



# FCC RADIO TEST REPORT

**FCC ID** : A4RG020I  
**Equipment** : Phone  
**Model Name** : G020I  
**Applicant** : Google LLC  
1600 Amphitheatre Parkway,  
Mountain View, California, 94043 USA  
**Standard** : FCC Part 15 Subpart C §15.247

The product was received on Nov. 06, 2018 and testing was started from Apr. 03, 2019 and completed on Jun. 19, 2019. 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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.

**Approved by: Jones Tsai**

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



## Table of Contents

|                                                                  |           |
|------------------------------------------------------------------|-----------|
| <b>History of this test report.....</b>                          | <b>3</b>  |
| <b>Summary of Test Result.....</b>                               | <b>4</b>  |
| <b>1 General Description .....</b>                               | <b>5</b>  |
| 1.1 Product Feature of Equipment Under Test.....                 | 5         |
| 1.2 Product Specification of Equipment Under Test.....           | 6         |
| 1.3 Modification of EUT .....                                    | 6         |
| 1.4 Testing Location .....                                       | 7         |
| 1.5 Applicable Standards.....                                    | 7         |
| <b>2 Test Configuration of Equipment Under Test .....</b>        | <b>8</b>  |
| 2.1 Carrier Frequency and Channel .....                          | 8         |
| 2.2 Test Mode.....                                               | 9         |
| 2.3 Connection Diagram of Test System.....                       | 10        |
| 2.4 Support Unit used in test configuration and system .....     | 12        |
| 2.5 EUT Operation Test Setup .....                               | 12        |
| 2.6 Measurement Results Explanation Example.....                 | 12        |
| <b>3 Test Result .....</b>                                       | <b>13</b> |
| 3.1 6dB and 99% Bandwidth Measurement .....                      | 13        |
| 3.2 Output Power Measurement.....                                | 15        |
| 3.3 Power Spectral Density Measurement .....                     | 16        |
| 3.4 Conducted Band Edges and Spurious Emission Measurement ..... | 18        |
| 3.5 Radiated Band Edges and Spurious Emission Measurement .....  | 49        |
| 3.6 AC Conducted Emission Measurement.....                       | 53        |
| 3.7 Antenna Requirements .....                                   | 55        |
| <b>4 List of Measuring Equipment.....</b>                        | <b>56</b> |
| <b>5 Uncertainty of Evaluation .....</b>                         | <b>58</b> |
| <b>Appendix A. Conducted Test Results</b>                        |           |
| <b>Appendix B. AC Conducted Emission Test Result</b>             |           |
| <b>Appendix C. Radiated Spurious Emission</b>                    |           |
| <b>Appendix D. Radiated Spurious Emission Plots</b>              |           |
| <b>Appendix E. Duty Cycle Plots</b>                              |           |



## History of this test report

| Report No.   | Version | Description                              | Issued Date   |
|--------------|---------|------------------------------------------|---------------|
| FR8N0616-05C | 01      | Initial issue of report                  | Jun. 26, 2019 |
| FR8N0616-05C | 02      | Revise the antenna numbers in the report | Jul. 05, 2019 |
|              |         |                                          |               |
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## Summary of Test Result

| Report Clause | Ref Std. Clause    | Test Items                                         | Result (PASS/FAIL) | Remark                                    |
|---------------|--------------------|----------------------------------------------------|--------------------|-------------------------------------------|
| 3.1           | 15.247(a)(2)       | 6dB Bandwidth                                      | Pass               | -                                         |
| 3.1           | 2.1049             | 99% Occupied Bandwidth                             | Reporting only     | -                                         |
| 3.2           | 15.247(b)          | Power Output Measurement                           | Pass               | -                                         |
| 3.3           | 15.247(e)          | Power Spectral Density                             | Pass               | -                                         |
| 3.4           | 15.247(d)          | Conducted Band Edges                               | Pass               | -                                         |
|               |                    | Conducted Spurious Emission                        | Pass               | -                                         |
| 3.5           | 15.247(d)          | Radiated Band Edges and Radiated Spurious Emission | Pass               | Under limit<br>1.54 dB at<br>2483.520 MHz |
| 3.6           | 15.207             | AC Conducted Emission                              | Pass               | Under limit<br>8.94 dB at<br>1.469 MHz    |
| 3.7           | 15.203 & 15.247(b) | 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: Elise Chang**



# 1 General Description

## 1.1 Product Feature of Equipment Under Test

| Product Feature                 |                                                                                                                                                                                     |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Equipment                       | Phone                                                                                                                                                                               |
| Model Name                      | G020I                                                                                                                                                                               |
| FCC ID                          | A4RG020I                                                                                                                                                                            |
| EUT supports Radios application | CDMA/EV-DO/GSM/EGPRS/WCDMA/HSPA/LTE/NFC/GNSS/WPC<br>WLAN 11b/g/n HT20<br>WLAN 11a/n HT20/HT40<br>WLAN 11ac VHT20/VHT40/VHT80<br>Bluetooth BR/EDR/LE<br>60 GHz Low Power Transmitter |
| EUT Stage                       | Identical Prototype                                                                                                                                                                 |

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

| EUT Information List |            |
|----------------------|------------|
| No.                  | S/N        |
| #1                   | 934AZ06943 |
| #2                   | 935AZ06969 |
| #3                   | 935AZ07022 |

## 1.2 Product Specification of Equipment Under Test

| Standards-related Product Specification   |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |        |        |                 |   |   |                      |   |   |
|-------------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--------|--------|-----------------|---|---|----------------------|---|---|
| Tx/Rx Channel Frequency Range             |        | 2412 MHz ~ 2472 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |        |        |                 |   |   |                      |   |   |
| Maximum (Average) Output Power to antenna |        | <b>&lt;Ant. 2&gt;</b><br>802.11b : 22.90 dBm (0.1950 W)<br>802.11g : 22.20 dBm (0.1660 W)<br>802.11n HT20 : 22.10 dBm (0.1622 W)<br>802.11 ac VHT20 : 22.00 dBm (0.1585 W)<br><b>&lt;Ant. 3&gt;</b><br>802.11b : 22.90 dBm (0.1950 W)<br>802.11g : 22.10 dBm (0.1622 W)<br>802.11n HT20 : 22.00 dBm (0.1585 W)<br>802.11 ac VHT20 : 22.00 dBm (0.1585 W)<br><b>MIMO &lt;Ant. 2+3&gt;</b><br>802.11b : 25.96 dBm (0.3945 W)<br>802.11g : 25.26 dBm (0.3357 W)<br>802.11n HT20 : 25.11 dBm (0.3243 W)<br>802.11 ac VHT20 : 25.01 dBm (0.3170 W) |  |  |        |        |                 |   |   |                      |   |   |
| 99% Occupied Bandwidth                    |        | <b>&lt;MIMO Ant. 2&gt;</b><br>802.11b : 14.10MHz<br>802.11g : 17.40MHz<br>802.11n HT20 : 19.50MHz<br><b>&lt;MIMO Ant. 3&gt;</b><br>802.11b : 14.15MHz<br>802.11g : 18.70MHz<br>802.11n HT20 : 20.15MHz                                                                                                                                                                                                                                                                                                                                        |  |  |        |        |                 |   |   |                      |   |   |
| Antenna Type / Gain                       |        | <b>&lt;Ant. 2&gt;</b> IFA Antenna type with gain -0.50 dBi<br><b>&lt;Ant. 3&gt;</b> ILA Antenna type with gain -1.00 dBi                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |        |        |                 |   |   |                      |   |   |
| Type of Modulation                        |        | 802.11b : DSSS (DBPSK / DQPSK / CCK)<br>802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)<br>802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)                                                                                                                                                                                                                                                                                                                                                                                              |  |  |        |        |                 |   |   |                      |   |   |
| Antenna Function for Transmitter          |        | <table><tr><td></td><td>Ant. 2</td><td>Ant. 3</td></tr><tr><td>802.11 b/g/n/ac</td><td>V</td><td>V</td></tr><tr><td>802.11 b/g/n/ac MIMO</td><td>V</td><td>V</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                |  |  | Ant. 2 | Ant. 3 | 802.11 b/g/n/ac | V | V | 802.11 b/g/n/ac MIMO | V | V |
|                                           | Ant. 2 | Ant. 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |        |        |                 |   |   |                      |   |   |
| 802.11 b/g/n/ac                           | V      | V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |        |        |                 |   |   |                      |   |   |
| 802.11 b/g/n/ac MIMO                      | V      | V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |        |        |                 |   |   |                      |   |   |

**Note:** MIMO Ant. 2+3 is a calculated result from sum of the power MIMO Ant. 2 and MIMO Ant. 3.

## 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.52, Huaya 1st Rd., Guishan Dist.,<br>Taoyuan City, Taiwan (R.O.C.)<br>TEL: +886-3-327-3456<br>FAX: +886-3-328-4978 |         |
| <b>Test Site No.</b>      | <b>Sporton Site No.</b>                                                                                               |         |
|                           | TH05-HY                                                                                                               | CO05-HY |

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

|                           |                                                                                                                                           |  |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--|
| <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>                                                                                                                   |  |
|                           | 03CH13-HY                                                                                                                                 |  |

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

FCC designation No.: TW1190 and 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 C §15.247
- ♦ FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05r02
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.
- ♦ 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. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

## 2 Test Configuration of Equipment Under Test

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

### 2.1 Carrier Frequency and Channel

| Frequency Band  | Channel | Freq. (MHz) | Channel | Freq. (MHz) |
|-----------------|---------|-------------|---------|-------------|
| 2400-2483.5 MHz | 1       | 2412        | 8       | 2447        |
|                 | 2       | 2417        | 9       | 2452        |
|                 | 3       | 2422        | 10      | 2457        |
|                 | 4       | 2427        | 11      | 2462        |
|                 | 5       | 2432        | 12      | 2467        |
|                 | 6       | 2437        | 13      | 2472        |
|                 | 7       | 2442        |         |             |

## 2.2 Test Mode

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

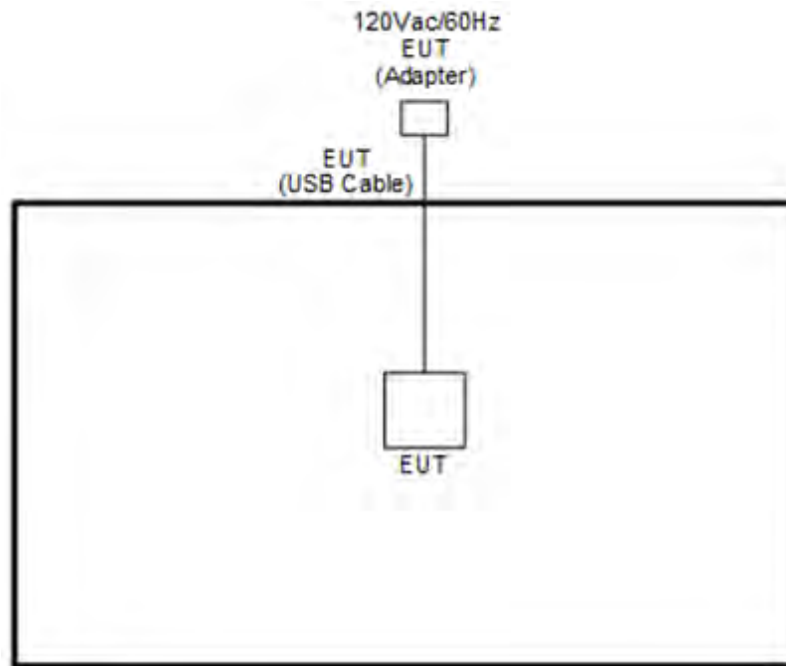
### MIMO Antenna

| Modulation                       | Data Rate |
|----------------------------------|-----------|
| 802.11b                          | 1 Mbps    |
| 802.11g                          | 6 Mbps    |
| 802.11n HT20                     | MCS0      |
| 802.11ac VHT20 (Covered by HT20) | MCS0      |

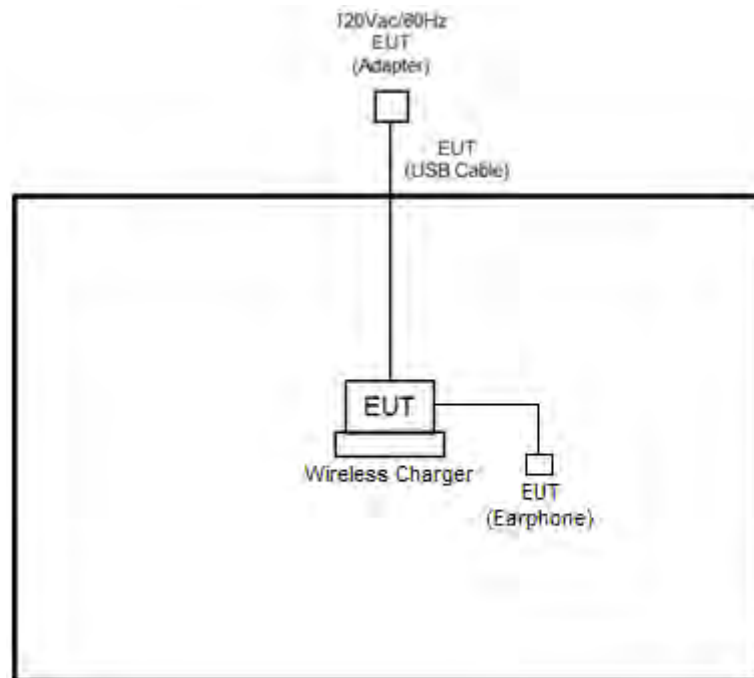
| Test Cases                                                                                                                                                                          |                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC<br>Conducted<br>Emission                                                                                                                                                         | Mode 1 :WLAN (2.4GHz) Link + Bluetooth Link + USB Cable (Type C) (Charging from AC Adapter 1)<br>Mode 2 :WLAN (2.4GHz) Link + Bluetooth Link + Earphone (Type C) + Wireless Charging |
| <b>Remark:</b><br>1. The worst case of conducted emission is mode 2; only the test data of it was reported.<br>2. For Radiated Test Cases, the tests were performed with Adapter 1. |                                                                                                                                                                                      |

## 2.3 Connection Diagram of Test System

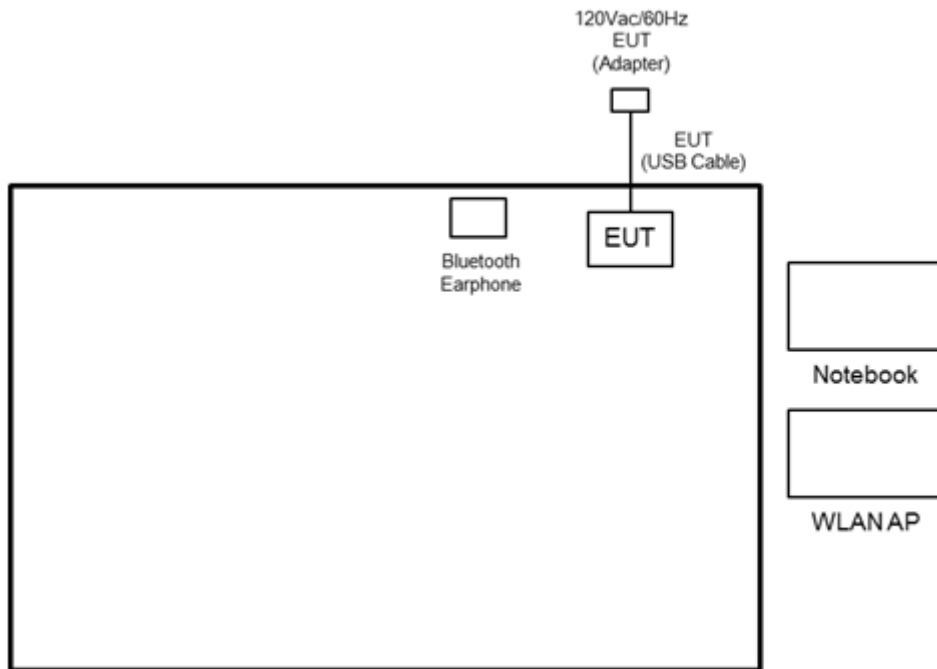
<WLAN Tx Mode>



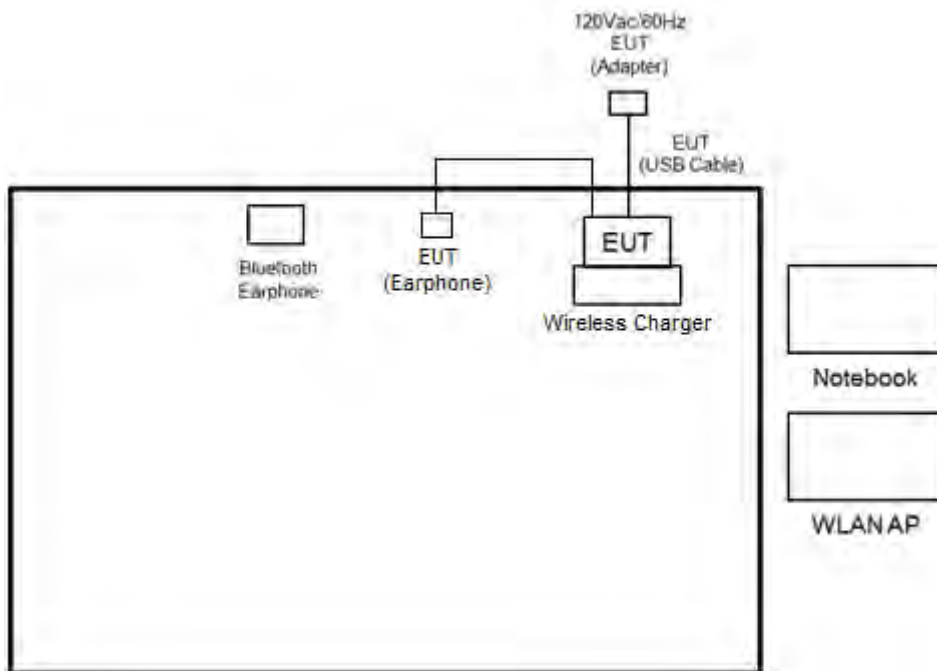
<WLAN Tx with WPC Charging Mode>



<AC Conducted Emissions Mode>



<AC Conducted Emissions with WPC Charging Mode>



## 2.4 Support Unit used in test configuration and system

| Item | Equipment          | Trade Name | Model Name     | FCC ID                                       | Data Cable | Power Cord                                                 |
|------|--------------------|------------|----------------|----------------------------------------------|------------|------------------------------------------------------------|
| 1.   | WLAN AP            | ASUS       | RT-AC66U       | MSQ-RTAC66U                                  | N/A        | Unshielded, 1.8 m                                          |
| 2.   | Notebook           | DELL       | Latitude E6320 | FCC DoC/<br>Contains FCC ID:<br>QDS-BRCM1054 | N/A        | AC I/P:<br>Unshielded, 1.2 m<br>DC O/P:<br>Shielded, 1.8 m |
| 3.   | Bluetooth Earphone | Google     | G015B          | SZGG015B                                     | N/A        | N/A                                                        |
| 4.   | Wireless charger   | Google     | G019C          | 2APYSG019C                                   | N/A        | Unshielded, 1.95m                                          |

## 2.5 EUT Operation Test Setup

The RF test items, utility "QRCT 3.0.271.0" 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.

## 2.6 Measurement Results Explanation Example

**For all conducted test items:**

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

Example:

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

*Offset = RF cable loss + attenuator factor.*

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

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

### 3 Test Result

#### 3.1 6dB and 99% Bandwidth Measurement

##### 3.1.1 Limit of 6dB and 99% Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

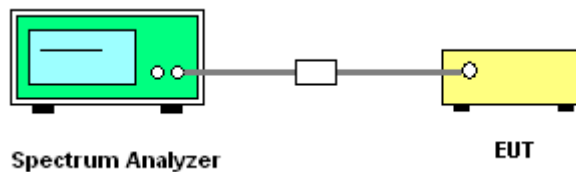
##### 3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

##### 3.1.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 6.9.3 (OBW) and 11.8.1 (6dB BW).
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW)  $\geq 3 * RBW$ .
6. Measure and record the results in the test report.

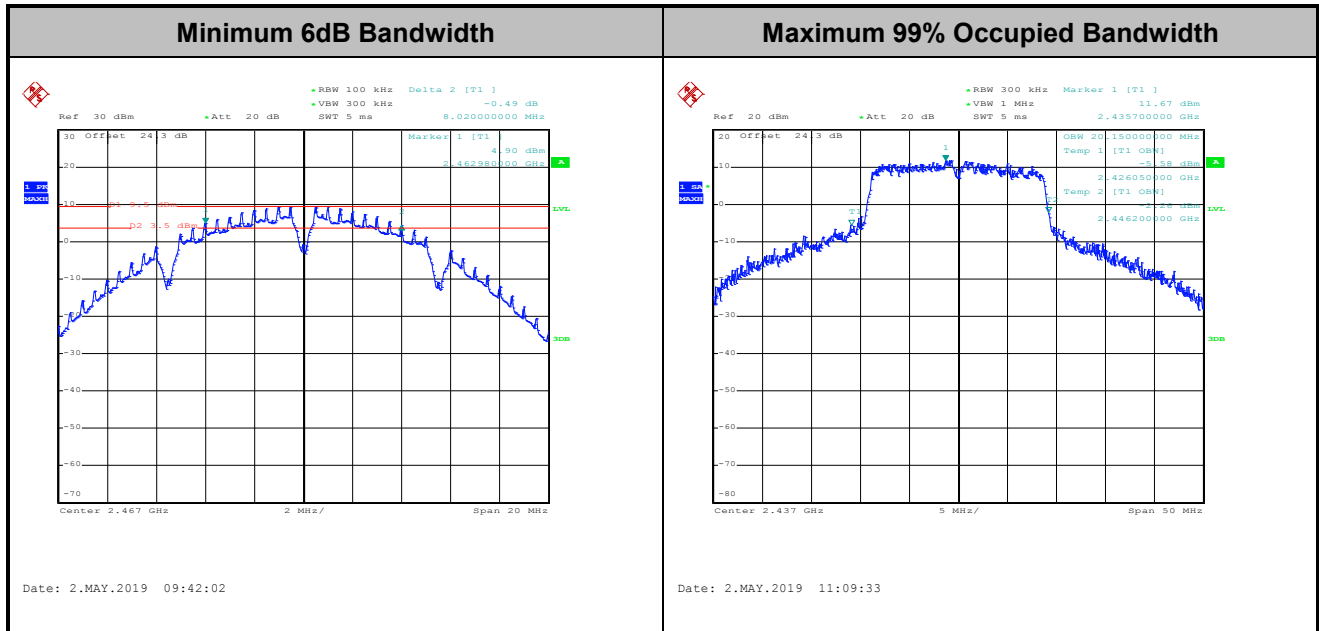
##### 3.1.4 Test Setup





### 3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

Please refer to Appendix A.



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

## 3.2 Output Power Measurement

### 3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm. If transmitting antenna with directional gain greater than 6dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

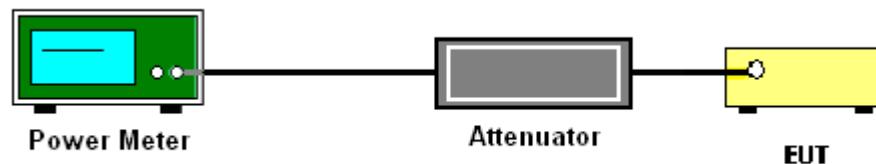
### 3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

### 3.2.3 Test Procedures

1. For Average Power, the testing follows ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G
2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.
5. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

### 3.2.4 Test Setup



### 3.2.5 Test Result of Average Output Power

Please refer to Appendix A.

### 3.3 Power Spectral Density Measurement

#### 3.3.1 Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.

#### 3.3.2 Measuring Instruments

See list of measuring equipment of this test report.

#### 3.3.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.
7. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

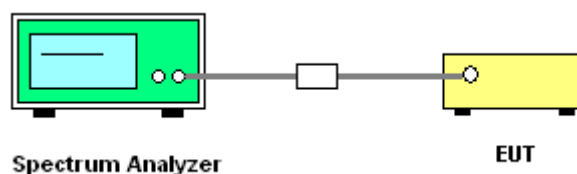
If measurements performed using method (2) plus  $10 \log(N)$  exceeds the emission limit, the test should choose method (1) before declaring that the device fails the emission limit.

Method (1): Measure and sum the spectra across the outputs.

The total final Power Spectral Density is from a device with 2 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points, the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 to obtain the value for the first frequency bin of the summed spectrum.

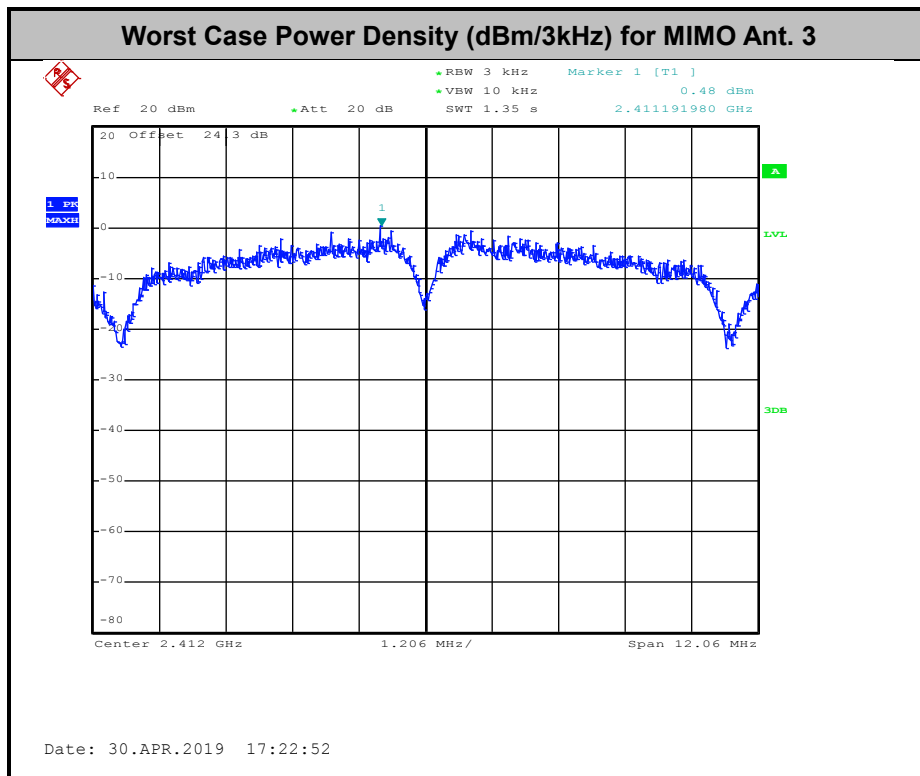
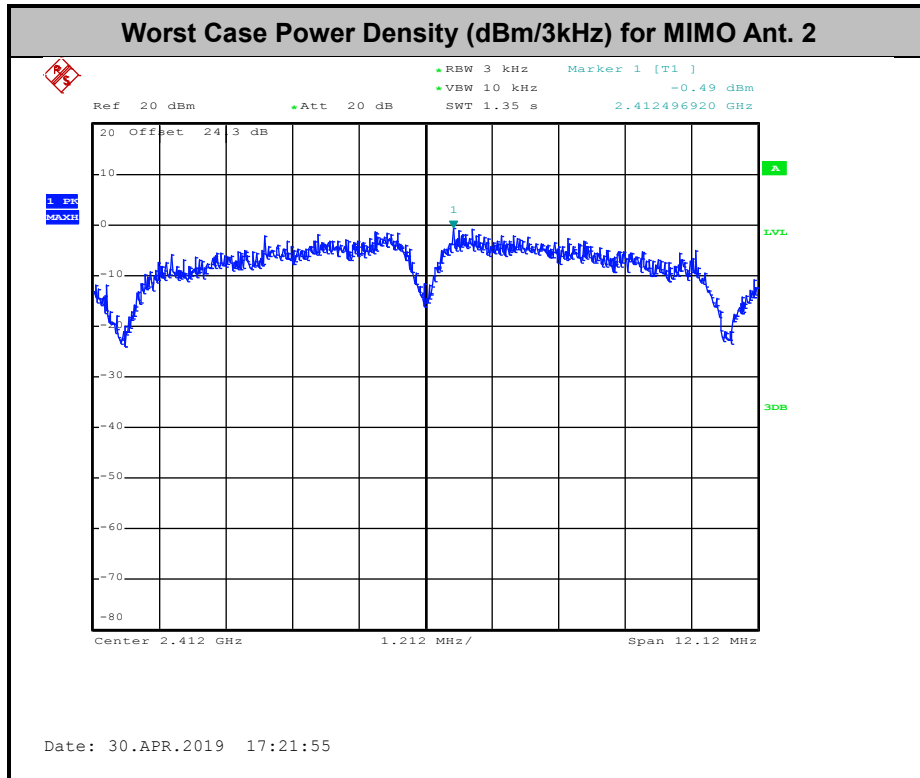
Method (2): Measure and add  $10 \log(N)$  dB, where N is the number of outputs. (N=2)

#### 3.3.4 Test Setup



### 3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.



### 3.4 Conducted Band Edges and Spurious Emission Measurement

#### 3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement.

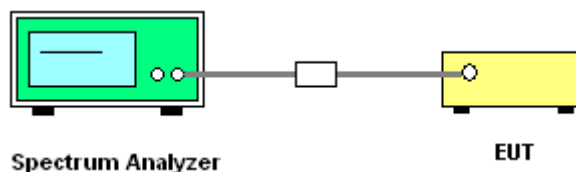
#### 3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

#### 3.4.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.11.3 Emission level measurement.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

#### 3.4.4 Test Setup



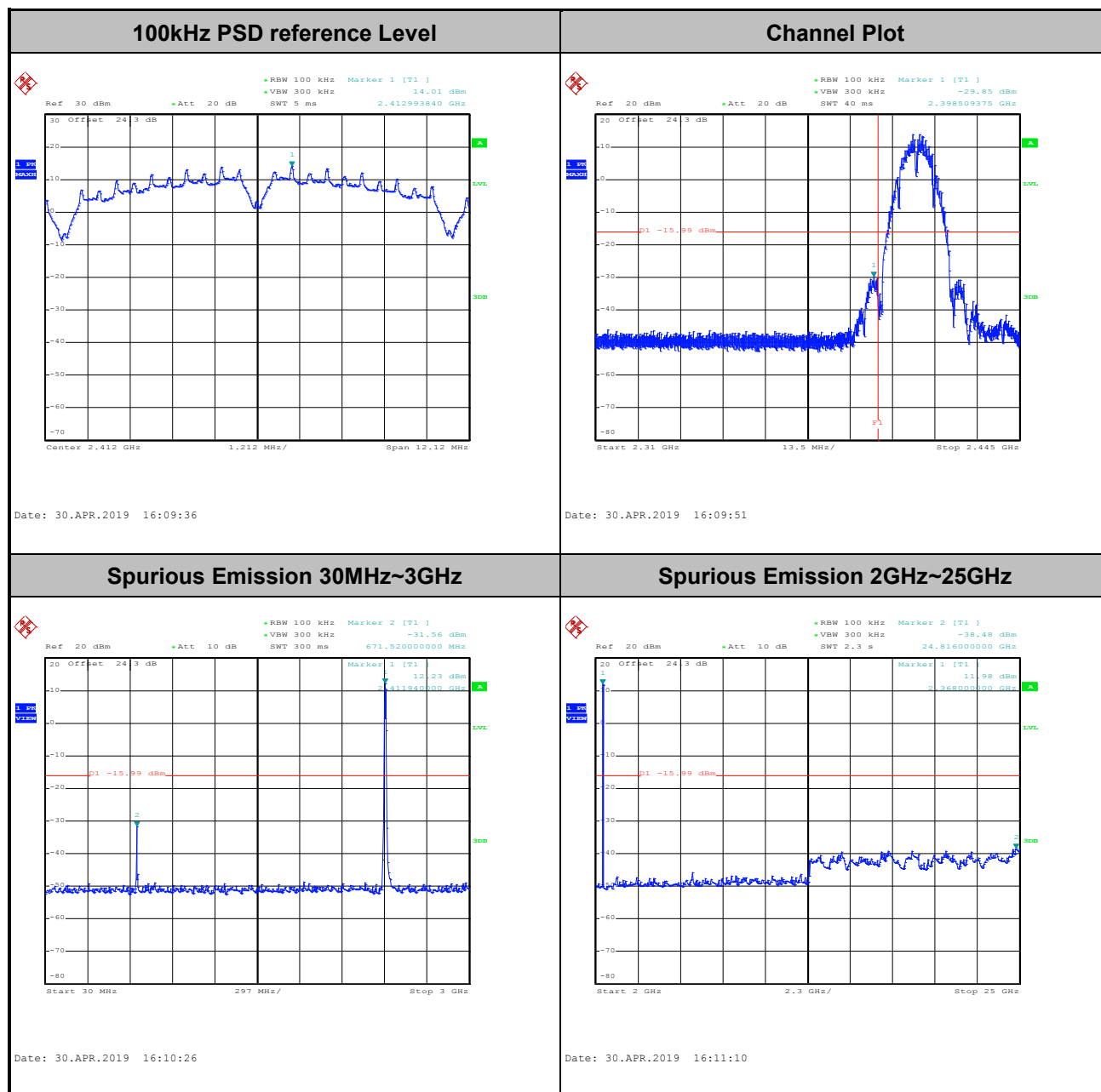


## 3.4.5 Test Result of Conducted Band Edges and Spurious Emission

|                 |                    |                     |         |
|-----------------|--------------------|---------------------|---------|
| Test Engineer : | Leo Li, Rebecca Li | Temperature :       | 21~25°C |
|                 |                    | Relative Humidity : | 51~54%  |

Number of TX = 2, Ant. 2 (Measured)

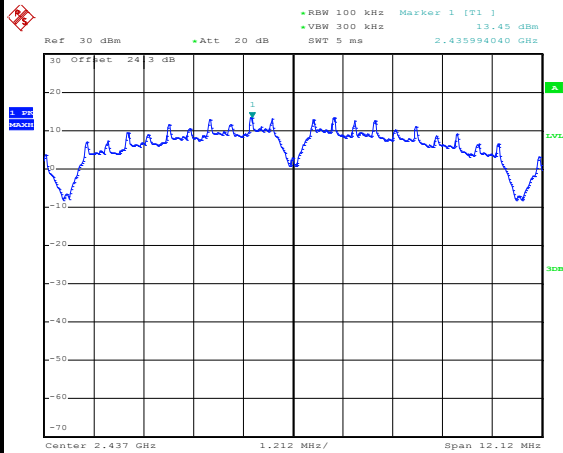
|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11b | Test Channel : | 01 |
|-------------|---------|----------------|----|





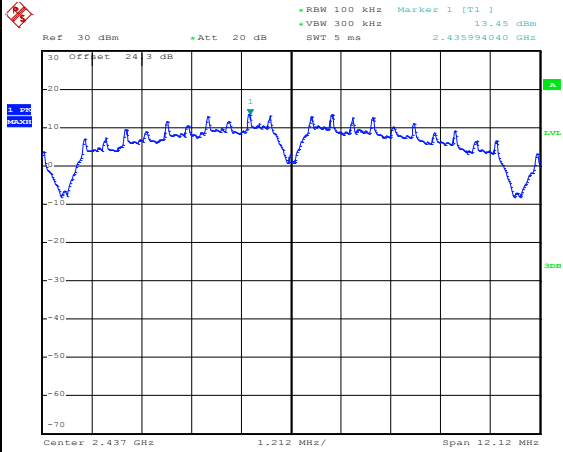
|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11b | Test Channel : | 06 |
|-------------|---------|----------------|----|

100kHz PSD reference Level

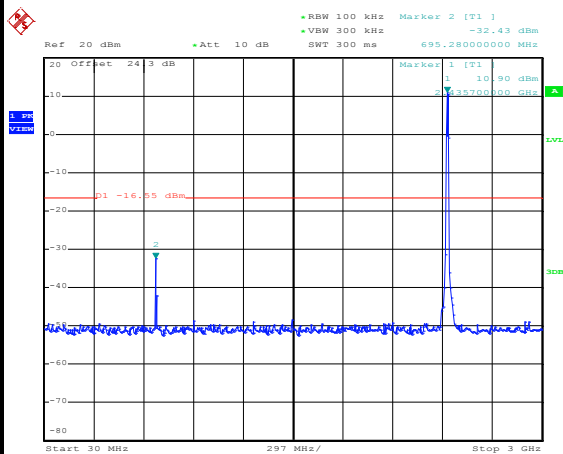


Date: 30.APR.2019 16:17:44

Channel Plot

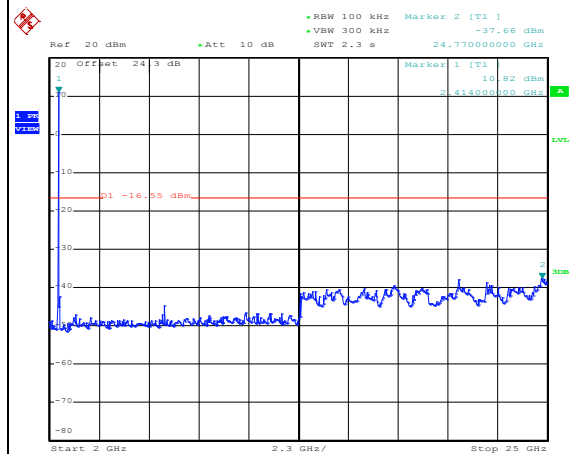


Spurious Emission 30MHz~3GHz

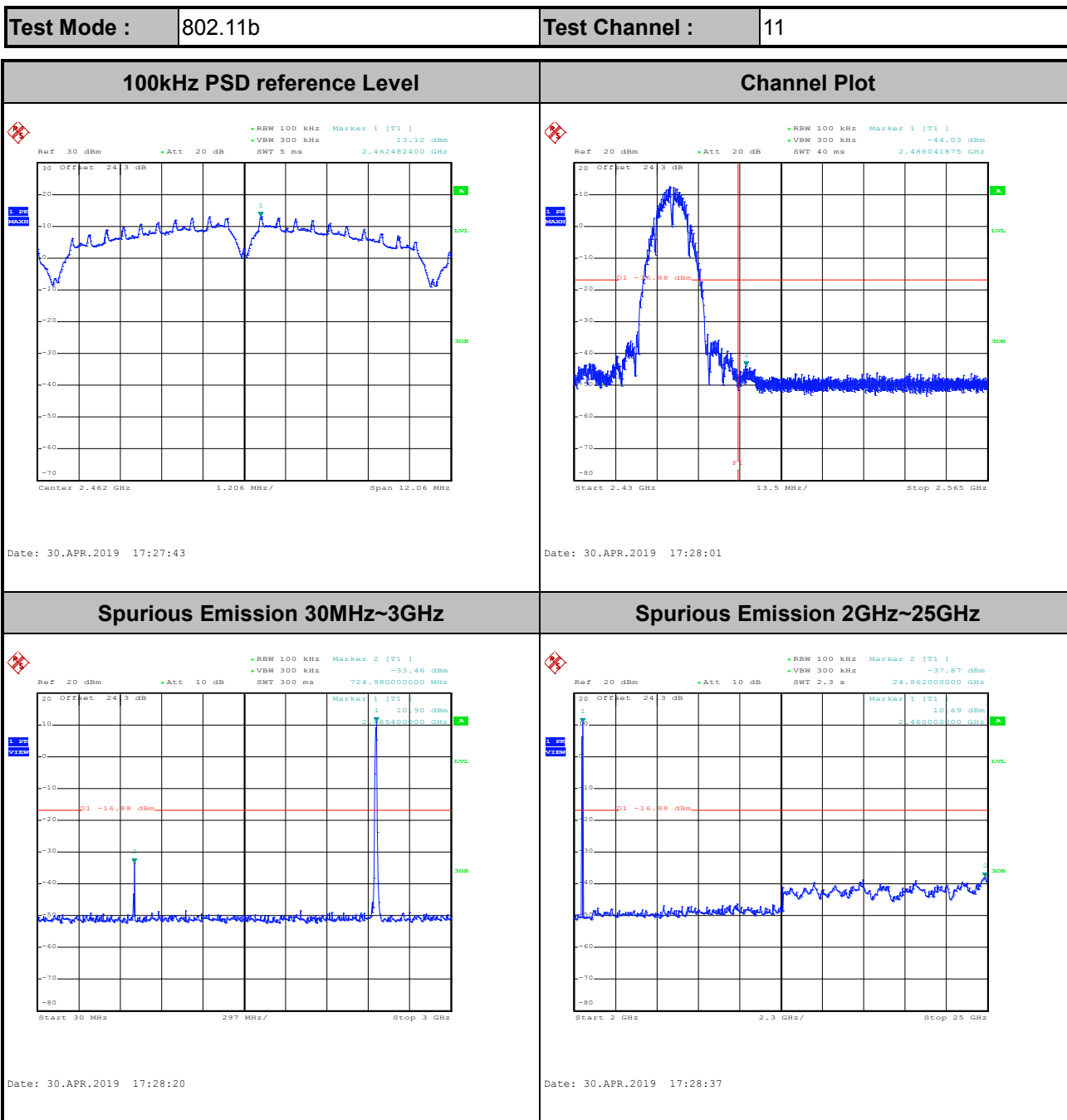


Date: 30.APR.2019 16:18:32

Spurious Emission 2GHz~25GHz



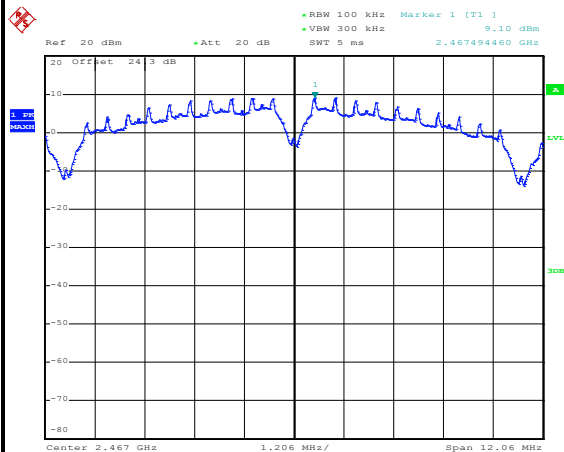
Date: 30.APR.2019 16:18:48





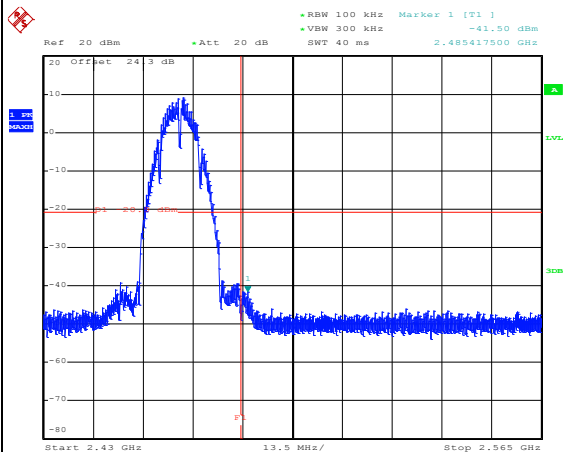
|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11b | Test Channel : | 12 |
|-------------|---------|----------------|----|

100kHz PSD reference Level



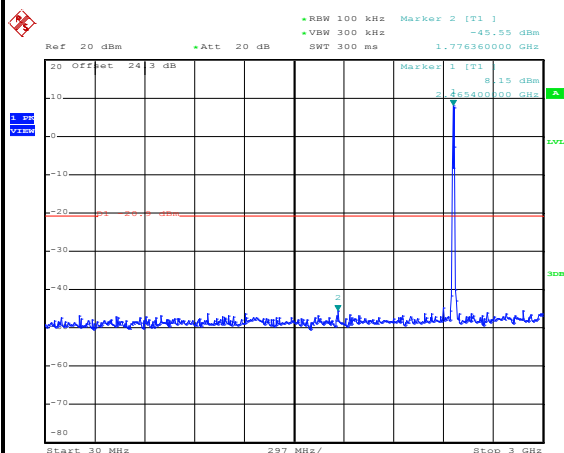
Date: 2.MAY.2019 09:36:00

Channel Plot



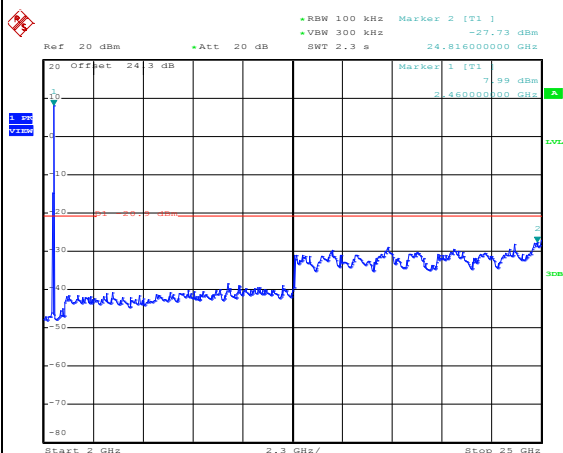
Date: 2.MAY.2019 09:36:15

Spurious Emission 30MHz~3GHz



Date: 2.MAY.2019 09:37:02

Spurious Emission 2GHz~25GHz

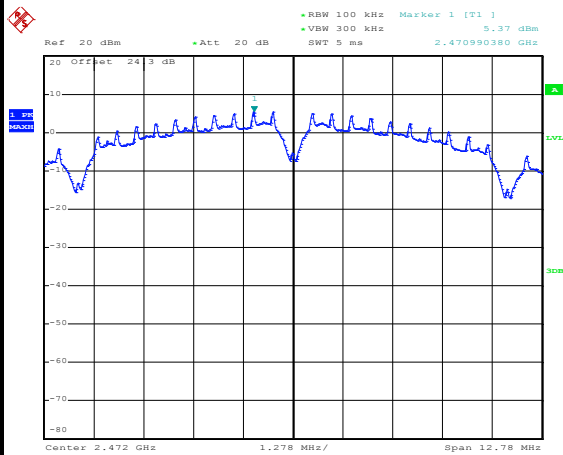


Date: 2.MAY.2019 09:38:14



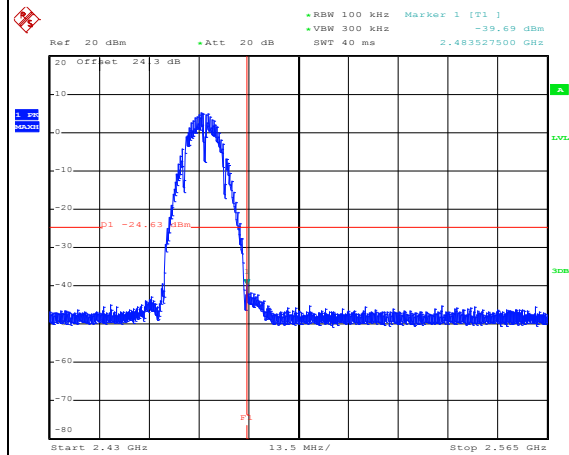
|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11b | Test Channel : | 13 |
|-------------|---------|----------------|----|

100kHz PSD reference Level



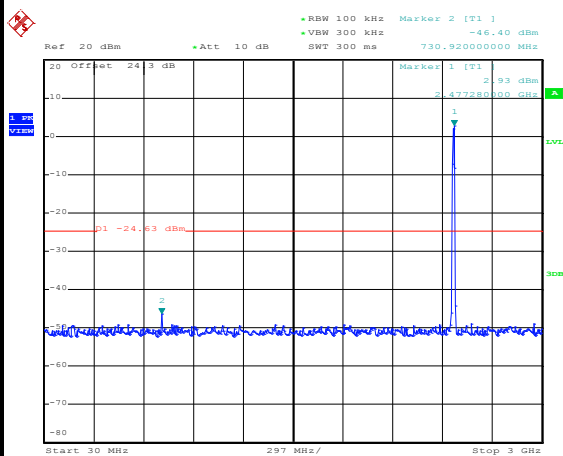
Date: 30.APR.2019 17:08:02

Channel Plot



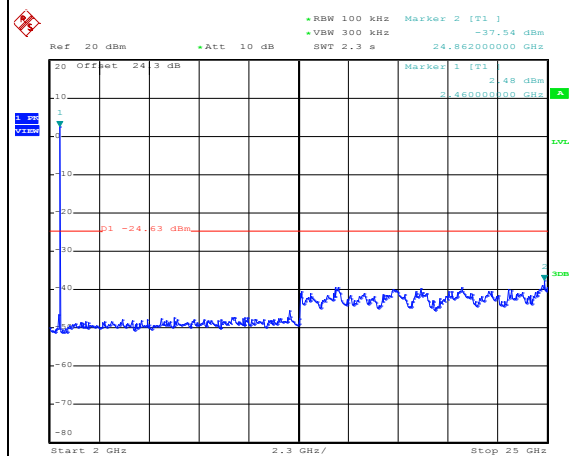
Date: 30.APR.2019 17:10:13

Spurious Emission 30MHz~3GHz



Date: 30.APR.2019 17:10:44

Spurious Emission 2GHz~25GHz

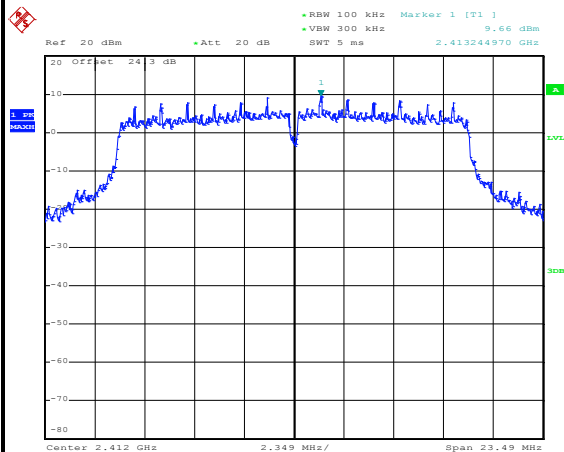


Date: 30.APR.2019 17:11:12

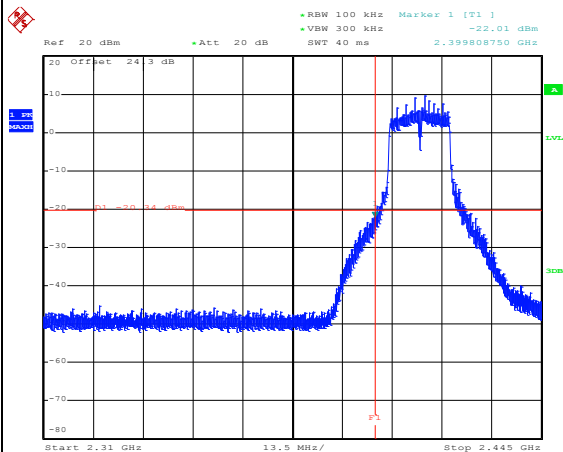


|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11g | Test Channel : | 01 |
|-------------|---------|----------------|----|

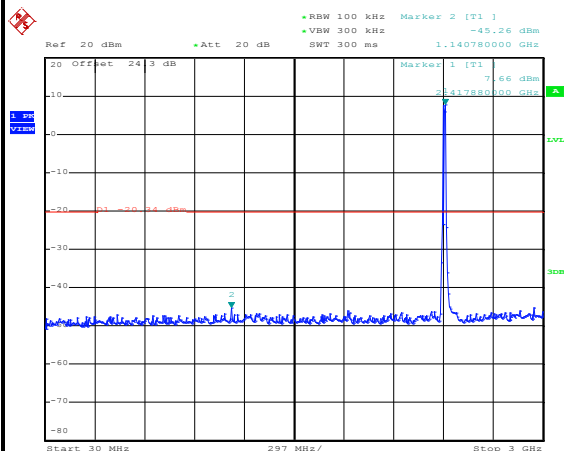
100kHz PSD reference Level



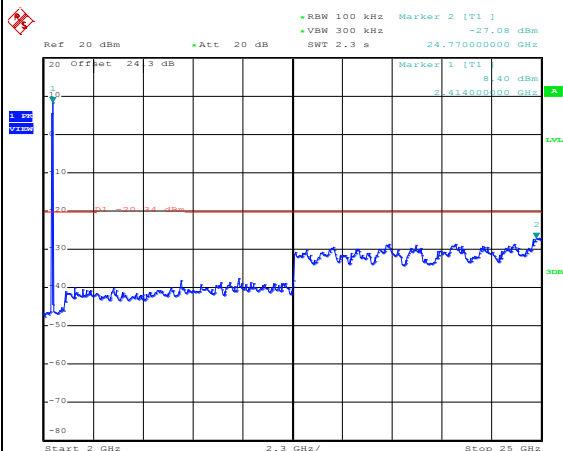
Channel Plot



Spurious Emission 30MHz~3GHz



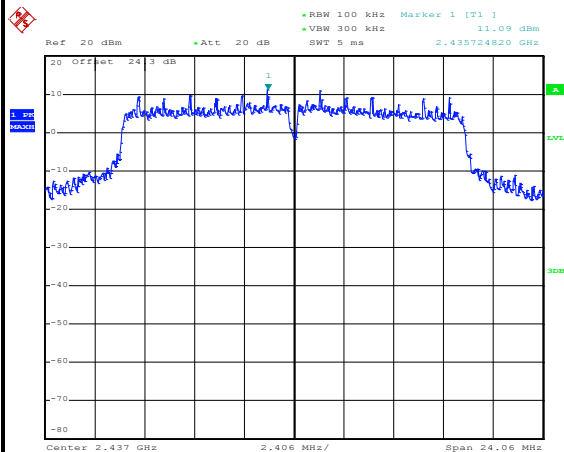
Spurious Emission 2GHz~25GHz





|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11g | Test Channel : | 06 |
|-------------|---------|----------------|----|

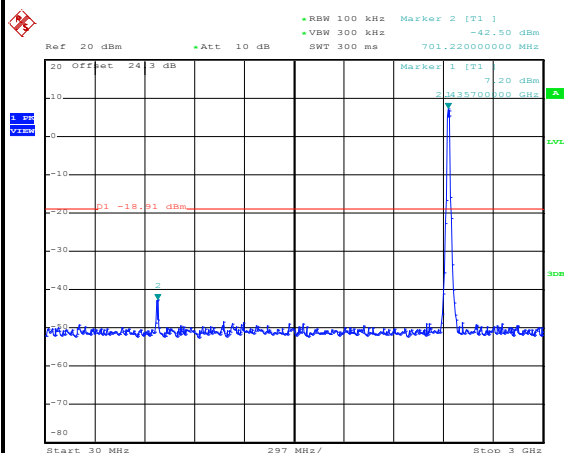
## 100kHz PSD reference Level



Date: 30.APR.2019 18:27:47

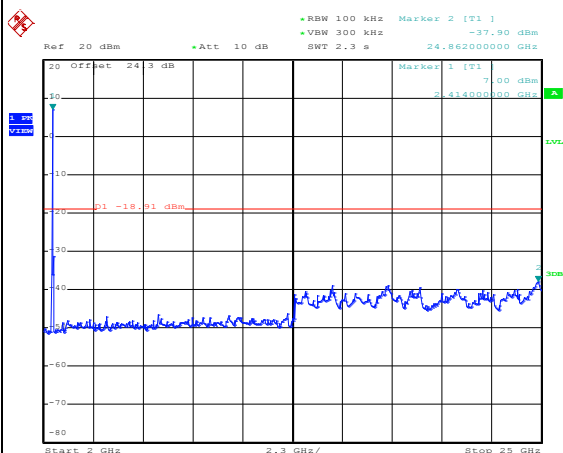
## Channel Plot

## Spurious Emission 30MHz~3GHz



Date: 30.APR.2019 18:28:04

## Spurious Emission 2GHz~25GHz

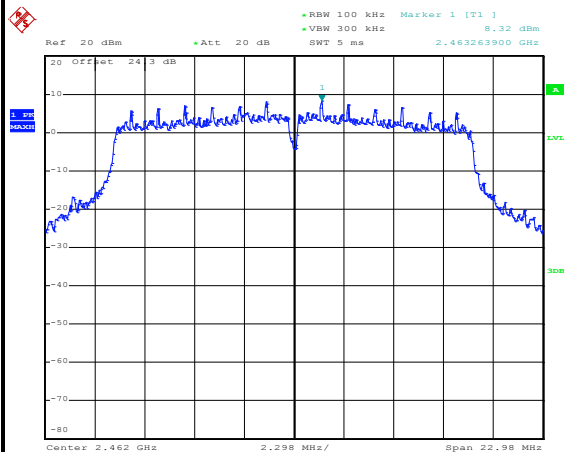


Date: 30.APR.2019 18:28:31



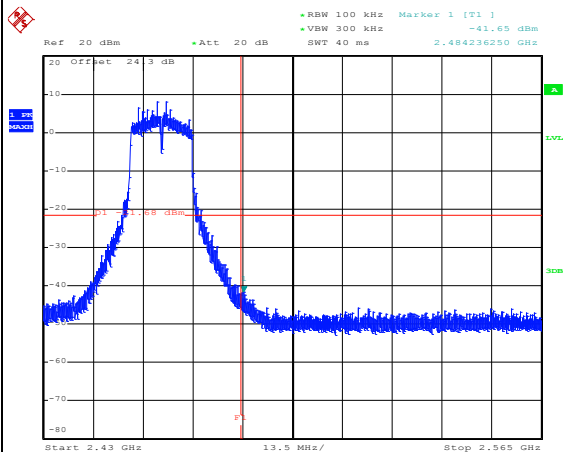
|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11g | Test Channel : | 11 |
|-------------|---------|----------------|----|

100kHz PSD reference Level



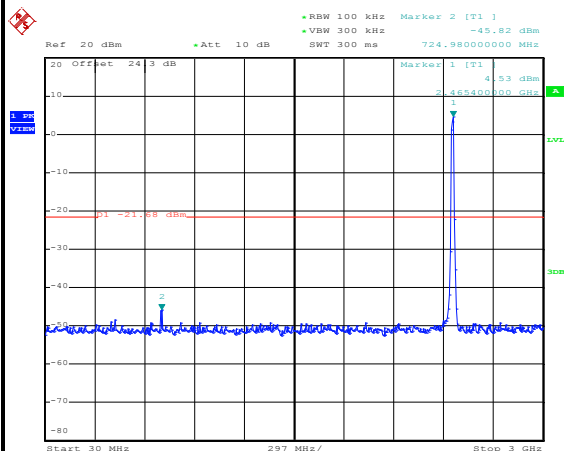
Date: 30.APR.2019 18:37:19

Channel Plot



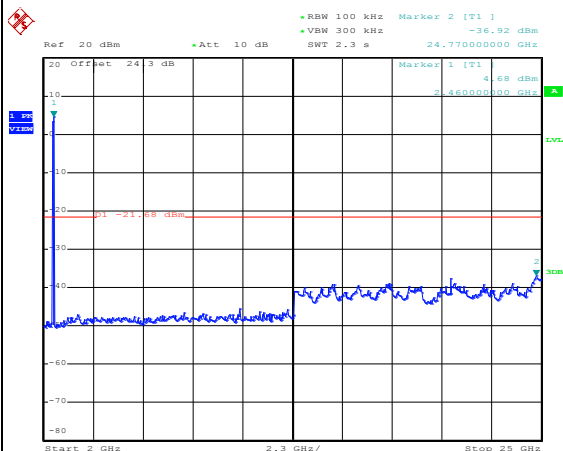
Date: 30.APR.2019 18:37:41

Spurious Emission 30MHz~3GHz

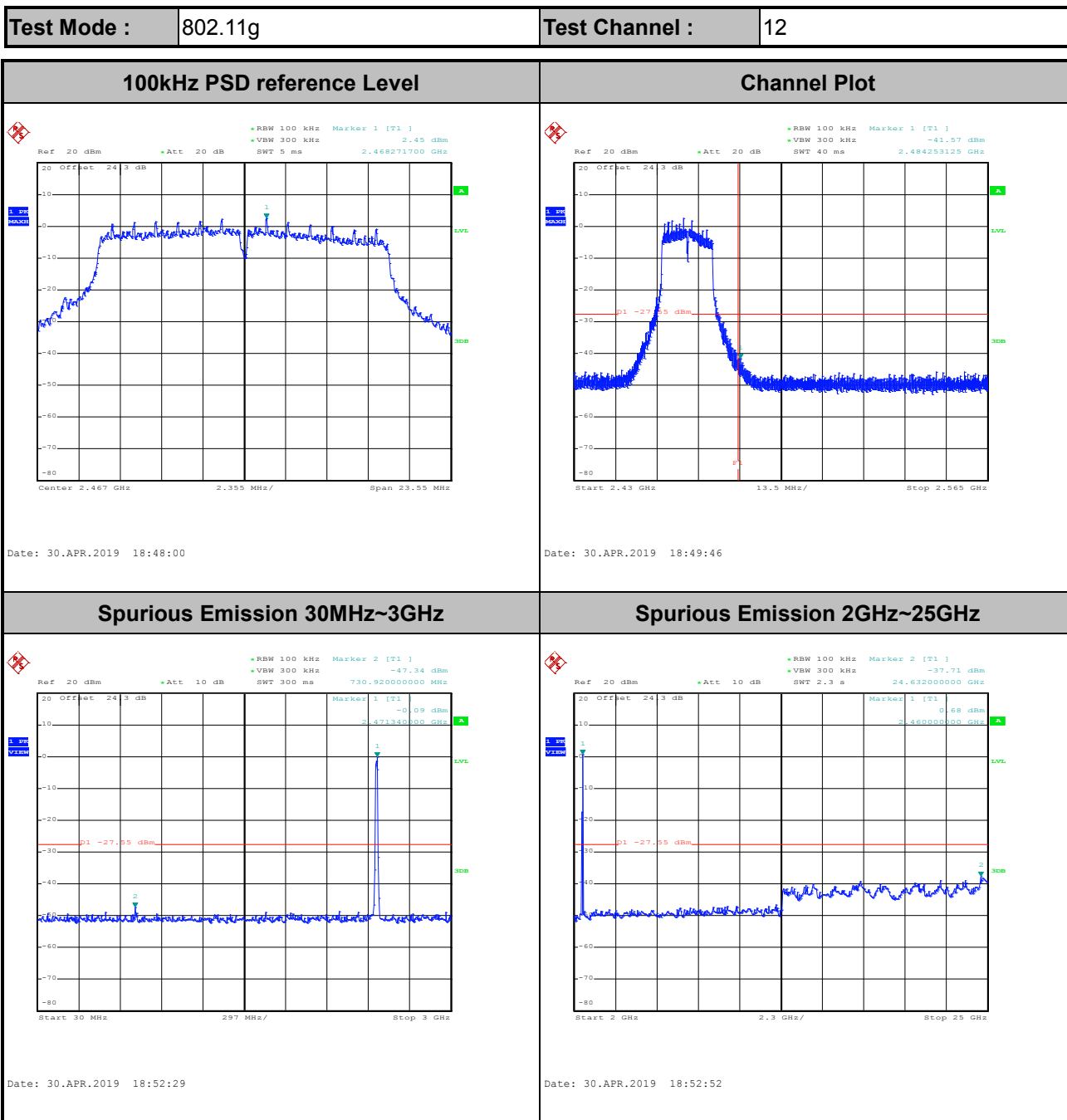


Date: 30.APR.2019 18:39:20

Spurious Emission 2GHz~25GHz

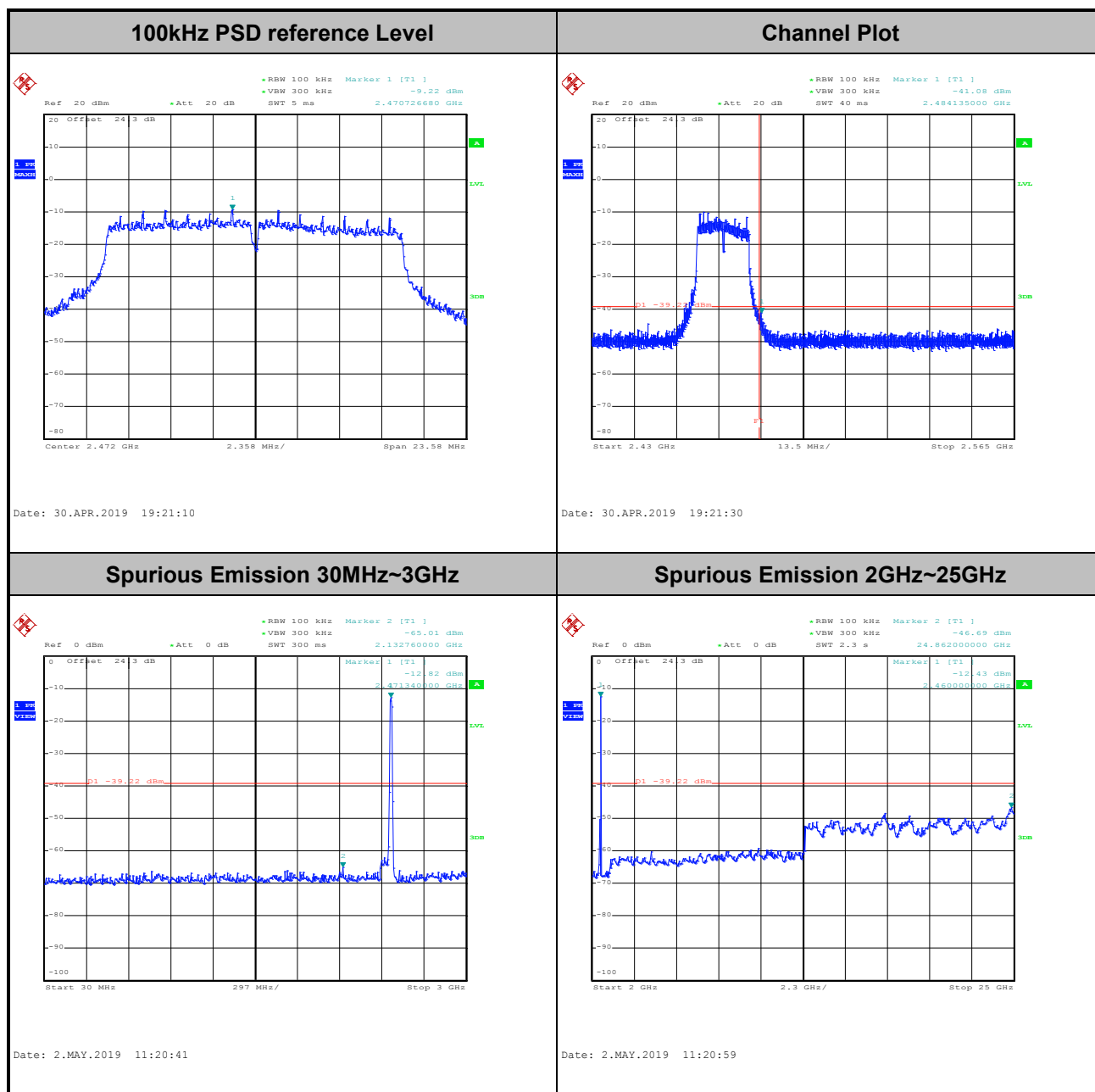


Date: 30.APR.2019 18:38:58



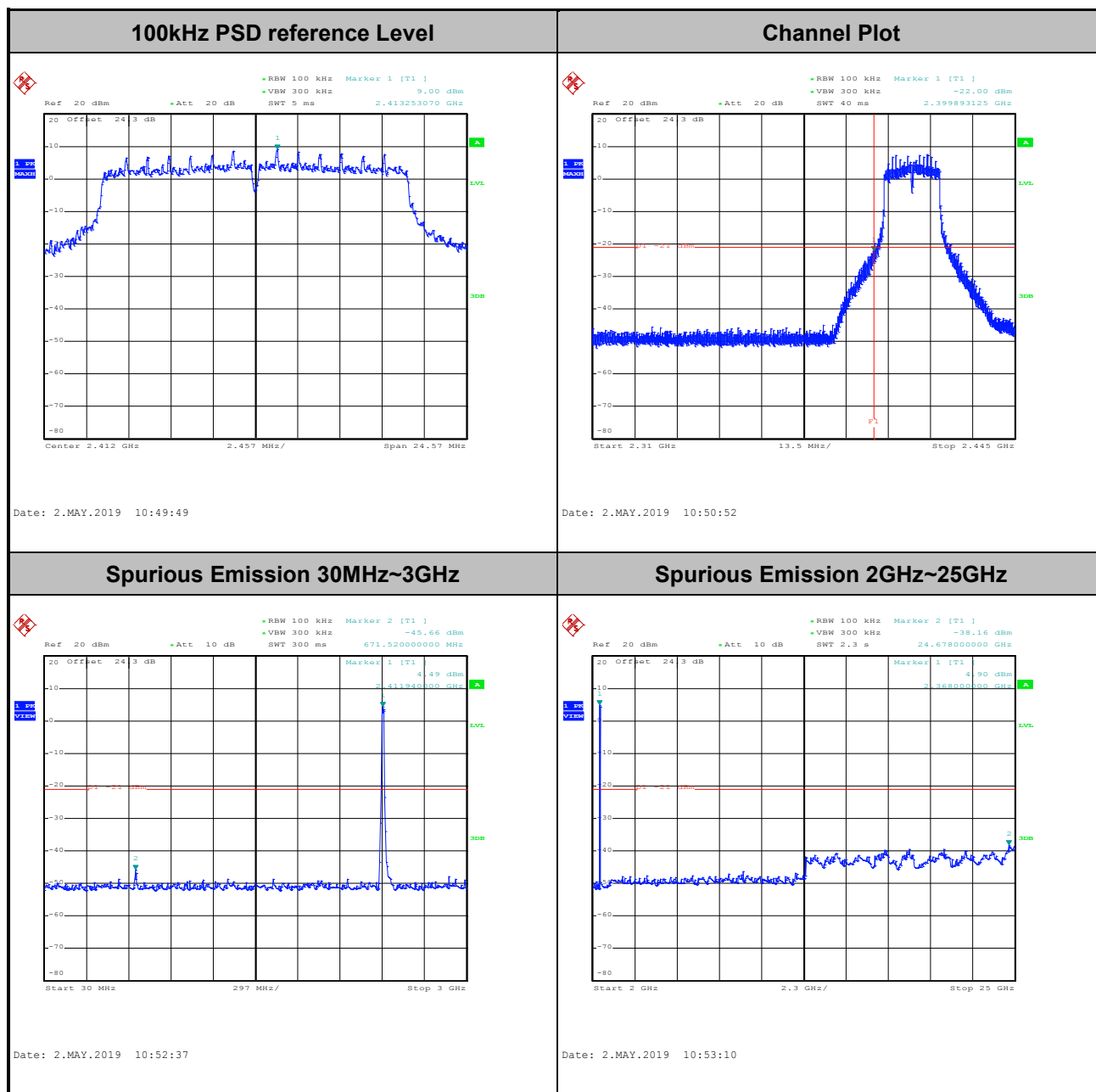


|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11g | Test Channel : | 13 |
|-------------|---------|----------------|----|



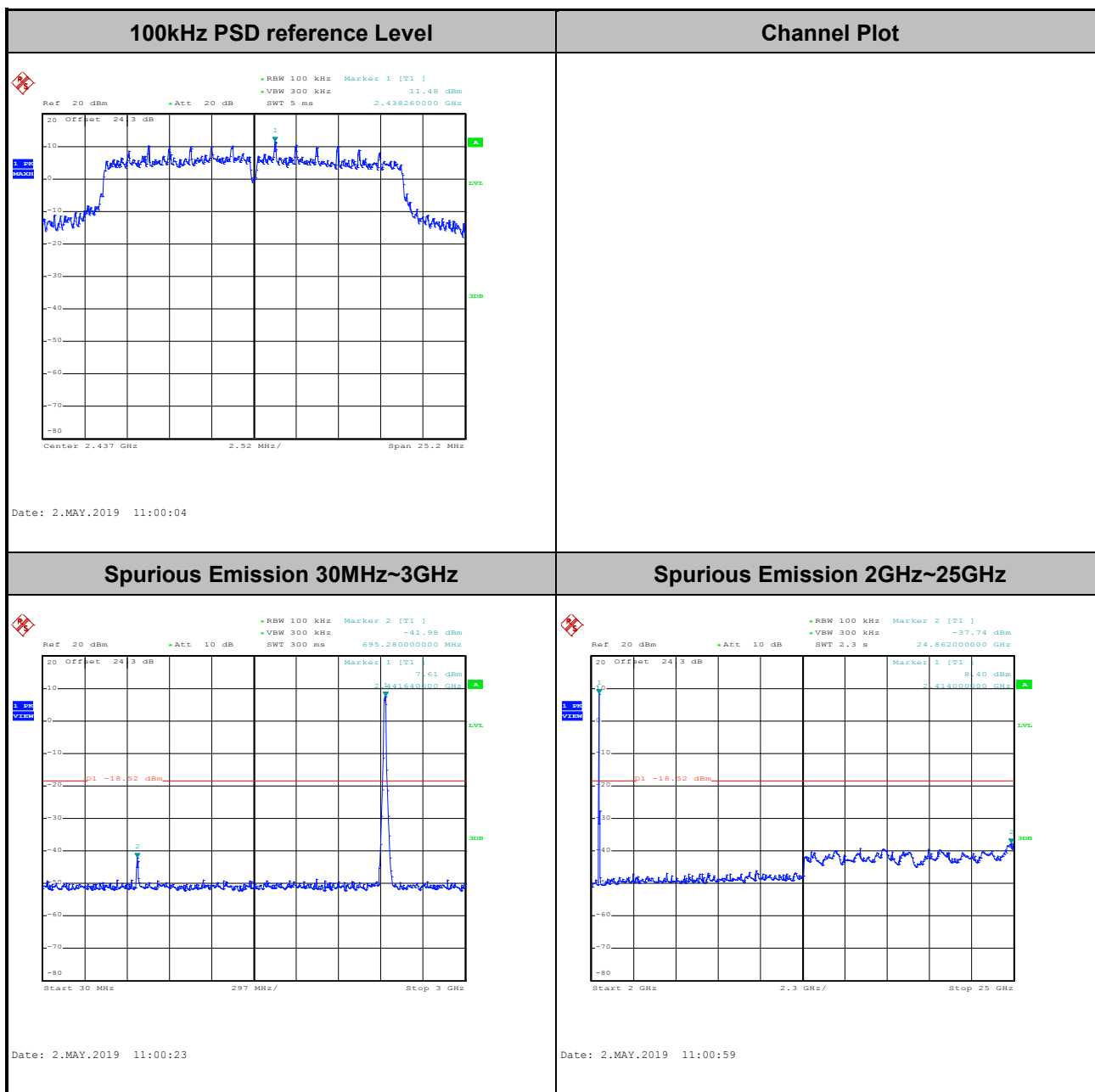


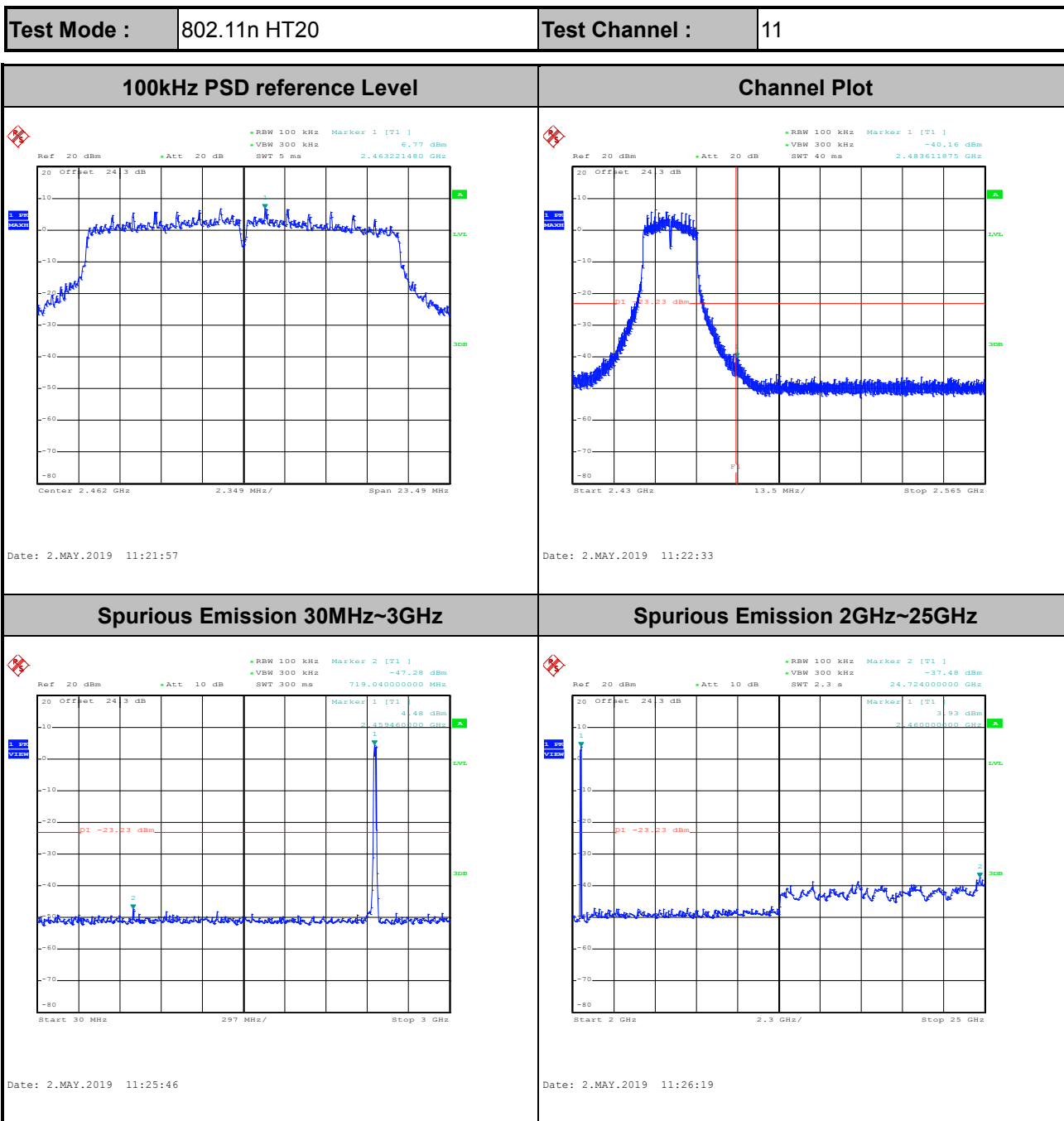
|             |              |                |    |
|-------------|--------------|----------------|----|
| Test Mode : | 802.11n HT20 | Test Channel : | 01 |
|-------------|--------------|----------------|----|

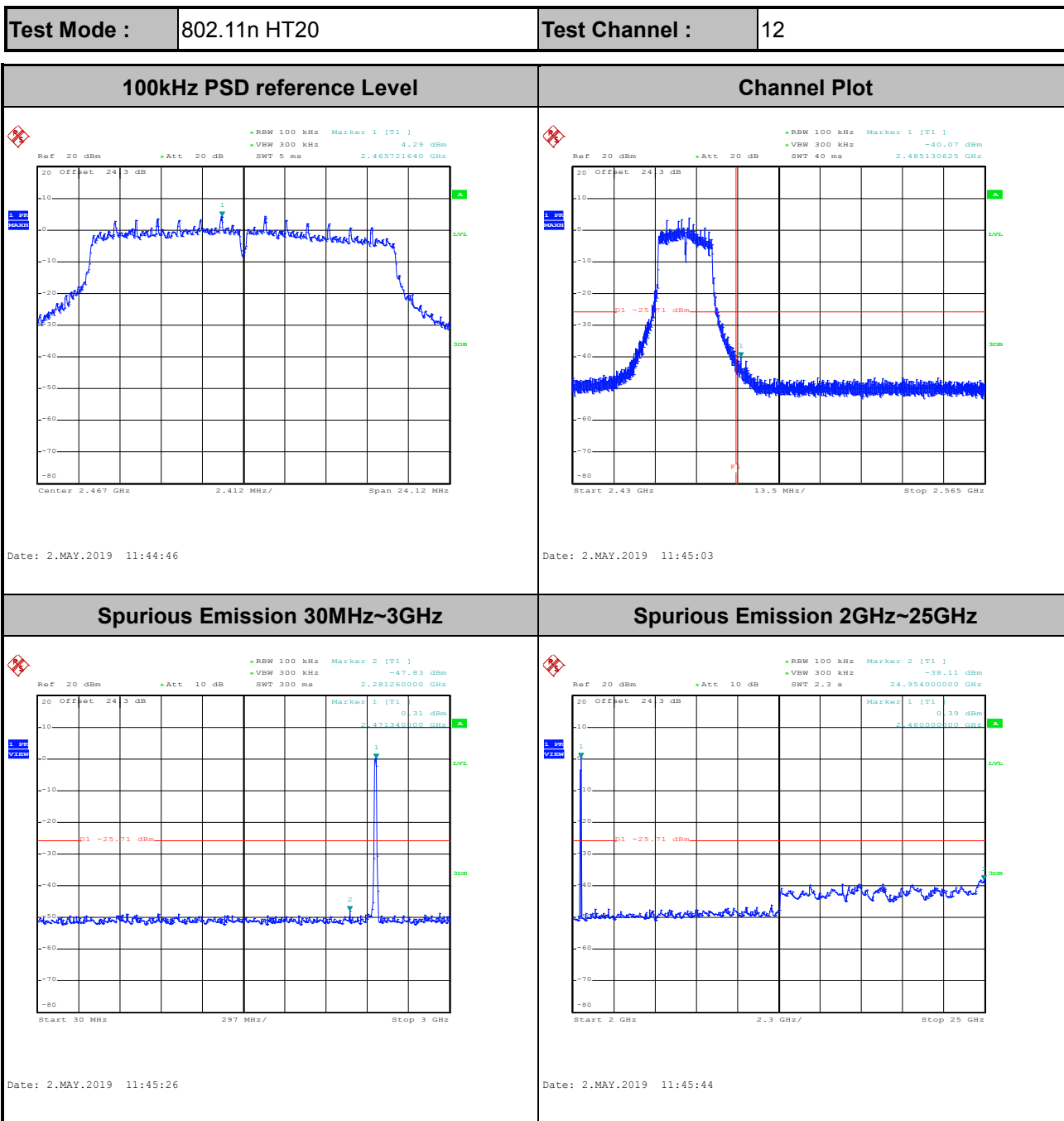


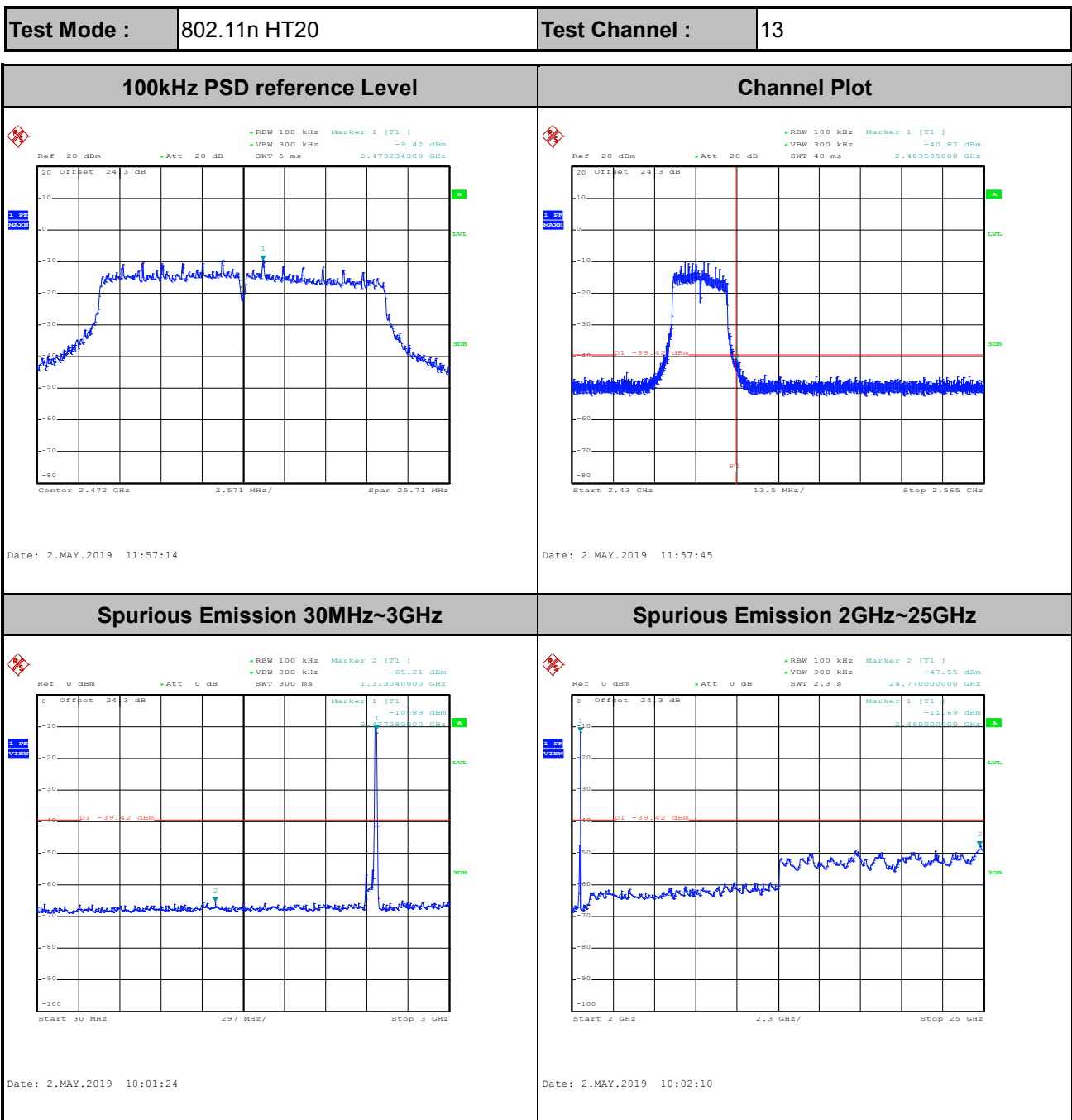


|             |              |                |    |
|-------------|--------------|----------------|----|
| Test Mode : | 802.11n HT20 | Test Channel : | 06 |
|-------------|--------------|----------------|----|





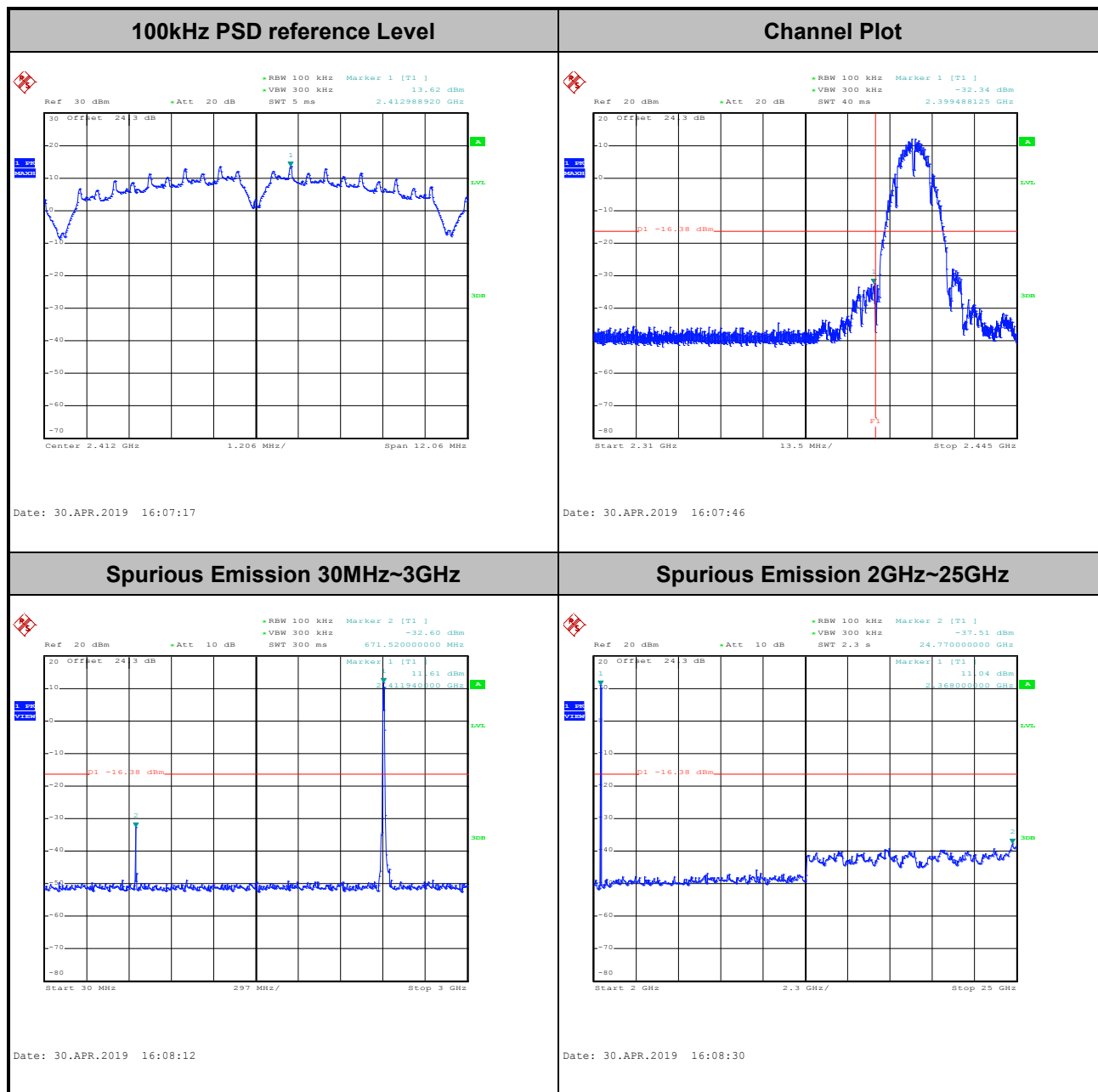


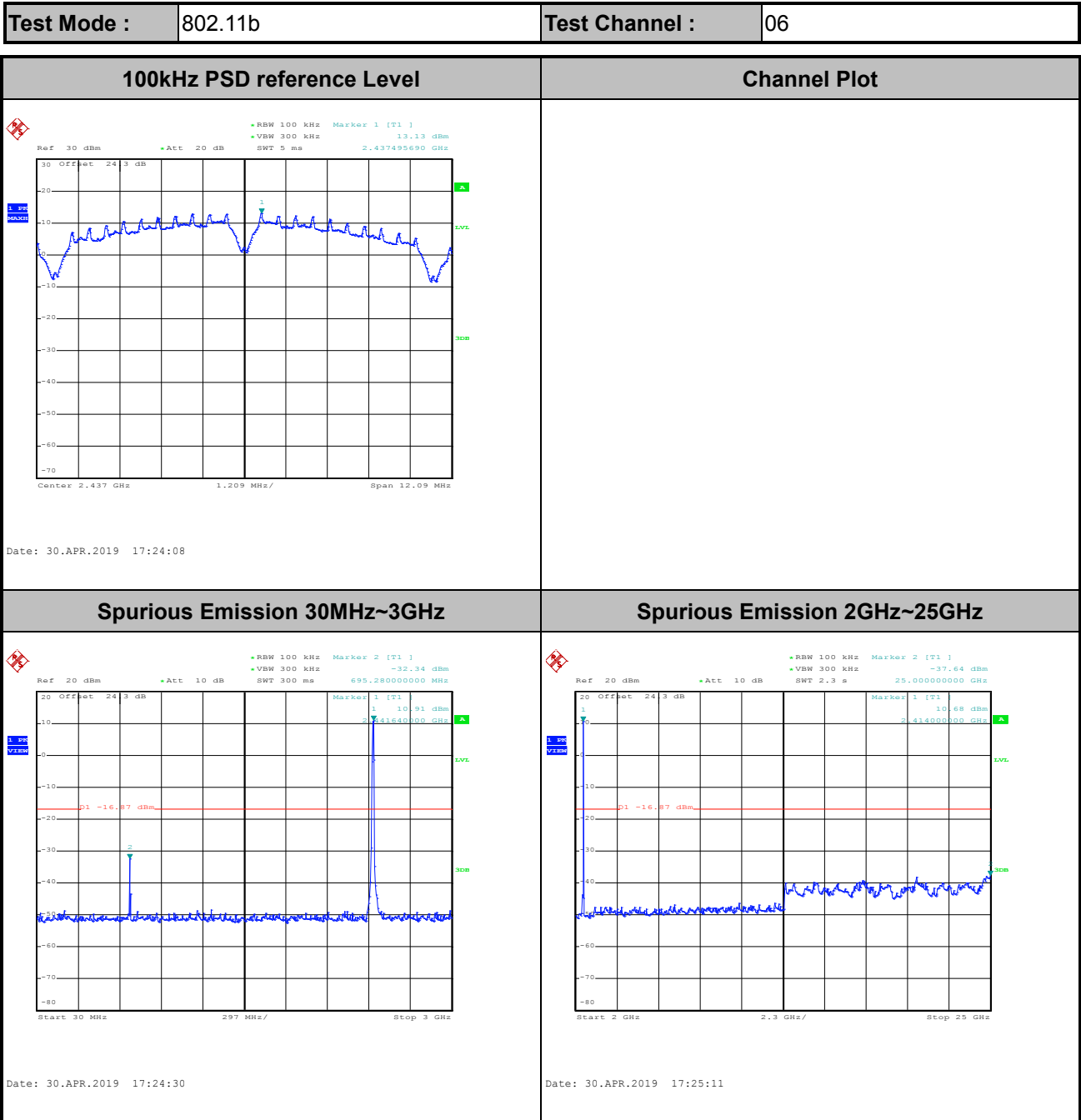


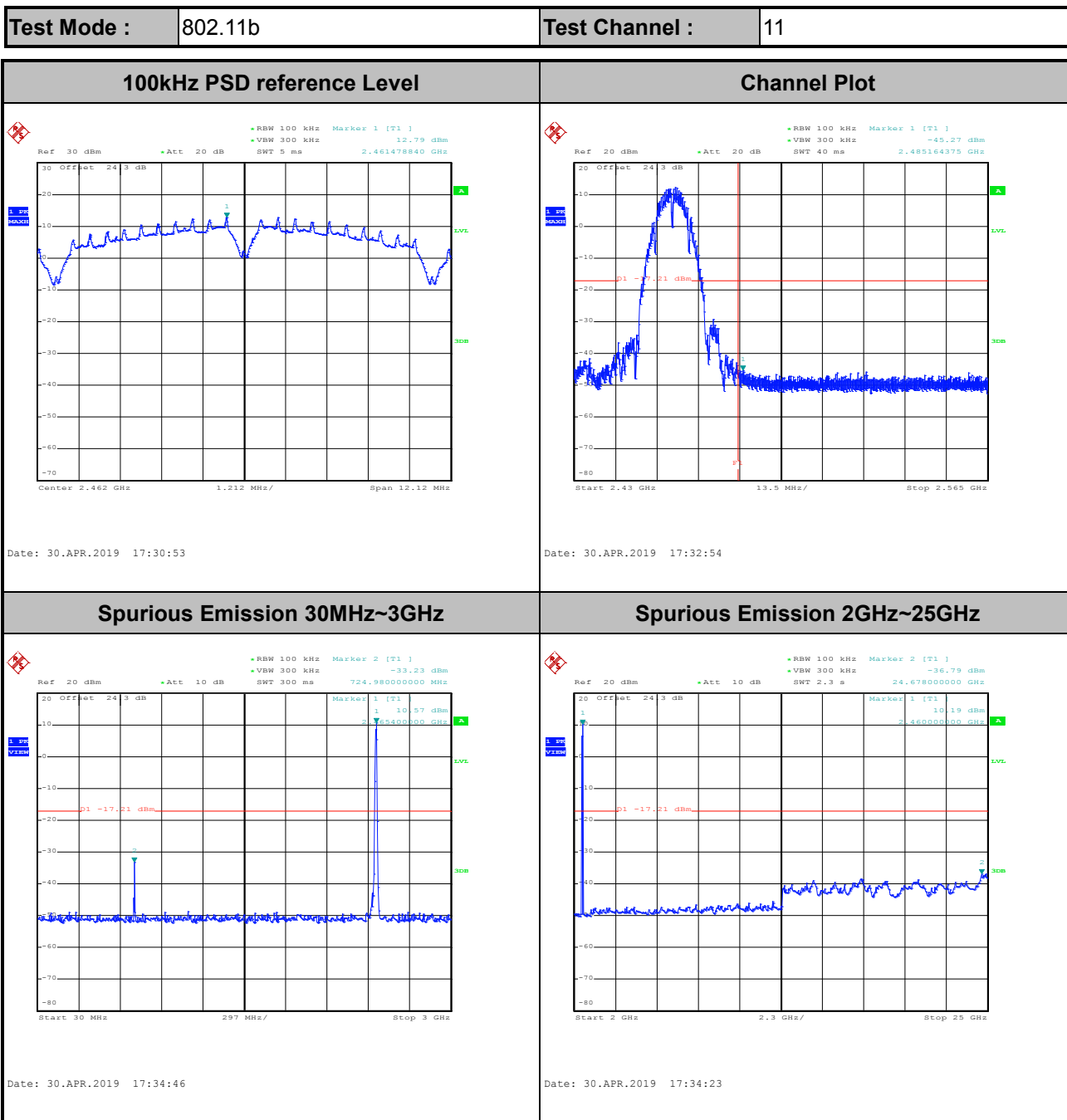


Number of TX = 2, Ant. 3 (Measured)

|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11b | Test Channel : | 01 |
|-------------|---------|----------------|----|

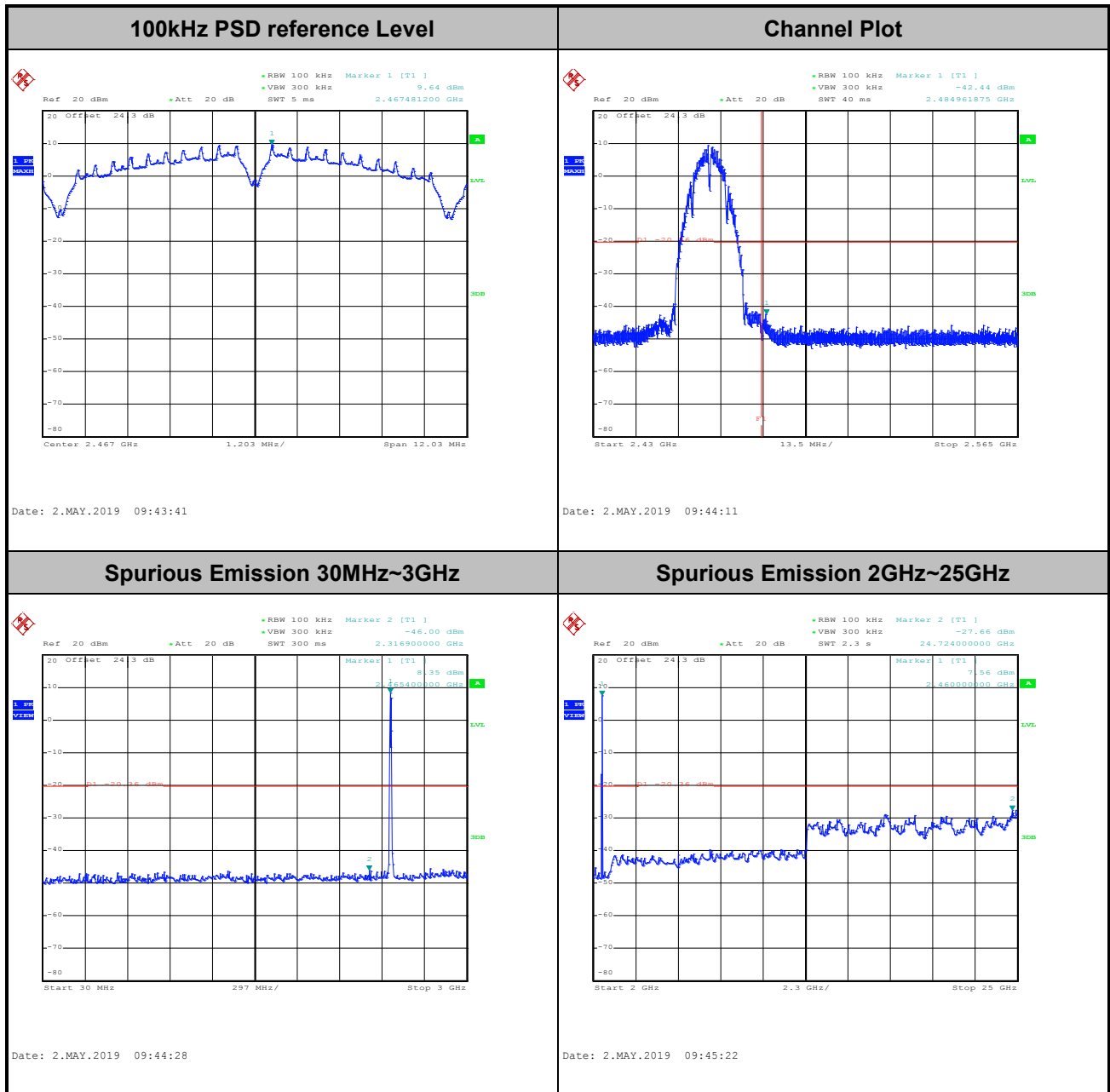


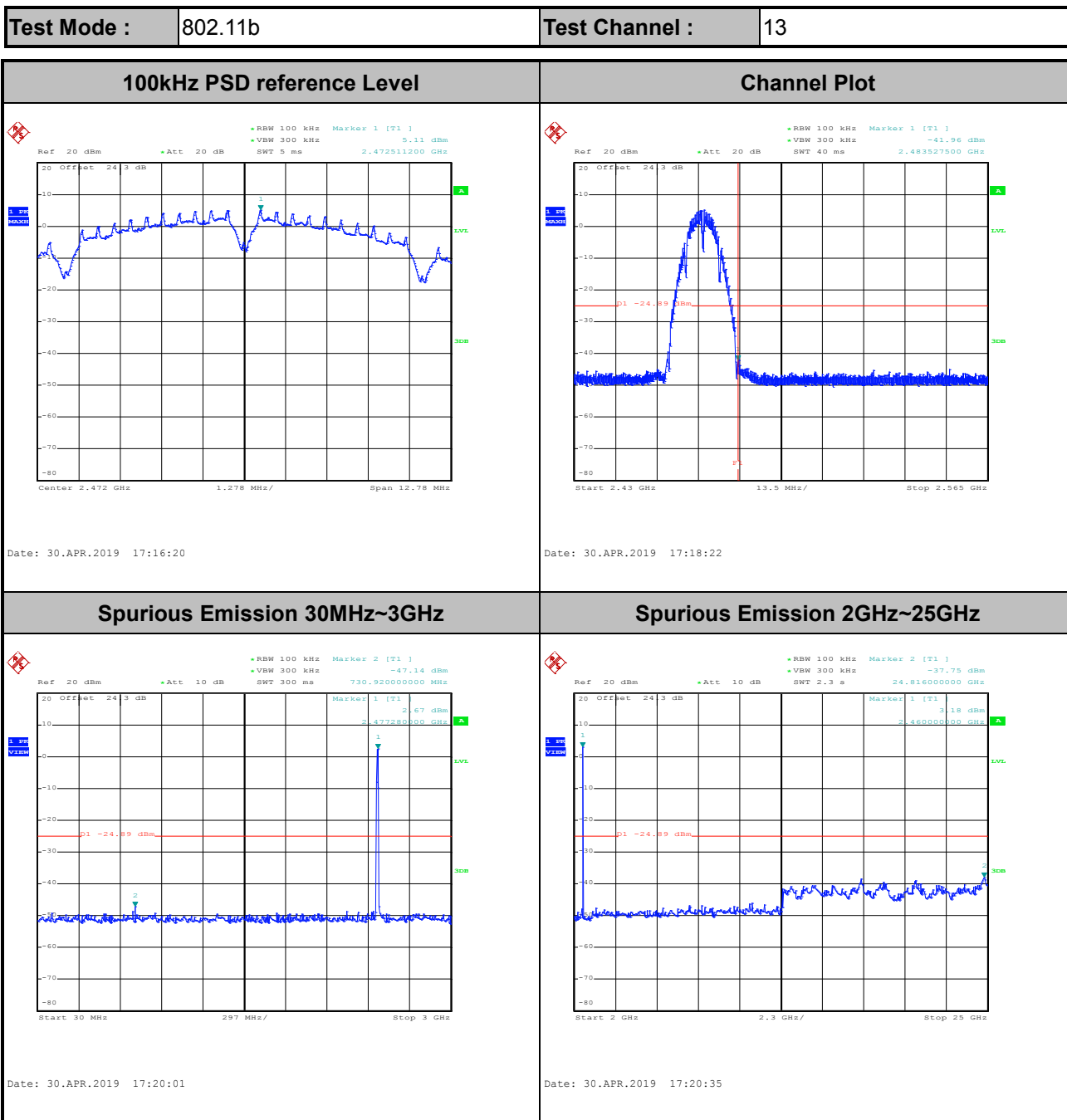


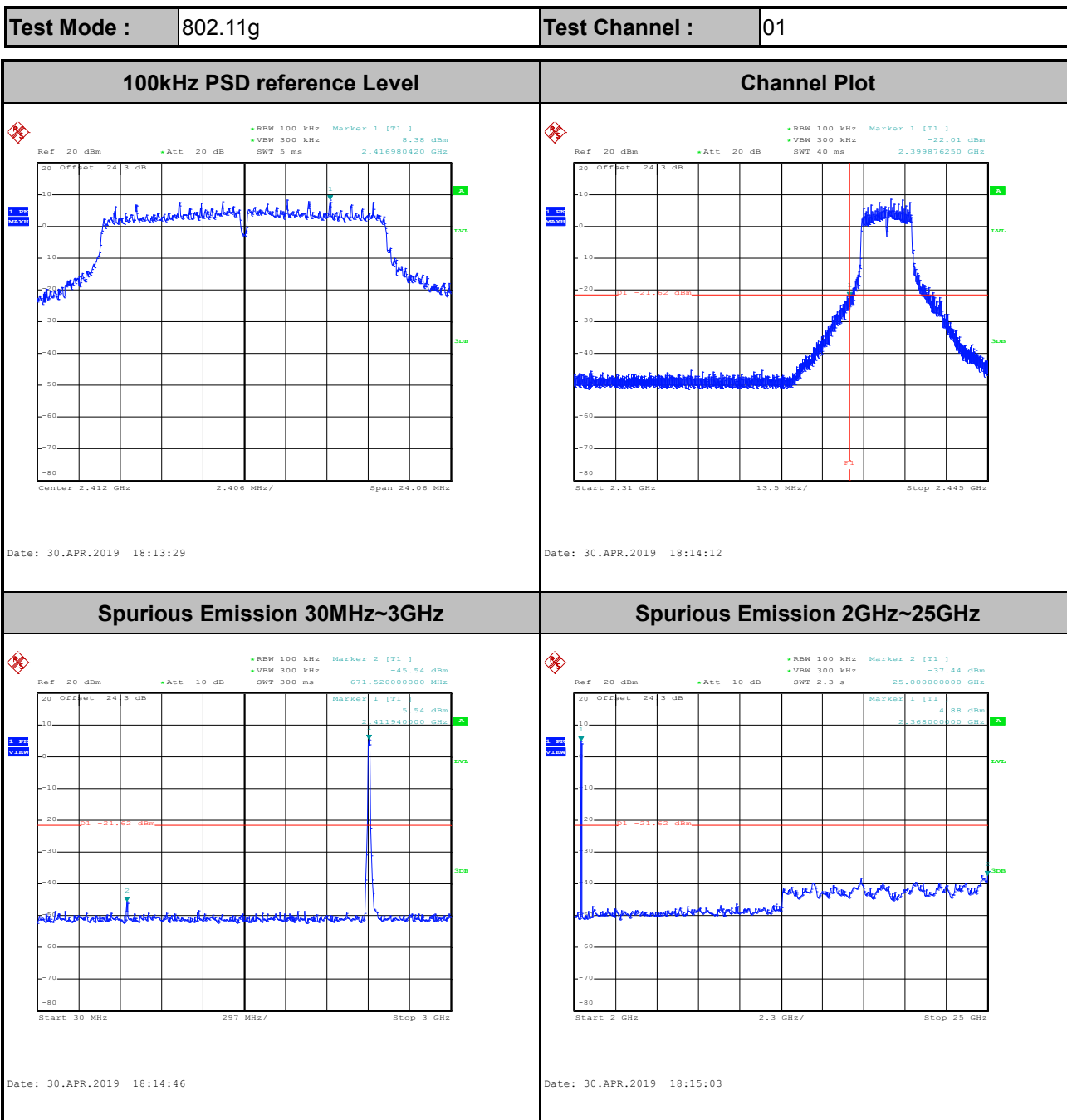




|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11b | Test Channel : | 12 |
|-------------|---------|----------------|----|



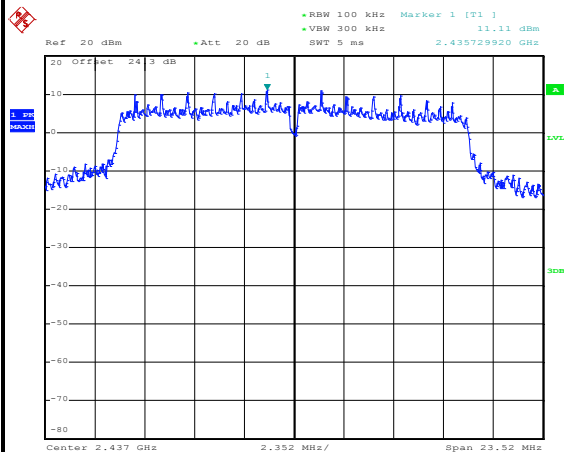






|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11g | Test Channel : | 06 |
|-------------|---------|----------------|----|

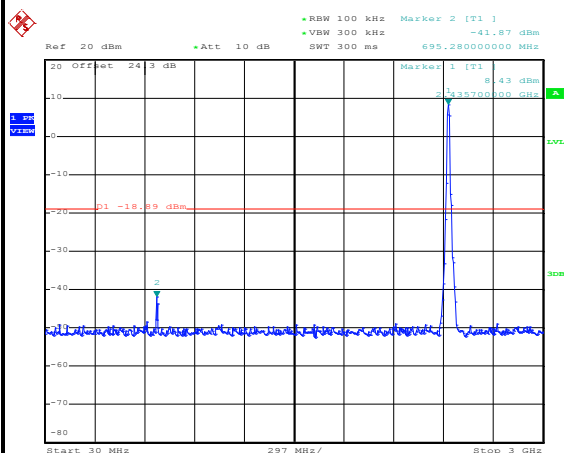
100kHz PSD reference Level



Date: 30.APR.2019 18:31:55

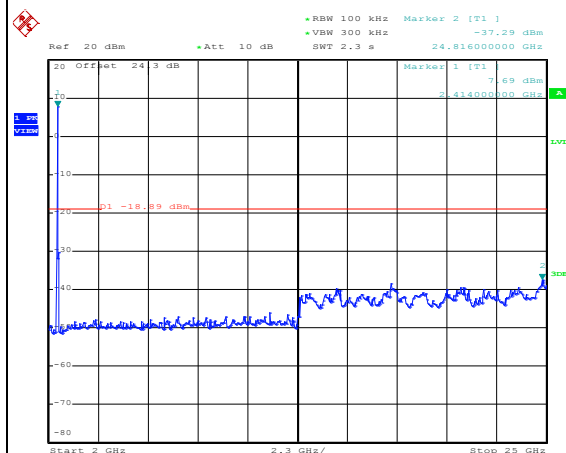
Channel Plot

Spurious Emission 30MHz~3GHz



Date: 30.APR.2019 18:32:49

Spurious Emission 2GHz~25GHz

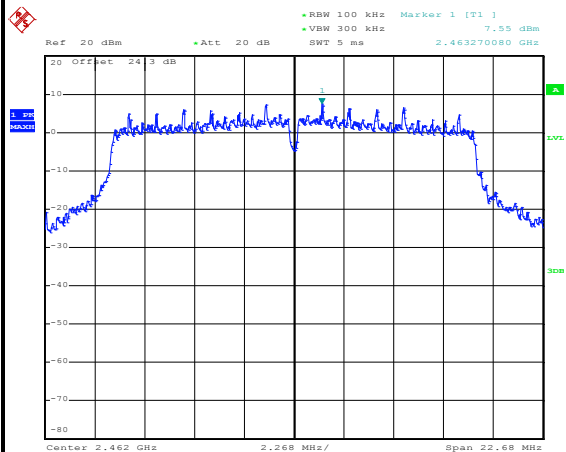


Date: 30.APR.2019 18:33:05



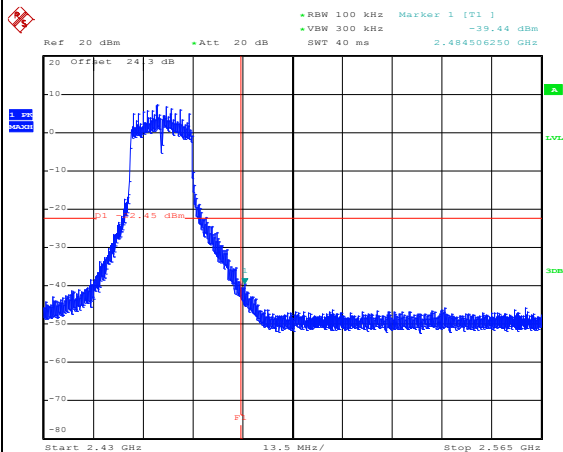
|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11g | Test Channel : | 11 |
|-------------|---------|----------------|----|

100kHz PSD reference Level



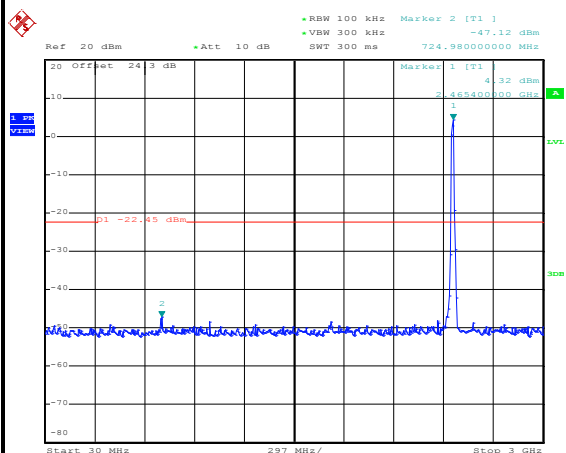
Date: 30.APR.2019 18:42:01

Channel Plot



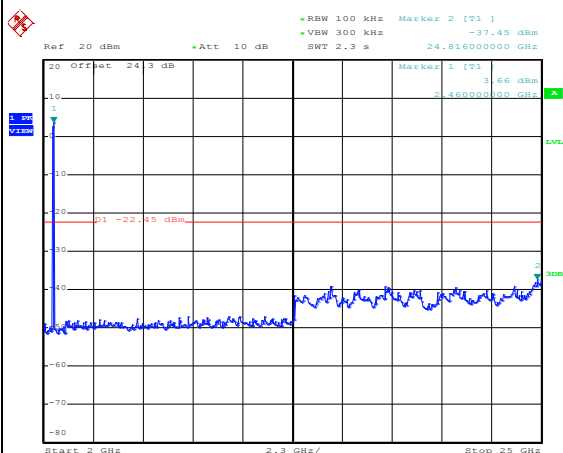
Date: 30.APR.2019 18:43:46

Spurious Emission 30MHz~3GHz



Date: 30.APR.2019 18:42:38

Spurious Emission 2GHz~25GHz

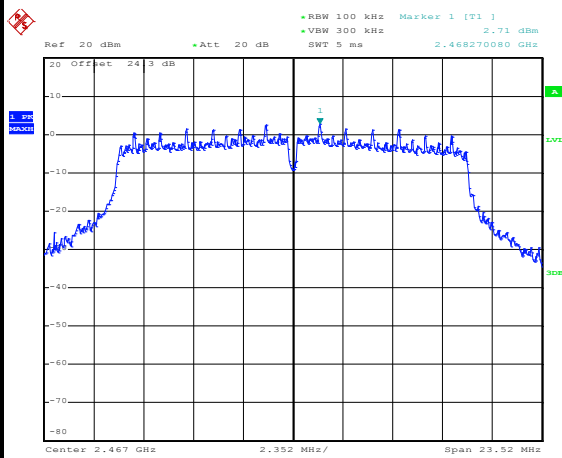


Date: 30.APR.2019 18:42:53



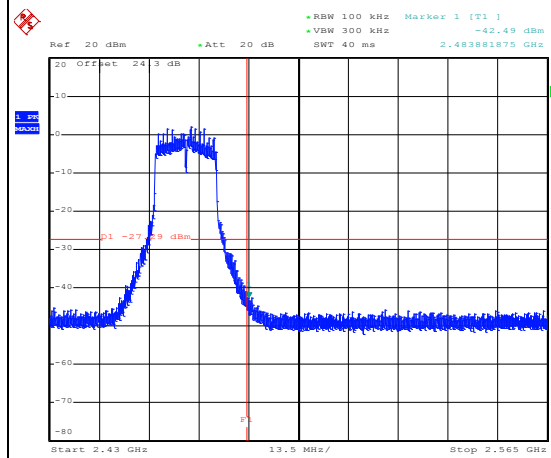
|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11g | Test Channel : | 12 |
|-------------|---------|----------------|----|

100kHz PSD reference Level



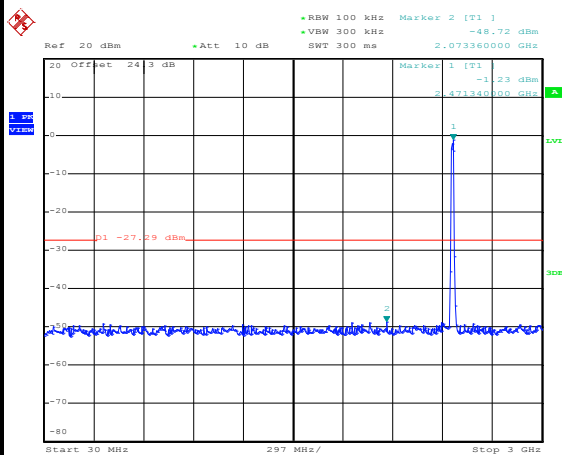
Date: 30.APR.2019 18:58:25

Channel Plot



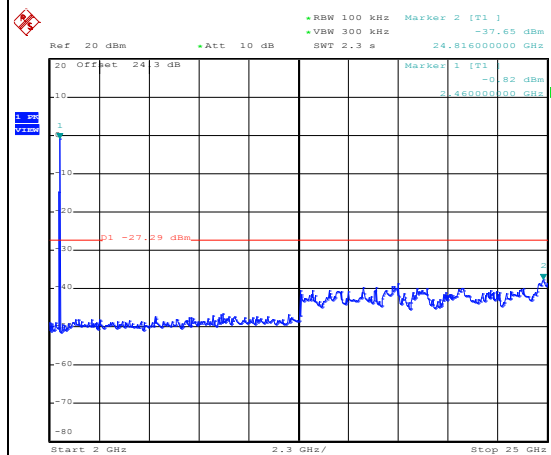
Date: 30.APR.2019 19:00:14

Spurious Emission 30MHz~3GHz

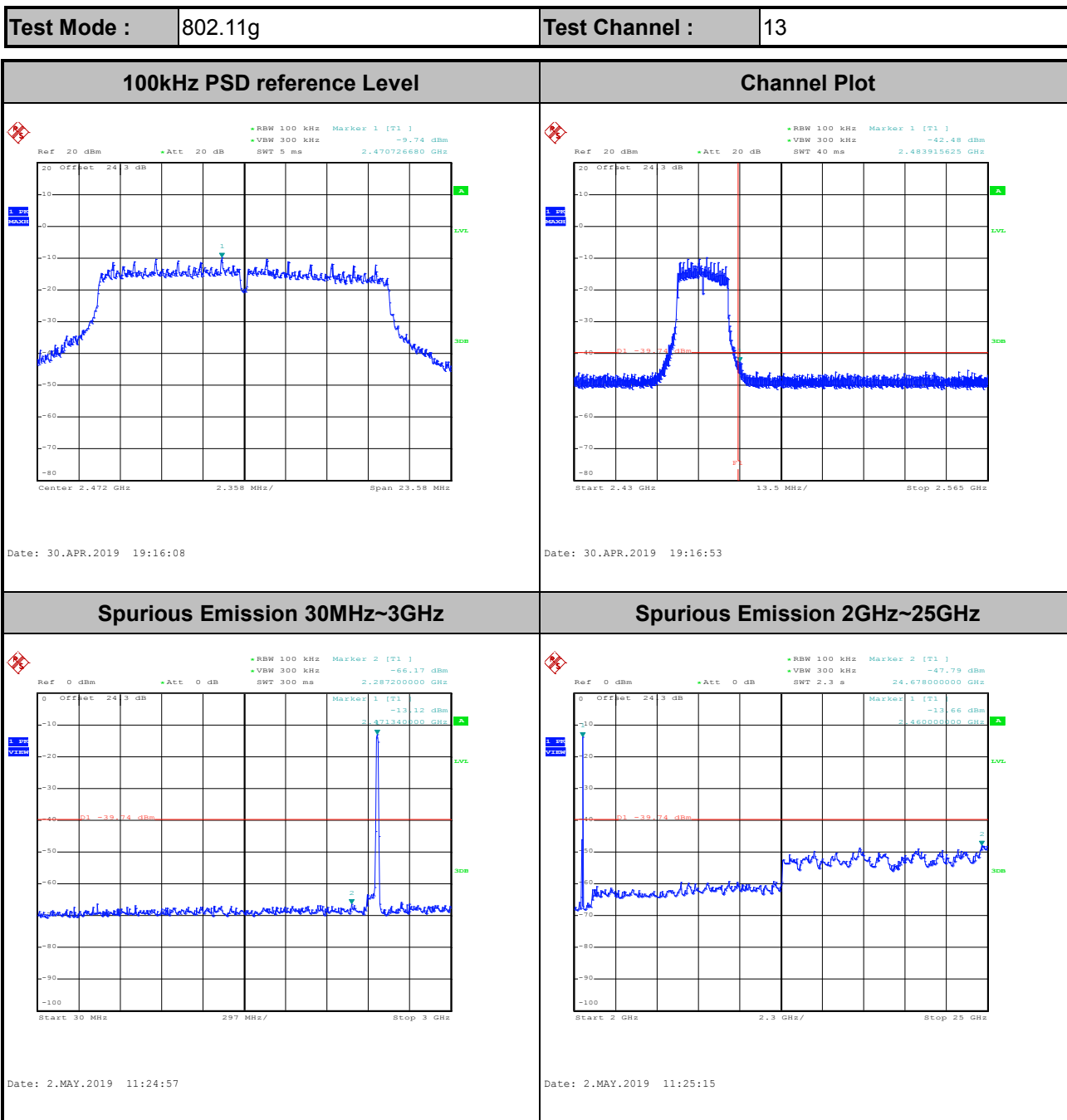


Date: 30.APR.2019 19:00:44

Spurious Emission 2GHz~25GHz



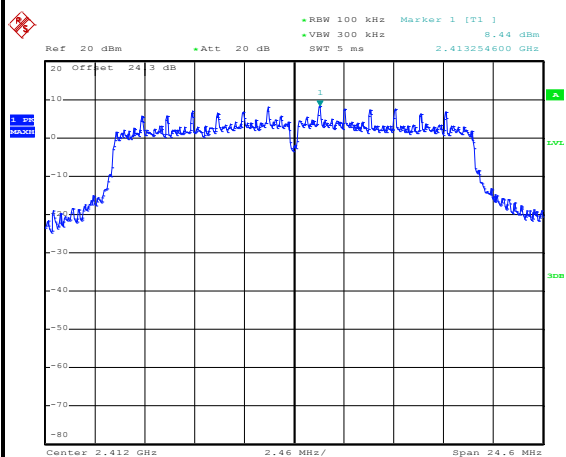
Date: 30.APR.2019 19:00:59





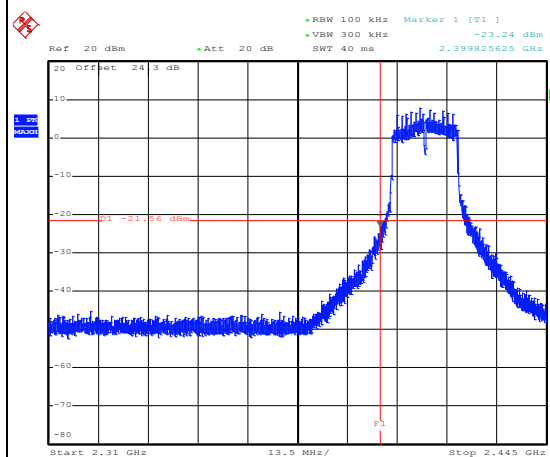
|             |              |                |    |
|-------------|--------------|----------------|----|
| Test Mode : | 802.11n HT20 | Test Channel : | 01 |
|-------------|--------------|----------------|----|

100kHz PSD reference Level



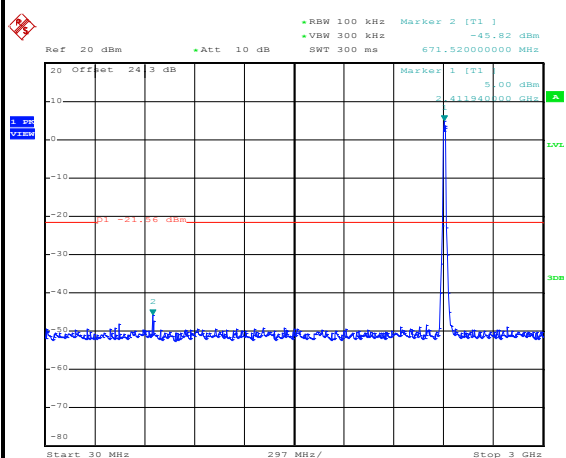
Date: 2.MAY.2019 10:40:47

Channel Plot



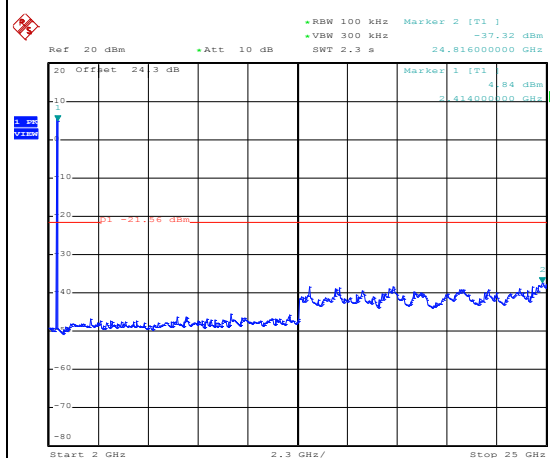
Date: 2.MAY.2019 09:51:02

Spurious Emission 30MHz~3GHz



Date: 2.MAY.2019 10:43:21

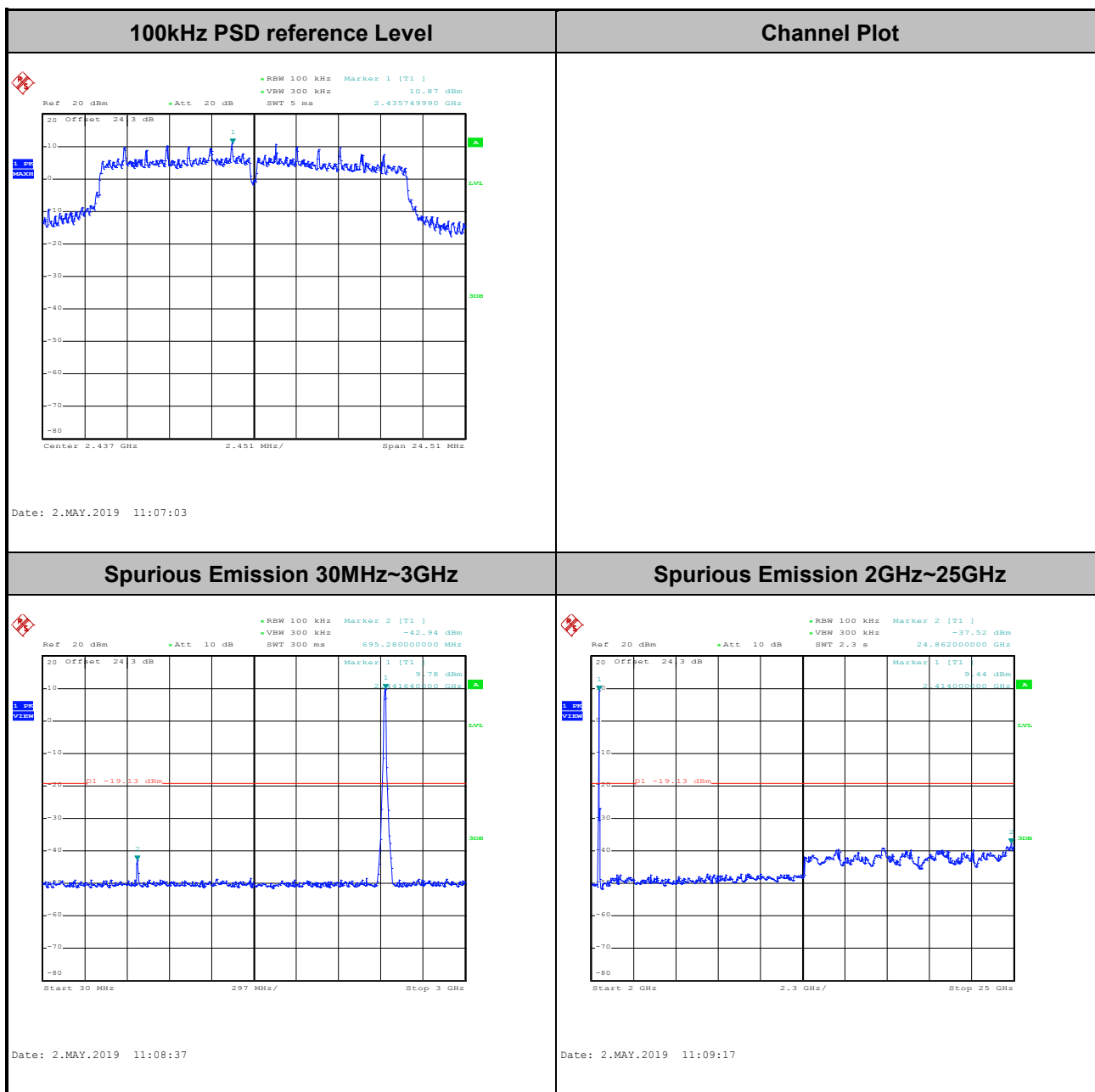
Spurious Emission 2GHz~25GHz

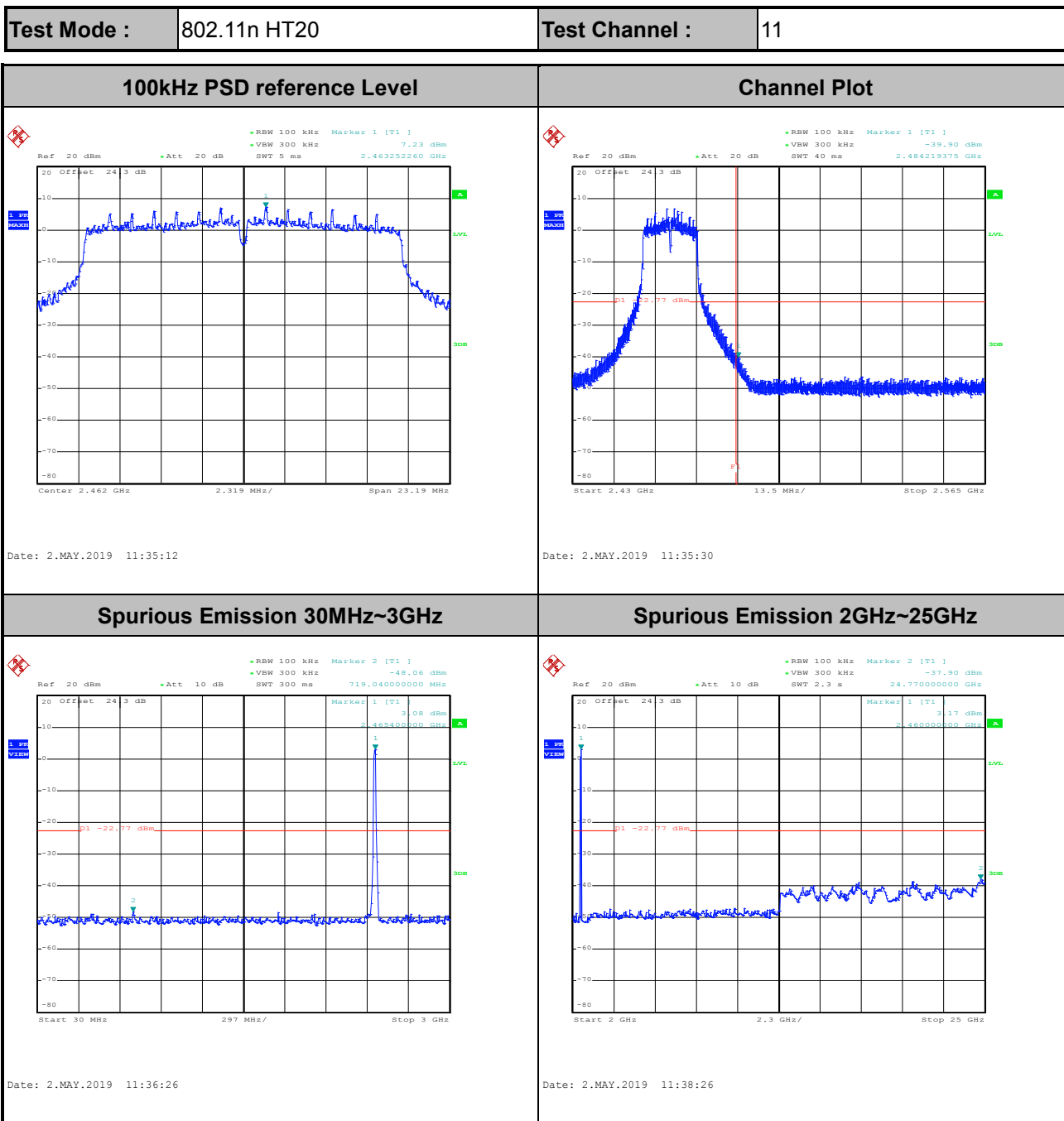


Date: 2.MAY.2019 10:44:41



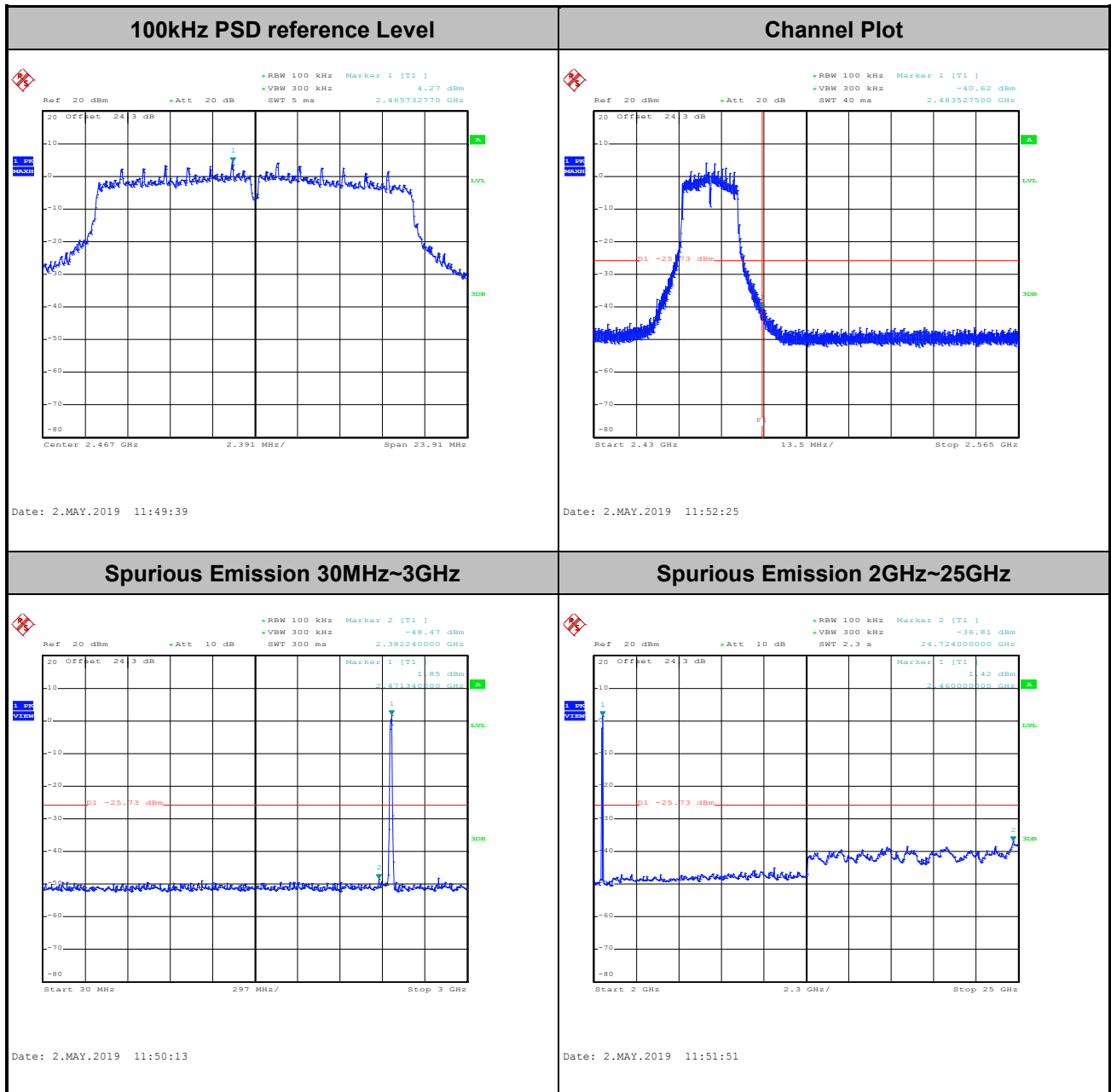
|             |              |                |    |
|-------------|--------------|----------------|----|
| Test Mode : | 802.11n HT20 | Test Channel : | 06 |
|-------------|--------------|----------------|----|







|             |              |                |    |
|-------------|--------------|----------------|----|
| Test Mode : | 802.11n HT20 | Test Channel : | 12 |
|-------------|--------------|----------------|----|

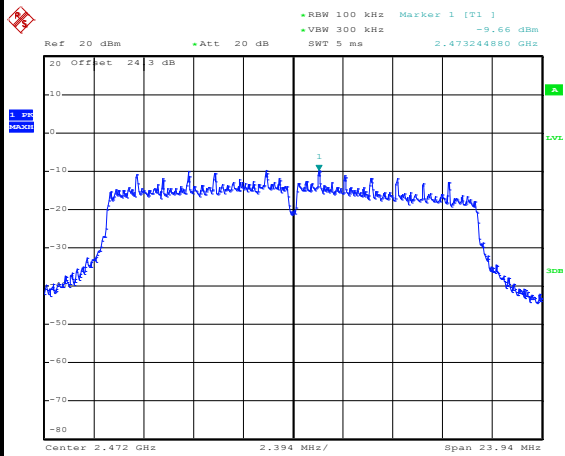




Test Mode : 802.11n HT20

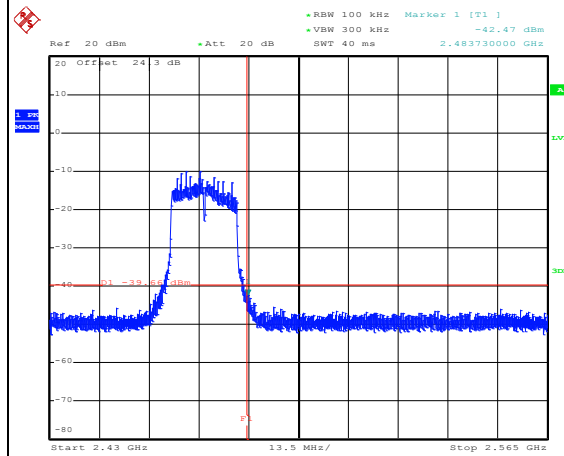
Test Channel : 13

## 100kHz PSD reference Level



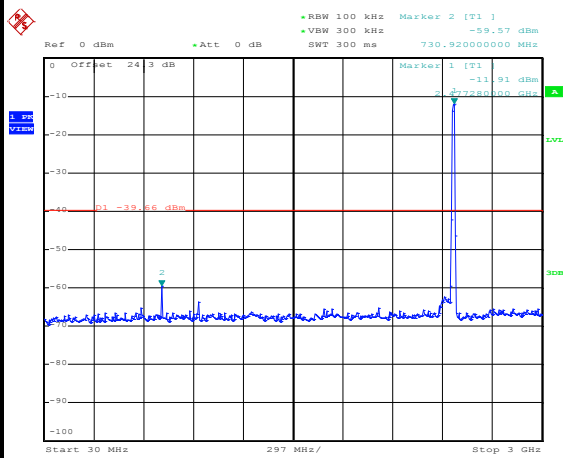
Date: 2.MAY.2019 12:01:18

## Channel Plot



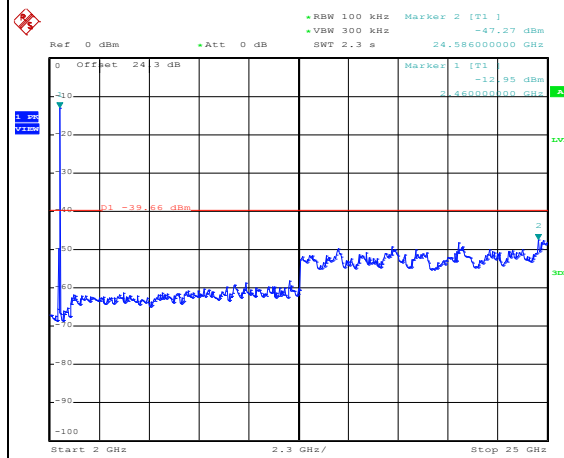
Date: 2.MAY.2019 12:01:45

## Spurious Emission 30MHz~3GHz



Date: 2.MAY.2019 09:57:59

## Spurious Emission 2GHz~25GHz



Date: 2.MAY.2019 09:58:19

### 3.5 Radiated Band Edges and Spurious Emission Measurement

#### 3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

| 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                                |

#### 3.5.2 Measuring Instruments

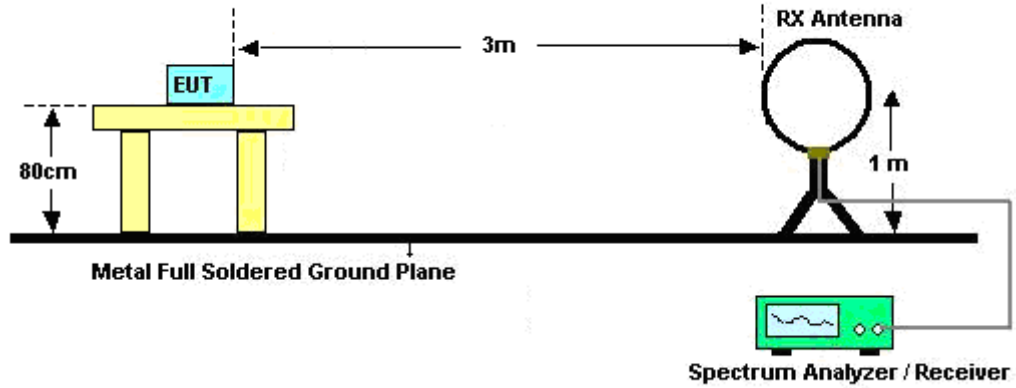
See list of measuring equipment of this test report.

### 3.5.3 Test Procedures

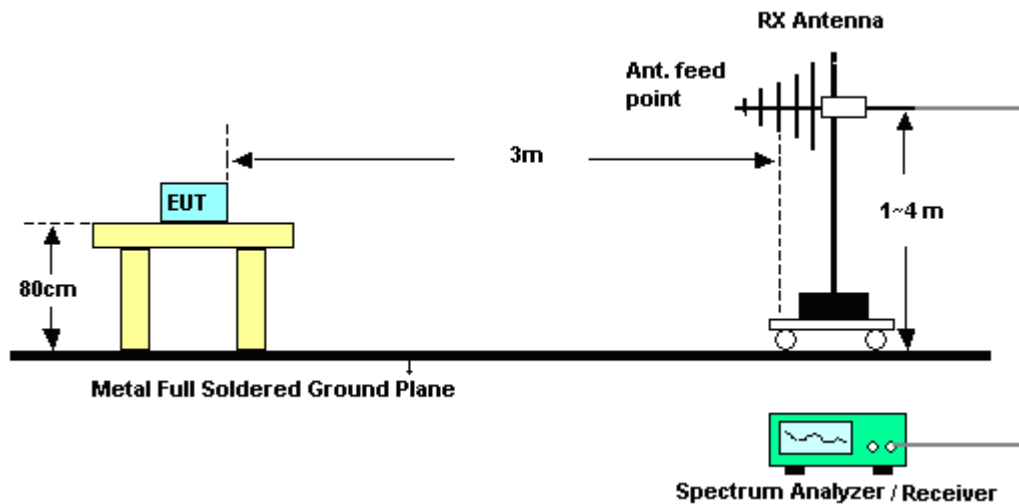
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
8. Use the following spectrum analyzer settings:
  - (1) Span shall wide enough to fully capture the emission being measured;
  - (2) Set RBW=100 kHz for  $f < 1$  GHz;  $VBW \geq RBW$ ; Sweep = auto; Detector function = peak; Trace = max hold;
  - (3) Set RBW = 1 MHz, VBW= 3MHz for  $f \geq 1$  GHz for peak measurement.  
For average measurement:
    - $VBW = 10$  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.

### 3.5.4 Test Setup

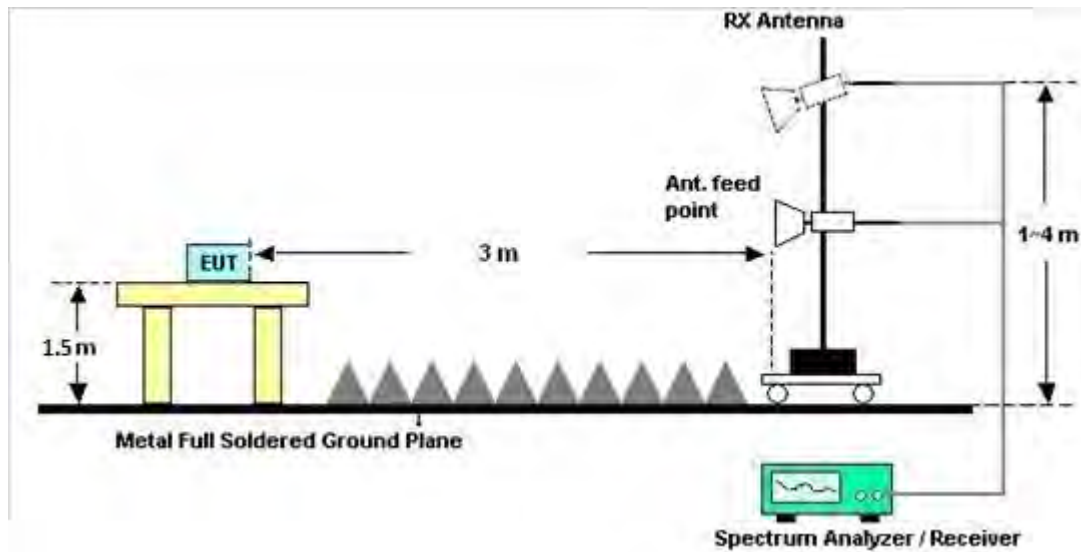
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



**For radiated emissions above 1GHz**



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

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

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

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

Please refer to Appendix C and D.

### 3.5.7 Duty Cycle

Please refer to Appendix E.

### 3.5.8 Test Result of Radiated Spurious Emission (30MHz ~ 10<sup>th</sup> Harmonic)

Please refer to Appendix C and D.

### 3.6 AC Conducted Emission Measurement

#### 3.6.1 Limit of AC Conducted Emission

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

| Frequency of Emission<br>(MHz) | Conducted Limit (dB $\mu$ V) |           |
|--------------------------------|------------------------------|-----------|
|                                | Quasi-Peak                   | Average   |
| 0.15-0.5                       | 66 to 56*                    | 56 to 46* |
| 0.5-5                          | 56                           | 46        |
| 5-30                           | 60                           | 50        |

\*Decreases with the logarithm of the frequency.

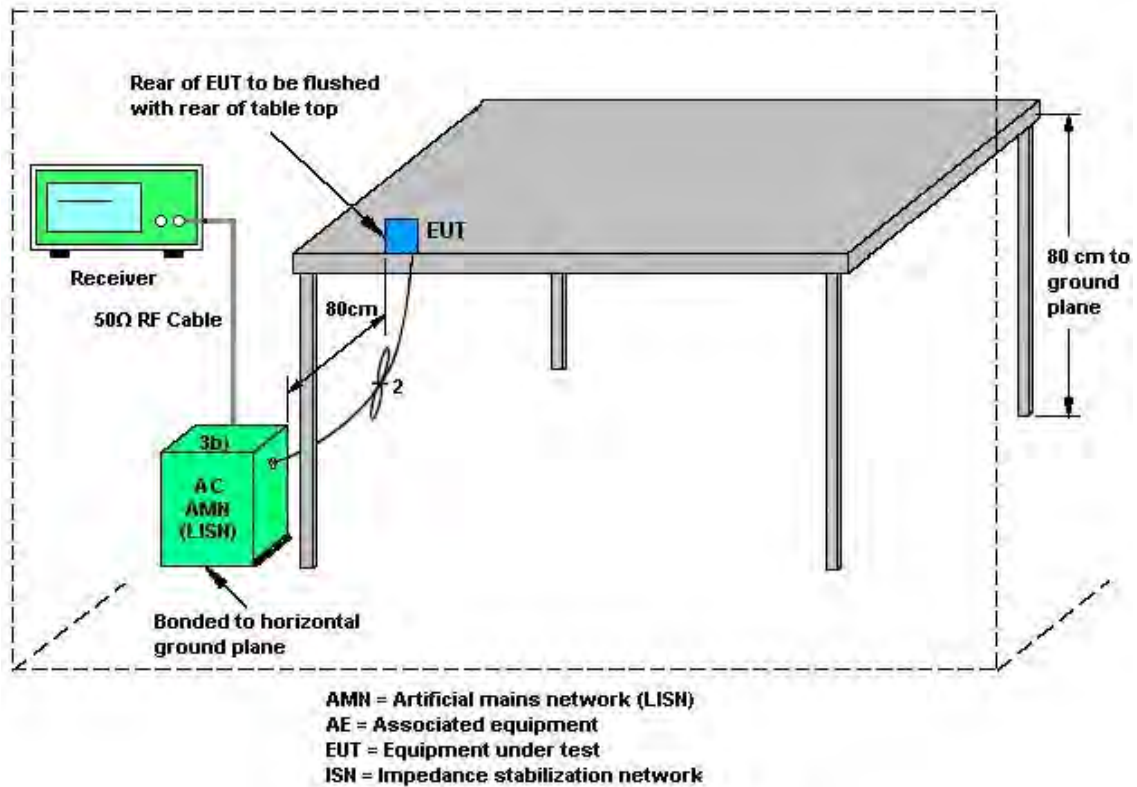
#### 3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

#### 3.6.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF bandwidth = 9kHz) with Maximum Hold Mode.

### 3.6.4 Test Setup



### 3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

### 3.7 Antenna Requirements

#### 3.7.1 Standard Applicable

If directional gain of transmitting Antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. The use of a permanently attached Antenna or of an Antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

#### 3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

#### 3.7.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

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

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

For power measurements on IEEE 802.11 devices,

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

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

The EUT supports CDD mode.

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

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

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

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

##### <CDD Modes>

|         | Ant. 2<br>(dBi) | Ant. 3<br>(dBi) | DG<br>for<br>Power<br>(dBi) | DG<br>for<br>PSD<br>(dBi) | Power<br>Limit<br>Reduction<br>(dB) | PSD<br>Limit<br>Reduction<br>(dB) |
|---------|-----------------|-----------------|-----------------------------|---------------------------|-------------------------------------|-----------------------------------|
| 2.4 GHz | -0.50           | -1.00           | -0.50                       | 2.26                      | 0.00                                | 0.00                              |

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

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



## 4 List of Measuring Equipment

| Instrument           | Manufacturer      | Model No.                    | Serial No.  | Characteristics               | Calibration Date | Test Date                     | Due Date      | Remark                |
|----------------------|-------------------|------------------------------|-------------|-------------------------------|------------------|-------------------------------|---------------|-----------------------|
| Loop Antenna         | Rohde & Schwarz   | HFH2-Z2                      | 100488      | 9 kHz~30 MHz                  | Jan. 07, 2019    | Apr. 15, 2019 ~ Jun. 19, 2019 | Jan. 06, 2020 | Radiation (03CH13-HY) |
| Horn Antenna         | SCHWARZBECK       | BBHA 9120 D                  | 9120D-1241  | 1GHz ~ 18GHz                  | Jun. 29, 2018    | Apr. 15, 2019 ~ Jun. 19, 2019 | Jun. 28, 2019 | Radiation (03CH13-HY) |
| Bilog Antenna        | TESEQ             | CBL 6111D&00800 N1D01N-06    | 37059&01    | 30MHz~1GHz                    | Oct. 13, 2018    | Apr. 15, 2019 ~ Jun. 19, 2019 | Oct. 12, 2019 | Radiation (03CH13-HY) |
| SHF-EHF Horn Antenna | SCHWARZBECK       | BBHA 9170                    | BBHA9170584 | 18GHz- 40GHz                  | Dec. 05, 2018    | Apr. 15, 2019 ~ Jun. 19, 2019 | Dec. 04, 2019 | Radiation (03CH13-HY) |
| Preamplifier         | Keysight          | 83017A                       | MY53270080  | 1GHz~26.5GHz                  | Nov. 14, 2018    | Apr. 15, 2019 ~ Jun. 19, 2019 | Nov. 13, 2020 | Radiation (03CH13-HY) |
| Preamplifier         | MITEQ             | AMF-7D-0010 1800-30-10P      | 1590074     | 1GHz~18GHz                    | May 21, 2018     | Apr. 15, 2019 ~ Apr. 28, 2019 | May 20, 2019  | Radiation (03CH13-HY) |
| Preamplifier         | MITEQ             | AMF-7D-0010 1800-30-10P      | 1590074     | 1GHz~18GHz                    | May. 20, 2019    | Jun. 19, 2019                 | May. 19, 2020 | Radiation (03CH13-HY) |
| Amplifier            | Sonoma-Instrument | 310 N                        | 187282      | 9KHz~1GHz                     | Dec. 18, 2018    | Apr. 15, 2019 ~ Jun. 19, 2019 | Dec. 17, 2019 | Radiation (03CH13-HY) |
| Amplifier            | MITEQ             | TTA1840-35-HG                | 1871923     | 18GHz~40GHz, VSWR : 2.5:1 max | Jul. 16, 2018    | Apr. 15, 2019 ~ Jun. 19, 2019 | Jul. 15, 2019 | Radiation (03CH13-HY) |
| RF Cable             | HUBER + SUHNER    | SUCOFLEX 126E                | 0030/126E   | 30M-18G                       | Feb. 13, 2019    | Apr. 15, 2019 ~ Jun. 19, 2019 | Feb. 12, 2020 | Radiation (03CH13-HY) |
| RF Cable             | HUBER + SUHNER    | SUCOFLEX 104                 | 804793/4    | 30M-18G                       | Feb. 13, 2019    | Apr. 15, 2019 ~ Jun. 19, 2019 | Feb. 12, 2020 | Radiation (03CH13-HY) |
| RF Cable             | HUBER + SUHNER    | SUCOFLEX 104                 | MY24961/4   | 30M-18G                       | Feb. 13, 2019    | Apr. 15, 2019 ~ Jun. 19, 2019 | Feb. 12, 2020 | Radiation (03CH13-HY) |
| RF Cable             | HUBER + SUHNER    | SUCOFLEX 102                 | MY2859/2    | 30M~40GHz                     | Mar. 13, 2019    | Apr. 15, 2019 ~ Jun. 19, 2019 | Mar. 12, 2020 | Radiation (03CH13-HY) |
| RF Cable             | HUBER + SUHNER    | SUCOFLEX 102                 | MY4274/2    | 30M~40GHz                     | Mar. 13, 2019    | Apr. 15, 2019 ~ Jun. 19, 2019 | Mar. 12, 2020 | Radiation (03CH13-HY) |
| Spectrum Analyzer    | Keysight          | N9010A                       | MY55370526  | 10Hz~44GHz                    | Mar. 19, 2019    | Apr. 15, 2019 ~ Jun. 19, 2019 | Mar. 18, 2020 | Radiation (03CH13-HY) |
| Antenna Mast         | EMEC              | AM-BS-4500-B                 | N/A         | 1m~4m                         | N/A              | Apr. 15, 2019 ~ Jun. 19, 2019 | N/A           | Radiation (03CH13-HY) |
| Turn Table           | EMEC              | TT2000                       | N/A         | 0~360 Degree                  | N/A              | Apr. 15, 2019 ~ Jun. 19, 2019 | N/A           | Radiation (03CH13-HY) |
| Software             | AUDIX             | E3 6.2009-8-24c              | RK-001124   | N/A                           | N/A              | Apr. 15, 2019 ~ Jun. 19, 2019 | N/A           | Radiation (03CH13-HY) |
| EMI Test Receiver    | Keysight          | N9038A(MXE)                  | MY54130085  | 20Hz ~ 8.4GHz                 | Nov. 01, 2018    | Apr. 15, 2019 ~ Jun. 19, 2019 | Oct. 31, 2019 | Radiation (03CH13-HY) |
| Filter               | Woken             | WHKX8-5272.5-6750-18000-40ST | SN5         | 6.75G Highpass                | Mar. 13, 2019    | Apr. 15, 2019 ~ Jun. 19, 2019 | Mar. 12, 2020 | Radiation (03CH13-HY) |
| Filter               | Wainwright        | WHKX12-108 0-1200-15000-60ST | SN3         | 1.2G Low Pass                 | Jul. 05, 2018    | Apr. 15, 2019 ~ Jun. 19, 2019 | Jul. 04, 2019 | Radiation (03CH13-HY) |
| Filter               | Wainwright        | WHKX12-270 0-3000-18000-60SS | SN2         | 3G High Pass                  | Jul. 16, 2018    | Apr. 15, 2019 ~ Jun. 19, 2019 | Jul. 15, 2019 | Radiation (03CH13-HY) |



| Instrument            | Manufacturer      | Model No.       | Serial No.    | Characteristics | Calibration Date | Test Date                    | Due Date      | Remark                  |
|-----------------------|-------------------|-----------------|---------------|-----------------|------------------|------------------------------|---------------|-------------------------|
| Switch Box & RF Cable | Burgeon           | ETF-058         | EC1208382     | N/A             | Mar. 27, 2019    | Apr. 05,2019~<br>May 29,2019 | Mar. 26, 2020 | Conducted<br>(TH05-HY)  |
| Power Sensor          | DARE              | RPR3006W        | 13I00030SNO32 | 9kHz~6GHz       | Dec. 03, 2018    | Apr. 05,2019~<br>May 29,2019 | Dec. 02, 2019 | Conducted<br>(TH05-HY)  |
| Spectrum Analyzer     | Rohde & Schwarz   | FSP40           | 100057        | 9kHz~40GHz      | Nov. 21, 2018    | Apr. 05,2019~<br>May 29,2019 | Nov. 20, 2019 | Conducted<br>(TH05-HY)  |
| AC Power Source       | ChainTek          | APC-1000W       | N/A           | N/A             | N/A              | Apr. 03, 2019                | N/A           | Conduction<br>(CO05-HY) |
| EMI Test Receiver     | Rohde & Schwarz   | ESR3            | 102388        | 9KHz~3.6GHz     | Nov. 12, 2018    | Apr. 03, 2019                | Nov. 11, 2019 | Conduction<br>(CO05-HY) |
| LISN                  | Rohde & Schwarz   | ENV216          | 100080        | 9kHz~30MHz      | Nov. 14, 2018    | Apr. 03, 2019                | Nov. 13, 2019 | Conduction<br>(CO05-HY) |
| Software              | Rohde & Schwarz   | EMC32<br>V10.30 | N/A           | N/A             | N/A              | Apr. 03, 2019                | N/A           | Conduction<br>(CO05-HY) |
| LF Cable              | HUBER +<br>SUHNER | RG-214/U        | LF01          | N/A             | Dec. 31, 2018    | Apr. 03, 2019                | Dec. 30, 2019 | Conduction<br>(CO05-HY) |
| Pulse Limiter         | Rohde & Schwarz   | ESH3-Z2         | 100851        | N/A             | Dec. 31, 2018    | Apr. 03, 2019                | Dec. 30, 2019 | Conduction<br>(CO05-HY) |

## 5 Uncertainty of Evaluation

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

|                                                                          |      |
|--------------------------------------------------------------------------|------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2U_c(y)$ ) | 2.20 |
|--------------------------------------------------------------------------|------|

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

|                                                                          |      |
|--------------------------------------------------------------------------|------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2U_c(y)$ ) | 4.90 |
|--------------------------------------------------------------------------|------|

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

|                                                                          |      |
|--------------------------------------------------------------------------|------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2U_c(y)$ ) | 5.40 |
|--------------------------------------------------------------------------|------|

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

|                                                                          |      |
|--------------------------------------------------------------------------|------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2U_c(y)$ ) | 4.30 |
|--------------------------------------------------------------------------|------|

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

|                |                      |                    |       |    |
|----------------|----------------------|--------------------|-------|----|
| Test Engineer: | Leo Li / Rebecca Li  | Temperature:       | 21~25 | °C |
| Test Date:     | 2019/4/5 ~ 2019/5/29 | Relative Humidity: | 51~54 | %  |

**TEST RESULTS DATA**  
**6dB and 99% Occupied Bandwidth**

| 2.4GHz Band |           |     |     |             |                       |       |              |       |                    |           |
|-------------|-----------|-----|-----|-------------|-----------------------|-------|--------------|-------|--------------------|-----------|
| Mod.        | Data Rate | NTX | CH. | Freq. (MHz) | 99% Occupied BW (MHz) |       | 6dB BW (MHz) |       | 6dB BW Limit (MHz) | Pass/Fail |
|             |           |     |     |             | Ant 2                 | Ant 3 | Ant 2        | Ant 3 |                    |           |
| 11b         | 1Mbps     | 2   | 1   | 2412        | 14.10                 | 14.15 | 8.08         | 8.04  | 0.50               | Pass      |
| 11b         | 1Mbps     | 2   | 6   | 2437        | 14.00                 | 14.05 | 8.08         | 8.06  | 0.50               | Pass      |
| 11b         | 1Mbps     | 2   | 11  | 2462        | 13.75                 | 14.10 | 8.04         | 8.08  | 0.50               | Pass      |
| 11b         | 1Mbps     | 2   | 12  | 2467        | 13.60                 | 13.55 | 8.04         | 8.02  | 0.50               | Pass      |
| 11b         | 1Mbps     | 2   | 13  | 2472        | 13.90                 | 13.65 | 8.52         | 8.52  | 0.50               | Pass      |
| 11g         | 6Mbps     | 2   | 1   | 2412        | 16.80                 | 16.70 | 15.66        | 16.04 | 0.50               | Pass      |
| 11g         | 6Mbps     | 2   | 6   | 2437        | 17.40                 | 18.70 | 16.04        | 15.68 | 0.50               | Pass      |
| 11g         | 6Mbps     | 2   | 11  | 2462        | 16.55                 | 16.50 | 15.32        | 15.12 | 0.50               | Pass      |
| 11g         | 6Mbps     | 2   | 12  | 2467        | 16.60                 | 16.50 | 15.70        | 15.68 | 0.50               | Pass      |
| 11g         | 6Mbps     | 2   | 13  | 2472        | 16.75                 | 16.60 | 15.72        | 15.72 | 0.50               | Pass      |
| HT20        | MCS0      | 2   | 1   | 2412        | 17.90                 | 17.90 | 16.38        | 16.40 | 0.50               | Pass      |
| HT20        | MCS0      | 2   | 6   | 2437        | 19.50                 | 20.15 | 16.80        | 16.34 | 0.50               | Pass      |
| HT20        | MCS0      | 2   | 11  | 2462        | 17.70                 | 17.75 | 15.66        | 15.46 | 0.50               | Pass      |
| HT20        | MCS0      | 2   | 12  | 2467        | 17.75                 | 17.70 | 16.08        | 15.94 | 0.50               | Pass      |
| HT20        | MCS0      | 2   | 13  | 2472        | 17.85                 | 17.75 | 17.14        | 15.96 | 0.50               | Pass      |

**TEST RESULTS DATA**  
**Average Output Power**

| 2.4GHz Band |           |     |     |             |                               |       |       |                             |       |          |       |                  |       |                        |       |            |
|-------------|-----------|-----|-----|-------------|-------------------------------|-------|-------|-----------------------------|-------|----------|-------|------------------|-------|------------------------|-------|------------|
| Mod.        | Data Rate | NTX | CH. | Freq. (MHz) | Average Conducted Power (dBm) |       |       | Conducted Power Limit (dBm) |       | DG (dBi) |       | EIRP Power (dBm) |       | EIRP Power Limit (dBm) |       | Pass /Fail |
|             |           |     |     |             | Ant 2                         | Ant 3 | SUM   | Ant 2                       | Ant 3 | Ant 2    | Ant 3 | Ant 2            | Ant 3 | Ant 2                  | Ant 3 |            |
| 11b         | 1Mbps     | 1   | 1   | 2412        | 22.80                         | 22.70 | -     | 30.00                       | 30.00 | -0.50    | -1.00 | 22.30            | 21.70 | 36.00                  | 36.00 | Pass       |
| 11b         | 1Mbps     | 1   | 6   | 2437        | 22.90                         | 22.90 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 22.40            | 21.90 | 36.00                  | 36.00 | Pass       |
| 11b         | 1Mbps     | 1   | 11  | 2462        | 22.40                         | 22.20 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 21.90            | 21.20 | 36.00                  | 36.00 | Pass       |
| 11b         | 1Mbps     | 1   | 12  | 2467        | 17.80                         | 17.80 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 17.30            | 16.80 | 36.00                  | 36.00 | Pass       |
| 11b         | 1Mbps     | 1   | 13  | 2472        | 13.90                         | 14.10 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 13.40            | 13.10 | 36.00                  | 36.00 | Pass       |
| 11g         | 6Mbps     | 1   | 1   | 2412        | 19.80                         | 19.90 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 19.30            | 18.90 | 36.00                  | 36.00 | Pass       |
| 11g         | 6Mbps     | 1   | 6   | 2437        | 22.20                         | 22.10 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 21.70            | 21.10 | 36.00                  | 36.00 | Pass       |
| 11g         | 6Mbps     | 1   | 11  | 2462        | 18.50                         | 18.80 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 18.00            | 17.80 | 36.00                  | 36.00 | Pass       |
| 11g         | 6Mbps     | 1   | 12  | 2467        | 13.60                         | 13.60 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 13.10            | 12.60 | 36.00                  | 36.00 | Pass       |
| 11g         | 6Mbps     | 1   | 13  | 2472        | 1.70                          | 1.80  |       | 30.00                       | 30.00 | -0.50    | -1.00 | 1.20             | 0.80  | 36.00                  | 36.00 | Pass       |
| HT20        | MCS0      | 1   | 1   | 2412        | 19.30                         | 19.40 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 18.80            | 18.40 | 36.00                  | 36.00 | Pass       |
| HT20        | MCS0      | 1   | 6   | 2437        | 22.10                         | 22.00 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 21.60            | 21.00 | 36.00                  | 36.00 | Pass       |
| HT20        | MCS0      | 1   | 11  | 2462        | 17.90                         | 18.20 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 17.40            | 17.20 | 36.00                  | 36.00 | Pass       |
| HT20        | MCS0      | 1   | 12  | 2467        | 15.20                         | 15.30 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 14.70            | 14.30 | 36.00                  | 36.00 | Pass       |
| HT20        | MCS0      | 1   | 13  | 2472        | 1.90                          | 1.90  |       | 30.00                       | 30.00 | -0.50    | -1.00 | 1.40             | 0.90  | 36.00                  | 36.00 | Pass       |
| VHT20       | MCS0      | 1   | 1   | 2412        | 19.30                         | 19.40 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 18.80            | 18.40 | 36.00                  | 36.00 | Pass       |
| VHT20       | MCS0      | 1   | 6   | 2437        | 22.00                         | 22.00 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 21.50            | 21.00 | 36.00                  | 36.00 | Pass       |
| VHT20       | MCS0      | 1   | 11  | 2462        | 17.90                         | 18.10 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 17.40            | 17.10 | 36.00                  | 36.00 | Pass       |
| VHT20       | MCS0      | 1   | 12  | 2467        | 14.90                         | 15.00 |       | 30.00                       | 30.00 | -0.50    | -1.00 | 14.40            | 14.00 | 36.00                  | 36.00 | Pass       |
| VHT20       | MCS0      | 1   | 13  | 2472        | 1.70                          | 1.80  |       | 30.00                       | 30.00 | -0.50    | -1.00 | 1.20             | 0.80  | 36.00                  | 36.00 | Pass       |
| 11b         | 1Mbps     | 2   | 1   | 2412        | 23.00                         | 22.90 | 25.96 | 30.00                       |       | -0.50    |       | 25.46            |       | 36.00                  |       | Pass       |
| 11b         | 1Mbps     | 2   | 6   | 2437        | 22.80                         | 23.10 | 25.96 | 30.00                       |       | -0.50    |       | 25.46            |       | 36.00                  |       | Pass       |
| 11b         | 1Mbps     | 2   | 11  | 2462        | 22.20                         | 22.70 | 25.47 | 30.00                       |       | -0.50    |       | 24.97            |       | 36.00                  |       | Pass       |
| 11b         | 1Mbps     | 2   | 12  | 2467        | 17.80                         | 17.90 | 20.86 | 30.00                       |       | -0.50    |       | 20.36            |       | 36.00                  |       | Pass       |
| 11b         | 1Mbps     | 2   | 13  | 2472        | 14.20                         | 14.10 | 17.16 | 30.00                       |       | -0.50    |       | 16.66            |       | 36.00                  |       | Pass       |
| 11g         | 6Mbps     | 2   | 1   | 2412        | 20.20                         | 19.90 | 23.06 | 30.00                       |       | -0.50    |       | 22.56            |       | 36.00                  |       | Pass       |
| 11g         | 6Mbps     | 2   | 6   | 2437        | 22.20                         | 22.30 | 25.26 | 30.00                       |       | -0.50    |       | 24.76            |       | 36.00                  |       | Pass       |
| 11g         | 6Mbps     | 2   | 11  | 2462        | 18.90                         | 18.70 | 21.81 | 30.00                       |       | -0.50    |       | 21.31            |       | 36.00                  |       | Pass       |
| 11g         | 6Mbps     | 2   | 12  | 2467        | 13.70                         | 13.60 | 16.66 | 30.00                       |       | -0.50    |       | 16.16            |       | 36.00                  |       | Pass       |
| 11g         | 6Mbps     | 2   | 13  | 2472        | 2.00                          | 1.60  | 4.81  | 30.00                       |       | -0.50    |       | 4.31             |       | 36.00                  |       | Pass       |
| HT20        | MCS0      | 2   | 1   | 2412        | 19.70                         | 19.30 | 22.51 | 30.00                       |       | -0.50    |       | 22.01            |       | 36.00                  |       | Pass       |
| HT20        | MCS0      | 2   | 6   | 2437        | 22.00                         | 22.20 | 25.11 | 30.00                       |       | -0.50    |       | 24.61            |       | 36.00                  |       | Pass       |
| HT20        | MCS0      | 2   | 11  | 2462        | 18.40                         | 18.10 | 21.26 | 30.00                       |       | -0.50    |       | 20.76            |       | 36.00                  |       | Pass       |
| HT20        | MCS0      | 2   | 12  | 2467        | 15.30                         | 15.30 | 18.31 | 30.00                       |       | -0.50    |       | 17.81            |       | 36.00                  |       | Pass       |
| HT20        | MCS0      | 2   | 13  | 2472        | 1.90                          | 1.90  | 4.91  | 30.00                       |       | -0.50    |       | 4.41             |       | 36.00                  |       | Pass       |
| VHT20       | MCS0      | 2   | 1   | 2412        | 19.60                         | 19.30 | 22.46 | 30.00                       |       | -0.50    |       | 21.96            |       | 36.00                  |       | Pass       |
| VHT20       | MCS0      | 2   | 6   | 2437        | 22.10                         | 21.90 | 25.01 | 30.00                       |       | -0.50    |       | 24.51            |       | 36.00                  |       | Pass       |
| VHT20       | MCS0      | 2   | 11  | 2462        | 18.30                         | 18.00 | 21.16 | 30.00                       |       | -0.50    |       | 20.66            |       | 36.00                  |       | Pass       |
| VHT20       | MCS0      | 2   | 12  | 2467        | 15.20                         | 15.30 | 18.26 | 30.00                       |       | -0.50    |       | 17.76            |       | 36.00                  |       | Pass       |
| VHT20       | MCS0      | 2   | 13  | 2472        | 1.90                          | 1.70  | 4.81  | 30.00                       |       | -0.50    |       | 4.31             |       | 36.00                  |       | Pass       |

Note: Measured power (dBm) has offset with cable loss.

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

| 2.4GHz Band |           |     |     |             |                     |        |              |          |       |                           |       |           |
|-------------|-----------|-----|-----|-------------|---------------------|--------|--------------|----------|-------|---------------------------|-------|-----------|
| Mod.        | Data Rate | NTx | CH. | Freq. (MHz) | Peak PSD (dBm/3kHz) |        |              | DG (dBi) |       | Peak PSD Limit (dBm/3kHz) |       | Pass/Fail |
|             |           |     |     |             | Ant 2               | Ant 3  | Worse + 3.01 | Ant 2    | Ant 3 | Ant 2                     | Ant 3 |           |
| 11b         | 1Mbps     | 2   | 1   | 2412        | -0.49               | 0.48   | 3.49         | 2.26     |       | 8.00                      |       | Pass      |
| 11b         | 1Mbps     | 2   | 6   | 2437        | -0.87               | -0.54  | 2.47         | 2.26     |       | 8.00                      |       | Pass      |
| 11b         | 1Mbps     | 2   | 11  | 2462        | -0.45               | -1.58  | 2.56         | 2.26     |       | 8.00                      |       | Pass      |
| 11b         | 1Mbps     | 2   | 12  | 2467        | -4.26               | -4.35  | -1.25        | 2.26     |       | 8.00                      |       | Pass      |
| 11b         | 1Mbps     | 2   | 13  | 2472        | -7.84               | -9.95  | -4.83        | 2.26     |       | 8.00                      |       | Pass      |
| 11g         | 6Mbps     | 2   | 1   | 2412        | -7.15               | -8.00  | -4.14        | 2.26     |       | 8.00                      |       | Pass      |
| 11g         | 6Mbps     | 2   | 6   | 2437        | -5.44               | -4.92  | -1.91        | 2.26     |       | 8.00                      |       | Pass      |
| 11g         | 6Mbps     | 2   | 11  | 2462        | -8.12               | -8.65  | -5.11        | 2.26     |       | 8.00                      |       | Pass      |
| 11g         | 6Mbps     | 2   | 12  | 2467        | -14.54              | -14.27 | -11.26       | 2.26     |       | 8.00                      |       | Pass      |
| 11g         | 6Mbps     | 2   | 13  | 2472        | -25.65              | -26.37 | -22.64       | 2.26     |       | 8.00                      |       | Pass      |
| HT20        | MCS0      | 2   | 1   | 2412        | -8.07               | -7.77  | -4.76        | 2.26     |       | 8.00                      |       | Pass      |
| HT20        | MCS0      | 2   | 6   | 2437        | -6.21               | -6.27  | -3.20        | 2.26     |       | 8.00                      |       | Pass      |
| HT20        | MCS0      | 2   | 11  | 2462        | -8.26               | -8.55  | -5.25        | 2.26     |       | 8.00                      |       | Pass      |
| HT20        | MCS0      | 2   | 12  | 2467        | -11.26              | -12.60 | -8.25        | 2.26     |       | 8.00                      |       | Pass      |
| HT20        | MCS0      | 2   | 13  | 2472        | -24.91              | -24.82 | -21.81       | 2.26     |       | 8.00                      |       | Pass      |

Measured power density (dBm) has offset with cable loss.



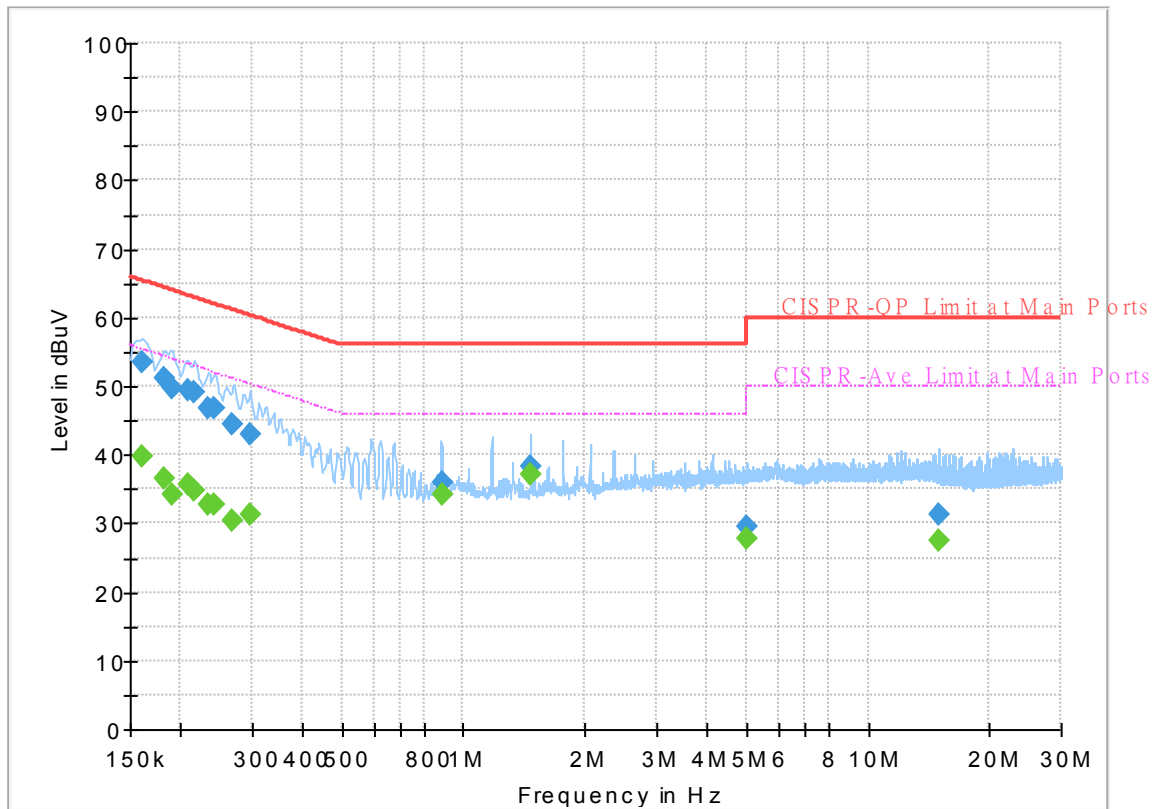
## **Appendix B. AC Conducted Emission Test Results**

|                        |             |                            |        |
|------------------------|-------------|----------------------------|--------|
| <b>Test Engineer :</b> | Jimmy Chang | <b>Temperature :</b>       | 24~26℃ |
|                        |             | <b>Relative Humidity :</b> | 51~54% |

# EUT Information

Report NO : 8N0616-05  
 Test Mode : Mode 2  
 Test Voltage : 120Vac/60Hz  
 Phase : Line

Full Spectrum



## Final\_Result

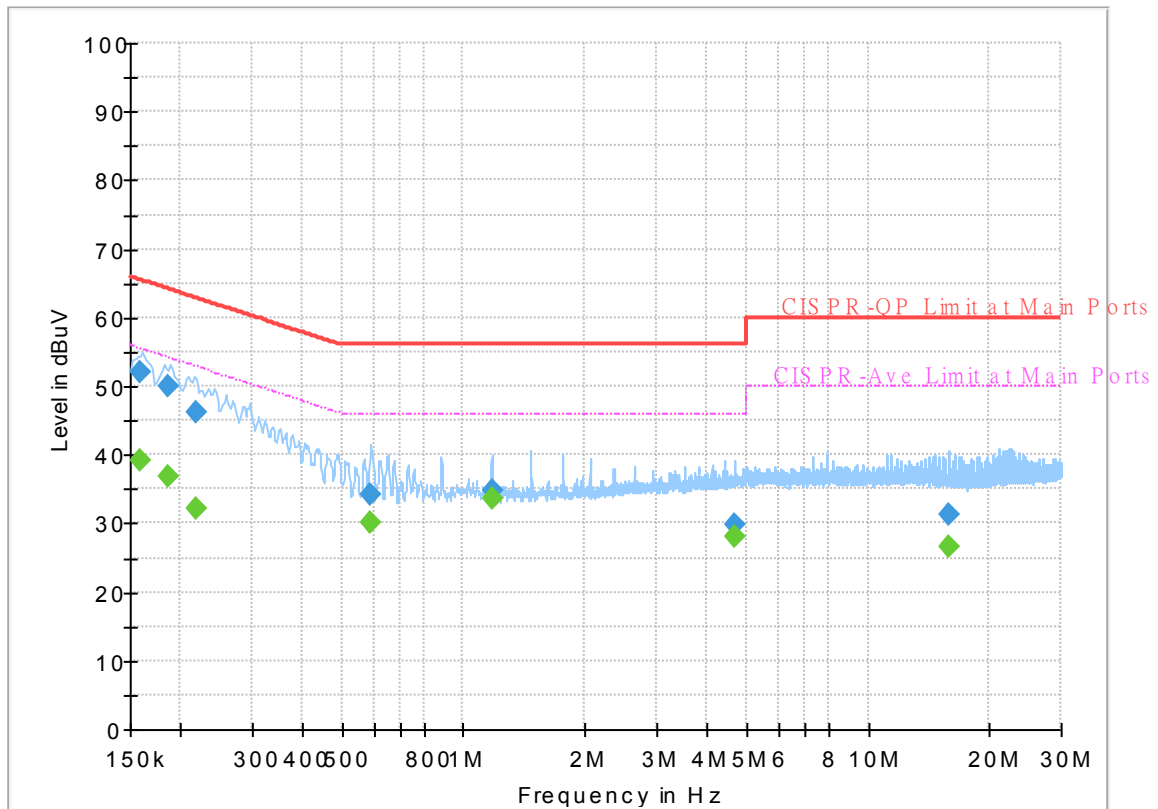
| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|------|--------|------------|
| 0.161250        | ---              | 39.69           | 55.40        | 15.71       | L1   | OFF    | 19.5       |
| 0.161250        | 53.60            | ---             | 65.40        | 11.80       | L1   | OFF    | 19.5       |
| 0.181500        | ---              | 36.56           | 54.42        | 17.86       | L1   | OFF    | 19.5       |
| 0.181500        | 51.09            | ---             | 64.42        | 13.33       | L1   | OFF    | 19.5       |
| 0.190500        | ---              | 34.33           | 54.02        | 19.69       | L1   | OFF    | 19.5       |
| 0.190500        | 49.69            | ---             | 64.02        | 14.33       | L1   | OFF    | 19.5       |
| 0.208500        | ---              | 35.57           | 53.27        | 17.70       | L1   | OFF    | 19.5       |
| 0.208500        | 49.55            | ---             | 63.27        | 13.72       | L1   | OFF    | 19.5       |
| 0.215250        | ---              | 34.93           | 53.00        | 18.07       | L1   | OFF    | 19.5       |
| 0.215250        | 49.08            | ---             | 63.00        | 13.92       | L1   | OFF    | 19.5       |
| 0.233250        | ---              | 32.73           | 52.33        | 19.60       | L1   | OFF    | 19.5       |
| 0.233250        | 46.73            | ---             | 62.33        | 15.60       | L1   | OFF    | 19.5       |
| 0.242250        | ---              | 32.67           | 52.02        | 19.35       | L1   | OFF    | 19.5       |
| 0.242250        | 46.67            | ---             | 62.02        | 15.35       | L1   | OFF    | 19.5       |
| 0.269250        | ---              | 30.53           | 51.14        | 20.61       | L1   | OFF    | 19.5       |
| 0.269250        | 44.37            | ---             | 61.14        | 16.77       | L1   | OFF    | 19.5       |
| 0.296250        | ---              | 31.28           | 50.35        | 19.07       | L1   | OFF    | 19.5       |
| 0.296250        | 42.85            | ---             | 60.35        | 17.50       | L1   | OFF    | 19.5       |
| 0.883500        | ---              | 34.28           | 46.00        | 11.72       | L1   | OFF    | 19.6       |
| 0.883500        | 35.96            | ---             | 56.00        | 20.04       | L1   | OFF    | 19.6       |
| 1.468500        | ---              | 37.06           | 46.00        | 8.94        | L1   | OFF    | 19.6       |

|                  |              |              |              |              |           |            |             |
|------------------|--------------|--------------|--------------|--------------|-----------|------------|-------------|
| <b>1.468500</b>  | <b>38.39</b> | <b>---</b>   | <b>56.00</b> | <b>17.61</b> | <b>L1</b> | <b>OFF</b> | <b>19.6</b> |
| <b>4.989750</b>  | <b>---</b>   | <b>27.63</b> | <b>46.00</b> | <b>18.37</b> | <b>L1</b> | <b>OFF</b> | <b>19.7</b> |
| <b>4.989750</b>  | <b>29.65</b> | <b>---</b>   | <b>56.00</b> | <b>26.35</b> | <b>L1</b> | <b>OFF</b> | <b>19.7</b> |
| <b>14.977500</b> | <b>---</b>   | <b>27.46</b> | <b>50.00</b> | <b>22.54</b> | <b>L1</b> | <b>OFF</b> | <b>20.1</b> |
| <b>14.977500</b> | <b>31.16</b> | <b>---</b>   | <b>60.00</b> | <b>28.84</b> | <b>L1</b> | <b>OFF</b> | <b>20.1</b> |

## EUT Information

Report NO : 8N0616-05  
Test Mode : Mode 2  
Test Voltage : 120Vac/60Hz  
Phase : Neutral

Full Spectrum



## Final Result

| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|------|--------|------------|
| 0.159000        | ---              | 39.21           | 55.52        | 16.31       | N    | OFF    | 19.5       |
| 0.159000        | 52.11            | ---             | 65.52        | 13.41       | N    | OFF    | 19.5       |
| 0.186000        | ---              | 36.97           | 54.21        | 17.24       | N    | OFF    | 19.5       |
| 0.186000        | 49.94            | ---             | 64.21        | 14.27       | N    | OFF    | 19.5       |
| 0.217500        | ---              | 32.06           | 52.91        | 20.85       | N    | OFF    | 19.5       |
| 0.217500        | 46.09            | ---             | 62.91        | 16.82       | N    | OFF    | 19.5       |
| 0.588750        | ---              | 30.17           | 46.00        | 15.83       | N    | OFF    | 19.5       |
| 0.588750        | 34.15            | ---             | 56.00        | 21.85       | N    | OFF    | 19.5       |
| 1.173750        | ---              | 33.71           | 46.00        | 12.29       | N    | OFF    | 19.6       |
| 1.173750        | 34.70            | ---             | 56.00        | 21.30       | N    | OFF    | 19.6       |
| 4.699500        | ---              | 28.14           | 46.00        | 17.86       | N    | OFF    | 19.7       |
| 4.699500        | 29.84            | ---             | 56.00        | 26.16       | N    | OFF    | 19.7       |
| 15.857250       | ---              | 26.57           | 50.00        | 23.43       | N    | OFF    | 20.2       |
| 15.857250       | 31.37            | ---             | 60.00        | 28.63       | N    | OFF    | 20.2       |



## **Appendix C. Radiated Spurious Emission**

|                        |                                 |                            |             |
|------------------------|---------------------------------|----------------------------|-------------|
| <b>Test Engineer :</b> | Alex Jheng, JC Liang, Wilson Wu | <b>Temperature :</b>       | 24.8~25.2°C |
|                        |                                 | <b>Relative Humidity :</b> | 50~51%      |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (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.  |       |
| 2+3                         |      | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | ( dBμV ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| 802.11b<br>CH 01<br>2412MHz |      | 2389.695  | 53.16      | -20.84 | 74         | 41.59    | 27.23    | 13.92  | 29.58  | 352    | 66      | P     | H     |
|                             |      | 2389.275  | 43.68      | -10.32 | 54         | 32.11    | 27.23    | 13.92  | 29.58  | 352    | 66      | A     | H     |
|                             | *    | 2412      | 111.92     | -      | -          | 100.28   | 27.28    | 13.94  | 29.58  | 352    | 66      | P     | H     |
|                             | *    | 2412      | 108.83     | -      | -          | 97.19    | 27.28    | 13.94  | 29.58  | 352    | 66      | A     | H     |
|                             |      |           |            |        |            |          |          |        |        |        |         |       | H     |
|                             |      |           |            |        |            |          |          |        |        |        |         |       | H     |
|                             |      | 2387.805  | 52.97      | -21.03 | 74         | 41.4     | 27.23    | 13.92  | 29.58  | 352    | 121     | P     | V     |
|                             |      | 2387.07   | 42.53      | -11.47 | 54         | 30.96    | 27.23    | 13.92  | 29.58  | 352    | 121     | A     | V     |
|                             | *    | 2412      | 108.18     | -      | -          | 96.54    | 27.28    | 13.94  | 29.58  | 352    | 121     | P     | V     |
|                             | *    | 2412      | 105.04     | -      | -          | 93.4     | 27.28    | 13.94  | 29.58  | 352    | 121     | A     | V     |
|                             |      |           |            |        |            |          |          |        |        |        |         |       | V     |
|                             |      |           |            |        |            |          |          |        |        |        |         |       | V     |
| 802.11b<br>CH 06<br>2437MHz |      | 2383.78   | 52.57      | -21.43 | 74         | 41.04    | 27.19    | 13.92  | 29.58  | 341    | 71      | P     | H     |
|                             |      | 2389.94   | 41.54      | -12.46 | 54         | 29.97    | 27.23    | 13.92  | 29.58  | 341    | 71      | A     | H     |
|                             | *    | 2437      | 111.13     | -      | -          | 99.38    | 27.37    | 13.96  | 29.58  | 341    | 71      | P     | H     |
|                             | *    | 2437      | 108.17     | -      | -          | 96.42    | 27.37    | 13.96  | 29.58  | 341    | 71      | A     | H     |
|                             |      | 2491.32   | 52.64      | -21.36 | 74         | 40.7     | 27.5     | 14.01  | 29.57  | 341    | 71      | P     | H     |
|                             |      | 2483.83   | 42.1       | -11.9  | 54         | 30.21    | 27.46    | 14     | 29.57  | 341    | 71      | A     | H     |
|                             |      | 2386.72   | 52.6       | -21.4  | 74         | 41.03    | 27.23    | 13.92  | 29.58  | 387    | 112     | P     | V     |
|                             |      | 2389.94   | 41.36      | -12.64 | 54         | 29.79    | 27.23    | 13.92  | 29.58  | 387    | 112     | A     | V     |
|                             | *    | 2437      | 109.12     | -      | -          | 97.37    | 27.37    | 13.96  | 29.58  | 387    | 112     | P     | V     |
|                             | *    | 2437      | 106.13     | -      | -          | 94.38    | 27.37    | 13.96  | 29.58  | 387    | 112     | A     | V     |
|                             |      | 2495.31   | 53.17      | -20.83 | 74         | 41.23    | 27.5     | 14.01  | 29.57  | 387    | 112     | P     | V     |
|                             |      | 2483.97   | 41.75      | -12.25 | 54         | 29.86    | 27.46    | 14     | 29.57  | 387    | 112     | A     | V     |



|                                                  |                                                                                             |         |        |        |    |       |       |       |       |     |     |   |   |
|--------------------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|-------|-------|-------|-------|-----|-----|---|---|
| <b>802.11b</b><br><b>CH 11</b><br><b>2462MHz</b> | *                                                                                           | 2462    | 112.52 | -      | -  | 100.7 | 27.41 | 13.98 | 29.57 | 331 | 80  | P | H |
|                                                  | *                                                                                           | 2462    | 109.35 | -      | -  | 97.53 | 27.41 | 13.98 | 29.57 | 331 | 80  | A | H |
|                                                  |                                                                                             | 2487.2  | 55.13  | -18.87 | 74 | 43.24 | 27.46 | 14    | 29.57 | 331 | 80  | P | H |
|                                                  |                                                                                             | 2485.96 | 47.2   | -6.8   | 54 | 35.31 | 27.46 | 14    | 29.57 | 331 | 80  | A | H |
|                                                  |                                                                                             |         |        |        |    |       |       |       |       |     |     |   | H |
|                                                  |                                                                                             |         |        |        |    |       |       |       |       |     |     |   | H |
|                                                  | *                                                                                           | 2462    | 110.25 | -      | -  | 98.43 | 27.41 | 13.98 | 29.57 | 379 | 113 | P | V |
|                                                  | *                                                                                           | 2462    | 107.21 | -      | -  | 95.39 | 27.41 | 13.98 | 29.57 | 379 | 113 | A | V |
|                                                  |                                                                                             | 2486.52 | 54.13  | -19.87 | 74 | 42.24 | 27.46 | 14    | 29.57 | 379 | 113 | P | V |
|                                                  |                                                                                             | 2486.12 | 44.7   | -9.3   | 54 | 32.81 | 27.46 | 14    | 29.57 | 379 | 113 | A | V |
|                                                  |                                                                                             |         |        |        |    |       |       |       |       |     |     |   | V |
|                                                  |                                                                                             |         |        |        |    |       |       |       |       |     |     |   | V |
| <b>Remark</b>                                    | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |         |        |        |    |       |       |       |       |     |     |   |   |



| WIFI<br>Ant.<br>2+3         | 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 12<br>2467MHz | *                                                                                           | 2467                 | 108.44              | -                       | -                           | 96.61                     | 27.41                         | 13.99                  | 29.57                      | 332                  | 75                      | P                     | H             |
|                             | *                                                                                           | 2467                 | 105.35              | -                       | -                           | 93.52                     | 27.41                         | 13.99                  | 29.57                      | 332                  | 75                      | A                     | H             |
|                             |                                                                                             | 2484.12              | 58.23               | -15.77                  | 74                          | 46.34                     | 27.46                         | 14                     | 29.57                      | 332                  | 75                      | P                     | H             |
|                             |                                                                                             | 2484.24              | 51.42               | -2.58                   | 54                          | 39.53                     | 27.46                         | 14                     | 29.57                      | 332                  | 75                      | A                     | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             | *                                                                                           | 2467                 | 106.74              | -                       | -                           | 94.91                     | 27.41                         | 13.99                  | 29.57                      | 378                  | 112                     | P                     | V             |
|                             | *                                                                                           | 2467                 | 103.71              | -                       | -                           | 91.88                     | 27.41                         | 13.99                  | 29.57                      | 378                  | 112                     | A                     | V             |
|                             |                                                                                             | 2484.28              | 55.73               | -18.27                  | 74                          | 43.84                     | 27.46                         | 14                     | 29.57                      | 378                  | 112                     | P                     | V             |
|                             |                                                                                             | 2484.36              | 48.08               | -5.92                   | 54                          | 36.19                     | 27.46                         | 14                     | 29.57                      | 378                  | 112                     | A                     | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| 802.11b<br>CH 13<br>2472MHz | *                                                                                           | 2472                 | 104.44              | -                       | -                           | 92.56                     | 27.46                         | 13.99                  | 29.57                      | 331                  | 75                      | P                     | H             |
|                             | *                                                                                           | 2472                 | 101.24              | -                       | -                           | 89.36                     | 27.46                         | 13.99                  | 29.57                      | 331                  | 75                      | A                     | H             |
|                             |                                                                                             | 2483.8               | 58.17               | -15.83                  | 74                          | 46.28                     | 27.46                         | 14                     | 29.57                      | 331                  | 75                      | P                     | H             |
|                             |                                                                                             | 2483.52              | 51.94               | -2.06                   | 54                          | 40.05                     | 27.46                         | 14                     | 29.57                      | 331                  | 75                      | A                     | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             | *                                                                                           | 2472                 | 102.5               | -                       | -                           | 90.62                     | 27.46                         | 13.99                  | 29.57                      | 378                  | 110                     | P                     | V             |
|                             | *                                                                                           | 2472                 | 99.48               | -                       | -                           | 87.6                      | 27.46                         | 13.99                  | 29.57                      | 378                  | 110                     | A                     | V             |
|                             |                                                                                             | 2485.92              | 54.99               | -19.01                  | 74                          | 43.1                      | 27.46                         | 14                     | 29.57                      | 378                  | 110                     | P                     | V             |
|                             |                                                                                             | 2485.88              | 46.73               | -7.27                   | 54                          | 34.84                     | 27.46                         | 14                     | 29.57                      | 378                  | 110                     | A                     | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| Remark                      | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       |               |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (Harmonic @ 3m)

| WIFI<br>Ant.<br>2+3         | 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<br>2412MHz |                                                                                             | 4824                 | 38.64               | -35.36                  | 74                          | 58.51                     | 31.26                         | 6.42                   | 57.55                      | 100                  | 0                       | P                     | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             | 4824                 | 38.94               | -35.06                  | 74                          | 58.81                     | 31.26                         | 6.42                   | 57.55                      | 100                  | 0                       | P                     | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| 802.11b<br>CH 06<br>2437MHz |                                                                                             | 4874                 | 53.15               | -20.85                  | 74                          | 72.68                     | 31.36                         | 6.08                   | 57.45                      | 100                  | 234                     | P                     | H             |
|                             |                                                                                             | 4874                 | 50.76               | -3.24                   | 54                          | 70.29                     | 31.36                         | 6.08                   | 57.45                      | 100                  | 234                     | A                     | H             |
|                             |                                                                                             | 7311                 | 44.34               | -29.66                  | 74                          | 57.23                     | 36.18                         | 7.79                   | 57.27                      | 100                  | 0                       | P                     | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             | 4874                 | 47.09               | -26.91                  | 74                          | 66.62                     | 31.36                         | 6.08                   | 57.45                      | 100                  | 0                       | P                     | V             |
|                             |                                                                                             | 7311                 | 45.71               | -28.29                  | 74                          | 58.6                      | 36.18                         | 7.79                   | 57.27                      | 100                  | 0                       | P                     | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| 802.11b<br>CH 11<br>2462MHz |                                                                                             | 4924                 | 53.49               | -20.51                  | 74                          | 72.68                     | 31.46                         | 6.23                   | 57.35                      | 100                  | 234                     | P                     | H             |
|                             |                                                                                             | 4924                 | 51.59               | -2.41                   | 54                          | 70.78                     | 31.46                         | 6.23                   | 57.35                      | 100                  | 234                     | A                     | H             |
|                             |                                                                                             | 7380                 | 44.53               | -29.47                  | 74                          | 57.41                     | 36.33                         | 7.76                   | 57.36                      | 100                  | 0                       | P                     | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             | 4924                 | 47.46               | -26.54                  | 74                          | 66.65                     | 31.46                         | 6.23                   | 57.35                      | 100                  | 0                       | P                     | V             |
|                             |                                                                                             | 7386                 | 44.76               | -29.24                  | 74                          | 57.61                     | 36.37                         | 7.76                   | 57.36                      | 100                  | 0                       | P                     | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| Remark                      | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       |               |



| WIFI<br>Ant.<br>2+3         | 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 12<br>2467MHz |                                                                                             | 4934                 | 37.72               | -36.28                  | 74                          | 56.86                     | 31.46                         | 6.73                   | 57.33                      | 100                  | 0                       | P                     | H             |
|                             |                                                                                             | 7401                 | 43.71               | -30.29                  | 74                          | 56.55                     | 36.41                         | 8.13                   | 57.38                      | 100                  | 0                       | P                     | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             | 4934                 | 37.42               | -36.58                  | 74                          | 56.56                     | 31.46                         | 6.73                   | 57.33                      | 100                  | 0                       | P                     | V             |
|                             |                                                                                             | 7401                 | 44.62               | -29.38                  | 74                          | 57.46                     | 36.41                         | 8.13                   | 57.38                      | 100                  | 0                       | P                     | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| 802.11b<br>CH 13<br>2472MHz |                                                                                             | 4944                 | 37.9                | -36.1                   | 74                          | 56.95                     | 31.5                          | 6.76                   | 57.31                      | 100                  | 0                       | P                     | H             |
|                             |                                                                                             | 7416                 | 42.57               | -31.43                  | 74                          | 55.4                      | 36.41                         | 8.16                   | 57.4                       | 100                  | 0                       | P                     | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             | 4944                 | 37.77               | -36.23                  | 74                          | 56.82                     | 31.5                          | 6.76                   | 57.31                      | 100                  | 0                       | P                     | V             |
|                             |                                                                                             | 7416                 | 43.63               | -30.37                  | 74                          | 56.46                     | 36.41                         | 8.16                   | 57.4                       | 100                  | 0                       | P                     | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| Remark                      | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       |               |



**2.4GHz 2400~2483.5MHz**  
**WIFI 802.11g (Band Edge @ 3m)**

| WIFI<br>Ant.<br>2+3                  | 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 ) |
|--------------------------------------|------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| <b>802.11g<br/>CH 01<br/>2412MHz</b> |      | 2390                 | 57.48               | -16.52                  | 74                          | 45.91                     | 27.23                         | 13.92                  | 29.58                      | 349                  | 65                      | P                       | H               |
|                                      |      | 2390                 | 46.08               | -7.92                   | 54                          | 34.51                     | 27.23                         | 13.92                  | 29.58                      | 349                  | 65                      | A                       | H               |
|                                      | *    | 2412                 | 110.78              | -                       | -                           | 99.14                     | 27.28                         | 13.94                  | 29.58                      | 349                  | 65                      | P                       | H               |
|                                      | *    | 2412                 | 103.1               | -                       | -                           | 91.46                     | 27.28                         | 13.94                  | 29.58                      | 349                  | 65                      | A                       | H               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                      |      | 2390                 | 56.81               | -17.19                  | 74                          | 45.24                     | 27.23                         | 13.92                  | 29.58                      | 346                  | 107                     | P                       | V               |
|                                      |      | 2390                 | 44.66               | -9.34                   | 54                          | 33.09                     | 27.23                         | 13.92                  | 29.58                      | 346                  | 107                     | A                       | V               |
|                                      | *    | 2412                 | 107.64              | -                       | -                           | 96                        | 27.28                         | 13.94                  | 29.58                      | 346                  | 107                     | P                       | V               |
|                                      | *    | 2412                 | 99.94               | -                       | -                           | 88.3                      | 27.28                         | 13.94                  | 29.58                      | 346                  | 107                     | A                       | V               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| <b>802.11g<br/>CH 06<br/>2437MHz</b> |      | 2370.76              | 51.93               | -22.07                  | 74                          | 40.42                     | 27.19                         | 13.91                  | 29.59                      | 337                  | 65                      | P                       | H               |
|                                      |      | 2389.94              | 41.61               | -12.39                  | 54                          | 30.04                     | 27.23                         | 13.92                  | 29.58                      | 337                  | 65                      | A                       | H               |
|                                      | *    | 2437                 | 109.3               | -                       | -                           | 97.55                     | 27.37                         | 13.96                  | 29.58                      | 337                  | 65                      | P                       | H               |
|                                      | *    | 2437                 | 101.7               | -                       | -                           | 89.95                     | 27.37                         | 13.96                  | 29.58                      | 337                  | 65                      | A                       | H               |
|                                      |      | 2483.62              | 52.7                | -21.3                   | 74                          | 40.81                     | 27.46                         | 14                     | 29.57                      | 337                  | 65                      | P                       | H               |
|                                      |      | 2483.5               | 42.45               | -11.55                  | 54                          | 30.56                     | 27.46                         | 14                     | 29.57                      | 337                  | 65                      | A                       | H               |
|                                      |      | 2314.48              | 52.21               | -21.79                  | 74                          | 40.93                     | 27.01                         | 13.86                  | 29.59                      | 341                  | 107                     | P                       | V               |
|                                      |      | 2389.94              | 41.42               | -12.58                  | 54                          | 29.85                     | 27.23                         | 13.92                  | 29.58                      | 341                  | 107                     | A                       | V               |
|                                      | *    | 2437                 | 107.78              | -                       | -                           | 96.03                     | 27.37                         | 13.96                  | 29.58                      | 341                  | 107                     | P                       | V               |
|                                      | *    | 2437                 | 99.97               | -                       | -                           | 88.22                     | 27.37                         | 13.96                  | 29.58                      | 341                  | 107                     | A                       | V               |
|                                      |      | 2497.76              | 53.08               | -20.92                  | 74                          | 41.14                     | 27.5                          | 14.01                  | 29.57                      | 341                  | 107                     | P                       | V               |
|                                      |      | 2484.04              | 41.96               | -12.04                  | 54                          | 30.07                     | 27.46                         | 14                     | 29.57                      | 341                  | 107                     | A                       | V               |



|                                      |                                                                                             |         |        |        |    |        |       |       |       |     |     |   |   |
|--------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|--------|-------|-------|-------|-----|-----|---|---|
| <b>802.11g<br/>CH 11<br/>2462MHz</b> | *                                                                                           | 2462    | 112.81 | -      | -  | 100.99 | 27.41 | 13.98 | 29.57 | 332 | 69  | P | H |
|                                      | *                                                                                           | 2462    | 106.09 | -      | -  | 94.27  | 27.41 | 13.98 | 29.57 | 332 | 69  | A | H |
|                                      |                                                                                             | 2486.4  | 61.68  | -12.32 | 74 | 49.79  | 27.46 | 14    | 29.57 | 332 | 69  | P | H |
|                                      |                                                                                             | 2483.52 | 51.32  | -2.68  | 54 | 39.43  | 27.46 | 14    | 29.57 | 332 | 69  | A | H |
|                                      |                                                                                             |         |        |        |    |        |       |       |       |     |     |   | H |
|                                      |                                                                                             |         |        |        |    |        |       |       |       |     |     |   | H |
|                                      | *                                                                                           | 2462    | 110.57 | -      | -  | 98.75  | 27.41 | 13.98 | 29.57 | 378 | 118 | P | V |
|                                      | *                                                                                           | 2462    | 103.34 | -      | -  | 91.52  | 27.41 | 13.98 | 29.57 | 378 | 118 | A | V |
|                                      |                                                                                             | 2483.56 | 59.77  | -14.23 | 74 | 47.88  | 27.46 | 14    | 29.57 | 378 | 118 | P | V |
|                                      |                                                                                             | 2483.52 | 49.7   | -4.3   | 54 | 37.81  | 27.46 | 14    | 29.57 | 378 | 118 | A | V |
|                                      |                                                                                             |         |        |        |    |        |       |       |       |     |     |   | V |
|                                      |                                                                                             |         |        |        |    |        |       |       |       |     |     |   | V |
| <b>Remark</b>                        | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |         |        |        |    |        |       |       |       |     |     |   |   |



| WIFI<br>Ant.<br>2+3         | 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) |
|-----------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11g<br>CH 12<br>2467MHz | *                                                                                           | 2467                 | 107.65              | -                       | -                           | 95.82                     | 27.41                         | 13.99                  | 29.57                      | 332                  | 71                      | P                     | H             |
|                             | *                                                                                           | 2467                 | 99.72               | -                       | -                           | 87.89                     | 27.41                         | 13.99                  | 29.57                      | 332                  | 71                      | A                     | H             |
|                             |                                                                                             | 2483.52              | 64.06               | -9.94                   | 74                          | 52.17                     | 27.46                         | 14                     | 29.57                      | 332                  | 71                      | P                     | H             |
|                             |                                                                                             | 2483.52              | 51.49               | -2.51                   | 54                          | 39.6                      | 27.46                         | 14                     | 29.57                      | 332                  | 71                      | A                     | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             | *                                                                                           | 2467                 | 104.89              | -                       | -                           | 93.06                     | 27.41                         | 13.99                  | 29.57                      | 378                  | 133                     | P                     | V             |
|                             | *                                                                                           | 2467                 | 97.18               | -                       | -                           | 85.35                     | 27.41                         | 13.99                  | 29.57                      | 378                  | 133                     | A                     | V             |
|                             |                                                                                             | 2483.52              | 60.78               | -13.22                  | 74                          | 48.89                     | 27.46                         | 14                     | 29.57                      | 378                  | 133                     | P                     | V             |
|                             |                                                                                             | 2483.52              | 48.08               | -5.92                   | 54                          | 36.19                     | 27.46                         | 14                     | 29.57                      | 378                  | 133                     | A                     | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| 802.11g<br>CH 13<br>2472MHz | *                                                                                           | 2472                 | 96.03               | -                       | -                           | 84.15                     | 27.46                         | 13.99                  | 29.57                      | 335                  | 73                      | P                     | H             |
|                             | *                                                                                           | 2472                 | 88.25               | -                       | -                           | 76.37                     | 27.46                         | 13.99                  | 29.57                      | 335                  | 73                      | A                     | H             |
|                             |                                                                                             | 2483.56              | 64.87               | -9.13                   | 74                          | 52.98                     | 27.46                         | 14                     | 29.57                      | 335                  | 73                      | P                     | H             |
|                             |                                                                                             | 2483.52              | 52.46               | -1.54                   | 54                          | 40.57                     | 27.46                         | 14                     | 29.57                      | 335                  | 73                      | A                     | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             | *                                                                                           | 2472                 | 93.21               | -                       | -                           | 81.33                     | 27.46                         | 13.99                  | 29.57                      | 379                  | 120                     | P                     | V             |
|                             | *                                                                                           | 2472                 | 86.01               | -                       | -                           | 74.13                     | 27.46                         | 13.99                  | 29.57                      | 379                  | 120                     | A                     | V             |
|                             |                                                                                             | 2483.64              | 61.3                | -12.7                   | 74                          | 49.41                     | 27.46                         | 14                     | 29.57                      | 379                  | 120                     | P                     | V             |
|                             |                                                                                             | 2483.52              | 49.17               | -4.83                   | 54                          | 37.28                     | 27.46                         | 14                     | 29.57                      | 379                  | 120                     | A                     | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| Remark                      | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       |               |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11g (Harmonic @ 3m)

| WIFI<br>Ant.<br>2+3         | 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) |
|-----------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11g<br>CH 01<br>2412MHz |                                                                                             | 4824                 | 37.59               | -36.41                  | 74                          | 57.46                     | 31.26                         | 6.42                   | 57.55                      | 100                  | 0                       | P                     | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             | 4824                 | 37.71               | -36.29                  | 74                          | 57.58                     | 31.26                         | 6.42                   | 57.55                      | 100                  | 0                       | P                     | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| 802.11g<br>CH 06<br>2437MHz |                                                                                             | 4874                 | 40.4                | -33.6                   | 74                          | 59.93                     | 31.36                         | 6.56                   | 57.45                      | 100                  | 0                       | P                     | H             |
|                             |                                                                                             | 7311                 | 49.73               | -24.27                  | 74                          | 62.62                     | 36.18                         | 8.2                    | 57.27                      | 100                  | 0                       | P                     | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             | 4874                 | 38.76               | -35.24                  | 74                          | 58.29                     | 31.36                         | 6.56                   | 57.45                      | 100                  | 0                       | P                     | V             |
|                             |                                                                                             | 7311                 | 58.51               | -15.49                  | 74                          | 71.4                      | 36.18                         | 8.2                    | 57.27                      | 100                  | 149                     | P                     | V             |
|                             |                                                                                             | 7311                 | 48                  | -6                      | 54                          | 60.89                     | 36.18                         | 8.2                    | 57.27                      | 100                  | 149                     | A                     | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| 802.11g<br>CH 11<br>2462MHz |                                                                                             | 4924                 | 39.98               | -34.02                  | 74                          | 59.17                     | 31.46                         | 6.7                    | 57.35                      | 100                  | 0                       | P                     | H             |
|                             |                                                                                             | 7386                 | 44.47               | -29.53                  | 74                          | 57.32                     | 36.37                         | 8.14                   | 57.36                      | 100                  | 0                       | P                     | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             | 4924                 | 40.07               | -33.93                  | 74                          | 59.26                     | 31.46                         | 6.7                    | 57.35                      | 100                  | 0                       | P                     | V             |
|                             |                                                                                             | 7386                 | 48.32               | -25.68                  | 74                          | 61.17                     | 36.37                         | 8.14                   | 57.36                      | 100                  | 0                       | P                     | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| Remark                      | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       |               |



| WIFI<br>Ant.<br>2+3         | 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) |
|-----------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11g<br>CH 12<br>2467MHz |                                                                                             | 4934                 | 37.91               | -36.09                  | 74                          | 57.05                     | 31.46                         | 6.73                   | 57.33                      | 100                  | 0                       | P                     | H             |
|                             |                                                                                             | 7401                 | 42.14               | -31.86                  | 74                          | 54.98                     | 36.41                         | 8.13                   | 57.38                      | 100                  | 0                       | P                     | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             | 4934                 | 37.94               | -36.06                  | 74                          | 57.08                     | 31.46                         | 6.73                   | 57.33                      | 100                  | 0                       | P                     | V             |
|                             |                                                                                             | 7401                 | 42.1                | -31.9                   | 74                          | 54.94                     | 36.41                         | 8.13                   | 57.38                      | 100                  | 0                       | P                     | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| 802.11g<br>CH 13<br>2472MHz |                                                                                             | 4944                 | 37.42               | -36.58                  | 74                          | 56.47                     | 31.5                          | 6.76                   | 57.31                      | 100                  | 0                       | P                     | H             |
|                             |                                                                                             | 7416                 | 42.45               | -31.55                  | 74                          | 55.28                     | 36.41                         | 8.16                   | 57.4                       | 100                  | 0                       | P                     | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                             |                                                                                             | 4944                 | 37.63               | -36.37                  | 74                          | 56.68                     | 31.5                          | 6.76                   | 57.31                      | 100                  | 0                       | P                     | V             |
|                             |                                                                                             | 7416                 | 43                  | -31                     | 74                          | 55.83                     | 36.41                         | 8.16                   | 57.4                       | 100                  | 0                       | P                     | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| Remark                      | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       |               |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT20 (Band Edge @ 3m)

| WIFI<br>Ant.<br>2+3                 | 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 ) |
|-------------------------------------|------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11n<br>HT20<br>CH 01<br>2412MHz |      | 2390                 | 61.09               | -12.91                  | 74                          | 49.52                     | 27.23                         | 13.92                  | 29.58                      | 349                  | 72                      | P                       | H               |
|                                     |      | 2390                 | 48.56               | -5.44                   | 54                          | 36.99                     | 27.23                         | 13.92                  | 29.58                      | 349                  | 72                      | A                       | H               |
|                                     | *    | 2412                 | 112.24              | -                       | -                           | 100.6                     | 27.28                         | 13.94                  | 29.58                      | 349                  | 72                      | P                       | H               |
|                                     | *    | 2412                 | 104.56              | -                       | -                           | 92.92                     | 27.28                         | 13.94                  | 29.58                      | 349                  | 72                      | A                       | H               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |      | 2389.8               | 57.05               | -16.95                  | 74                          | 45.48                     | 27.23                         | 13.92                  | 29.58                      | 394                  | 122                     | P                       | V               |
|                                     |      | 2390                 | 44.22               | -9.78                   | 54                          | 32.65                     | 27.23                         | 13.92                  | 29.58                      | 394                  | 122                     | A                       | V               |
|                                     | *    | 2412                 | 108.84              | -                       | -                           | 97.2                      | 27.28                         | 13.94                  | 29.58                      | 394                  | 122                     | P                       | V               |
|                                     | *    | 2412                 | 100.99              | -                       | -                           | 89.35                     | 27.28                         | 13.94                  | 29.58                      | 394                  | 122                     | A                       | V               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT20<br>CH 06<br>2437MHz |      | 2389.38              | 55.15               | -18.85                  | 74                          | 43.58                     | 27.23                         | 13.92                  | 29.58                      | 338                  | 75                      | P                       | H               |
|                                     |      | 2389.94              | 43.5                | -10.5                   | 54                          | 31.93                     | 27.23                         | 13.92                  | 29.58                      | 338                  | 75                      | A                       | H               |
|                                     | *    | 2437                 | 115.24              | -                       | -                           | 103.49                    | 27.37                         | 13.96                  | 29.58                      | 338                  | 75                      | P                       | H               |
|                                     | *    | 2437                 | 107.37              | -                       | -                           | 95.62                     | 27.37                         | 13.96                  | 29.58                      | 338                  | 75                      | A                       | H               |
|                                     |      | 2484.39              | 58.14               | -15.86                  | 74                          | 46.25                     | 27.46                         | 14                     | 29.57                      | 338                  | 75                      | P                       | H               |
|                                     |      | 2483.5               | 45.64               | -8.36                   | 54                          | 33.75                     | 27.46                         | 14                     | 29.57                      | 338                  | 75                      | A                       | H               |
|                                     |      | 2389.24              | 52.8                | -21.2                   | 74                          | 41.23                     | 27.23                         | 13.92                  | 29.58                      | 388                  | 121                     | P                       | V               |
|                                     |      | 2389.94              | 42.08               | -11.92                  | 54                          | 30.51                     | 27.23                         | 13.92                  | 29.58                      | 388                  | 121                     | A                       | V               |
|                                     | *    | 2437                 | 111.76              | -                       | -                           | 100.01                    | 27.37                         | 13.96                  | 29.58                      | 388                  | 121                     | P                       | V               |
|                                     | *    | 2437                 | 103.92              | -                       | -                           | 92.17                     | 27.37                         | 13.96                  | 29.58                      | 388                  | 121                     | A                       | V               |
|                                     |      | 2483.5               | 54.74               | -19.26                  | 74                          | 42.85                     | 27.46                         | 14                     | 29.57                      | 388                  | 121                     | P                       | V               |
|                                     |      | 2483.5               | 43.15               | -10.85                  | 54                          | 31.26                     | 27.46                         | 14                     | 29.57                      | 388                  | 121                     | A                       | V               |



|                                                                 |                                                                                             |         |        |        |    |        |       |       |       |     |     |   |   |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|--------|-------|-------|-------|-----|-----|---|---|
| <b>802.11n</b><br><b>HT20</b><br><b>CH 11</b><br><b>2462MHz</b> | *                                                                                           | 2462    | 112.54 | -      | -  | 100.72 | 27.41 | 13.98 | 29.57 | 332 | 70  | P | H |
|                                                                 | *                                                                                           | 2462    | 104.86 | -      | -  | 93.04  | 27.41 | 13.98 | 29.57 | 332 | 70  | A | H |
|                                                                 |                                                                                             | 2483.8  | 61.66  | -12.34 | 74 | 49.77  | 27.46 | 14    | 29.57 | 332 | 70  | P | H |
|                                                                 |                                                                                             | 2483.5  | 50.75  | -3.25  | 54 | 38.86  | 27.46 | 14    | 29.57 | 332 | 70  | P | H |
|                                                                 |                                                                                             |         |        |        |    |        |       |       |       |     |     |   | H |
|                                                                 |                                                                                             |         |        |        |    |        |       |       |       |     |     |   | H |
|                                                                 | *                                                                                           | 2462    | 109.97 | -      | -  | 98.15  | 27.41 | 13.98 | 29.57 | 380 | 107 | P | V |
|                                                                 | *                                                                                           | 2462    | 101.92 | -      | -  | 90.1   | 27.41 | 13.98 | 29.57 | 380 | 107 | A | V |
|                                                                 |                                                                                             | 2485.28 | 58.4   | -15.6  | 74 | 46.51  | 27.46 | 14    | 29.57 | 380 | 107 | P | V |
|                                                                 |                                                                                             | 2483.52 | 48.52  | -5.48  | 54 | 36.63  | 27.46 | 14    | 29.57 | 380 | 107 | A | V |
|                                                                 |                                                                                             |         |        |        |    |        |       |       |       |     |     |   | V |
|                                                                 |                                                                                             |         |        |        |    |        |       |       |       |     |     |   | V |
| <b>Remark</b>                                                   | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |         |        |        |    |        |       |       |       |     |     |   |   |



| WIFI<br>Ant.<br>2+3                 | 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 ) |
|-------------------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11n<br>HT20<br>CH 12<br>2467MHz | *                                                                                           | 2467                 | 107.7               | -                       | -                           | 95.87                     | 27.41                         | 13.99                  | 29.57                      | 335                  | 72                      | P                       | H               |
|                                     | *                                                                                           | 2467                 | 100.19              | -                       | -                           | 88.36                     | 27.41                         | 13.99                  | 29.57                      | 335                  | 72                      | A                       | H               |
|                                     |                                                                                             | 2483.52              | 64.12               | -9.88                   | 74                          | 52.23                     | 27.46                         | 14                     | 29.57                      | 335                  | 72                      | P                       | H               |
|                                     |                                                                                             | 2483.52              | 51.91               | -2.09                   | 54                          | 40.02                     | 27.46                         | 14                     | 29.57                      | 335                  | 72                      | A                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     | *                                                                                           | 2467                 | 105.89              | -                       | -                           | 94.06                     | 27.41                         | 13.99                  | 29.57                      | 378                  | 111                     | P                       | V               |
|                                     | *                                                                                           | 2467                 | 98.29               | -                       | -                           | 86.46                     | 27.41                         | 13.99                  | 29.57                      | 378                  | 111                     | A                       | V               |
|                                     |                                                                                             | 2483.52              | 60.82               | -13.18                  | 74                          | 48.93                     | 27.46                         | 14                     | 29.57                      | 378                  | 111                     | P                       | V               |
|                                     |                                                                                             | 2483.52              | 48.08               | -5.92                   | 54                          | 36.19                     | 27.46                         | 14                     | 29.57                      | 378                  | 111                     | A                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT20<br>CH 13<br>2472MHz | *                                                                                           | 2472                 | 94.02               | -                       | -                           | 82.14                     | 27.46                         | 13.99                  | 29.57                      | 332                  | 72                      | P                       | H               |
|                                     | *                                                                                           | 2472                 | 86.11               | -                       | -                           | 74.23                     | 27.46                         | 13.99                  | 29.57                      | 332                  | 72                      | A                       | H               |
|                                     |                                                                                             | 2483.56              | 66.66               | -7.34                   | 74                          | 54.77                     | 27.46                         | 14                     | 29.57                      | 332                  | 72                      | P                       | H               |
|                                     |                                                                                             | 2483.52              | 51.98               | -2.02                   | 54                          | 40.09                     | 27.46                         | 14                     | 29.57                      | 332                  | 72                      | A                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     | *                                                                                           | 2472                 | 91.56               | -                       | -                           | 79.68                     | 27.46                         | 13.99                  | 29.57                      | 378                  | 109                     | P                       | V               |
|                                     | *                                                                                           | 2472                 | 83.68               | -                       | -                           | 71.8                      | 27.46                         | 13.99                  | 29.57                      | 378                  | 109                     | A                       | V               |
|                                     |                                                                                             | 2483.6               | 61.36               | -12.64                  | 74                          | 49.47                     | 27.46                         | 14                     | 29.57                      | 378                  | 109                     | P                       | V               |
|                                     |                                                                                             | 2483.52              | 48.29               | -5.71                   | 54                          | 36.4                      | 27.46                         | 14                     | 29.57                      | 378                  | 109                     | A                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| Remark                              | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         |                 |



**2.4GHz 2400~2483.5MHz**  
**WIFI 802.11n HT20 (Harmonic @ 3m)**

| WIFI<br>Ant.<br>2+3                 | 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) |
|-------------------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11n<br>HT20<br>CH 01<br>2412MHz |                                                                                             | 4824                 | 37.83               | -36.17                  | 74                          | 57.7                      | 31.26                         | 6.42                   | 57.55                      | 100                  | 0                       | P                     | H             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                                     |                                                                                             | 4824                 | 37.31               | -36.69                  | 74                          | 57.18                     | 31.26                         | 6.42                   | 57.55                      | 100                  | 0                       | P                     | V             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| 802.11n<br>HT20<br>CH 06<br>2437MHz |                                                                                             | 4874                 | 39.59               | -34.41                  | 74                          | 59.12                     | 31.36                         | 6.56                   | 57.45                      | 100                  | 0                       | P                     | H             |
|                                     |                                                                                             | 7311                 | 49.96               | -24.04                  | 74                          | 62.85                     | 36.18                         | 8.2                    | 57.27                      | 100                  | 0                       | P                     | H             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                                     |                                                                                             | 4874                 | 38.39               | -35.61                  | 74                          | 57.92                     | 31.36                         | 6.56                   | 57.45                      | 100                  | 0                       | P                     | V             |
|                                     |                                                                                             | 7311                 | 58.81               | -15.19                  | 74                          | 71.7                      | 36.18                         | 8.2                    | 57.27                      | 100                  | 149                     | P                     | V             |
|                                     |                                                                                             | 7311                 | 46.66               | -7.34                   | 54                          | 59.55                     | 36.18                         | 8.2                    | 57.27                      | 100                  | 149                     | A                     | V             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| 802.11n<br>HT20<br>CH 11<br>2462MHz |                                                                                             | 4924                 | 39.82               | -34.18                  | 74                          | 59.01                     | 31.46                         | 6.7                    | 57.35                      | 100                  | 0                       | P                     | H             |
|                                     |                                                                                             | 7386                 | 48.36               | -25.64                  | 74                          | 61.21                     | 36.37                         | 8.14                   | 57.36                      | 100                  | 0                       | P                     | H             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                                     |                                                                                             | 4924                 | 37.9                | -36.1                   | 74                          | 57.09                     | 31.46                         | 6.7                    | 57.35                      | 100                  | 0                       | P                     | V             |
|                                     |                                                                                             | 7386                 | 55.2                | -18.8                   | 74                          | 68.05                     | 36.37                         | 8.14                   | 57.36                      | 100                  | 150                     | P                     | V             |
|                                     |                                                                                             | 7386                 | 42.18               | -11.82                  | 54                          | 55.03                     | 36.37                         | 8.14                   | 57.36                      | 100                  | 150                     | A                     | V             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| Remark                              | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       |               |



| WIFI<br>Ant.<br>2+3                 | 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) |
|-------------------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11n<br>HT20<br>CH 12<br>2467MHz |                                                                                             | 4934                 | 38.92               | -35.08                  | 74                          | 58.06                     | 31.46                         | 6.73                   | 57.33                      | 100                  | 0                       | P                     | H             |
|                                     |                                                                                             | 7401                 | 43.35               | -30.65                  | 74                          | 56.19                     | 36.41                         | 8.13                   | 57.38                      | 100                  | 0                       | P                     | H             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                                     |                                                                                             | 4934                 | 38.61               | -35.39                  | 74                          | 57.75                     | 31.46                         | 6.73                   | 57.33                      | 100                  | 0                       | P                     | V             |
|                                     |                                                                                             | 7401                 | 43.5                | -30.5                   | 74                          | 56.34                     | 36.41                         | 8.13                   | 57.38                      | 100                  | 0                       | P                     | V             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| 802.11n<br>HT20<br>CH 13<br>2472MHz |                                                                                             | 4944                 | 37.92               | -36.08                  | 74                          | 56.97                     | 31.5                          | 6.76                   | 57.31                      | 100                  | 0                       | P                     | H             |
|                                     |                                                                                             | 7416                 | 42.99               | -31.01                  | 74                          | 55.82                     | 36.41                         | 8.16                   | 57.4                       | 100                  | 0                       | P                     | H             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                                     |                                                                                             | 4944                 | 38.59               | -35.41                  | 74                          | 57.64                     | 31.5                          | 6.76                   | 57.31                      | 100                  | 0                       | P                     | V             |
|                                     |                                                                                             | 7416                 | 44.1                | -29.9                   | 74                          | 56.93                     | 36.41                         | 8.16                   | 57.4                       | 100                  | 0                       | P                     | V             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| Remark                              | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       |               |



## 2.4GHz 2400~2483.5MHz

## Emission below 1GHz

## 2.4GHz WIFI 802.11g (LF)

| WIFI Ant.               | Note                                                                       | Frequency | Level      | Over Limit | Limit Line | Read Level | Antenna Factor | Path Loss | Preamp Factor | Ant Pos | Table Pos | Peak Avg. | Pol.  |
|-------------------------|----------------------------------------------------------------------------|-----------|------------|------------|------------|------------|----------------|-----------|---------------|---------|-----------|-----------|-------|
| 2+3                     |                                                                            | ( MHz )   | ( dBμV/m ) | ( dB )     | ( dBμV/m ) | (dBμV)     | ( dB/m )       | ( dB )    | ( dB )        | ( cm )  | ( deg )   | (P/A)     | (H/V) |
| 2.4GHz<br>802.11g<br>LF |                                                                            | 30        | 24.75      | -15.25     | 40         | 32.41      | 24.17          | 0.46      | 32.29         |         |           | P         | H     |
|                         |                                                                            | 68.8      | 25.12      | -14.88     | 40         | 44.65      | 12.08          | 0.65      | 32.26         |         |           | P         | H     |
|                         |                                                                            | 172.59    | 24.69      | -18.81     | 43.5       | 40.23      | 15.48          | 1.14      | 32.16         |         |           | P         | H     |
|                         |                                                                            | 223.03    | 28.33      | -17.67     | 46         | 43.73      | 15.45          | 1.29      | 32.14         |         |           | P         | H     |
|                         |                                                                            | 893.3     | 33.7       | -12.3      | 46         | 33.5       | 29.03          | 2.61      | 31.44         | 100     | 0         | P         | H     |
|                         |                                                                            | 947.62    | 32.98      | -13.02     | 46         | 30.88      | 30.45          | 2.66      | 31.01         |         |           | P         | H     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | H     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | H     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | H     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | H     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | H     |
|                         |                                                                            | 32.91     | 24.45      | -15.55     | 40         | 33.38      | 22.89          | 0.47      | 32.29         |         |           | P         | V     |
|                         |                                                                            | 45.52     | 30.97      | -9.03      | 40         | 46.25      | 16.49          | 0.52      | 32.29         |         |           | P         | V     |
|                         |                                                                            | 51.34     | 33.54      | -6.46      | 40         | 51.6       | 13.69          | 0.54      | 32.29         | 100     | 0         | P         | V     |
|                         |                                                                            | 69.77     | 25.7       | -14.3      | 40         | 45.14      | 12.16          | 0.66      | 32.26         |         |           | P         | V     |
|                         |                                                                            | 100.81    | 28.09      | -15.41     | 43.5       | 43.51      | 15.95          | 0.84      | 32.21         |         |           | P         | V     |
|                         |                                                                            | 902.03    | 33.37      | -12.63     | 46         | 33.12      | 29.03          | 2.61      | 31.39         |         |           | P         | V     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | V     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | V     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | V     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | V     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | V     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | V     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | V     |
| Remark                  | 1. No other spurious found.<br>2. All results are PASS against limit line. |           |            |            |            |            |                |           |               |         |           |           |       |



&lt;WPC Mode&gt;

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

| WIFI<br>Ant.<br>2+3         | 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 ) |
|-----------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-------------------------|-----------------|
| 802.11g<br>CH 13<br>2472MHz | *                                                                                           | 2472                 | 92.27               | -                       | -                           | 80.39                     | 27.46                         | 4.06                   | 29.57                      | 400                  | 16                      | P                       | H               |
|                             | *                                                                                           | 2472                 | 84.73               | -                       | -                           | 72.85                     | 27.46                         | 4.06                   | 29.57                      | 400                  | 16                      | A                       | H               |
|                             |                                                                                             | 2483.6               | 62.14               | -11.86                  | 74                          | 50.25                     | 27.46                         | 4.07                   | 29.57                      | 400                  | 16                      | P                       | H               |
|                             |                                                                                             | 2483.52              | 49.25               | -4.75                   | 54                          | 37.36                     | 27.46                         | 4.07                   | 29.57                      | 400                  | 16                      | A                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             | *                                                                                           | 2472                 | 91.48               | -                       | -                           | 79.6                      | 27.46                         | 4.06                   | 29.57                      | 113                  | 267                     | P                       | V               |
|                             | *                                                                                           | 2472                 | 84.12               | -                       | -                           | 72.24                     | 27.46                         | 4.06                   | 29.57                      | 113                  | 267                     | A                       | V               |
|                             |                                                                                             | 2483.6               | 57.24               | -16.76                  | 74                          | 45.35                     | 27.46                         | 4.07                   | 29.57                      | 113                  | 267                     | P                       | V               |
|                             |                                                                                             | 2483.52              | 45.51               | -8.49                   | 54                          | 33.62                     | 27.46                         | 4.07                   | 29.57                      | 113                  | 267                     | A                       | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| Remark                      | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         |                 |

**2.4GHz 2400~2483.5MHz****WIFI 802.11g (Harmonic @ 3m)**

| WIFI<br>Ant.<br>2+3                  | 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) |
|--------------------------------------|---------------------------------------------------------------------------------------------|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| <b>802.11g<br/>CH 13<br/>2472MHz</b> |                                                                                             | 4944                 | 37.86               | -36.14                  | 74                          | 56.91                     | 31.5                          | 6.76                   | 57.31                      | 100                  | 0                       | P                     | H             |
|                                      |                                                                                             | 7416                 | 42.2                | -31.8                   | 74                          | 55.03                     | 36.41                         | 8.16                   | 57.4                       | 100                  | 0                       | P                     | H             |
|                                      |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                                      |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | H             |
|                                      |                                                                                             | 4944                 | 37.94               | -36.06                  | 74                          | 56.99                     | 31.5                          | 6.76                   | 57.31                      | 100                  | 0                       | P                     | V             |
|                                      |                                                                                             | 7416                 | 43.16               | -30.84                  | 74                          | 55.99                     | 36.41                         | 8.16                   | 57.4                       | 100                  | 0                       | P                     | V             |
|                                      |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
|                                      |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       | V             |
| <b>Remark</b>                        | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                       |               |



## 2.4GHz 2400~2483.5MHz

## Emission below 1GHz

## 2.4GHz WIFI 802.11g (LF)

| WIFI Ant.               | Note                                                                       | Frequency | Level      | Over Limit | Limit Line | Read Level | Antenna Factor | Path Loss | Preamp Factor | Ant Pos | Table Pos | Peak Avg. | Pol.  |
|-------------------------|----------------------------------------------------------------------------|-----------|------------|------------|------------|------------|----------------|-----------|---------------|---------|-----------|-----------|-------|
| 2+3                     |                                                                            | ( MHz )   | ( dBμV/m ) | ( dB )     | ( dBμV/m ) | (dBμV)     | ( dB/m )       | ( dB )    | ( dB )        | ( cm )  | ( deg )   | (P/A)     | (H/V) |
| 2.4GHz<br>802.11g<br>LF |                                                                            | 41.64     | 25.31      | -14.69     | 40         | 38.68      | 18.4           | 0.48      | 32.29         | -       | -         | P         | H     |
|                         |                                                                            | 66.86     | 25.71      | -14.29     | 40         | 45.4       | 11.92          | 0.61      | 32.26         | -       | -         | P         | H     |
|                         |                                                                            | 104.69    | 24.14      | -19.36     | 43.5       | 38.97      | 16.52          | 0.8       | 32.21         | -       | -         | P         | H     |
|                         |                                                                            | 163.86    | 30.11      | -13.39     | 43.5       | 44.94      | 16.24          | 1         | 32.17         | 100     | 0         | P         | H     |
|                         |                                                                            | 180.35    | 25.18      | -18.32     | 43.5       | 41.15      | 15.01          | 1.06      | 32.15         | -       | -         | P         | H     |
|                         |                                                                            | 880.69    | 32.23      | -13.77     | 46         | 32         | 29.11          | 2.45      | 31.5          | -       | -         | P         | H     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | H     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | H     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | H     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | H     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | H     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | H     |
|                         |                                                                            | 40.67     | 33.31      | -6.69      | 40         | 46.21      | 18.87          | 0.48      | 32.29         | 100     | 0         | P         | V     |
|                         |                                                                            | 78.5      | 28.07      | -11.93     | 40         | 46.44      | 13.15          | 0.68      | 32.24         | -       | -         | P         | V     |
|                         |                                                                            | 91.11     | 25.7       | -17.8      | 43.5       | 42.2       | 14.96          | 0.72      | 32.22         | -       | -         | P         | V     |
|                         |                                                                            | 163.86    | 25.09      | -18.41     | 43.5       | 39.92      | 16.24          | 1         | 32.17         | -       | -         | P         | V     |
|                         |                                                                            | 644.98    | 28.41      | -17.59     | 46         | 32.18      | 26.21          | 2.08      | 32.17         | -       | -         | P         | V     |
|                         |                                                                            | 895.24    | 37.91      | -8.09      | 46         | 37.71      | 29.02          | 2.44      | 31.43         | -       | -         | P         | V     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | V     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | V     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | V     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | V     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | V     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | V     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | V     |
|                         |                                                                            |           |            |            |            |            |                |           |               |         |           |           | V     |
| Remark                  | 1. No other spurious found.<br>2. All results are PASS against limit line. |           |            |            |            |            |                |           |               |         |           |           |       |



**Note symbol**

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



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

| WIFI    | Note | Frequency | Level      | Over   | Limit      | Read     | Antenna  | Path   | Preamp | Ant    | Table   | Peak    | Pol.    |
|---------|------|-----------|------------|--------|------------|----------|----------|--------|--------|--------|---------|---------|---------|
| Ant.    |      |           |            | Limit  | Line       | Level    | Factor   | Loss   | Factor | Pos    | Pos     | Avg.    |         |
| 2+3     |      | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | ( dBμV ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | ( P/A ) | ( H/V ) |
| 802.11b |      | 2390      | 55.45      | -18.55 | 74         | 54.51    | 32.22    | 4.58   | 35.86  | 103    | 308     | P       | H       |
| CH 01   |      |           |            |        |            |          |          |        |        |        |         |         |         |
| 2412MHz |      | 2390      | 43.54      | -10.46 | 54         | 42.6     | 32.22    | 4.58   | 35.86  | 103    | 308     | A       | H       |

1. 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”.



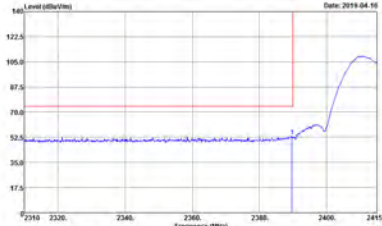
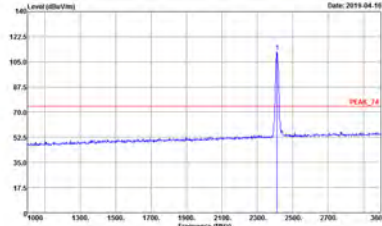
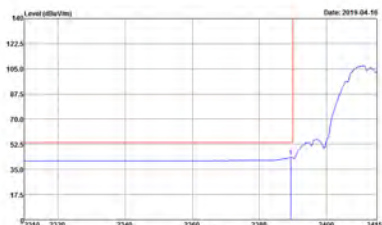
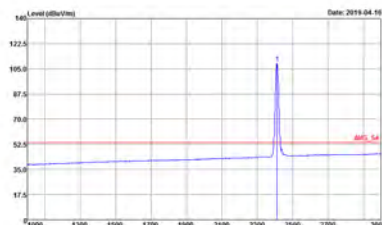
## Appendix D. Radiated Spurious Emission Plots

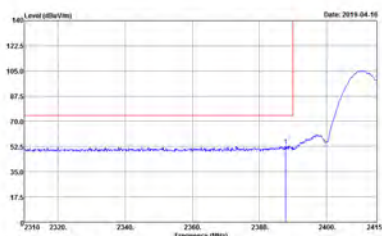
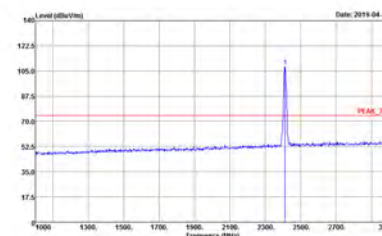
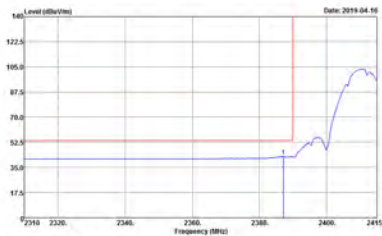
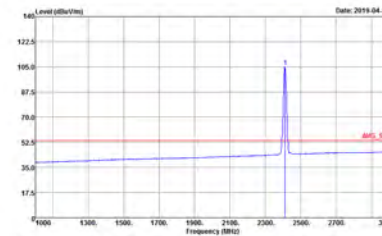
|                        |                                 |                            |             |
|------------------------|---------------------------------|----------------------------|-------------|
| <b>Test Engineer :</b> | Alex Jheng, JC Liang, Wilson Wu | <b>Temperature :</b>       | 24.8~25.2°C |
|                        |                                 | <b>Relative Humidity :</b> | 50~51%      |

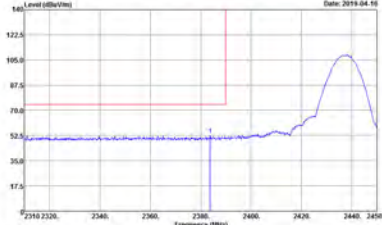
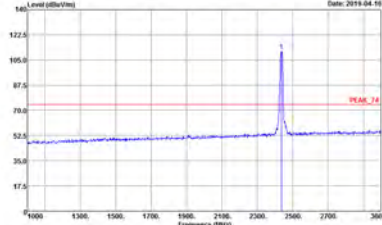
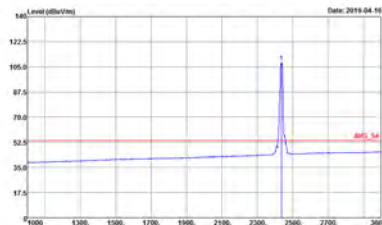
### Note symbol

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

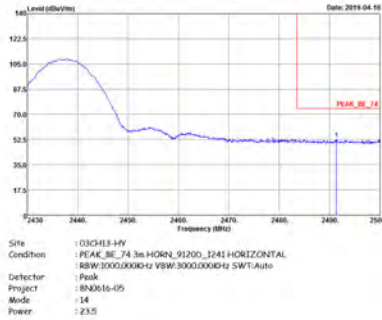
**2.4GHz 2400~2483.5MHz**
**WIFI 802.11b (Band Edge @ 3m)**

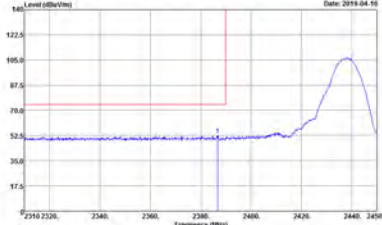
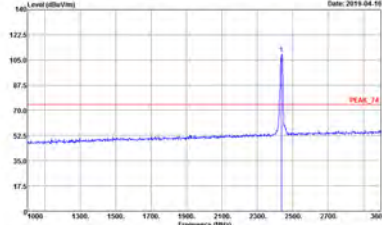
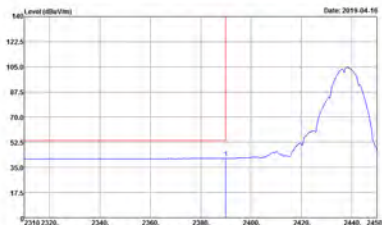
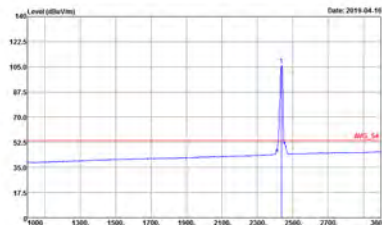
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                         |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11b CH01 2412MHz                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                         |
| 2+3  | Horizontal                                                                                                                                                                                                                                                                                | Fundamental                                                                                                                                                                                                                                                                             |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 13<br/>Power : 23</p>  |  <p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 13<br/>Power : 23</p>  |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 13<br/>Power : 23</p> |  <p>Site : 03CH13-HY<br/>Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 13<br/>Power : 23</p> |

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                     |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11b CH01 2412MHz                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                     |
| 2+3  | Vertical                                                                                                                                                                                                                                                                                                              | Fundamental                                                                                                                                                                                                                                                                                                         |
| Peak |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>           Detector : Peak<br/>           Project : RN0616-05<br/>           Mode : 13<br/>           Power : 23         </p>  |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>           Detector : Peak<br/>           Project : RN0616-05<br/>           Mode : 13<br/>           Power : 23         </p>  |
| Avg. |  <p>           Site : 03CH13-HY<br/>           Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>           Detector : Peak<br/>           Project : RN0616-05<br/>           Mode : 13<br/>           Power : 23         </p> |  <p>           Site : 03CH13-HY<br/>           Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/>           Detector : Peak<br/>           Project : RN0616-05<br/>           Mode : 13<br/>           Power : 23         </p> |

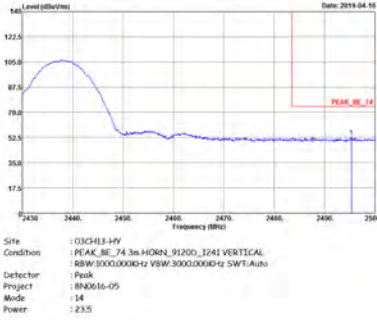
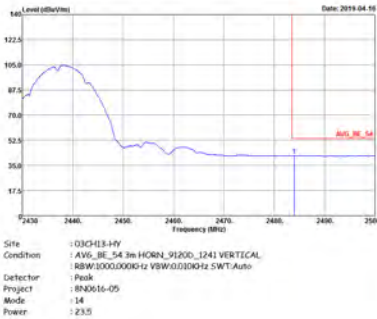
| WIFI        | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT         | 802.11b CH06 2437MHz - L                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                |
| 2+3         | Horizontal                                                                                                                                                                                                                                                                                                                                                                       | Fundamental                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Peak</b> |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>           RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : RN0616-05<br/>           Mode : 14<br/>           Power : 23.5         </p> |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>           RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : RN0616-05<br/>           Mode : 14<br/>           Power : 23.5         </p> |
| <b>Avg.</b> |  <p>           Site : 03CH13-HY<br/>           Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>           RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : RN0616-05<br/>           Mode : 14<br/>           Power : 23.5         </p>   |  <p>           Site : 03CH13-HY<br/>           Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/>           RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : RN0616-05<br/>           Mode : 14<br/>           Power : 23.5         </p>   |

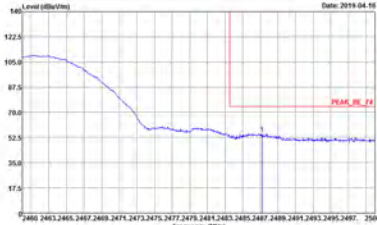
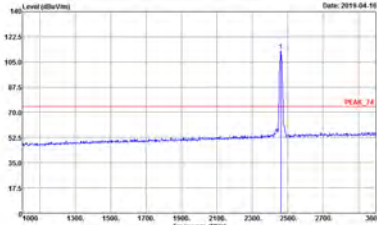
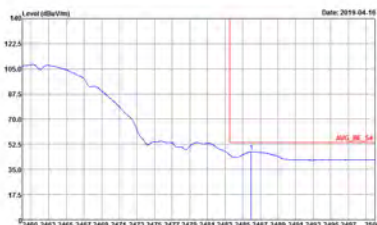
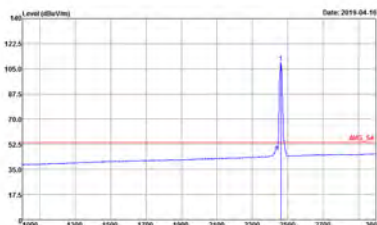


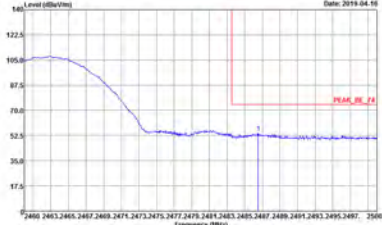
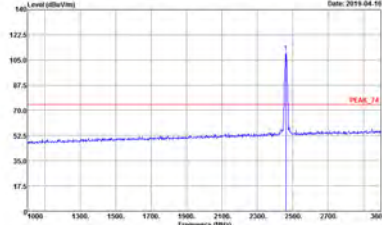
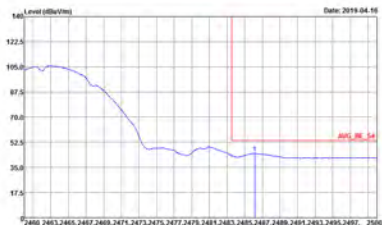
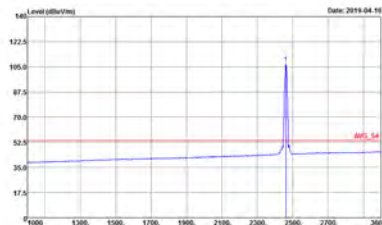
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                |             |
|------|-------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11b CH06 2437MHz - R                                                            |             |
| 2+3  | Horizontal                                                                          | Fundamental |
| Peak |    | Left blank  |
| Avg. |  | Left blank  |

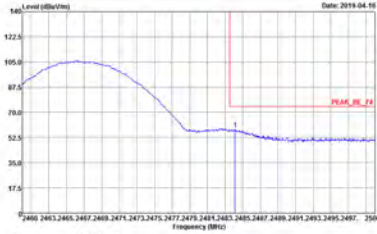
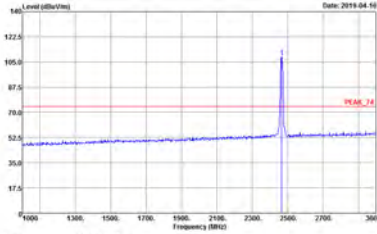
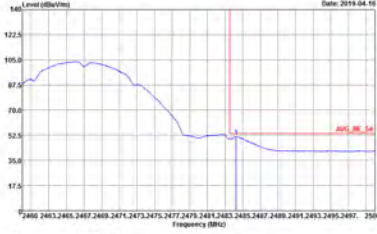
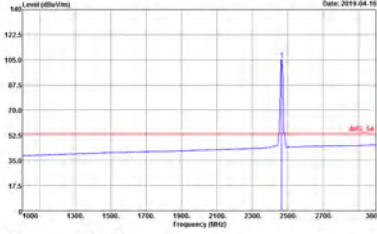
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                              |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11b CH06 2437MHz - L                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                              |
| 2+3  | Vertical                                                                                                                                                                                                                                                                                                                                                                       | Fundamental                                                                                                                                                                                                                                                                                                                                                                  |
| Peak |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>           RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : RN0616-05<br/>           Mode : 14<br/>           Power : 23.5         </p> |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>           RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : RN0616-05<br/>           Mode : 14<br/>           Power : 23.5         </p> |
| Avg. |  <p>           Site : 03CH13-HY<br/>           Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>           RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : RN0616-05<br/>           Mode : 14<br/>           Power : 23.5         </p>   |  <p>           Site : 03CH13-HY<br/>           Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/>           RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : RN0616-05<br/>           Mode : 14<br/>           Power : 23.5         </p>   |

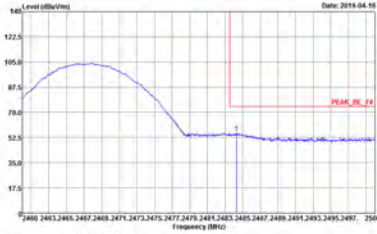
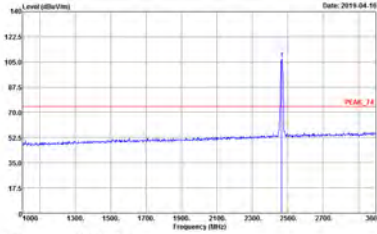
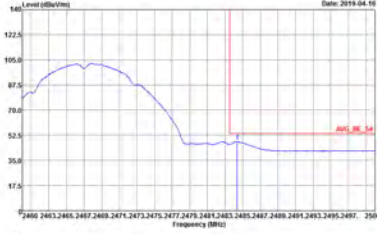
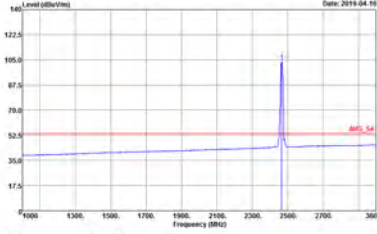


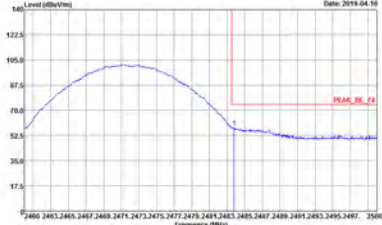
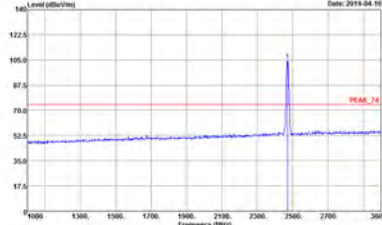
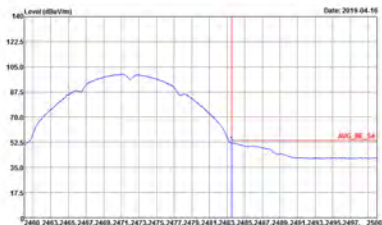
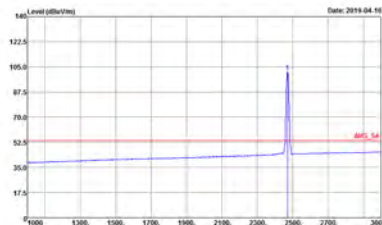
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                |             |
|------|-------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11b CH06 2437MHz - R                                                            |             |
| 2+3  | Vertical                                                                            | Fundamental |
| Peak |    | Left blank  |
| Avg. |  | Left blank  |

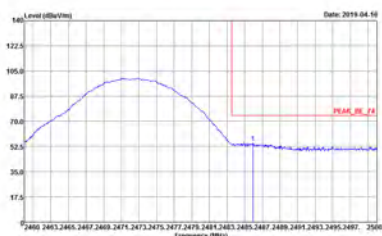
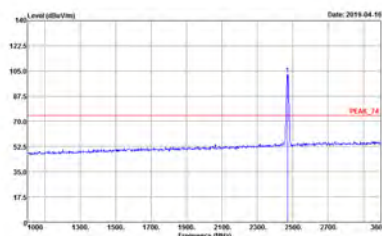
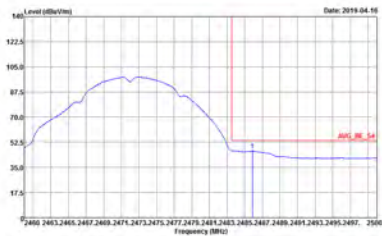
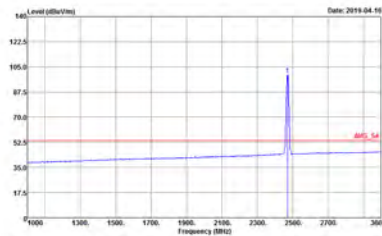
| WIFI        | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                          |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT         | 802.11b CH11 2462MHz                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                          |
| 2+3         | Horizontal                                                                                                                                                                                                                                                                                 | Fundamental                                                                                                                                                                                                                                                                              |
| <b>Peak</b> |  <p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 15<br/>Power : 22.5</p> |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 15<br/>Power : 22.5</p> |
| <b>Avg.</b> |  <p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 15<br/>Power : 22.5</p>   |  <p>Site : 03CH13-HV<br/>Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 15<br/>Power : 22.5</p>   |

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                              |                                                                                                                                                                                                                                                 |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11b CH11 2462MHz                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                 |
| 2+3  | Vertical                                                                                                                                                                                                                                          | Fundamental                                                                                                                                                                                                                                     |
| Peak |  <p>Site : 03CH13-HV<br/> Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/> Detector : Peak<br/> Project : RN0616-05<br/> Mode : 15<br/> Power : 22.5</p>  |  <p>Site : 03CH13-HV<br/> Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/> Detector : Peak<br/> Project : RN0616-05<br/> Mode : 15<br/> Power : 22.5</p>  |
| Avg. |  <p>Site : 03CH13-HV<br/> Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/> Detector : Peak<br/> Project : RN0616-05<br/> Mode : 15<br/> Power : 22.5</p> |  <p>Site : 03CH13-HV<br/> Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/> Detector : Peak<br/> Project : RN0616-05<br/> Mode : 15<br/> Power : 22.5</p> |

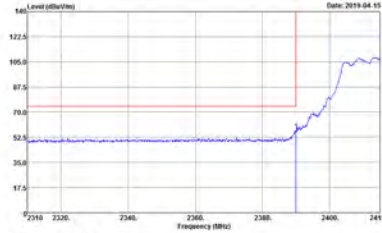
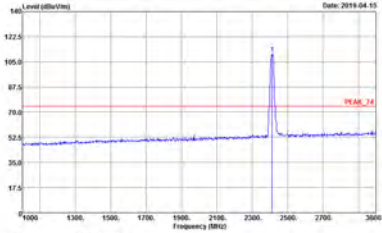
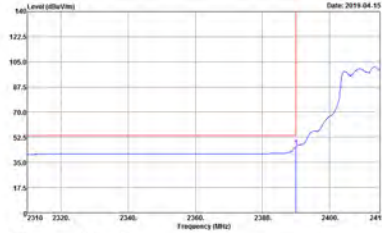
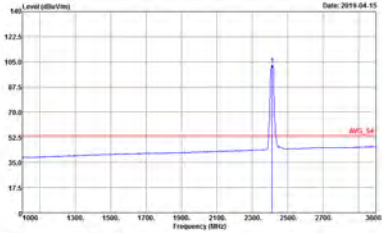
| WIFI        | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                              |                                                                                                                                                                                                                                                 |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT         | 802.11b CH12 2467MHz                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                 |
| 2+3         | Horizontal                                                                                                                                                                                                                                        | Fundamental                                                                                                                                                                                                                                     |
| <b>Peak</b> |  <p>Site : 03CH13-HV<br/> Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : BN0616-05<br/> Mode : 16<br/> Power : 18</p>  |  <p>Site : 03CH13-HV<br/> Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : BN0616-05<br/> Mode : 16<br/> Power : 18</p>  |
|             |  <p>Site : 03CH13-HV<br/> Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : BN0616-05<br/> Mode : 16<br/> Power : 18</p> |  <p>Site : 03CH13-HV<br/> Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : BN0616-05<br/> Mode : 16<br/> Power : 18</p> |

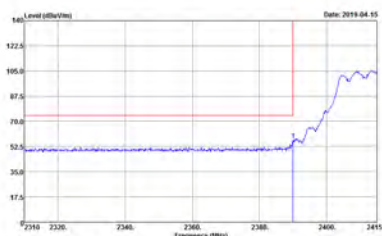
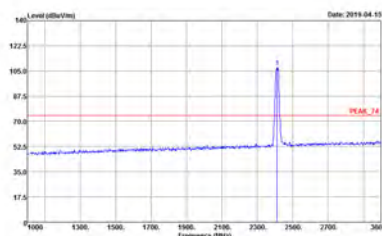
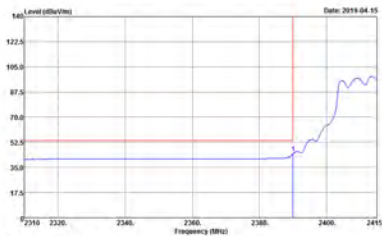
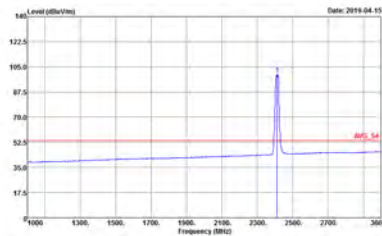
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                            |                                                                                                                                                                                                                                               |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11b CH12 2467MHz                                                                                                                                                                                                                            |                                                                                                                                                                                                                                               |
| 2+3  | Vertical                                                                                                                                                                                                                                        | Fundamental                                                                                                                                                                                                                                   |
| Peak |  <p>Site : 03CH13-HV<br/> Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/> Detector : Peak<br/> Project : 8N0616-05<br/> Mode : 16<br/> Power : 18</p>  |  <p>Site : 03CH13-HV<br/> Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/> Detector : Peak<br/> Project : 8N0616-05<br/> Mode : 16<br/> Power : 18</p>  |
| Avg. |  <p>Site : 03CH13-HV<br/> Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/> Detector : Peak<br/> Project : 8N0616-05<br/> Mode : 16<br/> Power : 18</p> |  <p>Site : 03CH13-HV<br/> Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/> Detector : Peak<br/> Project : 8N0616-05<br/> Mode : 16<br/> Power : 18</p> |

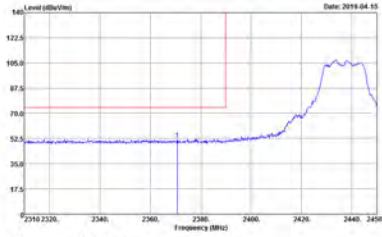
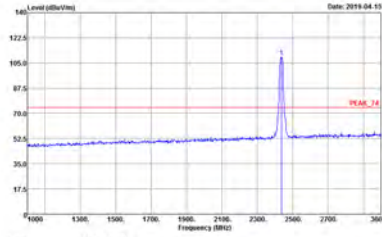
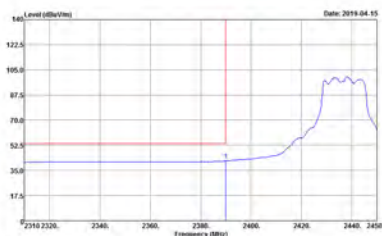
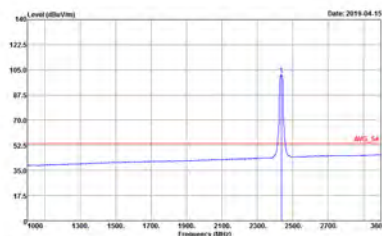
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                              |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11b CH13 2472MHz                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                              |
| 2+3  | Horizontal                                                                                                                                                                                                                                                                                                                                                                     | Fundamental                                                                                                                                                                                                                                                                                                                                                                  |
| Peak |  <p>           Site : 03CH13-HV<br/>           Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>           RBW:3000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 17<br/>           Power : 14         </p> |  <p>           Site : 03CH13-HV<br/>           Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>           RBW:3000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 17<br/>           Power : 14         </p> |
| Avg. |  <p>           Site : 03CH13-HV<br/>           Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>           RBW:3000.0000Hz VSW:0.0100Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 17<br/>           Power : 14         </p>   |  <p>           Site : 03CH13-HV<br/>           Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/>           RBW:3000.0000Hz VSW:0.0100Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 17<br/>           Power : 14         </p>   |

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                       |                                                                                                                                                                                                                                          |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11b CH13 2472MHz                                                                                                                                                                                                                       |                                                                                                                                                                                                                                          |
| 2+3  | Vertical                                                                                                                                                                                                                                   | Fundamental                                                                                                                                                                                                                              |
| Peak |  <p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 17<br/>Power : 14</p>  |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 17<br/>Power : 14</p>  |
| Avg. |  <p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 17<br/>Power : 14</p> |  <p>Site : 03CH13-HV<br/>Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 17<br/>Power : 14</p> |

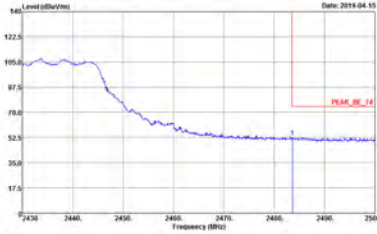
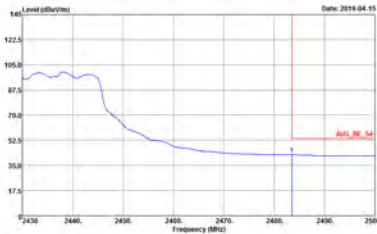
**2.4GHz 2400~2483.5MHz**  
**WIFI 802.11g (Band Edge @ 3m)**

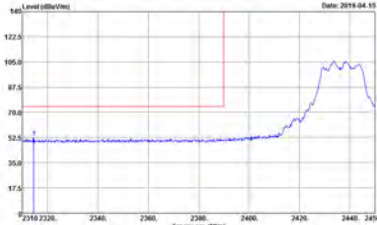
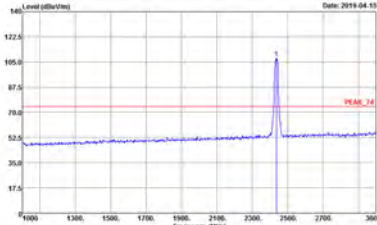
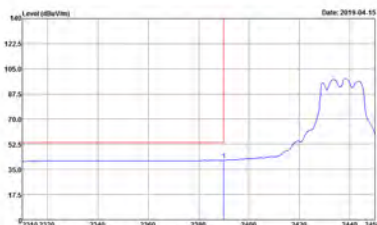
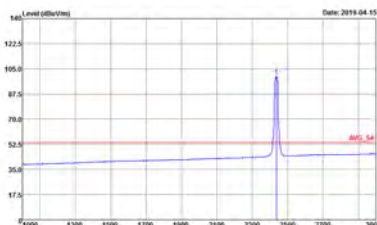
| WIFI        | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                               |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT         | 802.11g CH01 2412MHz                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                               |
| 2+3         | Horizontal                                                                                                                                                                                                                                                                                      | Fundamental                                                                                                                                                                                                                                                                                   |
| <b>Peak</b> |  <p>Site : 03CH13-HY<br/> Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/> RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/> Detector : Peak<br/> Project : RN0616-05<br/> Mode : 18<br/> Power : 23</p>  |  <p>Site : 03CH13-HY<br/> Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/> RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/> Detector : Peak<br/> Project : RN0616-05<br/> Mode : 18<br/> Power : 23</p>  |
| <b>Avg.</b> |  <p>Site : 03CH13-HY<br/> Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/> RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/> Detector : Peak<br/> Project : RN0616-05<br/> Mode : 18<br/> Power : 23</p> |  <p>Site : 03CH13-HY<br/> Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/> RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/> Detector : Peak<br/> Project : RN0616-05<br/> Mode : 18<br/> Power : 23</p> |

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                     |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11g CH01 2412MHz                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                     |
| 2+3  | Vertical                                                                                                                                                                                                                                                                                                              | Fundamental                                                                                                                                                                                                                                                                                                         |
| Peak |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 18<br/>           Power : 23         </p>  |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 18<br/>           Power : 23         </p>  |
| Avg. |  <p>           Site : 03CH13-HY<br/>           Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 18<br/>           Power : 23         </p> |  <p>           Site : 03CH13-HY<br/>           Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 18<br/>           Power : 23         </p> |

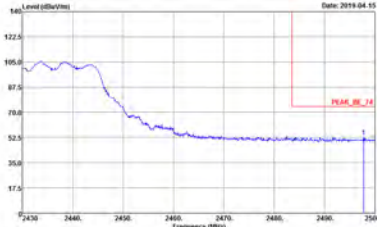
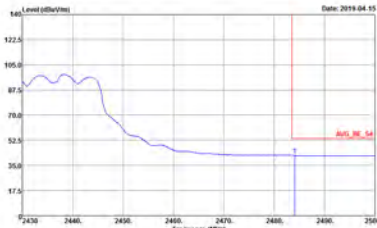
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                          |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11g CH06 2437MHz - L                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                          |
| 2+3  | Horizontal                                                                                                                                                                                                                                                                                 | Fundamental                                                                                                                                                                                                                                                                              |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 19<br/>Power : 22.5</p> |  <p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 19<br/>Power : 22.5</p> |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 19<br/>Power : 22.5</p>   |  <p>Site : 03CH13-HY<br/>Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 19<br/>Power : 22.5</p>   |

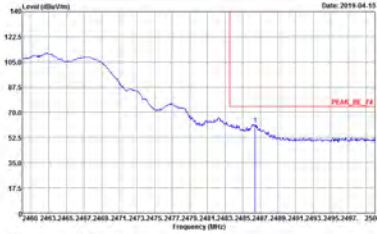
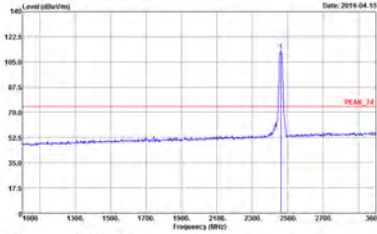
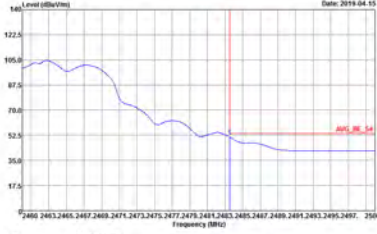
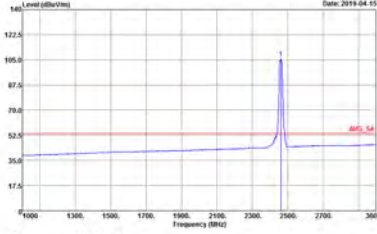


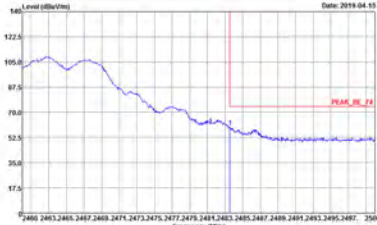
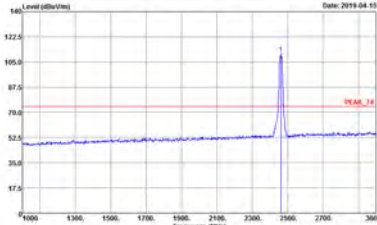
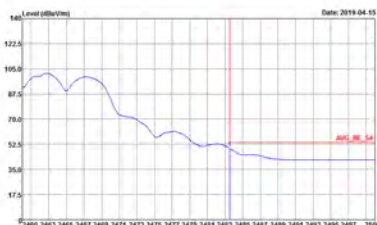
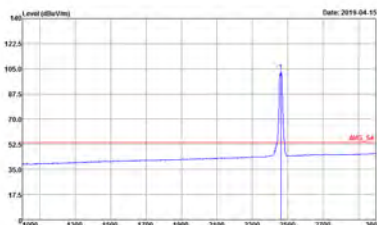
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                 |             |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11g CH06 2437MHz - R                                                                                                                                                                                                                                                             |             |
| 2+3  | Horizontal                                                                                                                                                                                                                                                                           | Fundamental |
| Peak |  <p>Site: 03CH13-HY<br/>Condition: PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:3000.000kHz VSW:3000.000kHz SWT:Auto<br/>Detector: Peak<br/>Project: RN0616-05<br/>Mode: 19<br/>Power: 22.5</p> | Left blank  |
| Avg. |  <p>Site: 03CH13-HY<br/>Condition: AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:3000.000kHz VSW:0.000kHz SWT:Auto<br/>Detector: Peak<br/>Project: RN0616-05<br/>Mode: 19<br/>Power: 22.5</p>   | Left blank  |

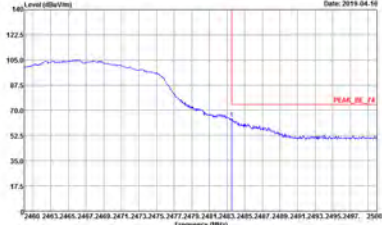
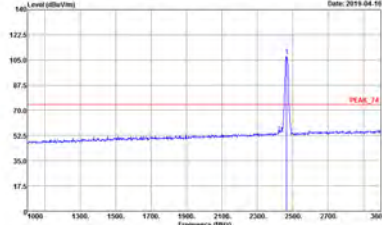
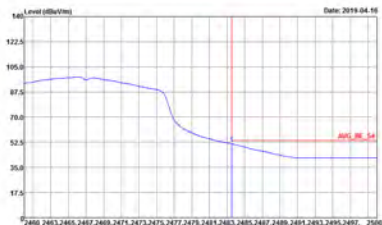
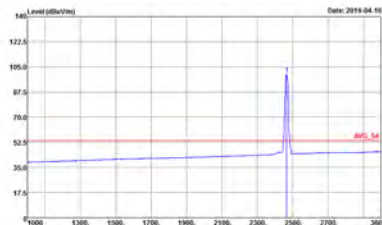
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                        |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11g CH06 2437MHz - L                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                        |
| 2+3  | Vertical                                                                                                                                                                                                                                                                                 | Fundamental                                                                                                                                                                                                                                                                            |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 19<br/>Power : 22.5</p> |  <p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 19<br/>Power : 22.5</p> |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 19<br/>Power : 22.5</p>   |  <p>Site : 03CH13-HY<br/>Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 19<br/>Power : 22.5</p>   |



| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                         |             |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11g CH06 2437MHz - R                                                                                                                                                                                                                     |             |
| 2+3  | Vertical                                                                                                                                                                                                                                     | Fundamental |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_14 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 19<br/>Power : 22.5</p>  | Left Blank  |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AVG_BE_14 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 19<br/>Power : 22.5</p> | Left Blank  |

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                        |                                                                                                                                                                                                                                              |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11g CH11 2462MHz                                                                                                                                                                                                                        |                                                                                                                                                                                                                                              |
| 2+3  | Horizontal                                                                                                                                                                                                                                  | Fundamental                                                                                                                                                                                                                                  |
| Peak |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 20<br/>Power : 18.5</p>  |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 20<br/>Power : 18.5</p>  |
| Avg. |  <p>Site : 03CH13-HV<br/>Condition : AVG_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 20<br/>Power : 18.5</p> |  <p>Site : 03CH13-HV<br/>Condition : AVG_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 20<br/>Power : 18.5</p> |

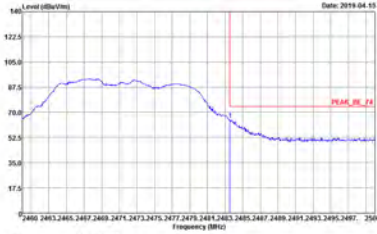
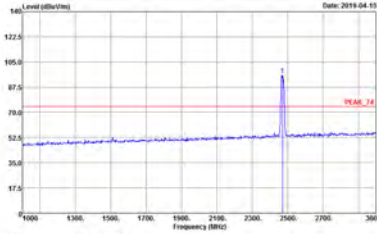
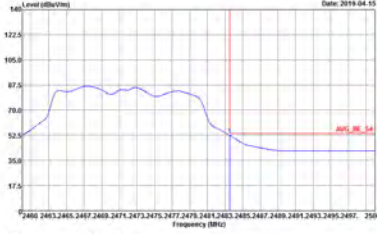
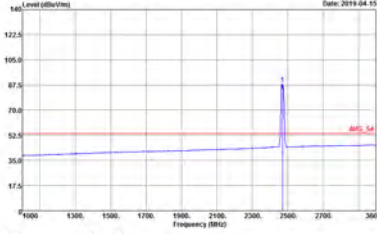
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                      |                                                                                                                                                                                                                                            |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11g CH11 2462MHz                                                                                                                                                                                                                      |                                                                                                                                                                                                                                            |
| 2+3  | Vertical                                                                                                                                                                                                                                  | Fundamental                                                                                                                                                                                                                                |
| Peak |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 20<br/>Power : 18.5</p>  |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 20<br/>Power : 18.5</p>  |
| Avg. |  <p>Site : 03CH13-HV<br/>Condition : AVG_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 20<br/>Power : 18.5</p> |  <p>Site : 03CH13-HV<br/>Condition : AVG_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 20<br/>Power : 18.5</p> |

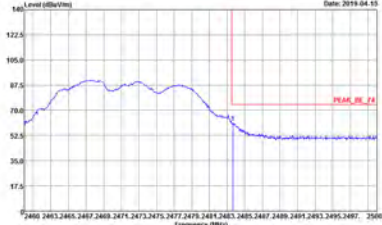
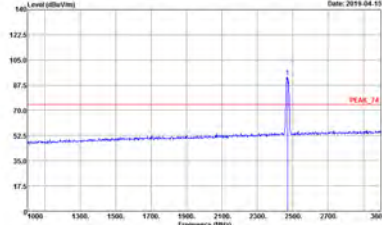
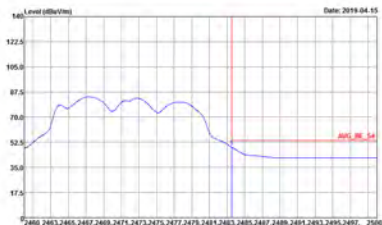
| WIFI        | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                       |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT         | 802.11g CH12 2467MHz                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                       |
| 2+3         | Horizontal                                                                                                                                                                                                                                                                                                              | Fundamental                                                                                                                                                                                                                                                                                                           |
| <b>Peak</b> |  <p>           Site : 03CH13-HV<br/>           Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : Z1<br/>           Power : 13         </p>  |  <p>           Site : 03CH13-HV<br/>           Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : Z1<br/>           Power : 13         </p>  |
|             |  <p>           Site : 03CH13-HV<br/>           Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : Z1<br/>           Power : 13         </p> |  <p>           Site : 03CH13-HV<br/>           Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : Z1<br/>           Power : 13         </p> |



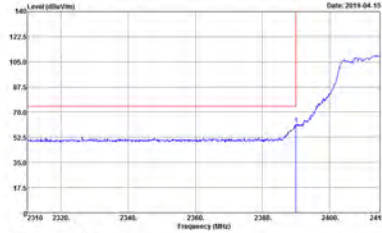
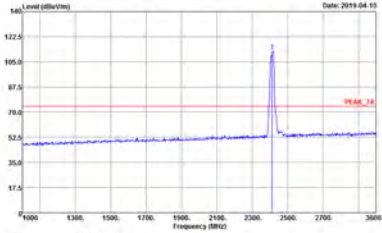
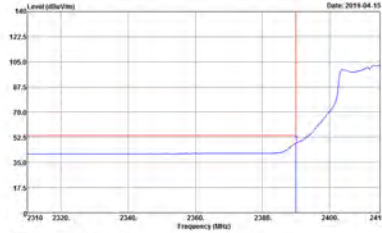
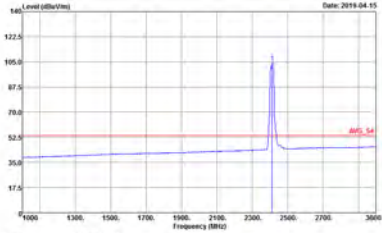
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                    |                                                                                                                                                      |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11g CH12 2467MHz                                                                                                                                    |                                                                                                                                                      |
| 2+3  | Vertical                                                                                                                                                | Fundamental                                                                                                                                          |
| Peak | <p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : Z1<br/>Power : 13</p> | <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : Z1<br/>Power : 13</p> |
| Avg. | <p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : Z1<br/>Power : 13</p>  | <p>Site : 03CH13-HV<br/>Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : Z1<br/>Power : 13</p>  |

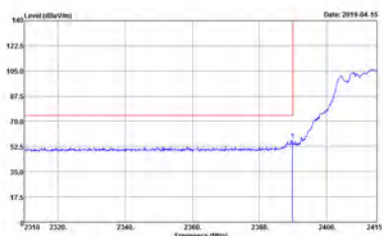
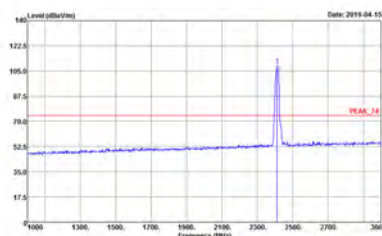
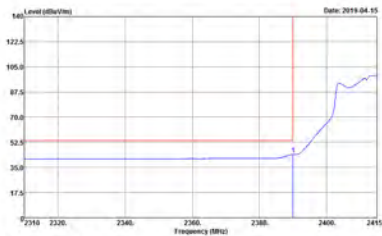
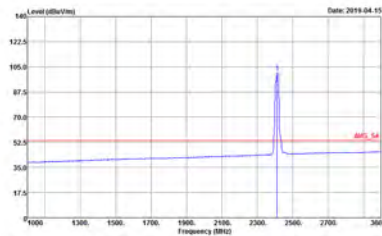


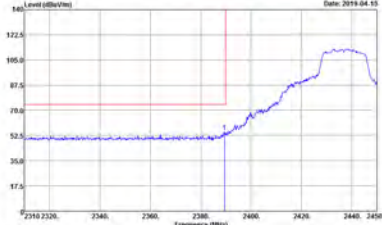
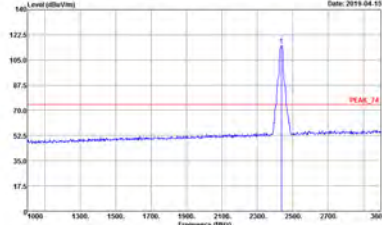
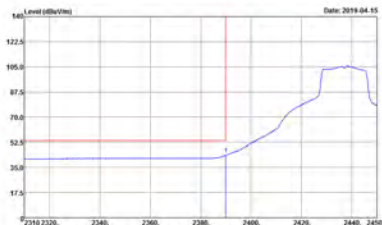
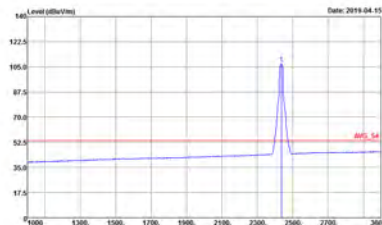
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                       |                                                                                                                                                                                                                                             |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11g CH13 2472MHz                                                                                                                                                                                                                       |                                                                                                                                                                                                                                             |
| 2+3  | Horizontal                                                                                                                                                                                                                                 | Fundamental                                                                                                                                                                                                                                 |
| Peak |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : ZF<br/>Power : 1.5</p>  |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : ZF<br/>Power : 1.5</p>  |
| Avg. |  <p>Site : 03CH13-HV<br/>Condition : AVG_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : ZF<br/>Power : 1.5</p> |  <p>Site : 03CH13-HV<br/>Condition : AVG_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : ZF<br/>Power : 1.5</p> |

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                        |                                                                                                                                                                                                                                           |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11g CH13 2472MHz                                                                                                                                                                                                                        |                                                                                                                                                                                                                                           |
| 2+3  | Vertical                                                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                                               |
| Peak |  <p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : ZF<br/>Power : 1.5</p>  |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : ZF<br/>Power : 1.5</p>  |
| Avg. |  <p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : ZF<br/>Power : 1.5</p> |  <p>Site : 03CH13-HV<br/>Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : ZF<br/>Power : 1.5</p> |

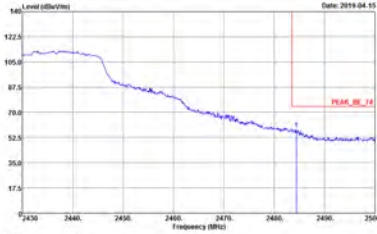
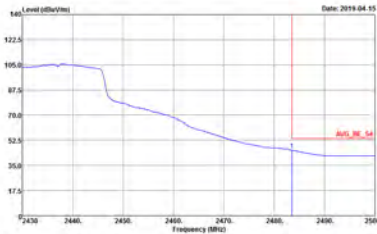
**2.4GHz 2400~2483.5MHz**
**WIFI 802.11n HT20 (Band Edge @ 3m)**

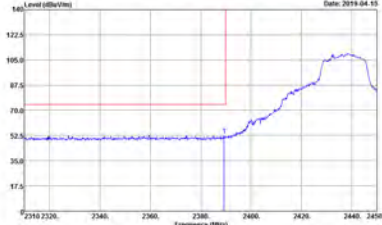
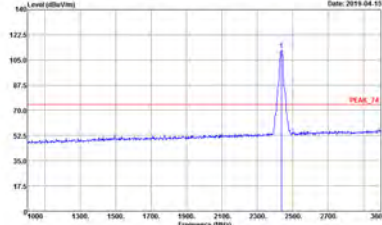
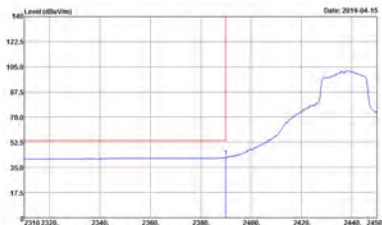
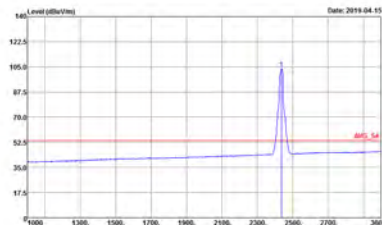
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                         |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11n HT20 CH01 2412MHz                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                         |
| 2+3  | Horizontal                                                                                                                                                                                                                                                                                | Fundamental                                                                                                                                                                                                                                                                             |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : Z3<br/>Power : Z3</p>  |  <p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : Z3<br/>Power : Z3</p>  |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : Z3<br/>Power : Z3</p> |  <p>Site : 03CH13-HY<br/>Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : Z3<br/>Power : Z3</p> |

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                     |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11n HT20 CH01 2412MHz                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                     |
| 2+3  | Vertical                                                                                                                                                                                                                                                                                                              | Fundamental                                                                                                                                                                                                                                                                                                         |
| Peak |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>           Detector : Peak<br/>           Project : BN0616-05<br/>           Mode : Z3<br/>           Power : Z3         </p>  |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>           Detector : Peak<br/>           Project : BN0616-05<br/>           Mode : Z3<br/>           Power : Z3         </p>  |
| Avg. |  <p>           Site : 03CH13-HY<br/>           Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>           Detector : Peak<br/>           Project : BN0616-05<br/>           Mode : Z3<br/>           Power : Z3         </p> |  <p>           Site : 03CH13-HY<br/>           Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/>           Detector : Peak<br/>           Project : BN0616-05<br/>           Mode : Z3<br/>           Power : Z3         </p> |

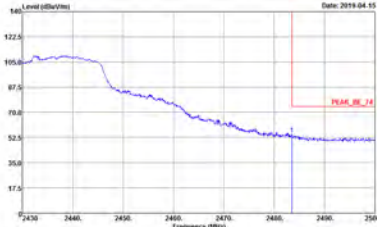
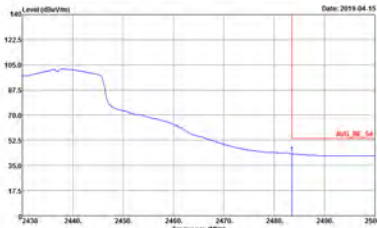
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11n HT20 CH06 2437MHz - L                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                |
| 2+3  | Horizontal                                                                                                                                                                                                                                                                                                                                                                       | Fundamental                                                                                                                                                                                                                                                                                                                                                                    |
| Peak |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>           RBW:3000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 24<br/>           Power : 22.5         </p> |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>           RBW:3000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 24<br/>           Power : 22.5         </p> |
| Avg. |  <p>           Site : 03CH13-HY<br/>           Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>           RBW:3000.0000Hz VSW:0.0100Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 24<br/>           Power : 22.5         </p>   |  <p>           Site : 03CH13-HY<br/>           Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/>           RBW:3000.0000Hz VSW:0.0100Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 24<br/>           Power : 22.5         </p>   |

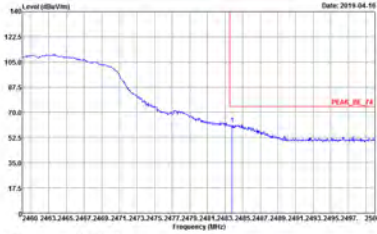
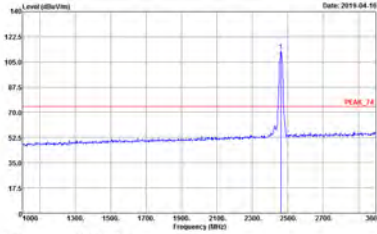
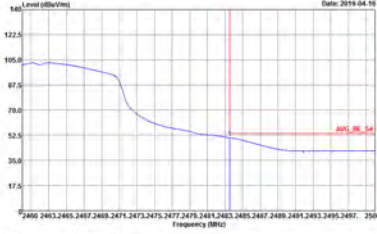
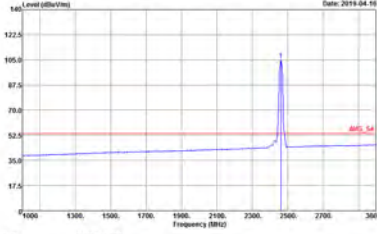


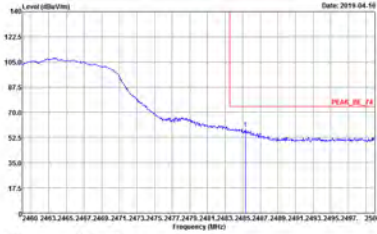
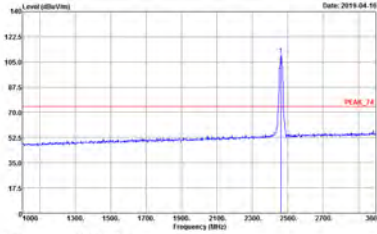
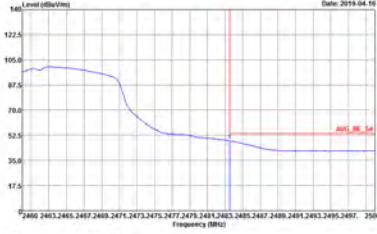
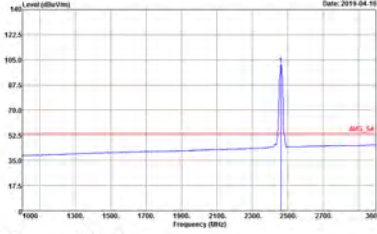
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                           |             |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11n HT20 CH06 2437MHz - R                                                                                                                                                                                                                  |             |
| 2+3  | Horizontal                                                                                                                                                                                                                                     | Fundamental |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 24<br/>Power : 22.5</p>  | Left blank  |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : Avg_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 24<br/>Power : 22.5</p> | Left blank  |

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                              |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11n HT20 CH06 2437MHz - L                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                              |
| 2+3  | Vertical                                                                                                                                                                                                                                                                                                                                                                    | Fundamental                                                                                                                                                                                                                                                                                                                                                                  |
| Peak |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>           RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 24<br/>           Power : 22.5         </p> |  <p>           Site : 03CH13-HY<br/>           Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>           RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 24<br/>           Power : 22.5         </p> |
| Avg. |  <p>           Site : 03CH13-HY<br/>           Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/>           RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 24<br/>           Power : 22.5         </p>   |  <p>           Site : 03CH13-HY<br/>           Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/>           RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 24<br/>           Power : 22.5         </p>   |

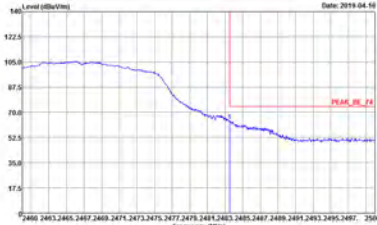
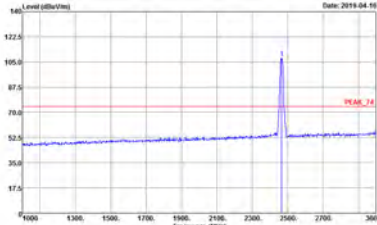
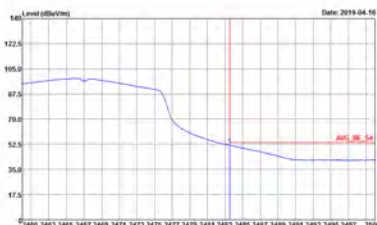
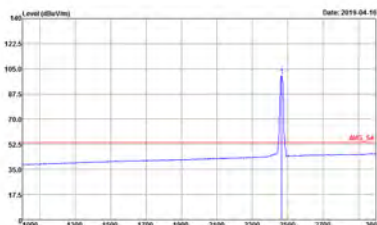


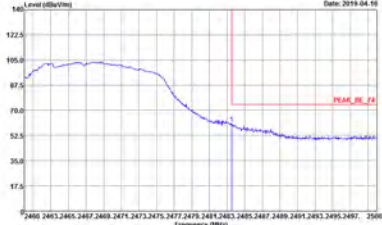
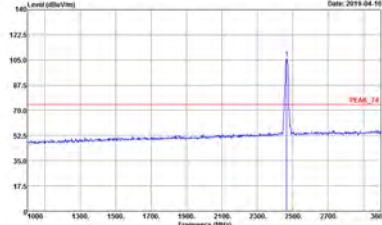
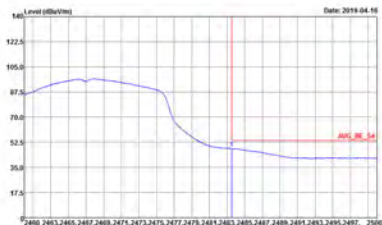
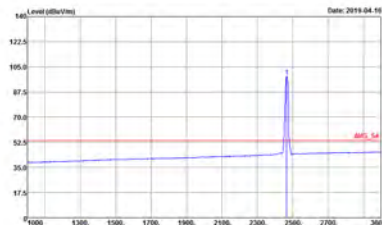
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                                |             |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11n HT20 CH06 2437MHz - R                                                                                                                                                                                                                                                                       |             |
| 2+3  | Vertical                                                                                                                                                                                                                                                                                            | Fundamental |
| Peak | <div><p>Site : 03CH13-HY<br/>Condition : PEAK_BE_14 3m HORN_91200_1241 VERTICAL<br/>RBW:3000.000KHz VSW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 24<br/>Power : 22.5</p></div>  | Left Blank  |
| Avg. | <div><p>Site : 03CH13-HY<br/>Condition : AVG_BE_14 3m HORN_91200_1241 VERTICAL<br/>RBW:3000.000KHz VSW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 24<br/>Power : 22.5</p></div> | Left Blank  |

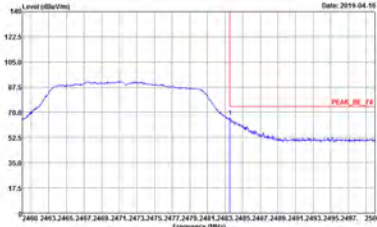
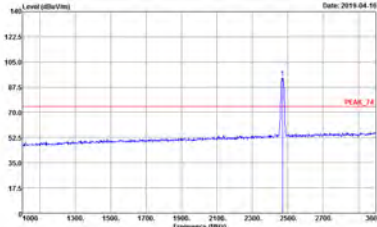
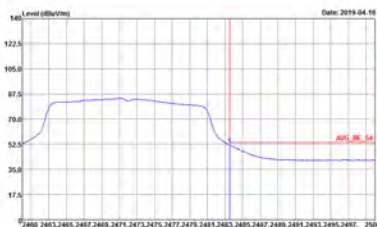
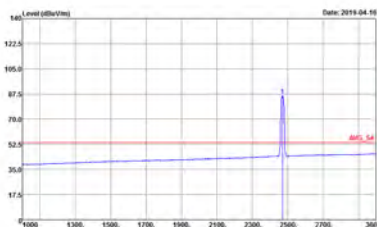
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                       |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11n HT20 CH11 2462MHz                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                       |
| 2+3  | Horizontal                                                                                                                                                                                                                                                                                                              | Fundamental                                                                                                                                                                                                                                                                                                           |
| Peak |  <p>           Site : 03CH13-HV<br/>           Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 25<br/>           Power : 18         </p>  |  <p>           Site : 03CH13-HV<br/>           Condition : PEAK_F4 3m HORN_91200_1241 HORIZONTAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 25<br/>           Power : 18         </p>  |
| Avg. |  <p>           Site : 03CH13-HV<br/>           Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 25<br/>           Power : 18         </p> |  <p>           Site : 03CH13-HV<br/>           Condition : AVG_F4 3m HORN_91200_1241 HORIZONTAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : 25<br/>           Power : 18         </p> |

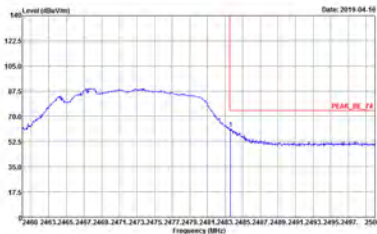
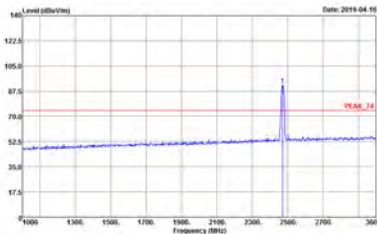
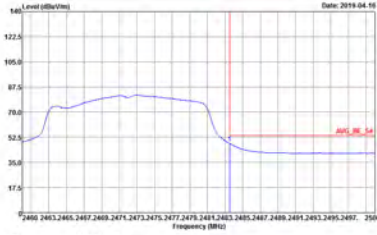
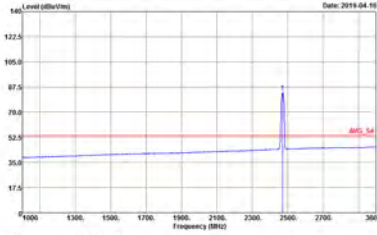
| WIFI | 2.4GHz 2400~2483.5MHz Fundamental @ 3m                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                            |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11n HT20 CH11 2462MHz                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                            |
| 2+3  | Vertical                                                                                                                                                                                                                                                                                     | Fundamental                                                                                                                                                                                                                                                                                |
| Peak |  <p>Site : 03CH13-HV<br/> Condition : PEAK_ME_74 3m HORN_91200_1241 VERTICAL<br/> RBW:3000.0000Hz VSW:3000.0000Hz SWT:Auto<br/> Detector : Peak<br/> Project : 8N0616-05<br/> Mode : 25<br/> Power : 18</p> |  <p>Site : 03CH13-HV<br/> Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/> RBW:3000.0000Hz VSW:3000.0000Hz SWT:Auto<br/> Detector : Peak<br/> Project : 8N0616-05<br/> Mode : 25<br/> Power : 18</p> |
| Avg. |  <p>Site : 03CH13-HV<br/> Condition : AVG_ME_54 3m HORN_91200_1241 VERTICAL<br/> RBW:3000.0000Hz VSW:0.0100Hz SWT:Auto<br/> Detector : Peak<br/> Project : 8N0616-05<br/> Mode : 25<br/> Power : 18</p>   |  <p>Site : 03CH13-HV<br/> Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/> RBW:3000.0000Hz VSW:0.0100Hz SWT:Auto<br/> Detector : Peak<br/> Project : 8N0616-05<br/> Mode : 25<br/> Power : 18</p>   |



| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                         |                                                                                                                                                                                                                                            |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11n HT20 CH12 2467MHz                                                                                                                                                                                                                    |                                                                                                                                                                                                                                            |
| 2+3  | Horizontal                                                                                                                                                                                                                                   | Fundamental                                                                                                                                                                                                                                |
| Peak |  <p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 26<br/>Power : 15</p>  |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 26<br/>Power : 15</p>  |
| Avg. |  <p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 26<br/>Power : 15</p> |  <p>Site : 03CH13-HV<br/>Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 26<br/>Power : 15</p> |

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                            |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11n HT20 CH12 2467MHz                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                            |
| 2+3  | Vertical                                                                                                                                                                                                                                                                                     | Fundamental                                                                                                                                                                                                                                                                                |
| Peak |  <p>Site : 03CH13-HV<br/> Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/> RBW:3000.0000Hz VSW:3000.0000Hz SWT:Auto<br/> Detector : Peak<br/> Project : 8N0616-05<br/> Mode : 26<br/> Power : 15</p> |  <p>Site : 03CH13-HV<br/> Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/> RBW:3000.0000Hz VSW:3000.0000Hz SWT:Auto<br/> Detector : Peak<br/> Project : 8N0616-05<br/> Mode : 26<br/> Power : 15</p> |
| Avg. |  <p>Site : 03CH13-HV<br/> Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/> RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/> Detector : Peak<br/> Project : 8N0616-05<br/> Mode : 26<br/> Power : 15</p>   |  <p>Site : 03CH13-HV<br/> Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/> RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/> Detector : Peak<br/> Project : 8N0616-05<br/> Mode : 26<br/> Power : 15</p>   |

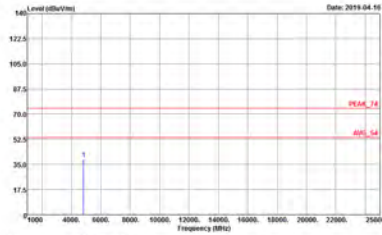
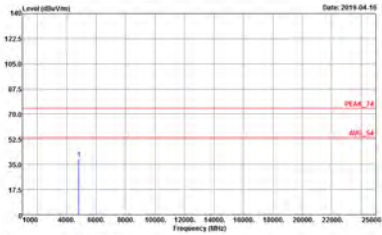
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                        |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11n HT20 CH13 2472MHz                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                        |
| 2+3  | Horizontal                                                                                                                                                                                                                                                                                                               | Fundamental                                                                                                                                                                                                                                                                                                            |
| Peak |  <p>           Site : 03CH13-HV<br/>           Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : Z7<br/>           Power : 1.5         </p>  |  <p>           Site : 03CH13-HV<br/>           Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : Z7<br/>           Power : 1.5         </p>  |
| Avg. |  <p>           Site : 03CH13-HV<br/>           Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : Z7<br/>           Power : 1.5         </p> |  <p>           Site : 03CH13-HV<br/>           Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/>           Detector : Peak<br/>           Project : 8N0616-05<br/>           Mode : Z7<br/>           Power : 1.5         </p> |

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                       |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11n HT20 CH13 2472MHz                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                       |
| 2+3  | Vertical                                                                                                                                                                                                                                                                                | Fundamental                                                                                                                                                                                                                                                                           |
| Peak |  <p>Site : 03CH13-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : Z7<br/>Power : 1.5</p> |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : Z7<br/>Power : 1.5</p> |
| Avg. |  <p>Site : 03CH13-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : Z7<br/>Power : 1.5</p>   |  <p>Site : 03CH13-HV<br/>Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.0000Hz VSW:0.0100Hz SWT:Auto<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : Z7<br/>Power : 1.5</p>   |

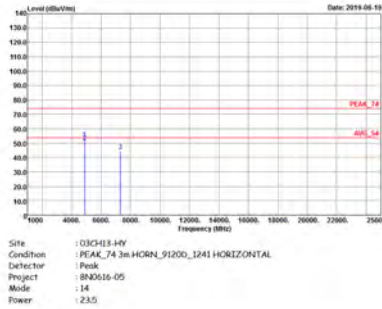
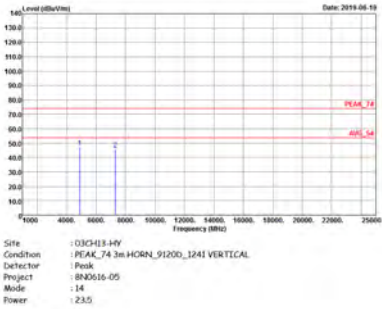


2.4GHz 2400~2483.5MHz

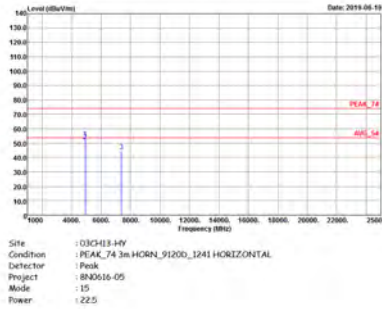
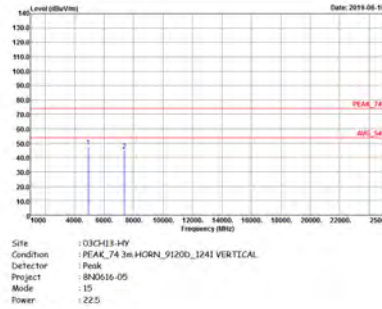
WIFI 802.11b (Harmonic @ 3m)

| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                                                                                        |                                                                                                                                                                                                                                           |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT          | 802.11b CH01 2412MHz                                                                                                                                                                                                                       |                                                                                                                                                                                                                                           |
| 2+3          | Horizontal                                                                                                                                                                                                                                 | Vertical                                                                                                                                                                                                                                  |
| Peak<br>Avg. |  <p>Site : D3CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : FR8N0616-05<br/>Mode : 13<br/>Power : 23</p> |  <p>Site : D3CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : FR8N0616-05<br/>Mode : 13<br/>Power : 23</p> |

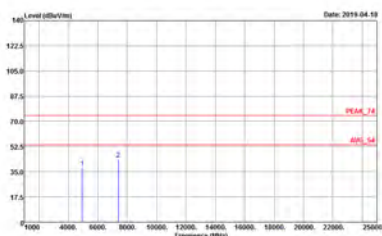
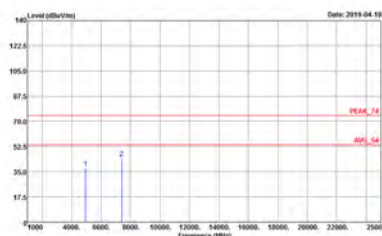


| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                               |                                                                                    |
|--------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| ANT          | 802.11b CH06 2437MHz                                                              |                                                                                    |
| 2+3          | Horizontal                                                                        | Vertical                                                                           |
| Peak<br>Avg. |  |  |

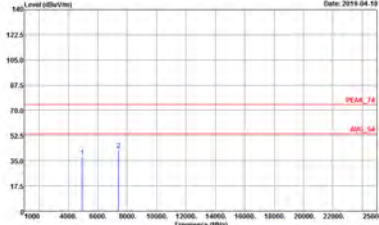
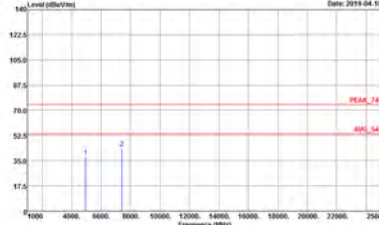


| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                                                                                         |                                                                                                                                                                                                                                            |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT          | 802.11b CH11 2462MHz                                                                                                                                                                                                                        |                                                                                                                                                                                                                                            |
| 2+3          | Horizontal                                                                                                                                                                                                                                  | Vertical                                                                                                                                                                                                                                   |
| Peak<br>Avg. |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : 15<br/>Power : 22.5</p> |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : 15<br/>Power : 22.5</p> |

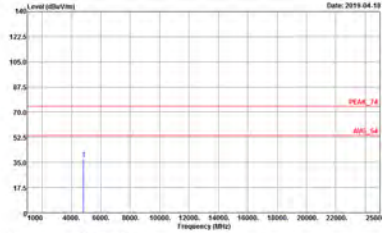
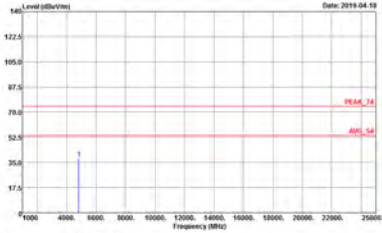


| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                                                                                       |                                                                                                                                                                                                                                          |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT          | 802.11b CH12 2467MHz                                                                                                                                                                                                                      |                                                                                                                                                                                                                                          |
| 2+3          | Horizontal                                                                                                                                                                                                                                | Vertical                                                                                                                                                                                                                                 |
| Peak<br>Avg. |  <p>Site : 03CH12-4V<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : 16<br/>Power : 18</p> |  <p>Site : 03CH12-4V<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : 16<br/>Power : 18</p> |

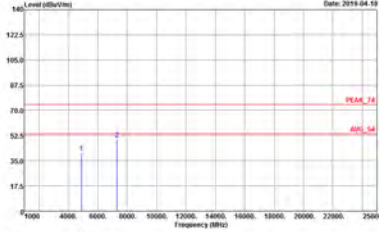
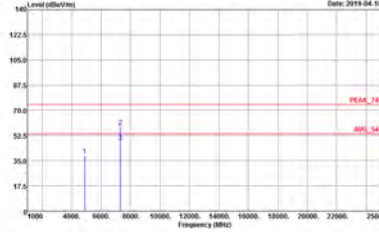


| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                                                                                       |                                                                                                                                                                                                                                          |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT          | 802.11b CH13 2472MHz                                                                                                                                                                                                                      |                                                                                                                                                                                                                                          |
| 2+3          | Horizontal                                                                                                                                                                                                                                | Vertical                                                                                                                                                                                                                                 |
| Peak<br>Avg. |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : 17<br/>Power : 14</p> |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : 17<br/>Power : 14</p> |

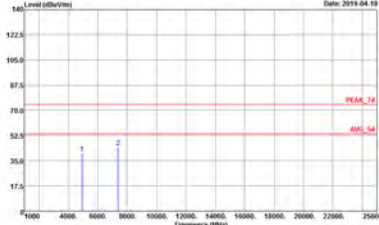
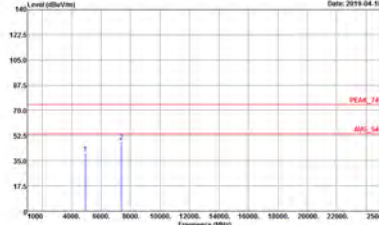
**2.4GHz 2400~2483.5MHz**  
**WIFI 802.11g (Harmonic @ 3m)**

| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                                                                                               |                                                                                                                                                                                                                                                  |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT          | 802.11g CH01 2412MHz                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                  |
| 2+3          | Horizontal                                                                                                                                                                                                                                        | Vertical                                                                                                                                                                                                                                         |
| Peak<br>Avg. |  <p>Site : 03CH18-HY<br/> Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/> Detector : Peak<br/> Project : FR8N0616-05<br/> Mode : 18<br/> Power : 1.23</p> |  <p>Site : 03CH18-HY<br/> Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/> Detector : Peak<br/> Project : FR8N0616-05<br/> Mode : 18<br/> Power : 1.23</p> |

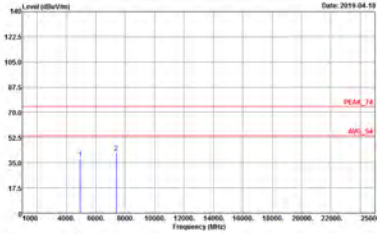
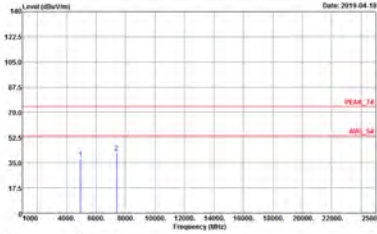


| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                                                                                         |                                                                                                                                                                                                                                            |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT          | 802.11g CH06 2437MHz                                                                                                                                                                                                                        |                                                                                                                                                                                                                                            |
| 2+3          | Horizontal                                                                                                                                                                                                                                  | Vertical                                                                                                                                                                                                                                   |
| Peak<br>Avg. |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : 19<br/>Power : 22.5</p> |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : 19<br/>Power : 22.5</p> |

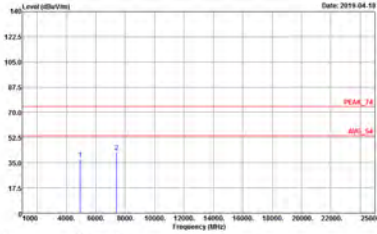
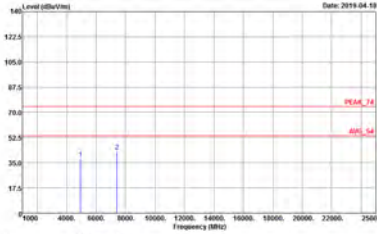


| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                                                                                         |                                                                                                                                                                                                                                            |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT          | 802.11g CH11 2462MHz                                                                                                                                                                                                                        |                                                                                                                                                                                                                                            |
| 2+3          | Horizontal                                                                                                                                                                                                                                  | Vertical                                                                                                                                                                                                                                   |
| Peak<br>Avg. |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : 20<br/>Power : 18.5</p> |  <p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : 20<br/>Power : 18.5</p> |



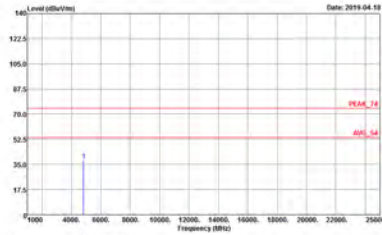
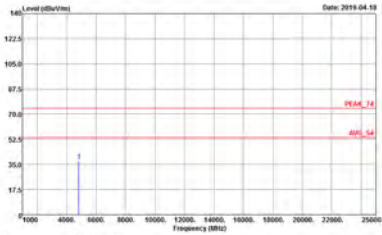
| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                    |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT          | 802.11g CH12 2467MHz                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                    |
| 2+3          | Horizontal                                                                                                                                                                                                                                          | Vertical                                                                                                                                                                                                                                           |
| Peak<br>Avg. | <div><p>Site : 03CH12-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : Z1<br/>Power : 13</p></div> | <div><p>Site : 03CH12-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : Z1<br/>Power : 13</p></div> |



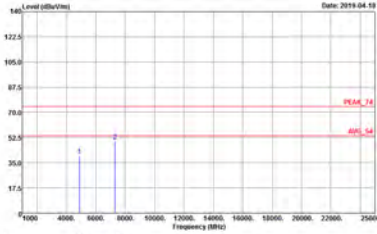
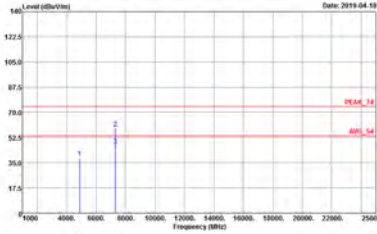
|              |                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                     |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                     |
| ANT          | 802.11g CH13 2472MHz                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                     |
| 2+3          | Horizontal                                                                                                                                                                                                                                           | Vertical                                                                                                                                                                                                                                            |
| Peak<br>Avg. | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : ZF<br/>Power : 1.5</p></div> | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : ZF<br/>Power : 1.5</p></div> |



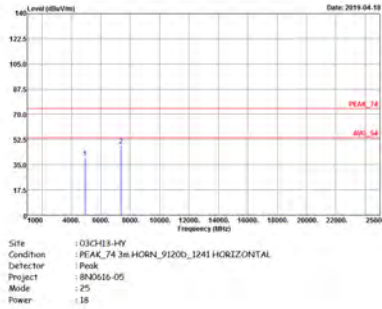
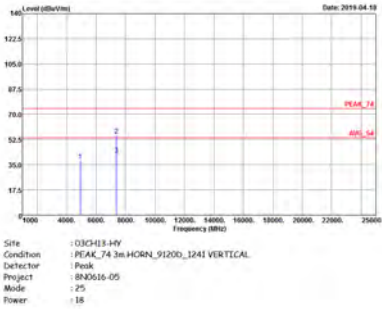
2.4GHz 2400~2483.5MHz  
WIFI 802.11n HT20 (Harmonic @ 3m)

| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                                                                                        |                                                                                                                                                                                                                                           |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT          | 802.11n HT20 CH01 2412MHz                                                                                                                                                                                                                  |                                                                                                                                                                                                                                           |
| 2+3          | Horizontal                                                                                                                                                                                                                                 | Vertical                                                                                                                                                                                                                                  |
| Peak<br>Avg. |  <p>Site : 03CH18-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : FR8N0616-05<br/>Mode : Z3<br/>Power : Z3</p> |  <p>Site : 03CH18-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : FR8N0616-05<br/>Mode : Z3<br/>Power : Z3</p> |

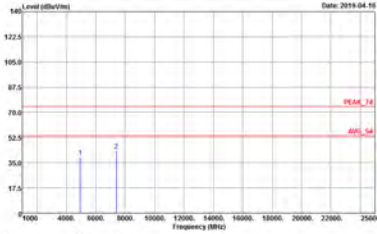
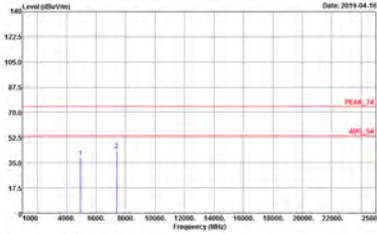


| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                      |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT          | 802.11n HT20 CH06 2437MHz                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                      |
| 2+3          | Horizontal                                                                                                                                                                                                                                            | Vertical                                                                                                                                                                                                                                             |
| Peak<br>Avg. | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : 24<br/>Power : 22.5</p></div> | <div><p>Site : 03CH13-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : 24<br/>Power : 22.5</p></div> |

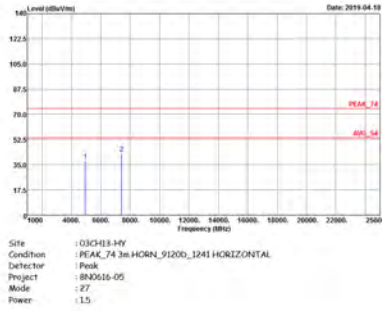
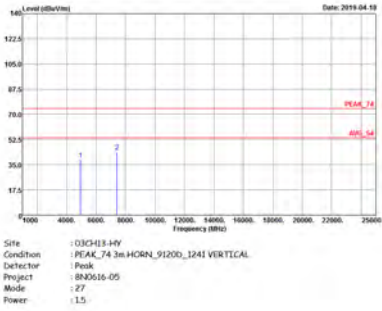


| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                               |                                                                                    |
|--------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| ANT          | 802.11n HT20 CH11 2462MHz                                                         |                                                                                    |
| 2+3          | Horizontal                                                                        | Vertical                                                                           |
| Peak<br>Avg. |  |  |

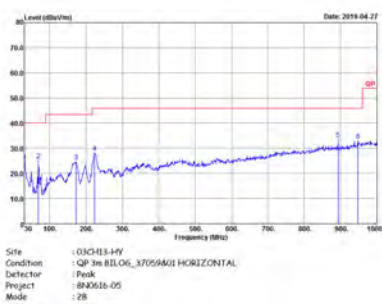
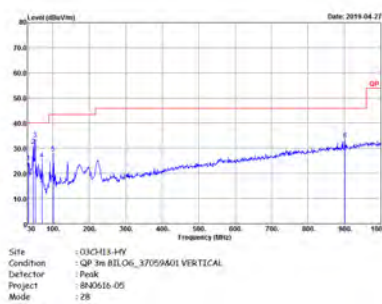


| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                    |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT          | 802.11n HT20 CH12 2462MHz                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                    |
| 2+3          | Horizontal                                                                                                                                                                                                                                          | Vertical                                                                                                                                                                                                                                           |
| Peak<br>Avg. | <div><p>Site : 03CH12-MY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : 25<br/>Power : 15</p></div> | <div><p>Site : 03CH12-MY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : BR40616-05<br/>Mode : 25<br/>Power : 15</p></div> |

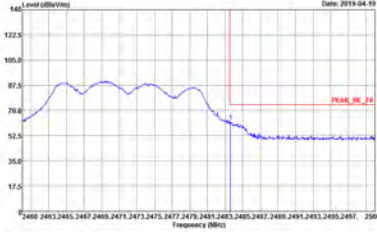
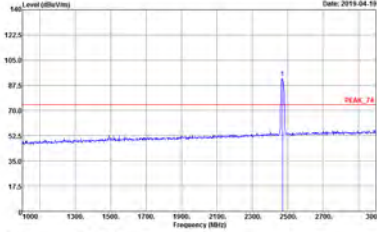
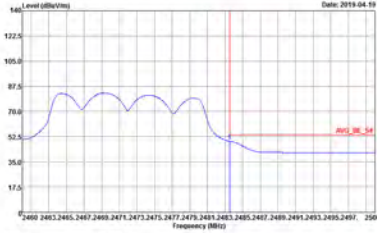
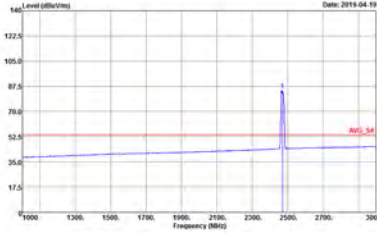


|              |                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                            |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                                                                                                         |                                                                                                                                                                                                                                            |
| ANT          | 802.11n HT20 CH13 2472MHz                                                                                                                                                                                                                   |                                                                                                                                                                                                                                            |
| 2+3          | Horizontal                                                                                                                                                                                                                                  | Vertical                                                                                                                                                                                                                                   |
| Peak<br>Avg. |  <p>Site : 03CH13-HV<br/>Condition : /PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : /Peak<br/>Project : BR0616-05<br/>Mode : 27<br/>Power : 1.5</p> |  <p>Site : 03CH13-HV<br/>Condition : /PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : /Peak<br/>Project : BR0616-05<br/>Mode : 27<br/>Power : 1.5</p> |

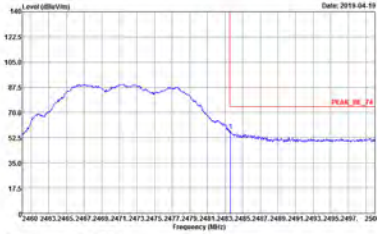
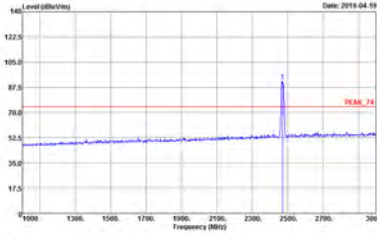
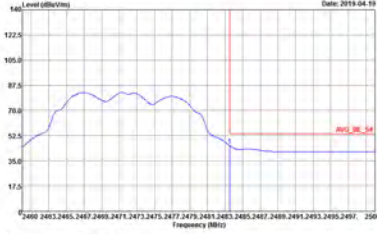
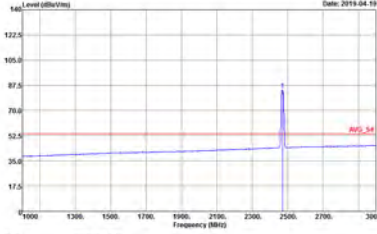
**Emission below 1GHz**  
**2.4GHz WIFI 802.11g (LF)**

| WIFI                 | 2.4GHz 2400~2483.5MHz                                                             |                                                                                    |
|----------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| ANT                  | 802.11g LF                                                                        |                                                                                    |
| 2+3                  | Horizontal                                                                        | Vertical                                                                           |
| <b>QP /<br/>Peak</b> |  |  |
|                      |                                                                                   |                                                                                    |

**<WPC Mode>**
**2.4GHz 2400~2483.5MHz**
**WIFI 802.11g (Band Edge @ 3m)**

| WIFI        | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                         |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT         | 802.11g CH13 2472MHz                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                         |
| 2+3         | Horizontal                                                                                                                                                                                                                                                                                | Fundamental                                                                                                                                                                                                                                                                             |
| <b>Peak</b> |  <p>Site : 03CH13-HY<br/>Condition : PEAK_36_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VBW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 31<br/>Power : 1.5</p> |  <p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VBW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 31<br/>Power : 1.5</p> |
|             |  <p>Site : 03CH13-HY<br/>Condition : AVG_36_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VBW:0.0100Hz SWT:Auto<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 31<br/>Power : 1.5</p>   |  <p>Site : 03CH13-HY<br/>Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.0000Hz VBW:0.0100Hz SWT:Auto<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 31<br/>Power : 1.5</p>   |



| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                      |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11g CH13 2472MHz                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                      |
| 2+3  | Vertical                                                                                                                                                                                                                                                                               | Fundamental                                                                                                                                                                                                                                                                          |
| Peak |  <p>Site : 03CH3-HV<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 31<br/>Power : 1.5</p> |  <p>Site : 03CH3-HV<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.0000Hz VSW:3000.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 31<br/>Power : 1.5</p> |
| Avg. |  <p>Site : 03CH3-HV<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.0000Hz VSW:0.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 31<br/>Power : 1.5</p>   |  <p>Site : 03CH3-HV<br/>Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.0000Hz VSW:0.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : RN0616-05<br/>Mode : 31<br/>Power : 1.5</p>   |

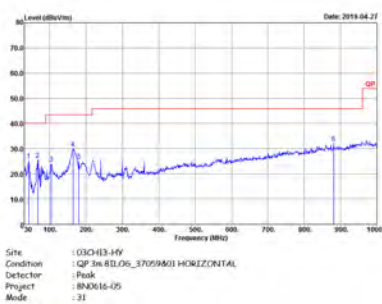
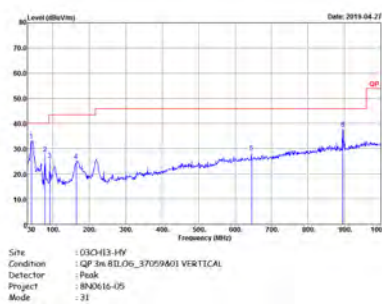


2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m                                                                                                                      |                                                                                                                                                        |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT          | 802.11g CH13 2472MHz                                                                                                                                     |                                                                                                                                                        |
| 2+3          | Horizontal                                                                                                                                               | Vertical                                                                                                                                               |
| Peak<br>Avg. | <p>Site : 03CH13-4FV<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 31<br/>Power : 1.5</p> | <p>Site : 03CH13-4FV<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>Detector : Peak<br/>Project : 8N0616-05<br/>Mode : 31<br/>Power : 1.5</p> |

**Emission below 1GHz**  
**2.4GHz WIFI 802.11g (LF)**

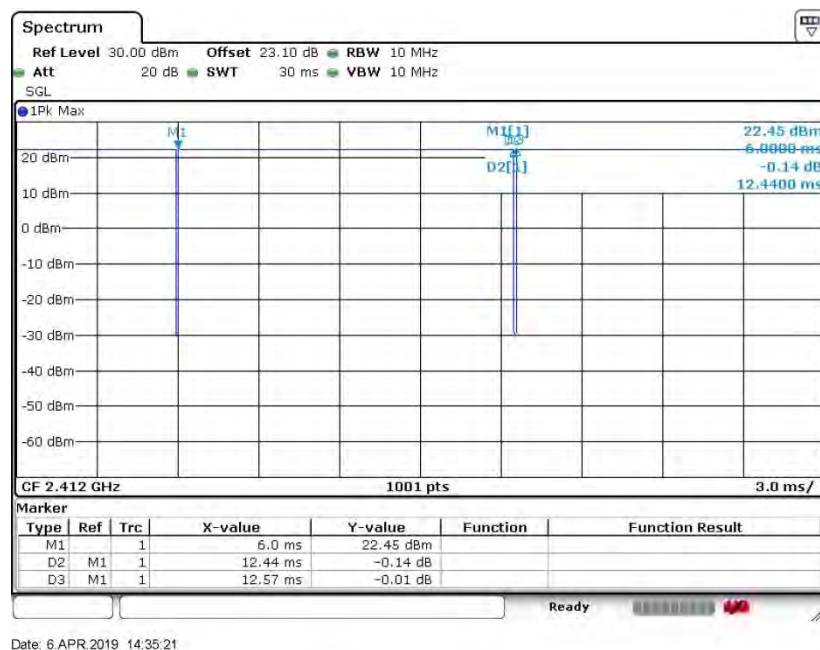
| WIFI         | 2.4GHz 2400~2483.5MHz                                                             |                                                                                    |
|--------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| ANT          | 802.11g LF                                                                        |                                                                                    |
| 2+3          | Horizontal                                                                        | Vertical                                                                           |
| QP /<br>Peak |  |  |

## Appendix E. Duty Cycle Plots

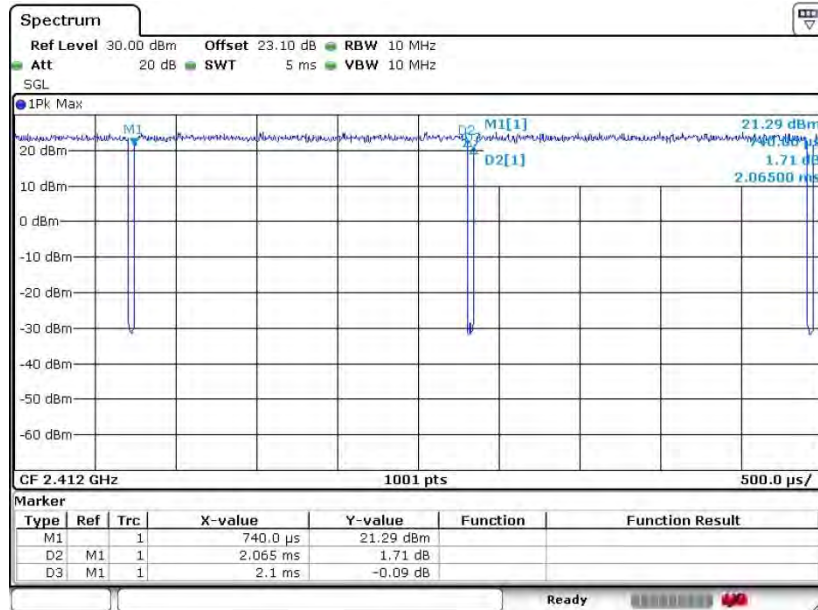
| Antenna | Band                           | Duty Cycle(%) | T(us) | 1/T(kHz) | VBW Setting | Duty Factor(dB) |
|---------|--------------------------------|---------------|-------|----------|-------------|-----------------|
| 2+3     | 802.11b for Ant. 2             | 98.96         | -     | -        | 10Hz        | 0.05            |
| 2+3     | 802.11b for Ant. 3             | 99.20         | -     | -        | 10Hz        | 0.03            |
| 2+3     | 802.11g for Ant. 2             | 98.33         | -     | -        | 10Hz        | 0.07            |
| 2+3     | 802.11g for Ant. 3             | 98.33         | -     | -        | 10Hz        | 0.07            |
| 2+3     | 2.4GHz 802.11n HT20 for Ant. 2 | 98.21         | -     | -        | 10Hz        | 0.08            |
| 2+3     | 2.4GHz 802.11n HT20 for Ant. 3 | 98.21         | -     | -        | 10Hz        | 0.08            |

### MIMO <Ant. 2>

#### 802.11b

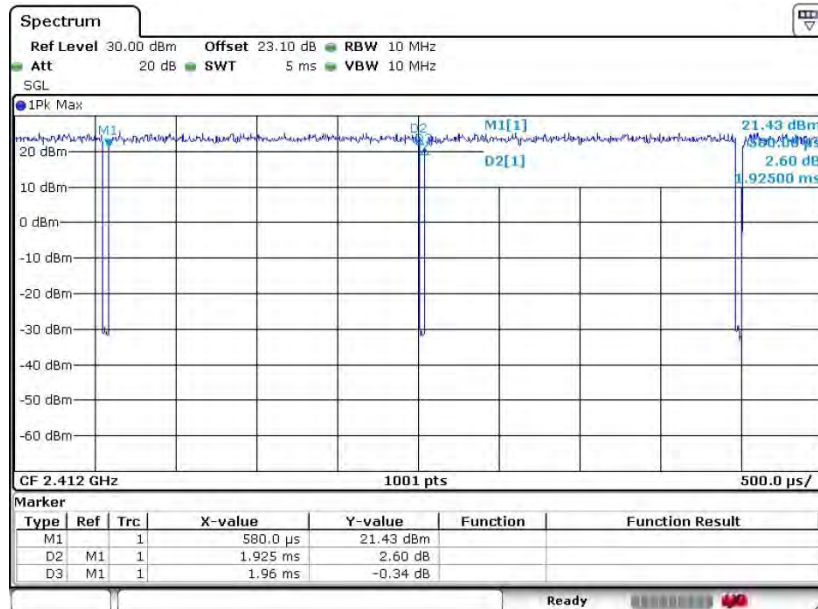


## 802.11g



Date: 6.APR.2019 14:37:16

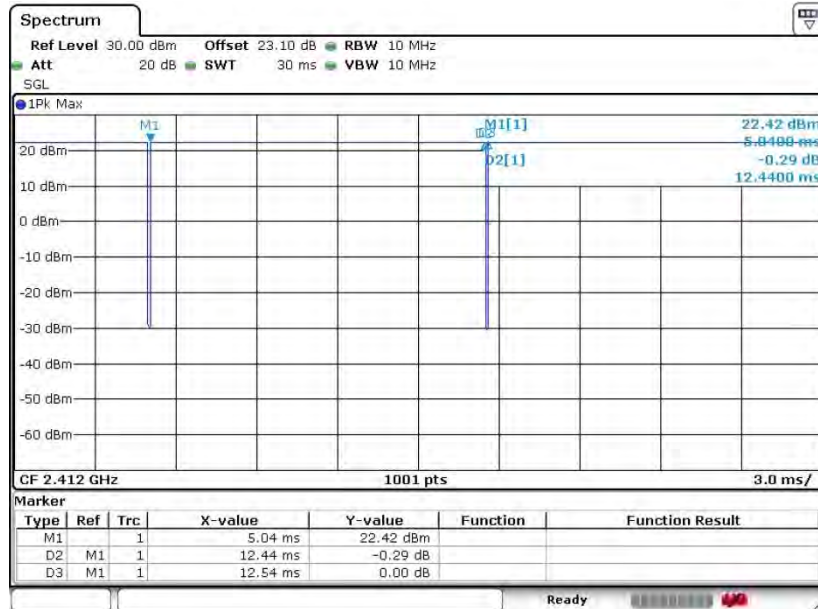
## 802.11n HT20



Date: 6.APR.2019 14:40:21

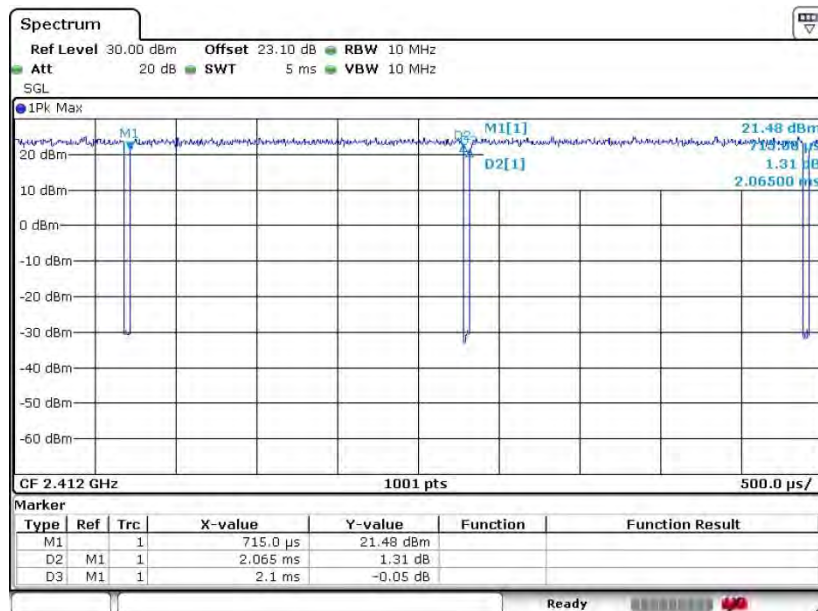
MIMO <Ant. 3>

## 802.11b



Date: 6.APR.2019 14:36:19

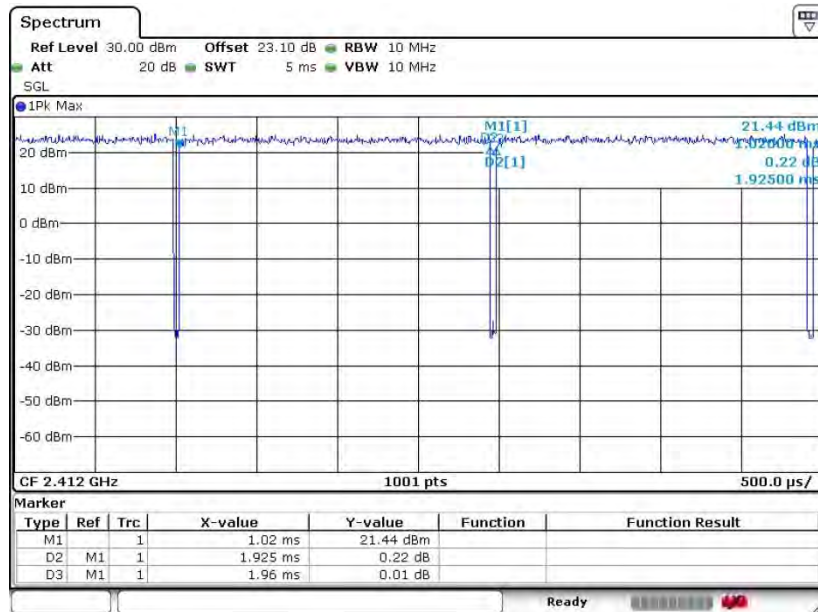
## 802.11g



Date: 6.APR.2019 14:38:18



## 802.11n HT20



Date: 6.APR.2019 14:42:48

—THE END—