.53      | -18.47 | 74         | 39.22  | 31.26    | 13.8   | 28.75  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             | 4960      | 44.32      | -9.68  | 54         | 28.01  | 31.26    | 13.8   | 28.75  | 100    | 0       | A     | H     |
|                                                                                                                                            |                                                                                             | 7440      | 47.83      | -26.17 | 74         | 53.66  | 36.58    | 16.18  | 58.59  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             | 10360     | 49.48      | -18.72 | 68.2       | 51.06  | 39.64    | 19.17  | 60.39  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             | 15540     | 48.79      | -25.21 | 74         | 47.74  | 37.94    | 24.38  | 61.27  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            |                                                                                             | 4960      | 55.05      | -18.95 | 74         | 38.74  | 31.26    | 13.8   | 28.75  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             | 4960      | 44.54      | -9.46  | 54         | 28.23  | 31.26    | 13.8   | 28.75  | 100    | 0       | A     | V     |
|                                                                                                                                            |                                                                                             | 7440      | 46.43      | -27.57 | 74         | 52.26  | 36.58    | 16.18  | 58.59  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             | 10360     | 49.53      | -18.67 | 68.2       | 51.11  | 39.64    | 19.17  | 60.39  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             | 15540     | 48.65      | -25.35 | 74         | 47.6   | 37.94    | 24.38  | 61.27  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                              | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



**WLAN 5G Band 1 (Band edge @ 3m)**

| WIFI                                                                                                                                        | Note                                                         | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                        |                                                              |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                              |                                                              | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT2</b><br><b>802.11a</b><br><b>CH 36</b><br><b>5180 MHz</b><br><b>+</b><br><b>ANT1</b><br><b>BLE</b><br><b>CH39</b><br><b>2480 MHz</b> |                                                              | 5150      | 65.94      | -8.06  | 74         | 50.77  | 31.7     | 12.32  | 28.85  | 165    | 333     | P     | H     |
|                                                                                                                                             |                                                              | 5150      | 49.4       | -4.6   | 54         | 34.23  | 31.7     | 12.32  | 28.85  | 165    | 333     | A     | H     |
|                                                                                                                                             | *                                                            | 5180      | 108.97     | -      | -          | 93.9   | 31.58    | 12.36  | 28.87  | 165    | 333     | P     | H     |
|                                                                                                                                             | *                                                            | 5180      | 101.17     | -      | -          | 86.1   | 31.58    | 12.36  | 28.87  | 165    | 333     | A     | H     |
|                                                                                                                                             |                                                              |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                             |                                                              |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                             |                                                              | 5150      | 69.41      | -4.59  | 74         | 54.24  | 31.7     | 12.32  | 28.85  | 259    | 20      | P     | V     |
|                                                                                                                                             |                                                              | 5149.5    | 51.32      | -2.68  | 54         | 36.15  | 31.7     | 12.32  | 28.85  | 259    | 20      | A     | V     |
|                                                                                                                                             | *                                                            | 5180      | 111.61     | -      | -          | 96.54  | 31.58    | 12.36  | 28.87  | 259    | 20      | P     | V     |
|                                                                                                                                             | *                                                            | 5180      | 103.72     | -      | -          | 88.65  | 31.58    | 12.36  | 28.87  | 259    | 20      | A     | V     |
|                                                                                                                                             |                                                              |           |            |        |            |        |          |        |        |        |         |       | V     |
|                                                                                                                                             |                                                              |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                               | 1. No other spurious found.                                  |           |            |        |            |        |          |        |        |        |         |       |       |
|                                                                                                                                             | 2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



**BLE (Band edge @ 3m)**

| WIFI                                                                                                                                        | Note                                                                                        | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                        |                                                                                             |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                              |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT2</b><br><b>802.11a</b><br><b>CH 36</b><br><b>5180 MHz</b><br><b>+</b><br><b>ANT1</b><br><b>BLE</b><br><b>CH39</b><br><b>2480 MHz</b> | *                                                                                           | 2480      | 103.34     | -      | -          | 97.3   | 27.54    | 8.32   | 29.82  | 215    | 213     | P     | H     |
|                                                                                                                                             | *                                                                                           | 2480      | 98.23      | -      | -          | 90.06  | 27.54    | 10.45  | 29.82  | 215    | 213     | A     | H     |
|                                                                                                                                             |                                                                                             | 2484      | 53.05      | -20.95 | 74         | 47.02  | 27.53    | 8.32   | 29.82  | 215    | 213     | P     | H     |
|                                                                                                                                             |                                                                                             | 2487.96   | 40.76      | -13.24 | 54         | 32.6   | 27.52    | 10.46  | 29.82  | 215    | 213     | A     | H     |
|                                                                                                                                             |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                             |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                             | *                                                                                           | 2480      | 101.93     | -      | -          | 95.89  | 27.54    | 8.32   | 29.82  | 246    | 147     | P     | V     |
|                                                                                                                                             | *                                                                                           | 2480      | 95.89      | -      | -          | 87.72  | 27.54    | 10.45  | 29.82  | 246    | 147     | A     | V     |
|                                                                                                                                             |                                                                                             | 2483.56   | 53.38      | -20.62 | 74         | 47.35  | 27.53    | 8.32   | 29.82  | 246    | 147     | P     | V     |
|                                                                                                                                             |                                                                                             | 2487.72   | 40.51      | -13.49 | 54         | 32.35  | 27.52    | 10.46  | 29.82  | 246    | 147     | A     | V     |
|                                                                                                                                             |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | V     |
|                                                                                                                                             |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                               | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



**BLE and WLAN 5G Band1 (Harmonic @ 3m)**

| WIFI                                                                                                                                        | Note                                                                                        | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                        |                                                                                             |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                              |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT2</b><br><b>802.11a</b><br><b>CH 36</b><br><b>5180 MHz</b><br><b>+</b><br><b>ANT1</b><br><b>BLE</b><br><b>CH39</b><br><b>2480 MHz</b> |                                                                                             | 4960      | 57.51      | -16.49 | 74         | 41.2   | 31.26    | 13.8   | 28.75  | 400    | 25      | P     | H     |
|                                                                                                                                             |                                                                                             | 4960      | 46.98      | -7.02  | 54         | 30.67  | 31.26    | 13.8   | 28.75  | 400    | 25      | A     | H     |
|                                                                                                                                             |                                                                                             | 7440      | 44.81      | -29.19 | 74         | 50.64  | 36.58    | 16.18  | 58.59  | 100    | 0       | P     | H     |
|                                                                                                                                             |                                                                                             | 10360     | 48.14      | -20.06 | 68.2       | 49.72  | 39.64    | 19.17  | 60.39  | 100    | 0       | P     | H     |
|                                                                                                                                             |                                                                                             | 15540     | 49.06      | -24.94 | 74         | 48.01  | 37.94    | 24.38  | 61.27  | 100    | 0       | P     | H     |
|                                                                                                                                             |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                             |                                                                                             | 4960      | 57.61      | -16.39 | 74         | 41.3   | 31.26    | 13.8   | 28.75  | 217    | 61      | P     | V     |
|                                                                                                                                             |                                                                                             | 4960      | 46.93      | -7.07  | 54         | 30.62  | 31.26    | 13.8   | 28.75  | 217    | 61      | A     | V     |
|                                                                                                                                             |                                                                                             | 7440      | 44.97      | -29.03 | 74         | 50.8   | 36.58    | 16.18  | 58.59  | 100    | 0       | P     | V     |
|                                                                                                                                             |                                                                                             | 10360     | 48.69      | -19.51 | 68.2       | 50.27  | 39.64    | 19.17  | 60.39  | 100    | 0       | P     | V     |
|                                                                                                                                             |                                                                                             | 15540     | 47.94      | -26.06 | 74         | 46.89  | 37.94    | 24.38  | 61.27  | 100    | 0       | P     | V     |
|                                                                                                                                             |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                               | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



**WLAN 2.4G (Band edge @ 3m)**

| WIFI                                                                                                                                       | Note | Frequency                                                                                   | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                       |      |                                                                                             |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                             |      | ( MHz )                                                                                     | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT2</b><br><b>802.11b</b><br><b>CH11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT1</b><br><b>BLE</b><br><b>CH39</b><br><b>2480 MHz</b> | *    | 2462                                                                                        | 107.83     | -      | -          | 101.77 | 27.58    | 8.29   | 29.81  | 298    | 311     | P     | H     |
|                                                                                                                                            | *    | 2462                                                                                        | 103.71     | -      | -          | 97.65  | 27.58    | 8.29   | 29.81  | 298    | 311     | A     | H     |
|                                                                                                                                            |      | 2496.8                                                                                      | 59.9       | -14.1  | 74         | 53.88  | 27.51    | 8.34   | 29.83  | 298    | 311     | P     | H     |
|                                                                                                                                            |      | 2496.76                                                                                     | 44.86      | -9.14  | 54         | 38.84  | 27.51    | 8.34   | 29.83  | 298    | 311     | A     | H     |
|                                                                                                                                            |      |                                                                                             |            |        |            |        |          |        |        |        |         | P     | H     |
|                                                                                                                                            |      |                                                                                             |            |        |            |        |          |        |        |        |         | A     | H     |
|                                                                                                                                            | *    | 2462                                                                                        | 107.65     | -      | -          | 101.59 | 27.58    | 8.29   | 29.81  | 312    | 215     | P     | V     |
|                                                                                                                                            | *    | 2462                                                                                        | 103.54     | -      | -          | 97.48  | 27.58    | 8.29   | 29.81  | 312    | 215     | A     | V     |
|                                                                                                                                            |      | 2495.8                                                                                      | 57.83      | -16.17 | 74         | 51.81  | 27.51    | 8.34   | 29.83  | 312    | 215     | P     | V     |
|                                                                                                                                            |      | 2496.4                                                                                      | 44.34      | -9.66  | 54         | 38.32  | 27.51    | 8.34   | 29.83  | 312    | 215     | A     | V     |
|                                                                                                                                            |      |                                                                                             |            |        |            |        |          |        |        |        |         | P     | V     |
|                                                                                                                                            |      |                                                                                             |            |        |            |        |          |        |        |        |         | A     | V     |
| <b>Remark</b>                                                                                                                              |      | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |            |        |            |        |          |        |        |        |         |       |       |



**BLE (Band edge @ 3m)**

| WIFI                                                                                                                                       | Note                                                         | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                       |                                                              |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                             |                                                              | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT2</b><br><b>802.11b</b><br><b>CH11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT1</b><br><b>BLE</b><br><b>CH39</b><br><b>2480 MHz</b> | *                                                            | 2480      | 103.6      | -      | -          | 97.56  | 27.54    | 8.32   | 29.82  | 206    | 217     | P     | H     |
|                                                                                                                                            | *                                                            | 2480      | 98.1       | -      | -          | 89.93  | 27.54    | 10.45  | 29.82  | 206    | 217     | A     | H     |
|                                                                                                                                            |                                                              | 2498.52   | 64.91      | -9.09  | 74         | 58.89  | 27.5     | 8.35   | 29.83  | 206    | 217     | P     | H     |
|                                                                                                                                            |                                                              | 2495.6    | 51.86      | -2.14  | 54         | 43.71  | 27.51    | 10.47  | 29.83  | 206    | 217     | A     | H     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            | *                                                            | 2480      | 101.89     | -      | -          | 95.85  | 27.54    | 8.32   | 29.82  | 248    | 144     | P     | V     |
|                                                                                                                                            | *                                                            | 2480      | 96.13      | -      | -          | 87.96  | 27.54    | 10.45  | 29.82  | 248    | 144     | A     | V     |
|                                                                                                                                            |                                                              | 2494.56   | 60.96      | -13.04 | 74         | 54.94  | 27.51    | 8.34   | 29.83  | 248    | 144     | P     | V     |
|                                                                                                                                            |                                                              | 2495.16   | 49.55      | -4.45  | 54         | 41.4   | 27.51    | 8.34   | 10.47  | 248    | 144     | A     | V     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | V     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                              | 1. No other spurious found.                                  |           |            |        |            |        |          |        |        |        |         |       |       |
|                                                                                                                                            | 2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



**IMD (Band edge @ 3m)**

| WIFI                                                                                                                                       | Note                                                                                        | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                       |                                                                                             |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                             |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT2</b><br><b>802.11b</b><br><b>CH11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT1</b><br><b>BLE</b><br><b>CH39</b><br><b>2480 MHz</b> | *                                                                                           | 2462      | 87.03      | -      | -          | 80.97  | 27.58    | 8.29   | 29.81  | 298    | 230     | P     | H     |
|                                                                                                                                            | *                                                                                           | 2480      | 102.29     | -      | -          | 96.25  | 27.54    | 8.32   | 29.82  | 298    | 230     | P     | H     |
|                                                                                                                                            | *                                                                                           | 2462      | 85.58      | -      | -          | 77.55  | 27.58    | 10.26  | 29.81  | 298    | 230     | A     | H     |
|                                                                                                                                            | *                                                                                           | 2480      | 96.36      | -      | -          | 88.35  | 27.54    | 10.29  | 29.82  | 298    | 230     | A     | H     |
|                                                                                                                                            |                                                                                             | 2496.6    | 63.95      | -10.05 | 74         | 57.93  | 27.51    | 8.34   | 29.83  | 298    | 230     | P     | H     |
|                                                                                                                                            |                                                                                             | 2496.52   | 52.15      | -1.85  | 54         | 44.16  | 27.51    | 10.31  | 29.83  | 298    | 230     | A     | H     |
|                                                                                                                                            |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            | *                                                                                           | 2462      | 99.53      | -      | -          | 93.47  | 27.58    | 8.29   | 29.81  | 299    | 117     | P     | V     |
|                                                                                                                                            | *                                                                                           | 2480      | 100.87     | -      | -          | 94.83  | 27.54    | 8.32   | 29.82  | 299    | 117     | P     | V     |
|                                                                                                                                            | *                                                                                           | 2462      | 97.65      | -      | -          | 89.62  | 27.58    | 10.26  | 29.81  | 299    | 117     | A     | V     |
|                                                                                                                                            | *                                                                                           | 2480      | 94.84      | -      | -          | 86.83  | 27.54    | 10.29  | 29.82  | 299    | 117     | A     | V     |
|                                                                                                                                            |                                                                                             | 2496.68   | 63.23      | -10.77 | 74         | 57.21  | 27.51    | 8.34   | 29.83  | 299    | 117     | P     | V     |
|                                                                                                                                            |                                                                                             | 2496.6    | 50.53      | -3.47  | 54         | 42.54  | 27.51    | 10.31  | 29.83  | 299    | 117     | A     | V     |
|                                                                                                                                            |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                              | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



**BLE and WLAN 2.4G (Harmonic @ 3m)**

| WIFI                                                                                                                                       | Note                                                                                        | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                       |                                                                                             |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                             |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT2</b><br><b>802.11b</b><br><b>CH11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT1</b><br><b>BLE</b><br><b>CH39</b><br><b>2480 MHz</b> |                                                                                             | 4924      | 47.39      | -26.61 | 74         | 62.04  | 31.1     | 12.52  | 58.27  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             | 4960      | 39.3       | -34.7  | 74         | 53.74  | 31.26    | 12.56  | 58.26  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             | 7386      | 45.59      | -28.41 | 74         | 51.96  | 36.53    | 15.66  | 58.56  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             | 7440      | 45.17      | -28.83 | 74         | 51.4   | 36.58    | 15.78  | 58.59  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             | 4924      | 47.39      | -26.61 | 74         | 62.04  | 31.1     | 12.52  | 58.27  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            |                                                                                             | 4924      | 46.39      | -27.61 | 74         | 61.04  | 31.1     | 12.52  | 58.27  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             | 4960      | 40.14      | -33.86 | 74         | 54.58  | 31.26    | 12.56  | 58.26  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             | 7386      | 45.14      | -28.86 | 74         | 51.51  | 36.53    | 15.66  | 58.56  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             | 7440      | 45.42      | -28.58 | 74         | 51.65  | 36.58    | 15.78  | 58.59  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             | 12315     | 52.15      | -21.85 | 74         | 54.15  | 38.47    | 21.32  | 61.79  | 100    | 344     | P     | V     |
|                                                                                                                                            |                                                                                             | 12315     | 45.17      | -8.83  | 54         | 47.17  | 38.47    | 21.32  | 61.79  | 100    | 344     | A     | V     |
|                                                                                                                                            |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                              | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |


**WLAN 2.4G (Band edge @ 3m)**

| WIFI                                                                                                                                      | Note | Frequency                                                                                   | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|-------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                      |      |                                                                                             |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                            |      | ( MHz )                                                                                     | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT2</b><br><b>802.11b</b><br><b>CH11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT1</b><br><b>BT</b><br><b>CH78</b><br><b>2480 MHz</b> | *    | 2462                                                                                        | 107.41     | -      | -          | 101.35 | 27.58    | 8.29   | 29.81  | 295    | 322     | P     | H     |
|                                                                                                                                           | *    | 2462                                                                                        | 104.35     | -      | -          | 98.29  | 27.58    | 8.29   | 29.81  | 295    | 322     | A     | H     |
|                                                                                                                                           |      | 2495.28                                                                                     | 56.96      | -17.04 | 74         | 50.94  | 27.51    | 8.34   | 29.83  | 295    | 322     | P     | H     |
|                                                                                                                                           |      | 2486.56                                                                                     | 47.28      | -6.72  | 54         | 41.24  | 27.53    | 8.33   | 29.82  | 295    | 322     | A     | H     |
|                                                                                                                                           |      |                                                                                             |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                           |      |                                                                                             |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                           | *    | 2462                                                                                        | 107.16     | -      | -          | 101.1  | 27.58    | 8.29   | 29.81  | 300    | 215     | P     | V     |
|                                                                                                                                           | *    | 2462                                                                                        | 104.01     | -      | -          | 97.95  | 27.58    | 8.29   | 29.81  | 300    | 215     | A     | V     |
|                                                                                                                                           |      | 2496.88                                                                                     | 55.52      | -18.48 | 74         | 49.49  | 27.51    | 8.35   | 29.83  | 300    | 215     | P     | V     |
|                                                                                                                                           |      | 2486.64                                                                                     | 46.75      | -7.25  | 54         | 40.71  | 27.53    | 8.33   | 29.82  | 300    | 215     | A     | V     |
|                                                                                                                                           |      |                                                                                             |            |        |            |        |          |        |        |        |         |       | V     |
|                                                                                                                                           |      |                                                                                             |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                             |      | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |            |        |            |        |          |        |        |        |         |       |       |


**BT (Band edge @ 3m)**

| WIFI                                                                                                                                      | Note                                                         | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                      |                                                              |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                            |                                                              | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT2</b><br><b>802.11b</b><br><b>CH11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT1</b><br><b>BT</b><br><b>CH78</b><br><b>2480 MHz</b> | *                                                            | 2480      | 102.09     | -      | -          | 96.05  | 27.54    | 8.32   | 29.82  | 266    | 240     | P     | H     |
|                                                                                                                                           | *                                                            | 2480      | 77.3       | -      | -          | -      | -        | -      | -      | -      | -       | A     | H     |
|                                                                                                                                           |                                                              | 2498      | 62.83      | -11.17 | 74         | 56.81  | 27.5     | 8.35   | 29.83  | 266    | 240     | P     | H     |
|                                                                                                                                           |                                                              | 2498      | 38.04      | -15.96 | 54         | -      | -        | -      | -      | -      | -       | A     | H     |
|                                                                                                                                           |                                                              |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                           |                                                              |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                           | *                                                            | 2480      | 101        | -      | -          | 94.96  | 27.54    | 8.32   | 29.82  | 239    | 143     | P     | V     |
|                                                                                                                                           | *                                                            | 2480      | 76.21      | -      | -          | -      | -        | -      | -      | -      | -       | A     | V     |
|                                                                                                                                           |                                                              | 2496.64   | 60.83      | -13.17 | 74         | 54.81  | 27.51    | 8.34   | 29.83  | 239    | 143     | P     | V     |
|                                                                                                                                           |                                                              | 2496.64   | 36.04      | -17.96 | 54         | -      | -        | -      | -      | -      | -       | A     | V     |
|                                                                                                                                           |                                                              |           |            |        |            |        |          |        |        |        |         |       | V     |
|                                                                                                                                           |                                                              |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                             | 1. No other spurious found.                                  |           |            |        |            |        |          |        |        |        |         |       |       |
|                                                                                                                                           | 2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



IMD (Band edge @ 3m)

| WIFI                                                                                                                                      | Note                                                                                        | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                      |                                                                                             |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                            |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT2</b><br><b>802.11b</b><br><b>CH11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT1</b><br><b>BT</b><br><b>CH78</b><br><b>2480 MHz</b> | *                                                                                           | 2462      | 101.1      | -      | -          | 95.04  | 27.58    | 8.29   | 29.81  | 205    | 248     | P     | H     |
|                                                                                                                                           | *                                                                                           | 2480      | 101.17     | -      | -          | 95.13  | 27.54    | 8.32   | 29.82  | 205    | 248     | P     | H     |
|                                                                                                                                           | *                                                                                           | 2462      | 98.1       | -      | -          | 90.9   | 27.58    | 9.43   | 29.81  | 205    | 248     | A     | H     |
|                                                                                                                                           | *                                                                                           | 2480      | 93.43      | -      | -          | 86.25  | 27.54    | 9.46   | 29.82  | 205    | 248     | A     | H     |
|                                                                                                                                           |                                                                                             | 2499.4    | 62.63      | -11.37 | 74         | 56.61  | 27.5     | 8.35   | 29.83  | 205    | 248     | P     | H     |
|                                                                                                                                           |                                                                                             | 2496.52   | 51.44      | -2.56  | 54         | 44.28  | 27.51    | 9.48   | 29.83  | 205    | 248     | A     | H     |
|                                                                                                                                           |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                           | *                                                                                           | 2462      | 102.49     | -      | -          | 96.43  | 27.58    | 8.29   | 29.81  | 400    | 353     | P     | V     |
|                                                                                                                                           | *                                                                                           | 2480      | 99.4       | -      | -          | 93.36  | 27.54    | 8.32   | 29.82  | 400    | 353     | P     | V     |
|                                                                                                                                           | *                                                                                           | 2460      | 99.56      | -      | -          | 92.36  | 27.58    | 9.43   | 29.81  | 400    | 353     | A     | V     |
|                                                                                                                                           | *                                                                                           | 2480      | 91.79      | -      | -          | 84.61  | 27.54    | 9.46   | 29.82  | 400    | 353     | A     | V     |
|                                                                                                                                           |                                                                                             | 2499.28   | 61.72      | -12.28 | 74         | 55.7   | 27.5     | 8.35   | 29.83  | 400    | 353     | P     | V     |
|                                                                                                                                           |                                                                                             | 2493.88   | 49.65      | -4.35  | 54         | 42.49  | 27.51    | 9.48   | 29.83  | 400    | 353     | A     | V     |
|                                                                                                                                           |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                             | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



**BT and WLAN 2.4G (Harmonic @ 3m)**

| WIFI                                                                                                                                      | Note                                                                                        | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                      |                                                                                             |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                            |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT2</b><br><b>802.11b</b><br><b>CH11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT1</b><br><b>BT</b><br><b>CH78</b><br><b>2480 MHz</b> |                                                                                             | 3690      | 42.35      | -31.65 | 74         | 61.72  | 29.18    | 9.49   | 59.78  | 100    | 0       | P     | H     |
|                                                                                                                                           |                                                                                             | 4095      | 40.59      | -33.41 | 74         | 58.37  | 29.69    | 10.31  | 59.06  | 100    | 0       | P     | H     |
|                                                                                                                                           |                                                                                             | 4924      | 45.06      | -28.94 | 74         | 59.71  | 31.1     | 11.54  | 58.27  | 100    | 0       | P     | H     |
|                                                                                                                                           |                                                                                             | 4960      | 38.74      | -35.26 | 74         | 53.18  | 31.26    | 11.58  | 58.26  | 100    | 0       | P     | H     |
|                                                                                                                                           |                                                                                             | 7386      | 43.85      | -30.15 | 74         | 50.22  | 36.53    | 14.96  | 58.56  | 100    | 0       | P     | H     |
|                                                                                                                                           |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                           |                                                                                             | 3690      | 40.26      | -33.74 | 74         | 59.63  | 29.18    | 9.49   | 59.78  | 100    | 0       | P     | V     |
|                                                                                                                                           |                                                                                             | 4095      | 39.52      | -34.48 | 74         | 57.3   | 29.69    | 10.31  | 59.06  | 100    | 0       | P     | V     |
|                                                                                                                                           |                                                                                             | 4924      | 45.83      | -28.17 | 74         | 60.48  | 31.1     | 11.54  | 58.27  | 100    | 0       | P     | V     |
|                                                                                                                                           |                                                                                             | 4960      | 38.37      | -35.63 | 74         | 52.81  | 31.26    | 11.58  | 58.26  | 100    | 0       | P     | V     |
|                                                                                                                                           |                                                                                             | 7386      | 44.65      | -29.35 | 74         | 51.02  | 36.53    | 14.96  | 58.56  | 100    | 0       | P     | V     |
|                                                                                                                                           |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                             | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



**WLAN 5G Band 3 (Band edge @ 3m)**

| WIFI                                                                                                                                                         | Note                                                                                        | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                                         |                                                                                             |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                                               |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT1</b><br><b>802.11ac</b><br><b>VHT80</b><br><b>CH 106</b><br><b>5530 MHz</b><br><b>+</b><br><b>ANT2</b><br><b>BT</b><br><b>CH78</b><br><b>2480 MHz</b> |                                                                                             | 5458.48   | 58.95      | -15.05 | 74         | 43.69  | 31.62    | 12.69  | 29.05  | 258    | 348     | P     | H     |
|                                                                                                                                                              |                                                                                             | 5467.84   | 59.5       | -8.7   | 68.2       | 44.21  | 31.64    | 12.71  | 29.06  | 258    | 348     | P     | H     |
|                                                                                                                                                              |                                                                                             | 5458.72   | 48.25      | -5.75  | 54         | 32.99  | 31.62    | 12.69  | 29.05  | 258    | 348     | P     | H     |
|                                                                                                                                                              | *                                                                                           | 5530      | 97.62      | -      | -          | 82.1   | 31.76    | 12.83  | 29.07  | 258    | 348     | P     | H     |
|                                                                                                                                                              | *                                                                                           | 5530      | 89.42      | -      | -          | 73.9   | 31.76    | 12.83  | 29.07  | 258    | 348     | A     | H     |
|                                                                                                                                                              |                                                                                             | 5764.685  | 54.53      | -13.67 | 68.2       | 38.3   | 32.03    | 13.22  | 29.02  | 258    | 348     | P     | H     |
|                                                                                                                                                              |                                                                                             | 5448.16   | 62.72      | -11.28 | 74         | 47.51  | 31.59    | 12.67  | 29.05  | 136    | 352     | P     | V     |
|                                                                                                                                                              |                                                                                             | 5466.88   | 62.05      | -6.15  | 68.2       | 46.77  | 31.63    | 12.71  | 29.06  | 136    | 352     | P     | V     |
|                                                                                                                                                              |                                                                                             | 5459.2    | 51.98      | -2.02  | 54         | 36.72  | 31.62    | 12.69  | 29.05  | 136    | 352     | P     | V     |
|                                                                                                                                                              | *                                                                                           | 5530      | 100.66     | -      | -          | 85.14  | 31.76    | 12.83  | 29.07  | 136    | 352     | P     | V     |
|                                                                                                                                                              | *                                                                                           | 5530      | 92.73      | -      | -          | 77.21  | 31.76    | 12.83  | 29.07  | 136    | 352     | A     | V     |
|                                                                                                                                                              |                                                                                             | 5763.74   | 54.67      | -13.53 | 68.2       | 38.44  | 32.03    | 13.22  | 29.02  | 136    | 352     | P     | V     |
| <b>Remark</b>                                                                                                                                                | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |


**BT (Band edge @ 3m)**

| WIFI                                                                                                                                                         | Note | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                                         |      |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                                               |      | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT1</b><br><b>802.11ac</b><br><b>VHT80</b><br><b>CH 106</b><br><b>5530 MHz</b><br><b>+</b><br><b>ANT2</b><br><b>BT</b><br><b>CH78</b><br><b>2480 MHz</b> | *    | 2480      | 103.01     | -      | -          | 96.97  | 27.54    | 8.32   | 29.82  | 290    | 123     | P     | H     |
|                                                                                                                                                              | *    | 2480      | 103.01     | -      | -          | 54     | -        | -      | -      | -      | -       | A     | H     |
|                                                                                                                                                              |      | 2484.2    | 54.89      | -19.11 | 74         | 48.86  | 27.53    | 8.32   | 29.82  | 290    | 123     | P     | H     |
|                                                                                                                                                              |      | 2484.2    | 30.13      | -23.87 | 54         | -      | -        | -      | -      | -      | -       | A     | H     |
|                                                                                                                                                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                                              |      |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                                              | *    | 2480      | 102.19     | -      | -          | 96.15  | 27.54    | 8.32   | 29.82  | 292    | 209     | P     | V     |
|                                                                                                                                                              | *    | 2480      | 77.43      | -      | -          | -      | -        | -      | -      | -      | -       | A     | V     |
|                                                                                                                                                              |      | 2483.6    | 54.07      | -19.93 | 74         | 48.04  | 27.53    | 8.32   | 29.82  | 292    | 209     | P     | V     |
|                                                                                                                                                              |      | 2483.6    | 29.31      | -24.69 | 54         | -      | -        | -      | -      | -      | -       | A     | V     |
|                                                                                                                                                              |      |           |            |        |            |        |          |        |        |        |         |       | V     |
|                                                                                                                                                              |      |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b><br>1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line.                                                 |      |           |            |        |            |        |          |        |        |        |         |       |       |



## BT and WLAN 5G Band3 (Harmonic @ 3m)

| WIFI                                                                                                                                                         | Note                                                                                        | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                                         |                                                                                             |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                                               |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT1</b><br><b>802.11ac</b><br><b>VHT80</b><br><b>CH 106</b><br><b>5530 MHz</b><br><b>+</b><br><b>ANT2</b><br><b>BT</b><br><b>CH78</b><br><b>2480 MHz</b> |                                                                                             | 4960      | 55.54      | -18.46 | 74         | 39.04  | 31.26    | 13.99  | 28.75  | 100    | 0       | P     | H     |
|                                                                                                                                                              |                                                                                             | 4960      | 44.46      | -9.54  | 54         | 27.96  | 31.26    | 13.99  | 28.75  | 100    | 0       | A     | H     |
|                                                                                                                                                              |                                                                                             | 7440      | 46.45      | -27.55 | 74         | 52.28  | 36.58    | 16.18  | 58.59  | 100    | 0       | P     | H     |
|                                                                                                                                                              |                                                                                             | 11060     | 51.07      | -22.93 | 74         | 51.86  | 40.22    | 20.2   | 61.21  | 100    | 0       | P     | H     |
|                                                                                                                                                              |                                                                                             | 16590     | 49.51      | -18.69 | 68.2       | 44.02  | 39.25    | 25.37  | 59.13  | 100    | 0       | P     | H     |
|                                                                                                                                                              |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                                              |                                                                                             | 4960      | 55.58      | -18.42 | 74         | 39.08  | 31.26    | 13.99  | 28.75  | 100    | 0       | P     | V     |
|                                                                                                                                                              |                                                                                             | 4960      | 44.58      | -9.42  | 54         | 28.08  | 31.26    | 13.99  | 28.75  | 100    | 0       | A     | V     |
|                                                                                                                                                              |                                                                                             | 7440      | 46.41      | -27.59 | 74         | 52.24  | 36.58    | 16.18  | 58.59  | 100    | 0       | P     | V     |
|                                                                                                                                                              |                                                                                             | 11060     | 49.78      | -24.22 | 74         | 50.57  | 40.22    | 20.2   | 61.21  | 100    | 0       | P     | V     |
|                                                                                                                                                              |                                                                                             | 16590     | 50.55      | -17.65 | 68.2       | 45.06  | 39.25    | 25.37  | 59.13  | 100    | 0       | P     | V     |
|                                                                                                                                                              |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                                                | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



**WLAN 5G Band 1 (Band edge @ 3m)**

| WIFI                                                                                                                                       | Note | Frequency                                                                                   | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                       |      |                                                                                             |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                             |      | ( MHz )                                                                                     | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT1</b><br><b>802.11a</b><br><b>CH36</b><br><b>5180 MHz</b><br><b>+</b><br><b>ANT2</b><br><b>BLE</b><br><b>CH39</b><br><b>2480 MHz</b> |      | 5148.46                                                                                     | 63.97      | -10.03 | 74         | 48.8   | 31.7     | 12.32  | 28.85  | 166    | 0       | P     | H     |
|                                                                                                                                            |      | 5149.5                                                                                      | 48.13      | -5.87  | 54         | 32.96  | 31.7     | 12.32  | 28.85  | 166    | 0       | A     | H     |
|                                                                                                                                            | *    | 5180                                                                                        | 107.34     | -      | -          | 92.27  | 31.58    | 12.36  | 28.87  | 166    | 0       | P     | H     |
|                                                                                                                                            | *    | 5180                                                                                        | 99.32      | -      | -          | 84.25  | 31.58    | 12.36  | 28.87  | 166    | 0       | A     | H     |
|                                                                                                                                            |      |                                                                                             |            |        |            |        |          |        |        |        |         | P     | H     |
|                                                                                                                                            |      |                                                                                             |            |        |            |        |          |        |        |        |         | A     | H     |
|                                                                                                                                            |      | 5148.2                                                                                      | 67.93      | -6.07  | 74         | 52.76  | 31.7     | 12.32  | 28.85  | 258    | 336     | P     | V     |
|                                                                                                                                            |      | 5149.5                                                                                      | 51.87      | -2.13  | 54         | 36.7   | 31.7     | 12.32  | 28.85  | 258    | 336     | A     | V     |
|                                                                                                                                            | *    | 5180                                                                                        | 110.99     | -      | -          | 95.92  | 31.58    | 12.36  | 28.87  | 258    | 336     | P     | V     |
|                                                                                                                                            | *    | 5180                                                                                        | 103.05     | -      | -          | 87.98  | 31.58    | 12.36  | 28.87  | 258    | 336     | A     | V     |
|                                                                                                                                            |      |                                                                                             |            |        |            |        |          |        |        |        |         | P     | V     |
|                                                                                                                                            |      |                                                                                             |            |        |            |        |          |        |        |        |         | A     | V     |
| <b>Remark</b>                                                                                                                              |      | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |            |        |            |        |          |        |        |        |         |       |       |



**BLE (Band edge @ 3m)**

| WIFI                                                                                                                                       | Note                                                         | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                       |                                                              |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                             |                                                              | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT1</b><br><b>802.11a</b><br><b>CH36</b><br><b>5180 MHz</b><br><b>+</b><br><b>ANT2</b><br><b>BLE</b><br><b>CH39</b><br><b>2480 MHz</b> | *                                                            | 2480      | 103.34     | -      | -          | 97.3   | 27.54    | 8.32   | 29.82  | 294    | 319     | P     | H     |
|                                                                                                                                            | *                                                            | 2480      | 97.7       | -      | -          | 89.58  | 27.54    | 10.4   | 29.82  | 294    | 319     | A     | H     |
|                                                                                                                                            |                                                              | 2483.88   | 52.04      | -21.96 | 74         | 46.01  | 27.53    | 8.32   | 29.82  | 294    | 319     | P     | H     |
|                                                                                                                                            |                                                              | 2487.56   | 41.52      | -12.48 | 54         | 33.41  | 27.52    | 10.41  | 29.82  | 294    | 319     | A     | H     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            | *                                                            | 2480      | 104.38     | -      | -          | 98.34  | 27.54    | 8.32   | 29.82  | 235    | 212     | P     | V     |
|                                                                                                                                            | *                                                            | 2480      | 98.31      | -      | -          | 90.19  | 27.54    | 10.4   | 29.82  | 235    | 212     | A     | V     |
|                                                                                                                                            |                                                              | 2483.56   | 54.57      | -19.43 | 74         | 48.54  | 27.53    | 8.32   | 29.82  | 235    | 212     | P     | V     |
|                                                                                                                                            |                                                              | 2487.64   | 42.49      | -11.51 | 54         | 34.38  | 27.52    | 10.41  | 29.82  | 235    | 212     | A     | V     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | V     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                              | 1. No other spurious found.                                  |           |            |        |            |        |          |        |        |        |         |       |       |
|                                                                                                                                            | 2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |


**BLE and WLAN 5G Band1 (Harmonic @ 3m)**

| WIFI                                                                                                                                       | Note                                                                                        | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                       |                                                                                             |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                             |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT1</b><br><b>802.11a</b><br><b>CH36</b><br><b>5180 MHz</b><br><b>+</b><br><b>ANT2</b><br><b>BLE</b><br><b>CH39</b><br><b>2480 MHz</b> |                                                                                             | 4960      | 57.46      | -16.54 | 74         | 41.15  | 31.26    | 13.8   | 28.75  | 300    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             | 4960      | 46.48      | -7.52  | 54         | 30.17  | 31.26    | 13.8   | 28.75  | 300    | 0       | A     | H     |
|                                                                                                                                            |                                                                                             | 7440      | 44.83      | -29.17 | 74         | 50.66  | 36.58    | 16.18  | 58.59  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             | 10360     | 47.69      | -20.51 | 68.2       | 49.27  | 39.64    | 19.17  | 60.39  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             | 15540     | 48.5       | -25.5  | 74         | 47.45  | 37.94    | 24.38  | 61.27  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            |                                                                                             | 4960      | 58.5       | -15.5  | 74         | 42.19  | 31.26    | 13.8   | 28.75  | 165    | 309     | P     | V     |
|                                                                                                                                            |                                                                                             | 4960      | 47.33      | -6.67  | 54         | 31.02  | 31.26    | 13.8   | 28.75  | 165    | 309     | A     | V     |
|                                                                                                                                            |                                                                                             | 7440      | 44.51      | -29.49 | 74         | 50.34  | 36.58    | 16.18  | 58.59  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             | 10360     | 47.98      | -20.22 | 68.2       | 49.56  | 39.64    | 19.17  | 60.39  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             | 15540     | 48.2       | -25.8  | 74         | 47.15  | 37.94    | 24.38  | 61.27  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                              | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



**WLAN 2.4G (Band edge @ 3m)**

| WIFI                                                                                                                                        | Note | Frequency                                                                                   | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|---------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                        |      |                                                                                             |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                              |      | ( MHz )                                                                                     | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT1</b><br><b>802.11b</b><br><b>CH 11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT2</b><br><b>BLE</b><br><b>CH39</b><br><b>2480 MHz</b> | *    | 2462                                                                                        | 107.39     | -      | -          | 101.33 | 27.58    | 8.29   | 29.81  | 302    | 246     | P     | H     |
|                                                                                                                                             | *    | 2462                                                                                        | 103.27     | -      | -          | 97.21  | 27.58    | 8.29   | 29.81  | 302    | 246     | A     | H     |
|                                                                                                                                             |      | 2496.64                                                                                     | 55.93      | -18.07 | 74         | 49.91  | 27.51    | 8.34   | 29.83  | 302    | 246     | P     | H     |
|                                                                                                                                             |      | 2488.2                                                                                      | 44.73      | -9.27  | 54         | 38.71  | 27.52    | 8.33   | 29.83  | 302    | 246     | A     | H     |
|                                                                                                                                             |      |                                                                                             |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                             |      |                                                                                             |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                             | *    | 2462                                                                                        | 107.35     | -      | -          | 101.29 | 27.58    | 8.29   | 29.81  | 243    | 144     | P     | V     |
|                                                                                                                                             | *    | 2462                                                                                        | 103.2      | -      | -          | 97.14  | 27.58    | 8.29   | 29.81  | 243    | 144     | A     | V     |
|                                                                                                                                             |      | 2499.68                                                                                     | 58.92      | -15.08 | 74         | 52.9   | 27.5     | 8.35   | 29.83  | 243    | 144     | P     | V     |
|                                                                                                                                             |      | 2488.2                                                                                      | 45.05      | -8.95  | 54         | 39.03  | 27.52    | 8.33   | 29.83  | 243    | 144     | A     | V     |
|                                                                                                                                             |      |                                                                                             |            |        |            |        |          |        |        |        |         |       | V     |
|                                                                                                                                             |      |                                                                                             |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                               |      | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |            |        |            |        |          |        |        |        |         |       |       |



**BLE (Band edge @ 3m)**

| WIFI                                                                                                                                        | Note                                                                                        | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                        |                                                                                             |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                              |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT1</b><br><b>802.11b</b><br><b>CH 11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT2</b><br><b>BLE</b><br><b>CH39</b><br><b>2480 MHz</b> | *                                                                                           | 2480      | 103.96     | -      | -          | 97.92  | 27.54    | 8.32   | 29.82  | 196    | 141     | P     | H     |
|                                                                                                                                             | *                                                                                           | 2480      | 97.98      | -      | -          | 89.81  | 27.54    | 10.45  | 29.82  | 196    | 141     | A     | H     |
|                                                                                                                                             |                                                                                             | 2498.36   | 64.04      | -9.96  | 74         | 58.02  | 27.5     | 8.35   | 29.83  | 196    | 141     | P     | H     |
|                                                                                                                                             |                                                                                             | 2497.16   | 50.66      | -3.34  | 54         | 42.5   | 27.51    | 10.48  | 29.83  | 196    | 141     | A     | H     |
|                                                                                                                                             |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                             |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                             | *                                                                                           | 2480      | 103.56     | -      | -          | 97.52  | 27.54    | 8.32   | 29.82  | 236    | 217     | P     | V     |
|                                                                                                                                             | *                                                                                           | 2480      | 97.76      | -      | -          | 89.59  | 27.54    | 10.45  | 29.82  | 236    | 217     | A     | V     |
|                                                                                                                                             |                                                                                             | 2498.24   | 63.2       | -10.8  | 74         | 57.18  | 27.5     | 8.35   | 29.83  | 236    | 217     | P     | V     |
|                                                                                                                                             |                                                                                             | 2495.36   | 49.98      | -4.02  | 54         | 41.83  | 27.51    | 10.47  | 29.83  | 236    | 217     | A     | V     |
|                                                                                                                                             |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | V     |
|                                                                                                                                             |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                               | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



IMD (Band edge @ 3m)

| WIFI                                                                                                                                        | Note                                                                                        | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                        |                                                                                             |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                              |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT1</b><br><b>802.11b</b><br><b>CH 11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT2</b><br><b>BLE</b><br><b>CH39</b><br><b>2480 MHz</b> | *                                                                                           | 2462      | 91.9       | -      | -          | 85.84  | 27.58    | 8.29   | 29.81  | 201    | 138     | P     | H     |
|                                                                                                                                             | *                                                                                           | 2480      | 103.68     | -      | -          | 97.64  | 27.54    | 8.32   | 29.82  | 201    | 138     | P     | H     |
|                                                                                                                                             | *                                                                                           | 2462      | 89.84      | -      | -          | 81.79  | 27.58    | 10.28  | 29.81  | 201    | 138     | A     | H     |
|                                                                                                                                             | *                                                                                           | 2480      | 97.55      | -      | -          | 89.52  | 27.54    | 10.31  | 29.82  | 201    | 138     | A     | H     |
|                                                                                                                                             |                                                                                             | 2496.6    | 63.98      | -10.02 | 74         | 57.96  | 27.51    | 8.34   | 29.83  | 201    | 138     | P     | H     |
|                                                                                                                                             |                                                                                             | 2495.72   | 51.68      | -2.32  | 54         | 43.67  | 27.51    | 10.33  | 29.83  | 201    | 138     | A     | H     |
|                                                                                                                                             |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                             | *                                                                                           | 2462      | 101.44     | -      | -          | 95.38  | 27.58    | 8.29   | 29.81  | 400    | 8       | P     | V     |
|                                                                                                                                             | *                                                                                           | 2480      | 101.51     | -      | -          | 95.47  | 27.54    | 8.32   | 29.82  | 400    | 8       | P     | V     |
|                                                                                                                                             | *                                                                                           | 2462      | 99.36      | -      | -          | 91.31  | 27.58    | 10.28  | 29.81  | 400    | 8       | A     | V     |
|                                                                                                                                             | *                                                                                           | 2480      | 94.84      | -      | -          | 86.81  | 27.54    | 10.31  | 29.82  | 400    | 8       | A     | V     |
|                                                                                                                                             |                                                                                             | 2496.88   | 62.09      | -11.91 | 74         | 56.06  | 27.51    | 8.35   | 29.83  | 400    | 8       | P     | V     |
|                                                                                                                                             |                                                                                             | 2496.52   | 49.61      | -4.39  | 54         | 41.6   | 27.51    | 10.33  | 29.83  | 400    | 8       | A     | V     |
|                                                                                                                                             |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                               | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



**BLE and WLAN 2.4G (Harmonic @ 3m)**

| WIFI                                                                                                                                        | Note                                                                                        | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                        |                                                                                             |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                              |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT1</b><br><b>802.11b</b><br><b>CH 11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT2</b><br><b>BLE</b><br><b>CH39</b><br><b>2480 MHz</b> |                                                                                             | 4924      | 46.26      | -27.74 | 74         | 60.91  | 31.1     | 12.52  | 58.27  | 100    | 0       | P     | H     |
|                                                                                                                                             |                                                                                             | 4960      | 39.9       | -34.1  | 74         | 54.34  | 31.26    | 12.56  | 58.26  | 100    | 0       | P     | H     |
|                                                                                                                                             |                                                                                             | 7386      | 44.23      | -29.77 | 74         | 50.6   | 36.53    | 15.66  | 58.56  | 100    | 0       | P     | H     |
|                                                                                                                                             |                                                                                             | 7440      | 44.77      | -29.23 | 74         | 51     | 36.58    | 15.78  | 58.59  | 100    | 0       | P     | H     |
|                                                                                                                                             |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                             |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                             |                                                                                             | 4924      | 47.73      | -26.27 | 74         | 62.38  | 31.1     | 12.52  | 58.27  | 100    | 0       | P     | V     |
|                                                                                                                                             |                                                                                             | 4960      | 39.26      | -34.74 | 74         | 53.7   | 31.26    | 12.56  | 58.26  | 100    | 0       | P     | V     |
|                                                                                                                                             |                                                                                             | 7386      | 44.2       | -29.8  | 74         | 50.57  | 36.53    | 15.66  | 58.56  | 100    | 0       | P     | V     |
|                                                                                                                                             |                                                                                             | 7440      | 46.09      | -27.91 | 74         | 52.32  | 36.58    | 15.78  | 58.59  | 100    | 0       | P     | V     |
|                                                                                                                                             |                                                                                             | 12315     | 52.08      | -21.92 | 74         | 54.08  | 38.47    | 21.32  | 61.79  | 100    | 338     | P     | V     |
|                                                                                                                                             |                                                                                             | 12315     | 44.48      | -9.52  | 54         | 46.48  | 38.47    | 21.32  | 61.79  | 100    | 338     | A     | V     |
| <b>Remark</b>                                                                                                                               | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



**WLAN 2.4G (Band edge @ 3m)**

| WIFI                                                                                                                                       | Note                                                                                        | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                       |                                                                                             |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                             |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT1</b><br><b>802.11b</b><br><b>CH 11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT2</b><br><b>BT</b><br><b>CH78</b><br><b>2480 MHz</b> | *                                                                                           | 2462      | 107.43     | -      | -          | 101.37 | 27.58    | 8.29   | 29.81  | 211    | 236     | P     | H     |
|                                                                                                                                            | *                                                                                           | 2462      | 103.98     | -      | -          | 97.92  | 27.58    | 8.29   | 29.81  | 211    | 236     | A     | H     |
|                                                                                                                                            |                                                                                             | 2495.4    | 56.12      | -17.88 | 74         | 50.1   | 27.51    | 8.34   | 29.83  | 211    | 236     | P     | H     |
|                                                                                                                                            |                                                                                             | 2486.72   | 46.93      | -7.07  | 54         | 40.89  | 27.53    | 8.33   | 29.82  | 211    | 236     | A     | H     |
|                                                                                                                                            |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            | *                                                                                           | 2462      | 106.48     | -      | -          | 100.42 | 27.58    | 8.29   | 29.81  | 243    | 132     | P     | V     |
|                                                                                                                                            | *                                                                                           | 2462      | 102.88     | -      | -          | 96.82  | 27.58    | 8.29   | 29.81  | 243    | 132     | A     | V     |
|                                                                                                                                            |                                                                                             | 2498.72   | 58.91      | -15.09 | 74         | 52.89  | 27.5     | 8.35   | 29.83  | 243    | 132     | P     | V     |
|                                                                                                                                            |                                                                                             | 2496.8    | 47.23      | -6.77  | 54         | 41.21  | 27.51    | 8.34   | 29.83  | 243    | 132     | A     | V     |
|                                                                                                                                            |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | V     |
|                                                                                                                                            |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                              | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |


**BT (Band edge @ 3m)**

| WIFI                                                                                                                                       | Note                                                         | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                       |                                                              |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                             |                                                              | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT1</b><br><b>802.11b</b><br><b>CH 11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT2</b><br><b>BT</b><br><b>CH78</b><br><b>2480 MHz</b> | *                                                            | 2480      | 101.89     | -      | -          | 95.85  | 27.54    | 8.32   | 29.82  | 290    | 307     | P     | H     |
|                                                                                                                                            | *                                                            | 2480      | 77.13      | -      | -          | 54     | -        | -      | -      | -      | -       | A     | H     |
|                                                                                                                                            |                                                              | 2498.36   | 61.78      | -12.22 | 74         | 55.76  | 27.5     | 8.35   | 29.83  | 290    | 307     | P     | H     |
|                                                                                                                                            |                                                              | 2498.36   | 37.02      | -16.98 | 54         | -      | -        | -      | -      | -      | -       | A     | H     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            | *                                                            | 2480      | 102.43     | -      | -          | 96.39  | 27.54    | 8.32   | 29.82  | 266    | 218     | P     | V     |
|                                                                                                                                            | *                                                            | 2480      | 77.67      | -      | -          | -      | -        | -      | -      | -      | -       | A     | V     |
|                                                                                                                                            |                                                              | 2495.12   | 62.11      | -11.89 | 74         | 56.09  | 27.51    | 8.34   | 29.83  | 266    | 218     | P     | V     |
|                                                                                                                                            |                                                              | 2495.12   | 37.35      | -16.65 | 54         | -      | -        | -      | -      | -      | -       | A     | V     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | V     |
|                                                                                                                                            |                                                              |           |            |        |            |        |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                              | 1. No other spurious found.                                  |           |            |        |            |        |          |        |        |        |         |       |       |
|                                                                                                                                            | 2. All results are PASS against Peak and Average limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



## IMD (Band edge @ 3m)

| WIFI                                                                                                                                       | Note                                                                                        | Frequency | Level            | Over   | Limit            | Read           | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------------|--------|------------------|----------------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                       |                                                                                             |           |                  | Limit  | Line             | Level          | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                             |                                                                                             | ( MHz )   | ( dB $\mu$ V/m ) | ( dB ) | ( dB $\mu$ V/m ) | ( dB $\mu$ V ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT1</b><br><b>802.11b</b><br><b>CH 11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT2</b><br><b>BT</b><br><b>CH78</b><br><b>2480 MHz</b> | *                                                                                           | 2462      | 99.33            | -      | -                | 93.27          | 27.58    | 8.29   | 29.81  | 399    | 116     | P     | H     |
|                                                                                                                                            | *                                                                                           | 2480      | 99.23            | -      | -                | 93.19          | 27.54    | 8.32   | 29.82  | 399    | 116     | P     | H     |
|                                                                                                                                            | *                                                                                           | 2462      | 96.19            | -      | -                | 88.99          | 27.58    | 9.43   | 29.81  | 399    | 116     | A     | H     |
|                                                                                                                                            | *                                                                                           | 2480      | 91.34            | -      | -                | 84.16          | 27.54    | 9.46   | 29.82  | 399    | 116     | A     | H     |
|                                                                                                                                            |                                                                                             | 2496.92   | 61.14            | -12.86 | 74               | 55.11          | 27.51    | 8.35   | 29.83  | 399    | 116     | P     | H     |
|                                                                                                                                            |                                                                                             | 2496.56   | 50.13            | -3.87  | 54               | 42.97          | 27.51    | 9.48   | 29.83  | 399    | 116     | A     | H     |
|                                                                                                                                            |                                                                                             |           |                  |        |                  |                |          |        |        |        |         |       | H     |
|                                                                                                                                            | *                                                                                           | 2462      | 102.12           | -      | -                | 96.06          | 27.58    | 8.29   | 29.81  | 400    | 360     | P     | V     |
|                                                                                                                                            | *                                                                                           | 2480      | 99.64            | -      | -                | 93.6           | 27.54    | 8.32   | 29.82  | 400    | 360     | P     | V     |
|                                                                                                                                            | *                                                                                           | 2462      | 99.26            | -      | -                | 92.06          | 27.58    | 9.43   | 29.81  | 400    | 360     | A     | V     |
|                                                                                                                                            | *                                                                                           | 2480      | 91.74            | -      | -                | 84.56          | 27.54    | 9.46   | 29.82  | 400    | 360     | A     | V     |
|                                                                                                                                            |                                                                                             | 2498.2    | 61.54            | -12.46 | 74               | 55.52          | 27.5     | 8.35   | 29.83  | 400    | 360     | P     | V     |
|                                                                                                                                            |                                                                                             | 2493.84   | 49.29            | -4.71  | 54               | 42.13          | 27.51    | 9.48   | 29.83  | 400    | 360     | A     | V     |
|                                                                                                                                            |                                                                                             |           |                  |        |                  |                |          |        |        |        |         |       | V     |
| <b>Remark</b>                                                                                                                              | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |                  |        |                  |                |          |        |        |        |         |       |       |



**BT and WLAN 2.4G (Harmonic @ 3m)**

| WIFI                                                                                                                                       | Note                                                                                        | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                                                                                                                       |                                                                                             |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| Simultaneously                                                                                                                             |                                                                                             | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| <b>ANT1</b><br><b>802.11b</b><br><b>CH 11</b><br><b>2462 MHz</b><br><b>+</b><br><b>ANT2</b><br><b>BT</b><br><b>CH78</b><br><b>2480 MHz</b> |                                                                                             | 3285      | 45.35      | -28.65 | 74         | 66.23  | 28.29    | 10.84  | 60.01  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             | 4110      | 43.74      | -30.26 | 74         | 61.47  | 29.7     | 11.6   | 59.03  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             | 4924      | 46.21      | -27.79 | 74         | 60.86  | 31.1     | 12.52  | 58.27  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             | 4960      | 39.33      | -34.67 | 74         | 53.77  | 31.26    | 12.56  | 58.26  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             | 7386      | 44.27      | -29.73 | 74         | 50.64  | 36.53    | 15.66  | 58.56  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             | 7440      | 45.03      | -28.97 | 74         | 51.26  | 36.58    | 15.78  | 58.59  | 100    | 0       | P     | H     |
|                                                                                                                                            |                                                                                             |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                                                                                                                            |                                                                                             | 3285      | 44.8       | -29.2  | 74         | 65.68  | 28.29    | 10.84  | 60.01  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             | 4095      | 44.09      | -29.91 | 74         | 61.87  | 29.69    | 11.59  | 59.06  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             | 4924      | 47.71      | -26.29 | 74         | 62.36  | 31.1     | 12.52  | 58.27  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             | 4960      | 38.15      | -35.85 | 74         | 52.59  | 31.26    | 12.56  | 58.26  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             | 7386      | 44.57      | -29.43 | 74         | 50.94  | 36.53    | 15.66  | 58.56  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             | 7440      | 44.83      | -29.17 | 74         | 51.06  | 36.58    | 15.78  | 58.59  | 100    | 0       | P     | V     |
|                                                                                                                                            |                                                                                             | 3285      | 44.8       | -29.2  | 74         | 65.68  | 28.29    | 10.84  | 60.01  | 100    | 0       | P     | V     |
| <b>Remark</b>                                                                                                                              | 1. No other spurious found.<br>2. All results are PASS against Peak and Average 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. |
| -   | The signal is <b>Unintentional Radiators</b> .                                                                                                           |
| 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<br>Ant.<br>Simultaneously | 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 ) | Path<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 ) |
|--------------------------------|------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11b<br>CH 01               |      | 2390                 | 55.45               | -18.55                  | 74                          | 54.51                     | 32.22                         | 4.58                   | 35.86                      | 103                  | 308                     | P                       | H               |
| 2412MHz                        |      | 2390                 | 43.54               | -10.46                  | 54                          | 42.6                      | 32.22                         | 4.58                   | 35.86                      | 103                  | 308                     | A                       | H               |

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

**For Peak Limit @ 2390MHz:**

1. Level(dBμV/m)  
= Antenna Factor(dB/m) + Path 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) + Path 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”.**



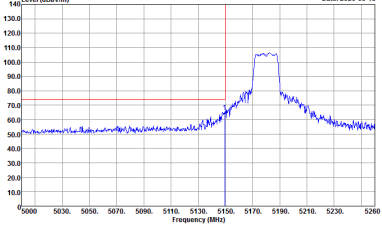
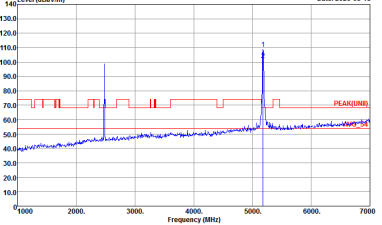
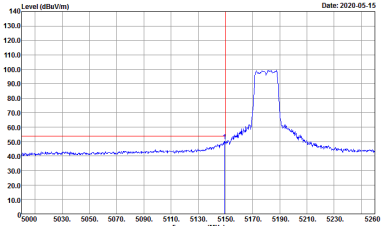
## Appendix B. Radiated Spurious Emission

|                 |                       |                     |         |
|-----------------|-----------------------|---------------------|---------|
| Test Engineer : | Andy Yang and CR Liao | Temperature :       | 20~25°C |
|                 |                       | Relative Humidity : | 50~60%  |

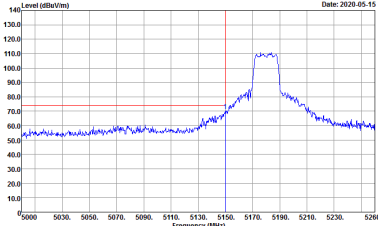
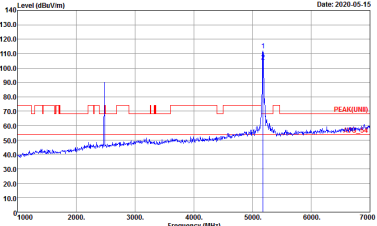
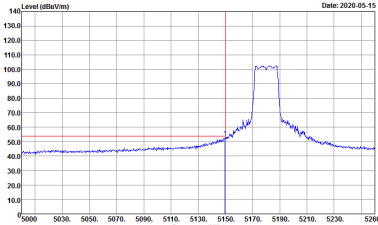
### Note symbol

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

**WLAN 5G Band 1 (Band Edge @ 3m)**

| ANT            | Ant 2_802.11a CH36 5180 MHz + Ant 1_BT Ch78 2480 MHz                                                                                                                                                          |                                                                                                                                                                                                               |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                   |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK[UNIT] 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg.           |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | Left blank                                                                                                                                                                                                    |



| ANT            | Ant 2_802.11a CH36 5180 MHz + Ant 1_BT Ch78 2480 MHz                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                         |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                                                                                                | Fundamental                                                                                                                                                                                                                                                                             |
| Peak           | <div><p>Level (dBuV/m)</p><p>Frequency (MHz)</p><p>Date: 2020-05-15</p><p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div>  | <div><p>Level (dBuV/m)</p><p>Frequency (MHz)</p><p>Date: 2020-05-15</p><p>Site : 03CH16-HY<br/>Condition : PEAK(UNIT) 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> |
| Avg.           | <div><p>Level (dBuV/m)</p><p>Frequency (MHz)</p><p>Date: 2020-05-15</p><p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> | Left blank                                                                                                                                                                                                                                                                              |



BT (Band Edge @ 3m)

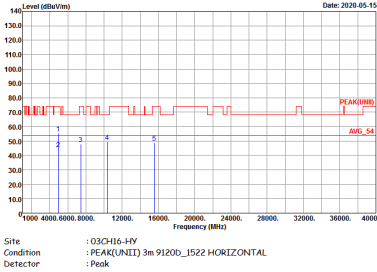
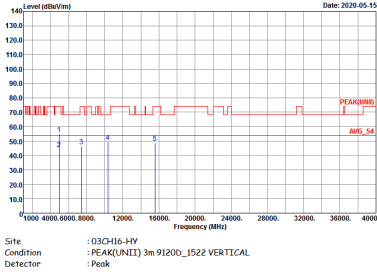
| ANT            | Ant 2_802.11a CH36 5180 MHz + Ant 1_BT Ch78 2480 MHz                                                                                  |                                                                                                                                    |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                            | Fundamental                                                                                                                        |
| Peak           | <div><p>Site : 03CH16-1V<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> | <div><p>Site : 03CH16-1V<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> |



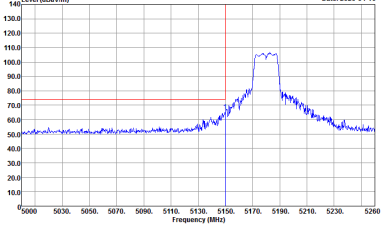
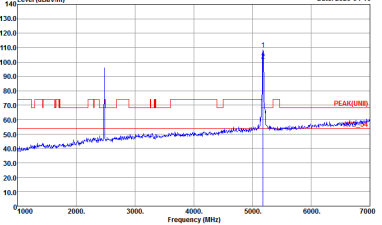
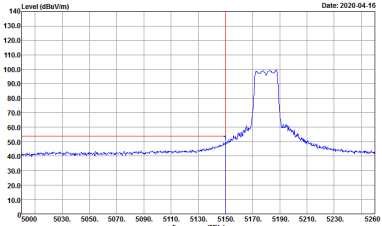
| ANT            | Ant 2_802.11a CH36 5180 MHz + Ant 1_BT Ch78 2480 MHz                                                                                                                                                  |                                                                                                                                                                                                    |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                              | Fundamental                                                                                                                                                                                        |
| Peak           | <div><p>Level (dBm/1m)</p><p>Date: 2028-05-15</p><p>Frequency (MHz)</p><p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> | <div><p>Level (dBm/1m)</p><p>Date: 2028-05-15</p><p>Frequency (MHz)</p><p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> |



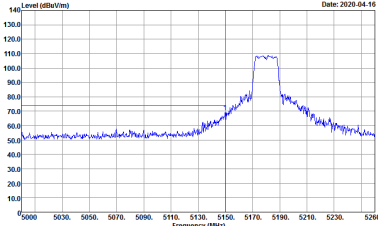
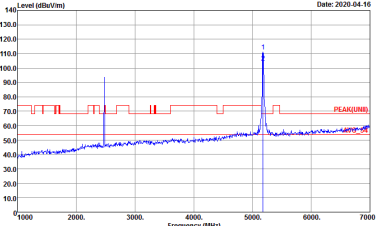
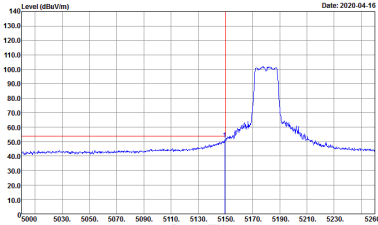
BT and WLAN 5G Band 1 (Harmonic @ 3m)

| ANT            | Ant 2_802.11a CH36 5180 MHz + Ant 1_BT Ch78 2480 MHz                                                                                                                               |                                                                                                                                                                                   |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                         | Vertical                                                                                                                                                                          |
| Peak<br>Avg.   |  <p>Site : 03CH16-4HY<br/>Condition : PEAK(UNIT) 3m 9120D_1522 HORIZONTAL<br/>Detector : Peak</p> |  <p>Site : 03CH16-4HY<br/>Condition : PEAK(UNIT) 3m 9120D_1522 VERTICAL<br/>Detector : Peak</p> |

**WLAN 5G Band 1 (Band Edge @ 3m)**

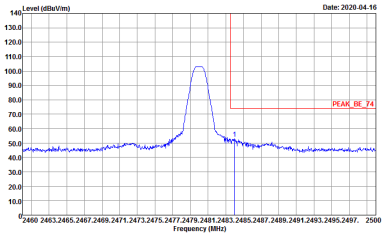
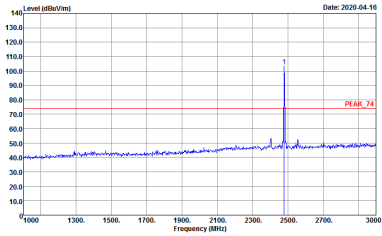
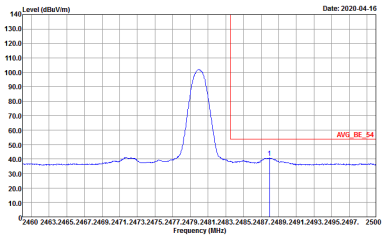
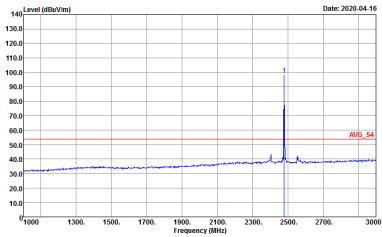
| ANT            | Ant 2_802.11a CH36 5180 MHz + Ant 1_BLE Ch39 2480 MHz                                                                                                                                                         |                                                                                                                                                                                                               |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                   |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK[UNIT] 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg.           |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | Left blank                                                                                                                                                                                                    |



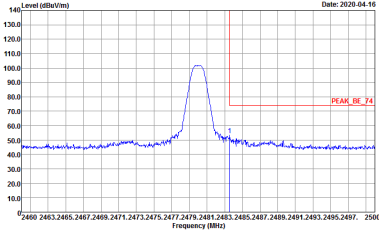
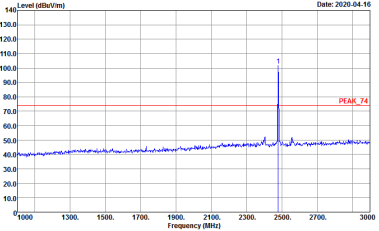
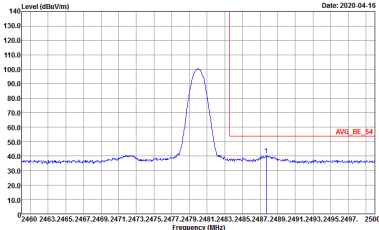
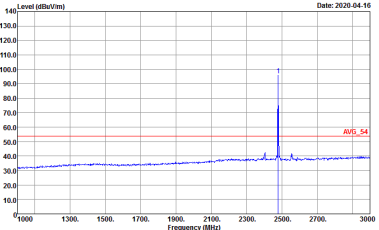
| ANT            | Ant 2_802.11a CH36 5180 MHz + Ant 1_BLE Ch39 2480 MHz                                                                                                                                                       |                                                                                                                                                                                                             |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                 |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK(UNIT) 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg.           |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | Left blank                                                                                                                                                                                                  |



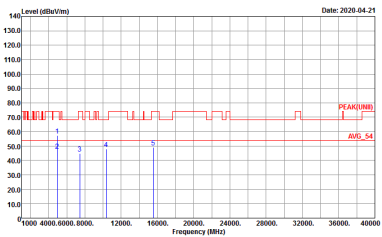
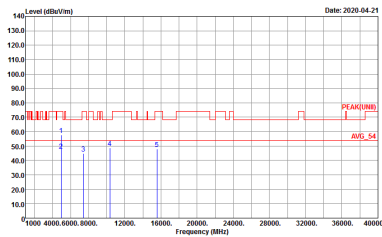
## BLE (Band Edge @ 3m)

| ANT            | Ant 2_802.11a CH36 5180 MHz + Ant 1_BLE Ch39 2480 MHz                                                                                                                                                         |                                                                                                                                                                                                             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                 |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
| Avg.           |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |

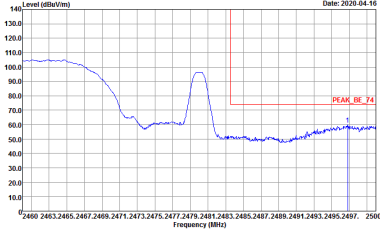
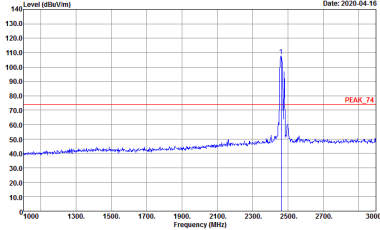
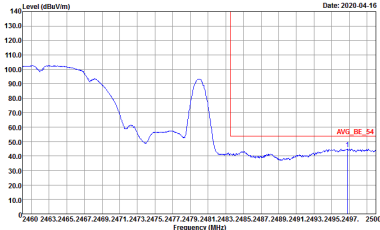
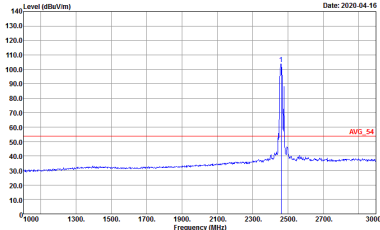


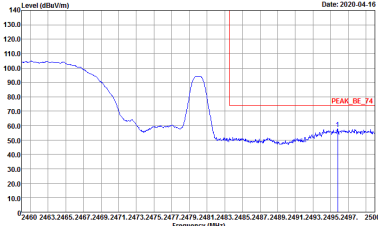
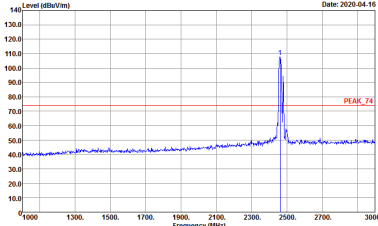
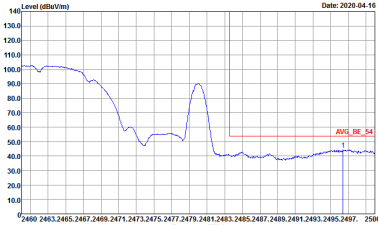
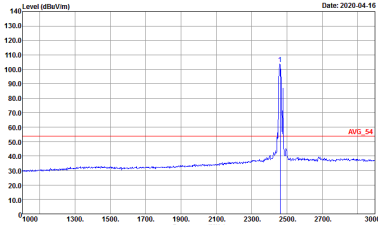
| ANT            | Ant 2_802.11a CH36 5180 MHz + Ant 1_BLE Ch39 2480 MHz                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                              |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                                                                                                          | Fundamental                                                                                                                                                                                                                                                                                  |
| Peak           |  <p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2020-04-16</p> <p>PEAK_BE_74</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2020-04-16</p> <p>PEAK_74</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg.           |  <p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2020-04-16</p> <p>AVG_BE_54</p> <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2020-04-16</p> <p>AVG_54</p> <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |

**BLE and WLAN 5G Band 1 (Harmonic @ 3m)**

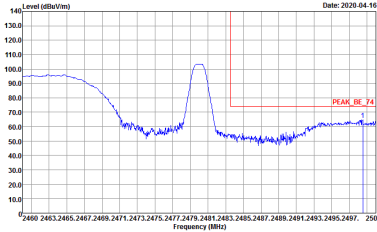
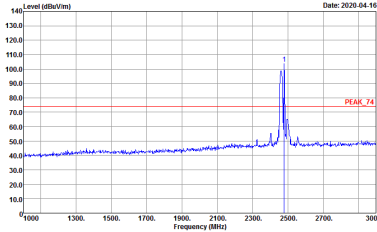
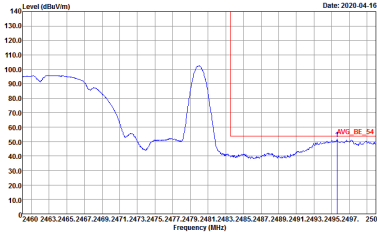
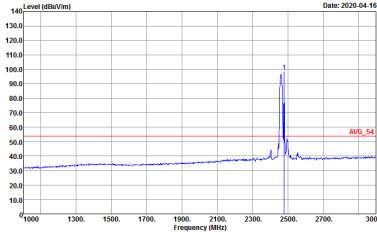
| ANT                            | Ant 2_802.11a CH36 5180 MHz + Ant 1_BLE Ch39 2480 MHz                                                                                                                                  |                                                                                                                                                                                       |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously                 | Horizontal                                                                                                                                                                             | Vertical                                                                                                                                                                              |
| <b>Peak</b><br><br><b>Avg.</b> |  <p> Site : 03CH16-4HY<br/> Condition : PEAK(UNIT) 3m 9120D_1522 HORIZONTAL<br/> Detector : Peak </p> |  <p> Site : 03CH16-4HY<br/> Condition : PEAK(UNIT) 3m 9120D_1522 VERTICAL<br/> Detector : Peak </p> |

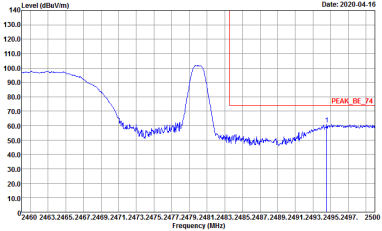
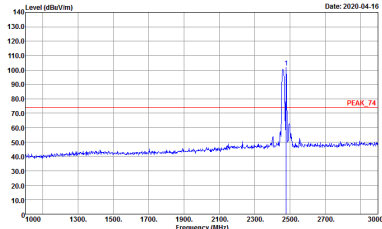
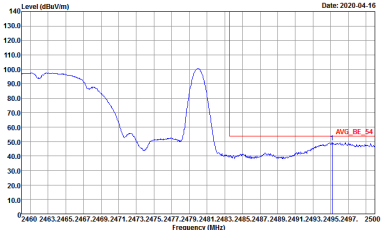
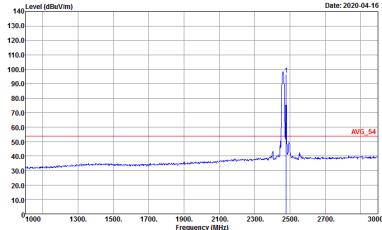
**WLAN 2.4G (Band Edge @ 3m)**

| ANT            | Ant 2_802.11b CH11 2462 MHz + Ant 1_BLE CH39 2480 MHz                                                                                                                                                         |                                                                                                                                                                                                             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                 |
| <b>Peak</b>    |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
| <b>Avg.</b>    |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |

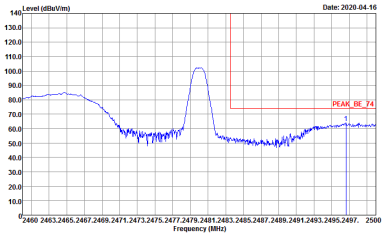
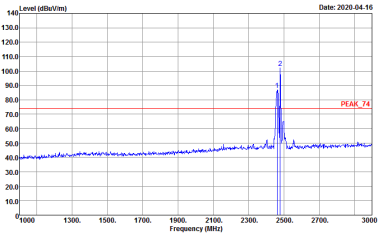
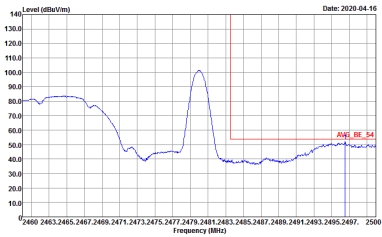
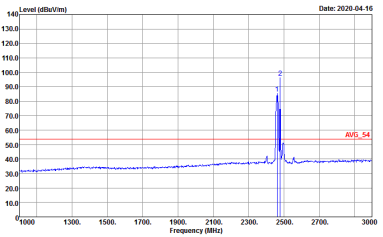
| ANT            | Ant 2_802.11b CH11 2462 MHz + Ant 1_BLE CH39 2480 MHz                                                                                                                                                       |                                                                                                                                                                                                           |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                               |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
| Avg.           |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |

**BLE (Band Edge @ 3m)**

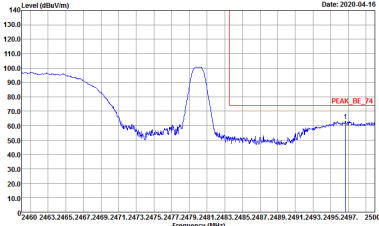
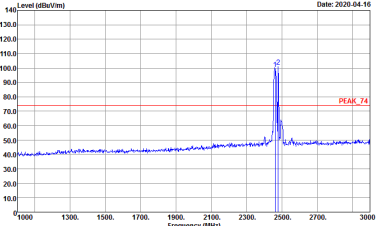
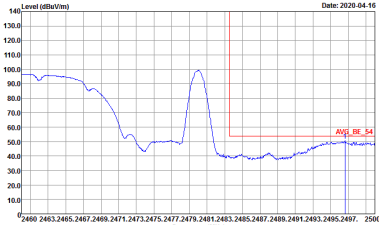
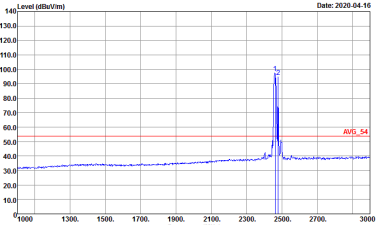
| ANT            | Ant 2_802.11b CH11 2462 MHz + Ant 1_BLE CH39 2480 MHz                                                                                                                                                         |                                                                                                                                                                                                             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                 |
| <b>Peak</b>    |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
|                |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| <b>Avg.</b>    |                                                                                                                                                                                                               |                                                                                                                                                                                                             |

| ANT            | Ant 2_802.11b CH11 2462 MHz + Ant 1_BLE CH39 2480 MHz                                                                                                                                                       |                                                                                                                                                                                                                            |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                                |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  | <p>Left blank</p>  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg.           |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>                  |

**IMD (Band Edge @ 3m)**

| ANT            | Ant 2_802.11b CH11 2462 MHz + Ant 1_BLE CH39 2480 MHz                                                                                                                                                         |                                                                                                                                                                                                             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                 |
| <b>Peak</b>    |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
|                |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| <b>Avg.</b>    |                                                                                                                                                                                                               |                                                                                                                                                                                                             |



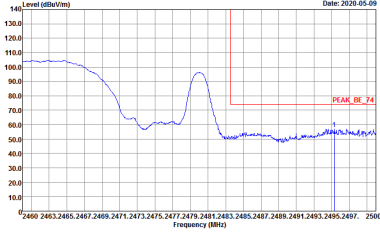
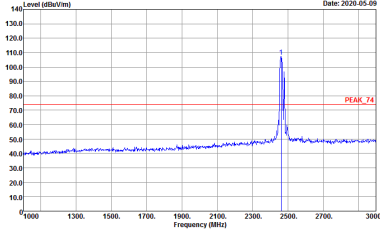
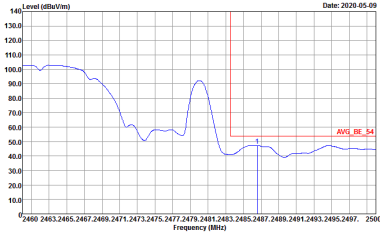
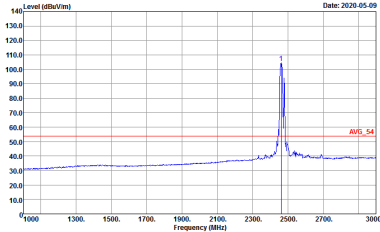
| ANT            | Ant 2_802.11b CH11 2462 MHz + Ant 1_BLE CH39 2480 MHz                                                                                                                                                       |                                                                                                                                                                                                           |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                               |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
| Avg.           |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |



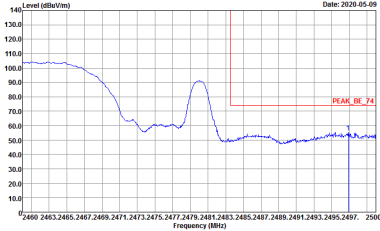
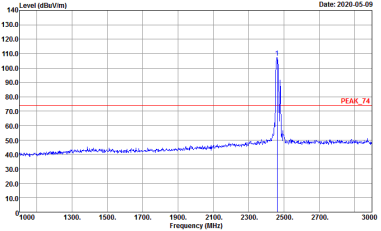
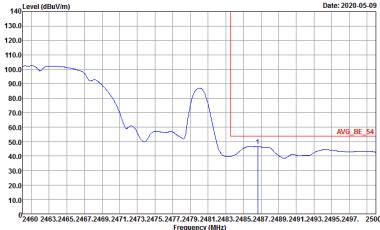
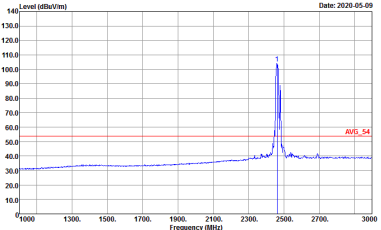
BLE and WLAN 2.4G (Harmonic @ 3m)

| ANT            | Ant 2_802.11b CH11 2462 MHz + Ant 1_BLE CH39 2480 MHz                                        |                                                                                            |
|----------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                   | Vertical                                                                                   |
| Peak<br>Avg.   | <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>Detector : Peak</p> | <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>Detector : Peak</p> |

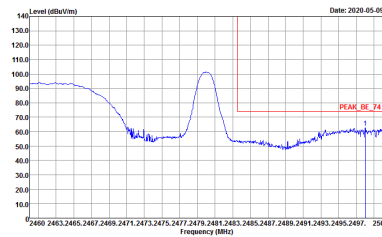
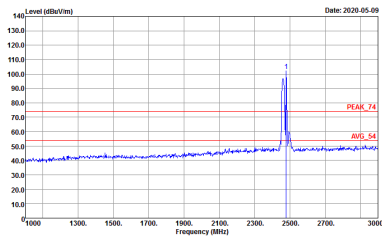
**WLAN 2.4G (Band Edge @ 3m)**

| ANT            | Ant 2_802.11b CH11 2462 MHz + Ant 1_BT Ch78 2480 MHz                                                                                                                                                         |                                                                                                                                                                                                            |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                   | Fundamental                                                                                                                                                                                                |
| <b>Peak</b>    |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
|                |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   |
| <b>Avg.</b>    |                                                                                                                                                                                                              |                                                                                                                                                                                                            |



| ANT            | Ant 2_802.11b CH11 2462 MHz + Ant 1_BT Ch78 2480 MHz                                                                                                                                                       |                                                                                                                                                                                                          |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                   | Fundamental                                                                                                                                                                                              |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg.           |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   |

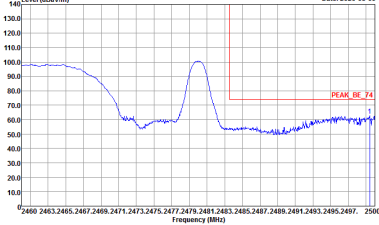
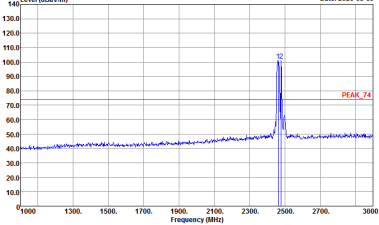
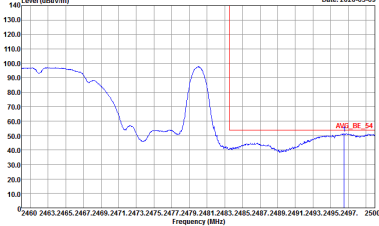
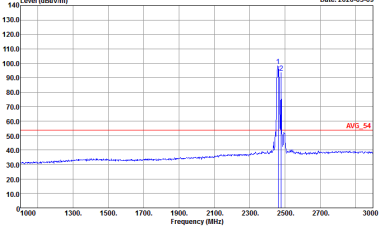
**BT (Band Edge @ 3m)**

| ANT            | Ant 2_802.11b CH11 2462 MHz + Ant 1_BT Ch78 2480 MHz                                                                                                                                                         |                                                                                                                                                                                                            |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                   | Fundamental                                                                                                                                                                                                |
| Peak           |  <p>Site : 03CH16-4Y<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-4Y<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
|                |                                                                                                                                                                                                              |                                                                                                                                                                                                            |

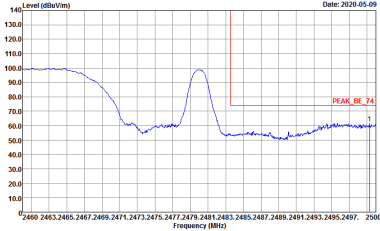
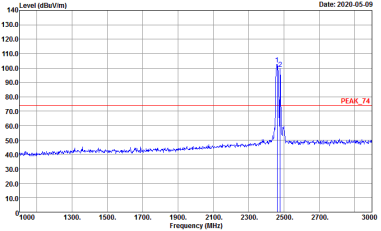
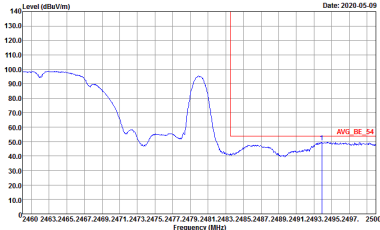
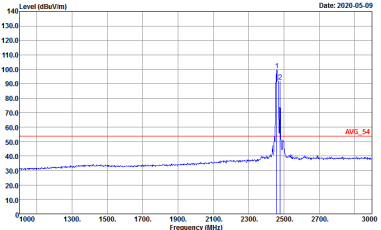


| ANT            | Ant 2_802.11b CH11 2462 MHz + Ant 1_BT Ch78 2480 MHz                                                                                                                                             |                                                                                                                                                                                            |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                         | Fundamental                                                                                                                                                                                |
| Peak           | <div><p>Level (dBm/Hz)</p><p>Date: 2028-05-09</p><p>PEAK_BE_74</p><p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> | <div><p>Level (dBm/Hz)</p><p>Date: 2028-05-09</p><p>PEAK_74</p><p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> |

**IMD (Band Edge @ 3m)**

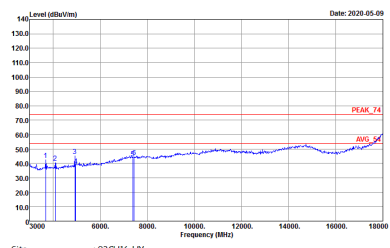
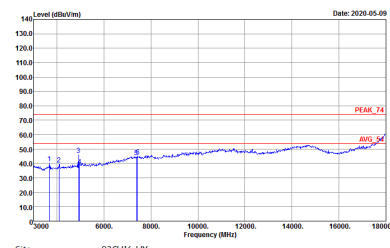
| ANT            | Ant 2_802.11b CH11 2462 MHz + Ant 1_BT Ch78 2480 MHz                                                                                                                                                          |                                                                                                                                                                                                             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                 |
| <b>Peak</b>    |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
|                |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |



| ANT            | Ant 2_802.11b CH11 2462 MHz + Ant 1_BT Ch78 2480 MHz                                                                                                                                                        |                                                                                                                                                                                                           |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                               |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
| Avg.           |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |

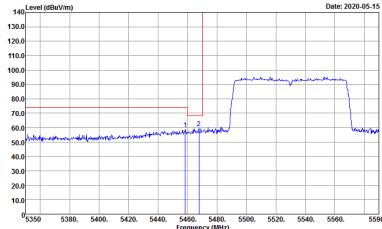
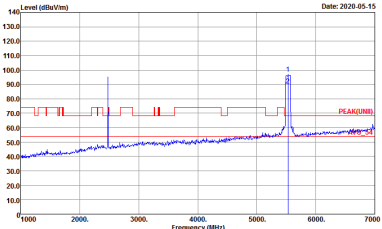
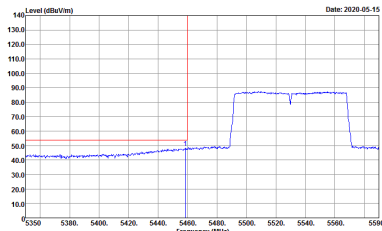


BT and WLAN 2.4G (Harmonic @ 3m)

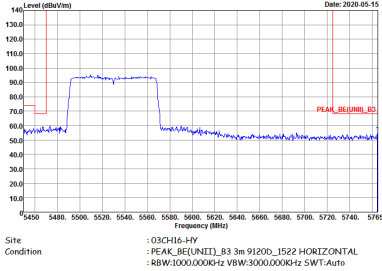
| ANT            | Ant 2_802.11b CH11 2462 MHz + Ant 1_BT Ch78 2480 MHz                                                                                                                           |                                                                                                                                                                               |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                     | Vertical                                                                                                                                                                      |
| Peak<br>Avg.   |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>Detector : Peak</p> |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>Detector : Peak</p> |



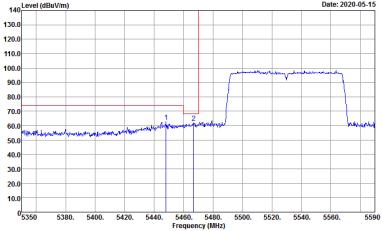
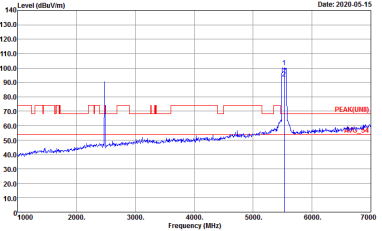
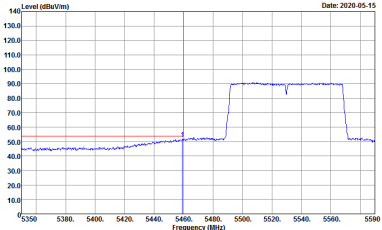
WLAN 5G Band 3 (Band Edge @ 3m)

| ANT            | Ant 1_802.11ac VHT80 CH106 5530 MHz + Ant 2_BT Ch78 2480 MHz - L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Peak           |  <p>Level (dBm/100) vs Frequency (MHz) plot. The plot shows a signal level around 80 dBm/100 from 5350 to 5480 MHz, then a sharp peak at 5480 MHz reaching approximately 130 dBm/100, and then a drop to around 60 dBm/100 from 5500 to 5580 MHz. The x-axis ranges from 5350 to 5580 MHz, and the y-axis ranges from 10.0 to 140.0 dBm/100.</p> <p>Site Condition : 03CH16-HY<br/>: PEAK_BE(UNIT)_B3 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Level (dBm/100) vs Frequency (MHz) plot. The plot shows a signal level around 70 dBm/100 from 1000 to 5000 MHz, then a sharp peak at 5480 MHz reaching approximately 130 dBm/100, and then a drop to around 60 dBm/100 from 5500 to 7000 MHz. The x-axis ranges from 1000 to 7000 MHz, and the y-axis ranges from 10.0 to 140.0 dBm/100.</p> <p>Site Condition : 03CH16-HY<br/>: PEAK(UNIT) 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg.           |  <p>Level (dBm/100) vs Frequency (MHz) plot. The plot shows a signal level around 80 dBm/100 from 5350 to 5480 MHz, then a sharp peak at 5480 MHz reaching approximately 130 dBm/100, and then a drop to around 60 dBm/100 from 5500 to 5580 MHz. The x-axis ranges from 5350 to 5580 MHz, and the y-axis ranges from 10.0 to 140.0 dBm/100.</p> <p>Site Condition : 03CH16-HY<br/>: AVG_BE(UNIT)_B3 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   | Left blank                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

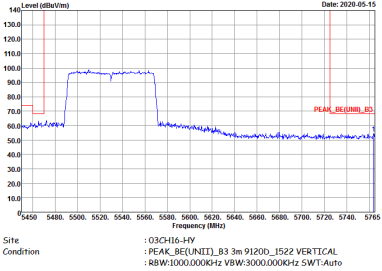


| ANT            | Ant 1_802.11ac VHT80 CH106 5530 MHz + Ant 2_BT Ch78 2480 MHz - R                             |             |
|----------------|----------------------------------------------------------------------------------------------|-------------|
| Simultaneously | Horizontal                                                                                   | Fundamental |
| Peak           | <div></div> | Left blank  |



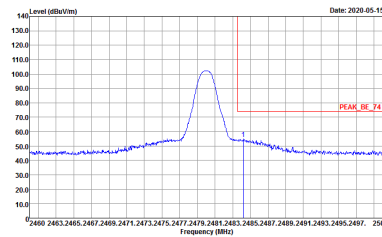
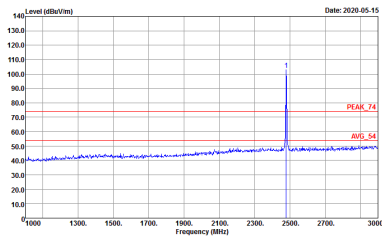
| ANT            | Ant 1_802.11ac VHT80 CH106 5530 MHz + Ant 2_BT Ch78 2480 MHz - L                                                                                                                                                  |                                                                                                                                                                                                             |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                          | Fundamental                                                                                                                                                                                                 |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE(UNIT)_B3 3m 9120D_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK(UNIT) 3m 9120D_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg.           |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE(UNIT)_B3 3m 9120D_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | Left blank                                                                                                                                                                                                  |



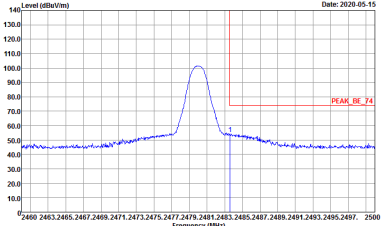
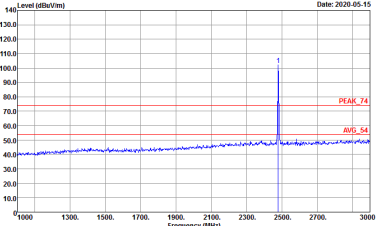
| ANT            | Ant 1_802.11ac VHT80 CH106 5530 MHz + Ant 2_BT Ch78 2480 MHz - R                             |             |
|----------------|----------------------------------------------------------------------------------------------|-------------|
| Simultaneously | Vertical                                                                                     | Fundamental |
| Peak           | <div></div> | Left blank  |



BT (Band Edge @ 3m)

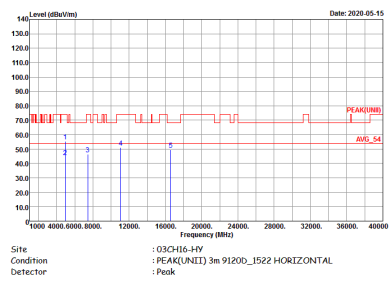
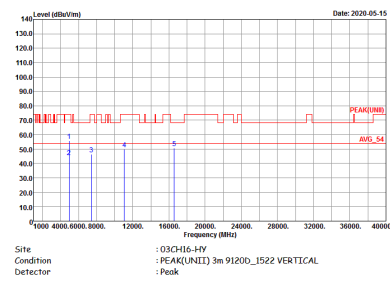
| ANT            | Ant 1_802.11ac VHT80 CH106 5530 MHz + Ant 2_BT Ch78 2480 MHz                                                                                                                                                                         |                                                                                                                                                                                                                                    |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                                           | Fundamental                                                                                                                                                                                                                        |
| Peak           |  <p>Date: 2020-05-15</p> <p>Site : 03CHIS-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Date: 2020-05-15</p> <p>Site : 03CHIS-HY<br/>Condition : PEAK_74 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |



| ANT            | Ant 1_802.11ac VHT80 CH106 5530 MHz + Ant 2_BT Ch78 2480 MHz                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                                                                         | Fundamental                                                                                                                                                                                                                                                    |
| Peak           | <div><p>Level (dBm/1m)</p><p>Date: 2028-05-15</p><p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> | <div><p>Level (dBm/1m)</p><p>Date: 2028-05-15</p><p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> |

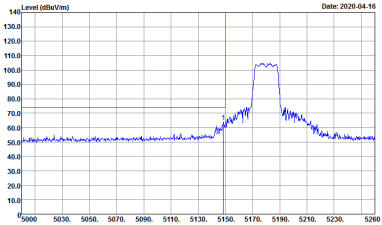
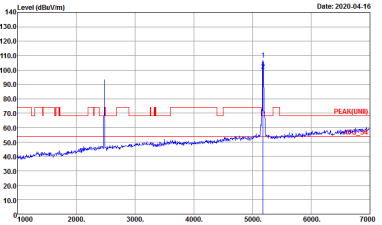
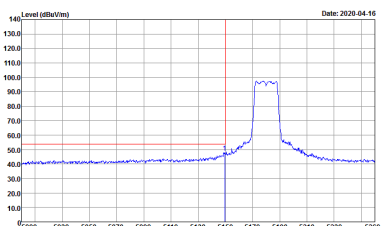


BT and WLAN 5G Band3 (Harmonic @ 3m)

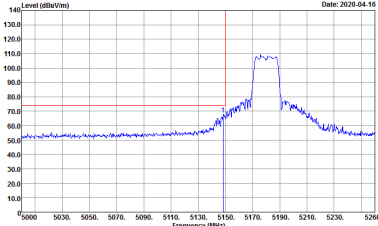
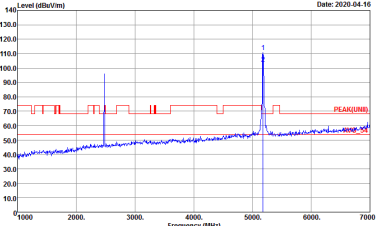
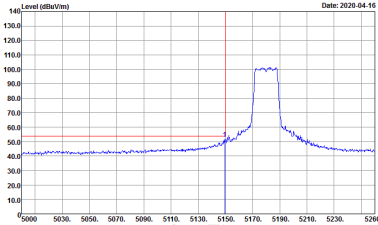
| ANT            | Ant 1_802.11ac VHT80 CH106 5530 MHz + Ant 2_BT Ch78 2480 MHz                                                                                                                      |                                                                                                                                                                                  |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                        | Vertical                                                                                                                                                                         |
| Peak<br>Avg.   |  <p>Site : 03CH16-HY<br/>Condition : PEAK(UNIT) 3m 91200_1522 HORIZONTAL<br/>Detector : Peak</p> |  <p>Site : 03CH16-HY<br/>Condition : PEAK(UNIT) 3m 91200_1522 VERTICAL<br/>Detector : Peak</p> |



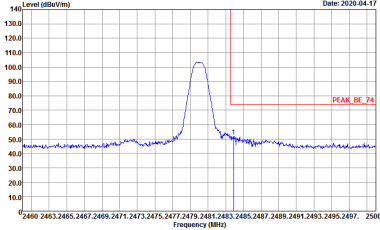
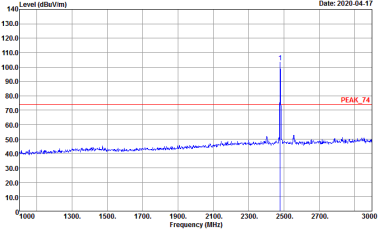
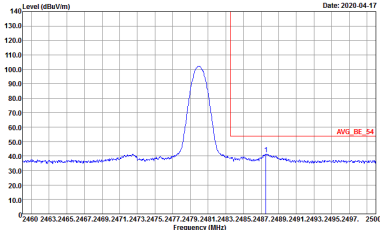
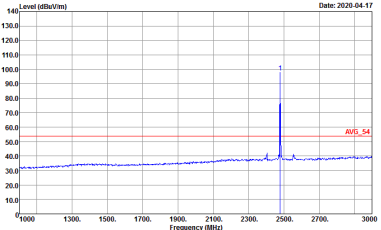
WLAN 5G Band 1 (Band Edge @ 3m)

| ANT            | Ant 1_802.11a CH36 5180 MHz + Ant 2_BLE Ch39 2480 MHz                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                    |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                                                                                         | Fundamental                                                                                                                                                                                                                                                                        |
| Peak           |  <p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2020-04-16</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2020-04-16</p> <p>Site : 03CH16-HY<br/>Condition : PEAK(UNIT) 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg.           |  <p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2020-04-16</p> <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | Left blank                                                                                                                                                                                                                                                                         |

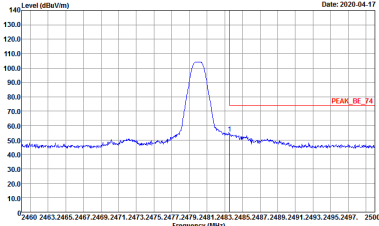
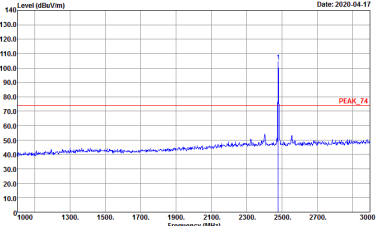
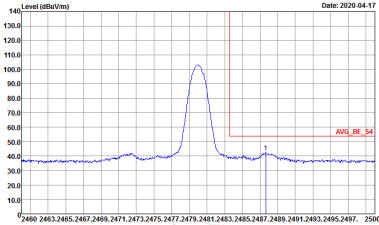
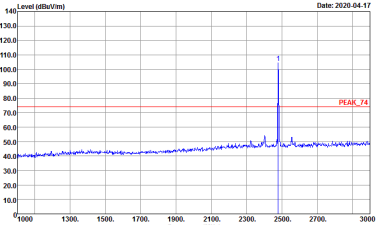


| ANT            | Ant 1_802.11a CH36 5180 MHz + Ant 2_BLE Ch39 2480 MHz                                                                                                                                                       |                                                                                                                                                                                                             |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                 |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK(UNIT) 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg.           |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | Left blank                                                                                                                                                                                                  |

**BLE (Band Edge @ 3m)**

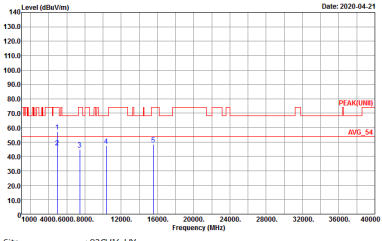
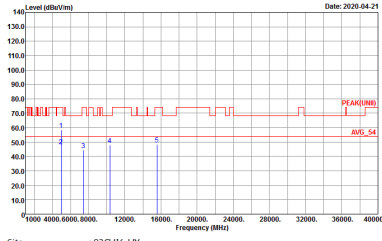
| ANT            | Ant 1_802.11a CH36 5180 MHz + Ant 2_BLE Ch39 2480 MHz                                                                                                                                                         |                                                                                                                                                                                                             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                 |
| <b>Peak</b>    |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
|                |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |



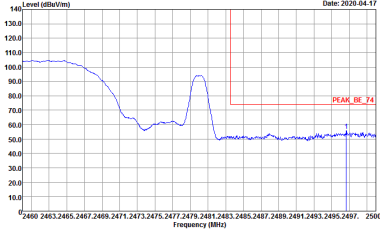
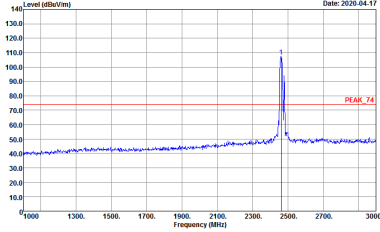
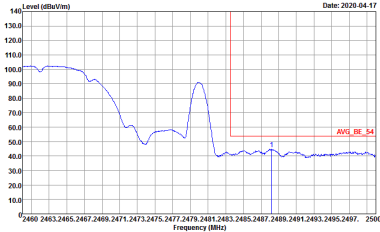
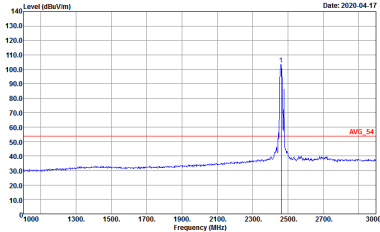
| ANT            | Ant 1_802.11a CH36 5180 MHz + Ant 2_BLE Ch39 2480 MHz                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                                                                                                          | Fundamental                                                                                                                                                                                                                                                                                    |
| Peak           |  <p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2020-04-17</p> <p>PEAK_BE_74</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2020-04-17</p> <p>PEAK_74</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>   |
| Avg.           |  <p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2020-04-17</p> <p>AVG_BE_54</p> <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2020-04-17</p> <p>PEAK_74</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |



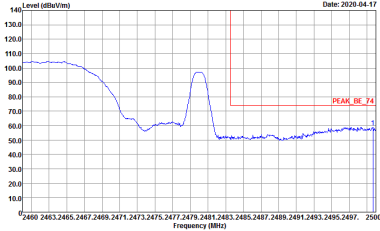
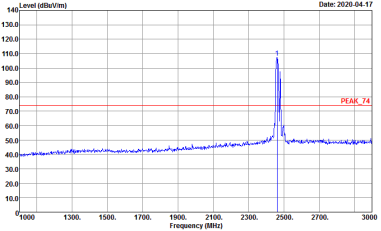
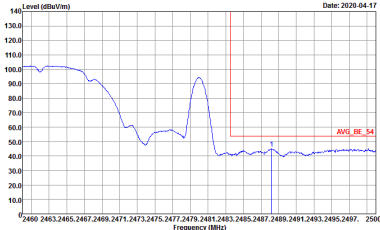
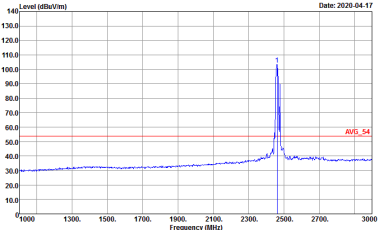
BLE and WLAN 5G Band1 (Harmonic @ 3m)

| ANT            | Ant 1_802.11a CH36 5180 MHz + Ant 2_BLE Ch39 2480 MHz                                                                                                                             |                                                                                                                                                                                  |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                        | Vertical                                                                                                                                                                         |
| Peak<br>Avg.   |  <p>Site : 03CH16-HY<br/>Condition : PEAK(UNIT) 3m 9120D_1522 HORIZONTAL<br/>Detector : Peak</p> |  <p>Site : 03CH16-HY<br/>Condition : PEAK(UNIT) 3m 9120D_1522 VERTICAL<br/>Detector : Peak</p> |

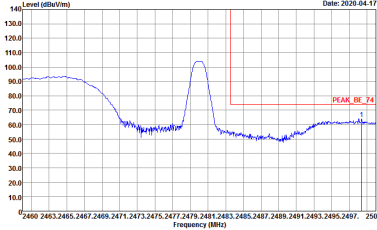
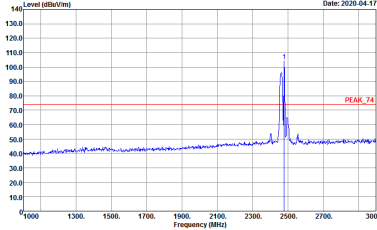
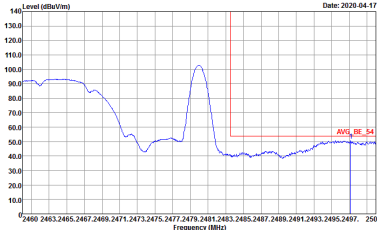
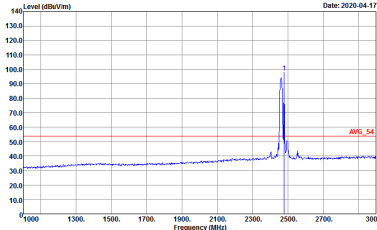
**WLAN 2.4G (Band Edge @ 3m)**

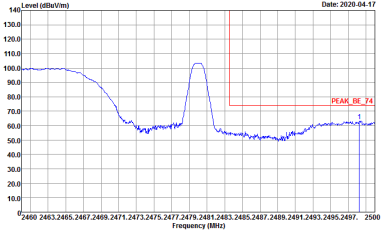
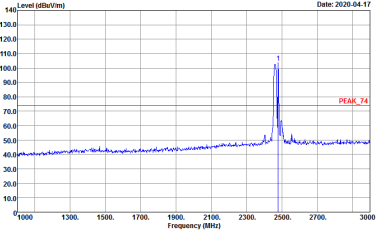
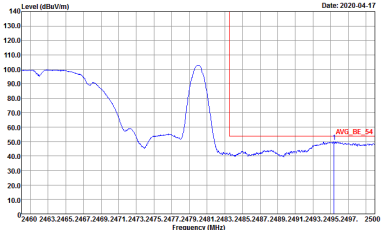
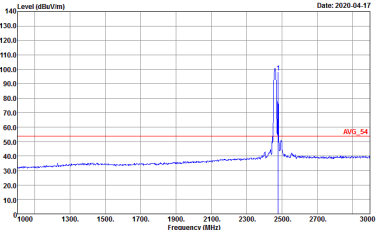
| ANT            | Ant 1_802.11b CH11 2462 MHz + Ant 2_BLE Ch39 2480 MHz                                                                                                                                                         |                                                                                                                                                                                                             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                 |
| <b>Peak</b>    |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
|                |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |



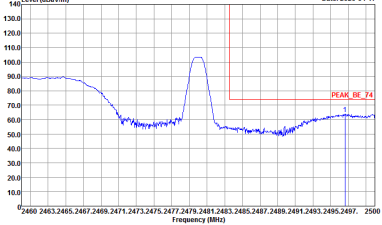
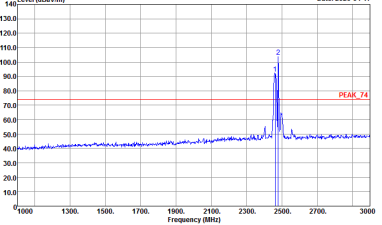
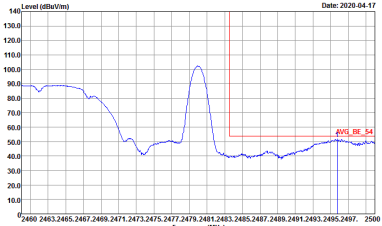
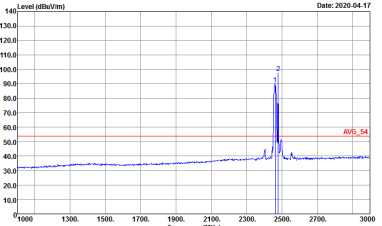
| ANT            | Ant 1_802.11b CH11 2462 MHz + Ant 2_BLE Ch39 2480 MHz                                                                                                                                                       |                                                                                                                                                                                                           |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                               |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
| Avg.           |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |

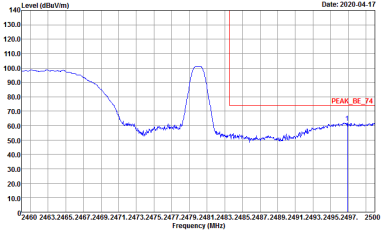
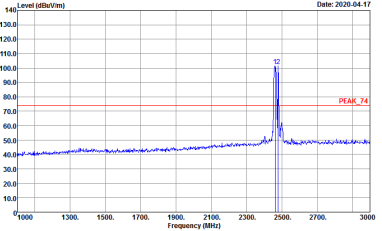
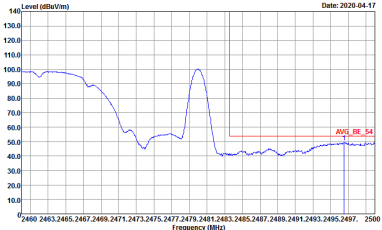
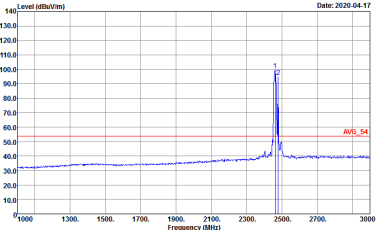
**BLE (Band Edge @ 3m)**

| ANT            | Ant 1_802.11b CH11 2462 MHz + Ant 2_BLE Ch39 2480 MHz                                                                                                                                                         |                                                                                                                                                                                                             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                 |
| <b>Peak</b>    |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
|                |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |

| ANT            | Ant 1_802.11b CH11 2462 MHz + Ant 2_BLE Ch39 2480 MHz                                                                                                                                                       |                                                                                                                                                                                                           |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                               |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
|                |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg.           |                                                                                                                                                                                                             |                                                                                                                                                                                                           |

**IMD (Band Edge @ 3m)**

| ANT            | Ant 1_802.11b CH11 2462 MHz + Ant 2_BLE Ch39 2480 MHz                                                                                                                                                         |                                                                                                                                                                                                             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                 |
| <b>Peak</b>    |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
|                |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| <b>Avg.</b>    |                                                                                                                                                                                                               |                                                                                                                                                                                                             |

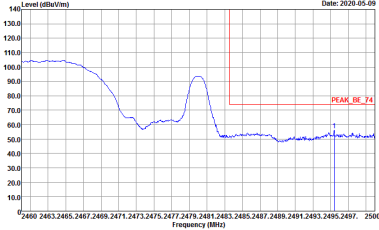
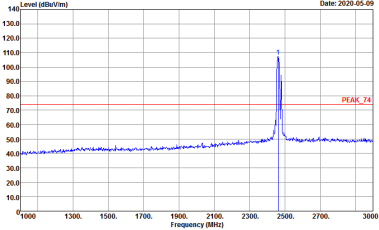
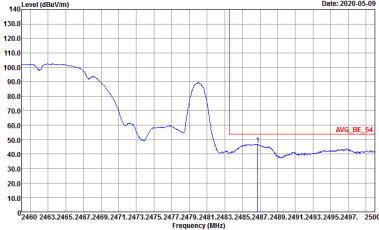
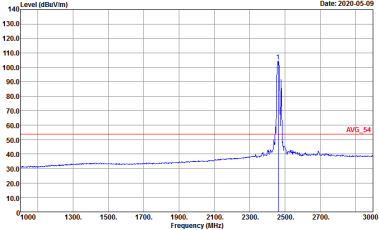
| ANT            | Ant 1_802.11b CH11 2462 MHz + Ant 2_BLE Ch39 2480 MHz                                                                                                                                                       |                                                                                                                                                                                                           |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                               |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
| Avg.           |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |



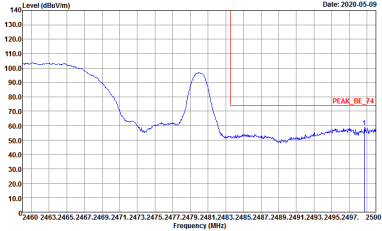
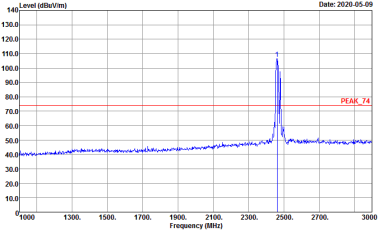
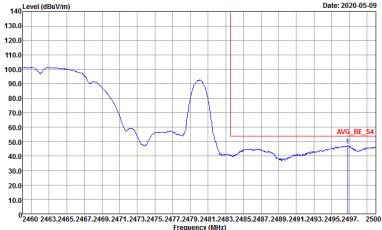
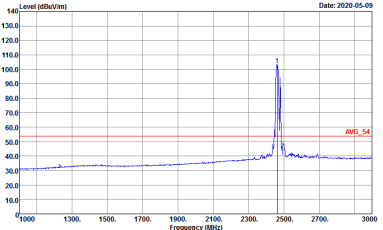
BLE and WLAN 2.4G (Harmonic @ 3m)

| ANT            | BLE_Tx_Ch39 + 11b_Tx_Ch11                                                                    |                                                                                            |
|----------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                   | Vertical                                                                                   |
| Peak<br>Avg.   | <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>Detector : Peak</p> | <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>Detector : Peak</p> |

**WLAN 2.4G (Band Edge @ 3m)**

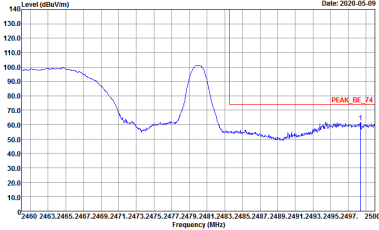
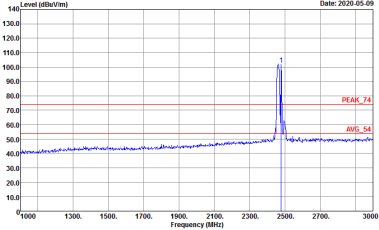
| ANT            | Ant 1_802.11b CH11 2462 MHz + Ant 2_BT Ch78 2480 MHz                                                                                                                                                          |                                                                                                                                                                                                             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                 |
| <b>Peak</b>    |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
| <b>Avg.</b>    |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |



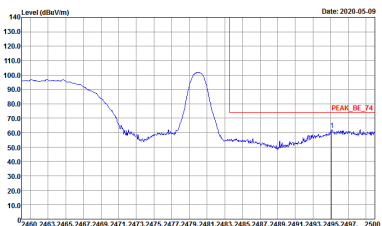
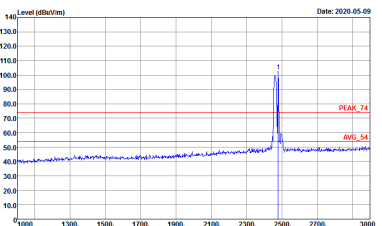
| ANT            | Ant 1_802.11b CH11 2462 MHz + Ant 2_BT Ch78 2480 MHz                                                                                                                                                        |                                                                                                                                                                                                           |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                               |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
| Avg.           |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |



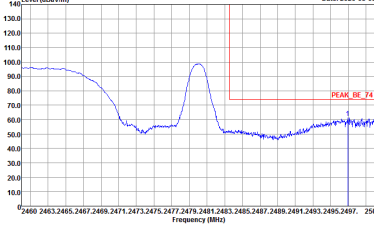
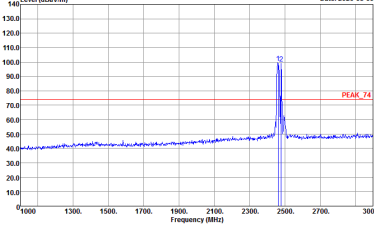
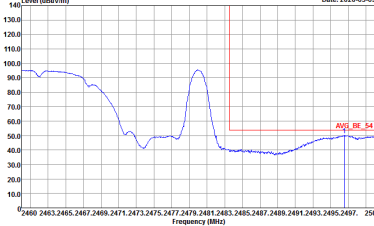
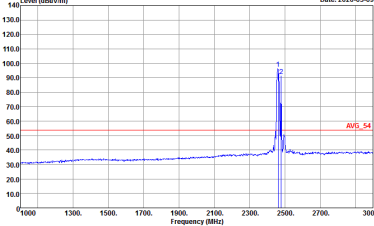
BT (Band Edge @ 3m)

| ANT            | Ant 1_802.11b CH11 2462 MHz + Ant 2_BT Ch78 2480 MHz                                                                                                                                                                   |                                                                                                                                                                                                                      |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                             | Fundamental                                                                                                                                                                                                          |
| Peak           | <div><p>Site : 03CH16-1V<br/>Condition : PEAK_RE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> | <div><p>Site : 03CH16-1V<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> |

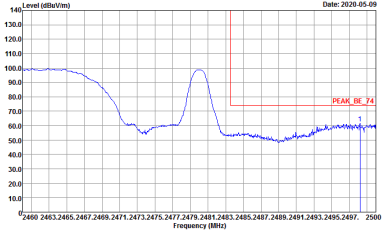
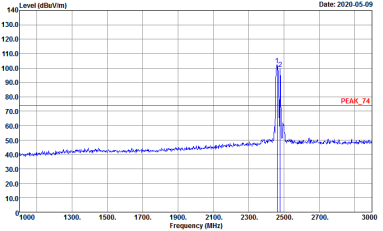
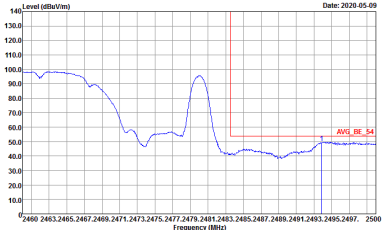
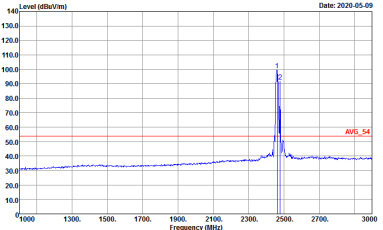


| ANT            | Ant 1_802.11b CH11 2462 MHz + Ant 2_BT Ch78 2480 MHz                                                                                                                                                                 |                                                                                                                                                                                                                    |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                             | Fundamental                                                                                                                                                                                                        |
| Peak           | <div><p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> | <div><p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p></div> |

**IMD (Band Edge @ 3m)**

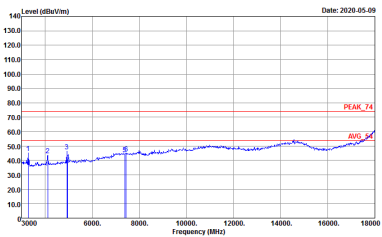
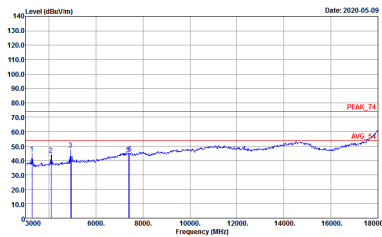
| ANT            | Ant 1_802.11b CH11 2462 MHz + Ant 2_BT Ch78 2480 MHz                                                                                                                                                          |                                                                                                                                                                                                             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                 |
| <b>Peak</b>    |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
|                |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |



| ANT            | Ant 1_802.11b CH11 2462 MHz + Ant 2_BT Ch78 2480 MHz                                                                                                                                                        |                                                                                                                                                                                                           |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Vertical                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                               |
| Peak           |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>  |
| Avg.           |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 91200_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |



BT and WLAN 2.4G (Harmonic @ 3m)

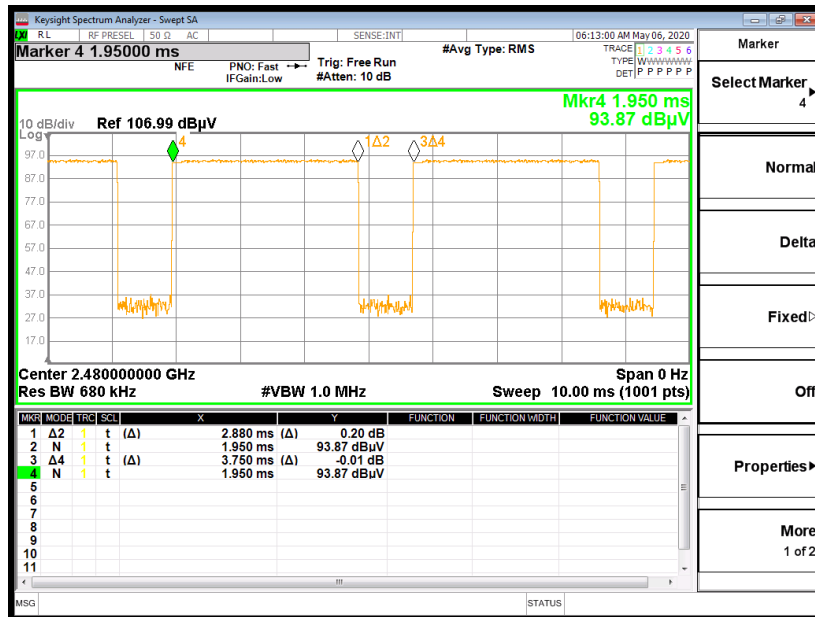
| ANT            | Ant 1_802.11b CH11 2462 MHz + Ant 2_BT Ch78 2480 MHz                                                                                                                            |                                                                                                                                                                                |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simultaneously | Horizontal                                                                                                                                                                      | Vertical                                                                                                                                                                       |
| Peak<br>Avg.   |  <p>Site : 03CH16-4RY<br/>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br/>Detector : Peak</p> |  <p>Site : 03CH16-4RY<br/>Condition : PEAK_74 3m 91200_1522 VERTICAL<br/>Detector : Peak</p> |
|                |                                                                                                                                                                                 |                                                                                                                                                                                |



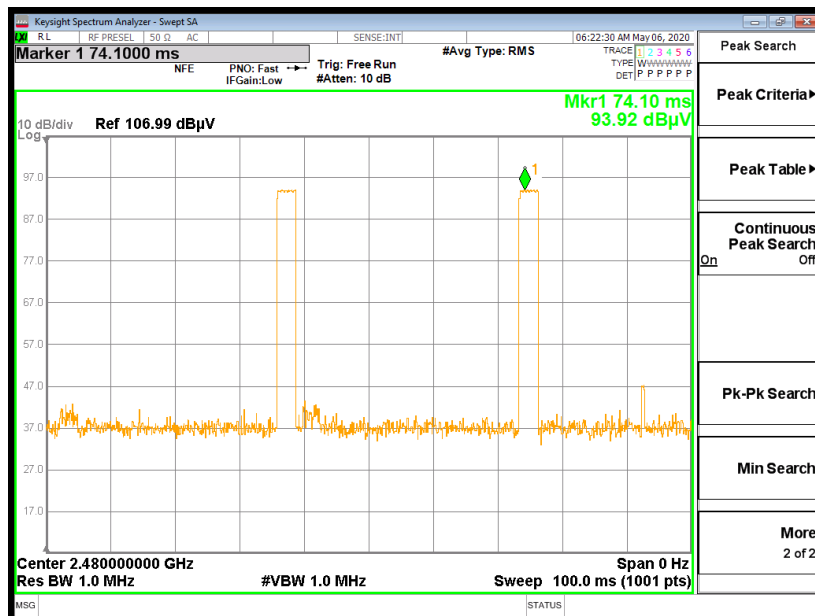
## Appendix C. Duty Cycle Plots

&lt;Ant. 1&gt;

### 3DH5 on time (One Pulse) Plot on Channel 78



### on time (Count Pulses) Plot on Channel 78

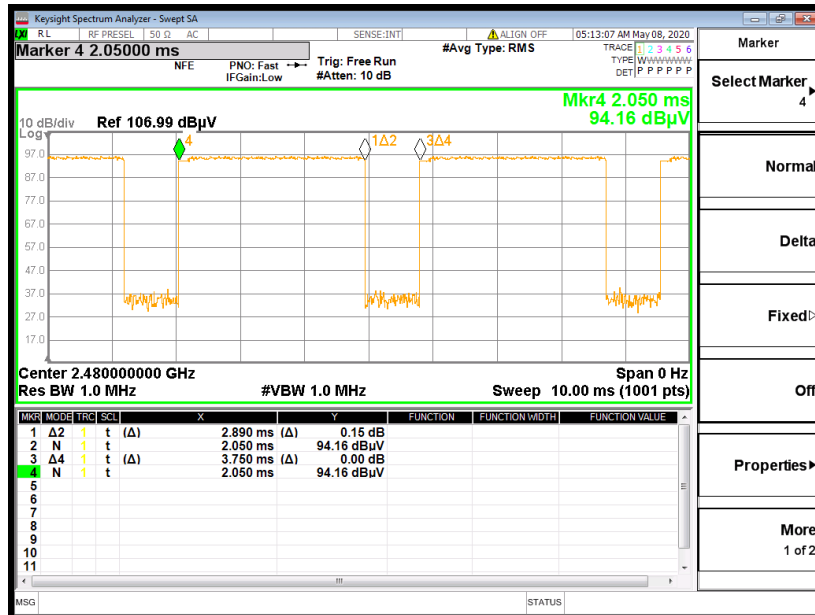


#### Note:

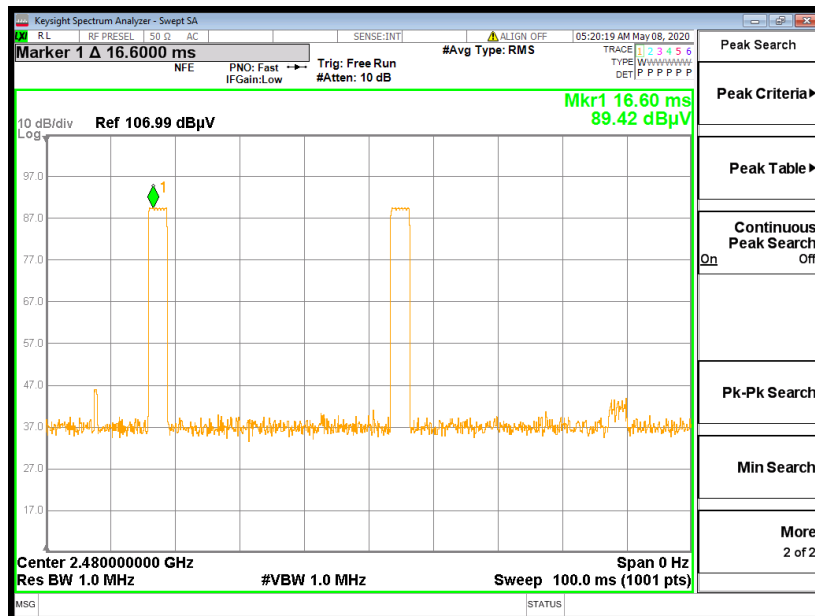
1. Worst case Duty cycle = on time/100 milliseconds =  $2 * 2.88 / 100 = 5.76 \%$
2. Worst case Duty cycle correction factor =  $20 * \log(\text{Duty cycle}) = -24.79 \text{ dB}$
3. 3DH5 has the highest duty cycle worst case and is reported.

<Ant. 2>

### 3DH5 on time (One Pulse) Plot on Channel 78



### on time (Count Pulses) Plot on Channel 78



#### Note:

1. Worst case Duty cycle = on time/100 milliseconds =  $2 * 2.89 / 100 = 5.76 \%$
2. Worst case Duty cycle correction factor =  $20 * \log(\text{Duty cycle}) = -24.76 \text{ dB}$
3. 3DH5 has the highest duty cycle worst case and is reported.

**Duty Cycle Correction Factor Consideration for AFH mode:**

Bluetooth normal hopping rate is 1600Hz and reduced to 800Hz in AFH mode; due to the reduced number of hopping frequencies, with the same packet configuration the dwell time in each channel frequency within 100msec period is longer in AFH mode than normal mode.

In AFH mode, the minimum hopping frequencies are 20, to get the longest dwell time DH5 packet is observed; the period to have DH5 packet completing one hopping sequence is

$$2.88 \text{ ms} \times 20 \text{ channels} = 57.6 \text{ ms}$$

There cannot be 2 complete hopping sequences within 100ms period, considering the random hopping behavior, maximum 2 hops can be possibly observed within the period.  $[100\text{ms} / 57.6\text{ms}] = 2$  hops

Thus, the maximum possible ON time:

$$2.88 \text{ ms} \times 2 = 5.76 \text{ ms}$$

Worst case Duty Cycle Correction factor, which is derived from the maximum possible ON time,

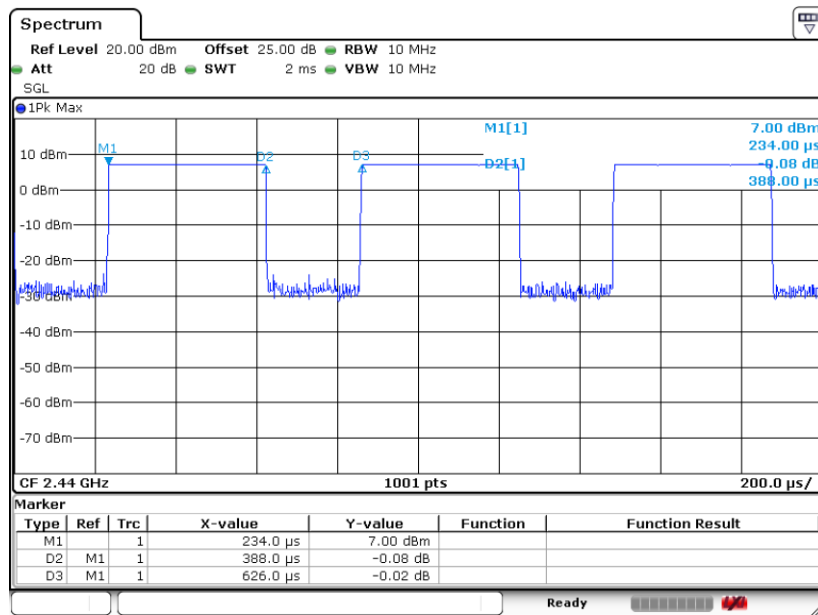
$$20 \times \log(5.76 \text{ ms}/100\text{ms}) = -24.79 \text{ dB}$$



| Antenna | Band                | Duty Cycle(%) | T(us) | 1/T(kHz) | VBW Setting | Duty Factor(dB) |
|---------|---------------------|---------------|-------|----------|-------------|-----------------|
| 1       | Bluetooth -LE       | 61.98         | 388   | 2.58     | 3kHz        | 2.08            |
| 2       | Bluetooth -LE       | 61.98         | 388   | 2.58     | 3kHz        | 2.08            |
| 1       | 802.11b             | 100.00        | -     | -        | 10Hz        | 0.00            |
| 2       | 802.11b             | 100.00        | -     | -        | 10Hz        | 0.00            |
| 1       | 802.11a             | 100.00        | -     | -        | 10Hz        | 0.00            |
| 2       | 802.11a             | 100.00        | -     | -        | 10Hz        | 0.00            |
| 1       | 5GHz 802.11ac VHT80 | 100.00        | -     | -        | 10Hz        | 0.00            |

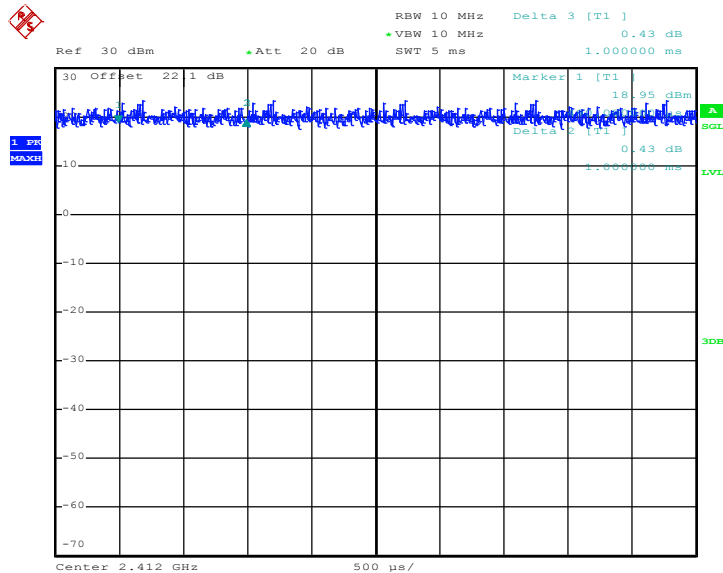
**<Ant. 1>**

## Bluetooth – LE



Date: 29.APR.2020 12:00:10

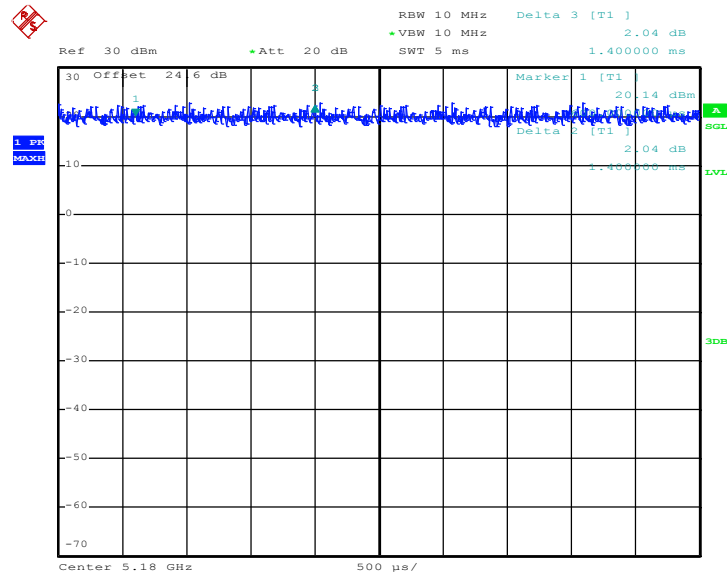
## 802.11b



Date: 15.FEB.2020 00:04:00

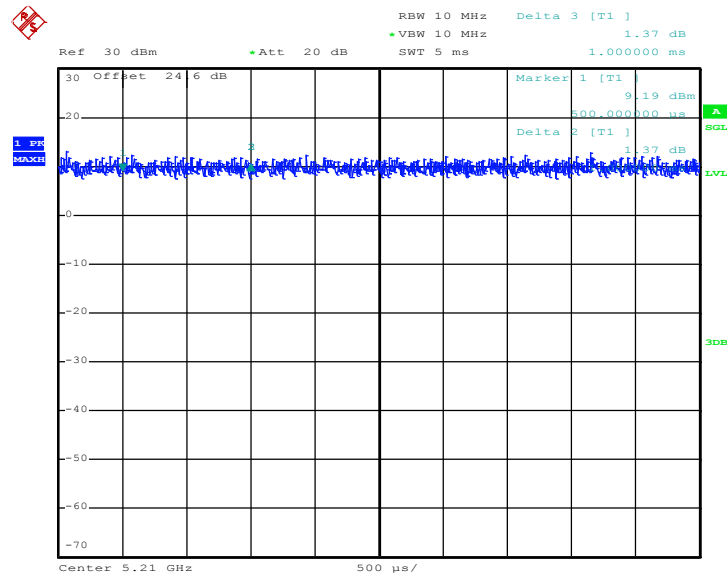


802.11a



Date: 18.FEB.2020 01:01:32

802.11ac VHT80

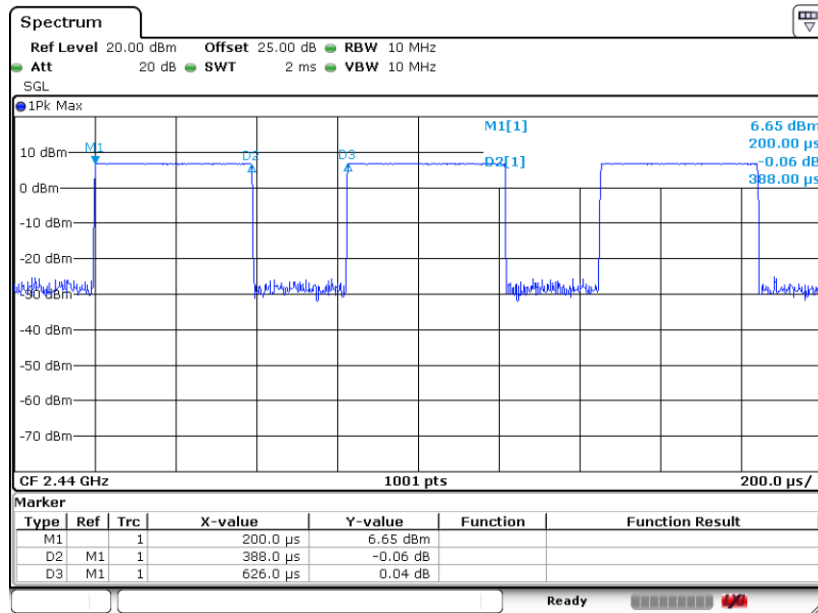


Date: 18.FEB.2020 02:11:14



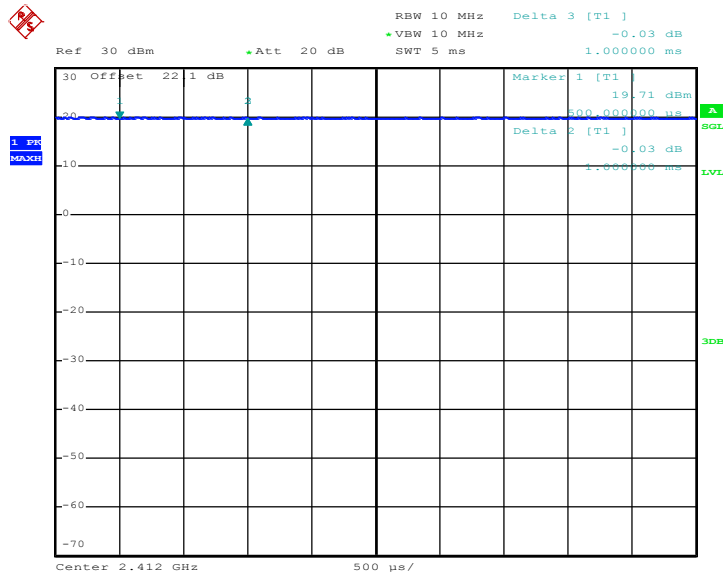
&lt;Ant. 2&gt;

## Bluetooth – LE



Date: 29.APR.2020 13:25:54

## 802.11b



Date: 15.FEB.2020 00:25:55



## 802.11a



————THE END————