



# FCC RADIO TEST REPORT

FCC ID : UZ7ET56DT  
Equipment : Tablet  
Brand Name : Zebra  
Model Name : ET56DT  
Applicant : Zebra Technologies Corporation  
1 Zebra Plaza, Holtsville, NY 11742  
Manufacturer : Zebra Technologies Corporation  
1 Zebra Plaza, Holtsville, NY 11742  
Standard : FCC Part 15 Subpart C §15.247

The product was received on Jul. 30, 2020 and testing was started from Aug. 04, 2020 and completed on Sep. 04, 2020. We, SPORTON INTERNATIONAL INC., EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Approved by: Louis Wu

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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## History of this test report

| Report No.   | Version | Description             | Issued Date   |
|--------------|---------|-------------------------|---------------|
| FR072903-01C | 01      | Initial issue of report | Sep. 17, 2020 |
|              |         |                         |               |
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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               | -                                         |
| 0             | 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>1.16 dB at<br>2390.000 MHz |
| 3.6           | 15.207                | AC Conducted Emission                              | Pass               | Under limit<br>14.11 dB at<br>0.166 MHz   |
| 3.7           | 15.203 &<br>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: Ruby Zou**

# 1 General Description

## 1.1 Product Feature of Equipment Under Test

| Product Feature                 |                                                                                                           |
|---------------------------------|-----------------------------------------------------------------------------------------------------------|
| Equipment                       | Tablet                                                                                                    |
| Brand Name                      | Zebra                                                                                                     |
| Model Name                      | ET56DT                                                                                                    |
| FCC ID                          | UZ7ET56DT                                                                                                 |
| EUT supports Radios application | WCDMA/HSPA/LTE/NFC/GNSS<br>WLAN 11a/b/g/n HT20/HT40<br>WLAN 11ac VHT20/VHT40/VHT80<br>Bluetooth BR/EDR/LE |
| HW Version                      | DV1                                                                                                       |
| SW Version                      | Android 10                                                                                                |
| FW Version                      | 10-13-05.00-QG-U00-PRD-HEL-04                                                                             |
| MFD                             | 15JUL20                                                                                                   |
| EUT Stage                       | Identical Prototype                                                                                       |

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

| Specification of Accessories   |            |       |             |           |
|--------------------------------|------------|-------|-------------|-----------|
| Spare Standard Battery 36.75Wh | Brand Name | Zebra | Part Number | BT-000394 |

| Supported Unit Used in Test Configuration and System |            |       |             |                  |
|------------------------------------------------------|------------|-------|-------------|------------------|
| Cradle (Dock) for EMC                                | Brand Name | Zebra | Part Number | CRD-ET5X-1SCG1   |
| Cradle (Dock) for RSE                                | Brand Name | Zebra | Part Number | CHG-ET5X-CBL1-01 |
| Adapter for Cradle                                   | Brand Name | Zebra | Part Number | PWRBGA12V50W0WW  |
| DC Cable for Cradle                                  | Brand Name | Zebra | Part Number | CBL-DC-388A1-01  |
| USB Cable                                            | Brand Name | Zebra | Part Number | CBL-TC2X-USBC-01 |
| Adapter                                              | Brand Name | Zebra | Part Number | PWR-WUA5V12W0US  |

## 1.2 Product Specification of Equipment Under Test

| Product Specification subjective to this standard |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |        |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|
| <b>Tx/Rx Channel Frequency Range</b>              | 2412 MHz ~ 2462 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |        |
| <b>Maximum Average Output Power to antenna</b>    | <b>&lt;Ant. 1&gt;:</b><br>802.11b : 21.00 dBm (0.1259 W)<br>802.11g : 19.50 dBm (0.0891 W)<br>802.11n HT20 : 18.70 dBm (0.0741 W)<br>802.11n HT40 : 17.80 dBm (0.0603 W)<br><b>&lt;Ant. 2&gt;:</b><br>802.11b : 21.10 dBm (0.1288 W)<br>802.11g : 19.40 dBm (0.0871 W)<br>802.11n HT20 : 18.90 dBm (0.0776 W)<br>802.11n HT40 : 17.60 dBm (0.0575 W)<br><b>MIMO &lt;Ant. 1 + 2&gt;:</b><br>802.11b : 23.96 dBm (0.2489 W)<br>802.11g : 22.11 dBm (0.1626 W)<br>802.11n HT20 : 21.56 dBm (0.1432 W)<br>802.11n HT40 : 20.87 dBm (0.1222 W) |        |        |
| <b>99% Occupied Bandwidth</b>                     | <b>&lt;Ant. 1&gt;:</b><br>802.11b : 14.45 MHz<br>802.11g : 16.95 MHz<br>802.11n HT20 : 18.10 MHz<br>802.11n HT40 : 36.60 MHz<br><b>&lt;Ant. 2&gt;:</b><br>802.11b : 14.95 MHz<br>802.11g : 17.00 MHz<br>802.11n HT20 : 18.05 MHz<br>802.11n HT40 : 36.70 MHz<br><b>MIMO &lt;Ant. 1&gt;:</b><br>802.11b : 15.40 MHz<br>802.11g : 16.90 MHz<br>802.11n HT20 : 18.10 MHz<br>802.11n HT40 : 36.60 MHz<br><b>MIMO &lt;Ant. 2&gt;:</b><br>802.11b : 14.90 MHz<br>802.11g : 16.75 MHz<br>802.11n HT20 : 17.95 MHz<br>802.11n HT40 : 36.60 MHz    |        |        |
| <b>Antenna Type / Gain</b>                        | <b>&lt;Ant. 1&gt;:</b> Chip Antenna with gain 0.85 dBi<br><b>&lt;Ant. 2&gt;:</b> Chip Antenna with gain 2.05 dBi                                                                                                                                                                                                                                                                                                                                                                                                                          |        |        |
| <b>Type of Modulation</b>                         | 802.11b : DSSS (DBPSK / DQPSK / CCK)<br>802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |        |
| <b>Antenna Function Description</b>               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Ant. 1 | Ant. 2 |
|                                                   | 802.11 b/g/n                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | V      | V      |
|                                                   | 802.11 b/g/n<br>MIMO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | V      | V      |

**Note:** MIMO Ant. 1+2 is a calculated result from sum of the power MIMO Ant. 1 and MIMO Ant. 2.

### 1.3 Modification of EUT

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

### 1.4 Testing Location

|                    |                                                                                                                       |         |
|--------------------|-----------------------------------------------------------------------------------------------------------------------|---------|
| Test Site          | SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory                                                   |         |
| Test Site Location | 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 |         |
| Test Site No.      | Sporton Site No.                                                                                                      |         |
|                    | TH05-HY                                                                                                               | CO05-HY |

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

|                    |                                                                                                                                           |  |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--|
| Test Site          | SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory                                                                       |  |
| Test Site Location | 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 |  |
| Test Site No.      | Sporton Site No.                                                                                                                          |  |
|                    | 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. The TAF code is not including all the FCC KDB listed without accreditation.
3. 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 for Ant. 1, Ant. 2 and MIMO Ant. 1+2; Y Plane for Ant. 2 and Z Plane for Ant. 1) 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        | 7       | 2442        |
|                 | 2       | 2417        | 8       | 2447        |
|                 | 3       | 2422        | 9       | 2452        |
|                 | 4       | 2427        | 10      | 2457        |
|                 | 5       | 2432        | 11      | 2462        |
|                 | 6       | 2437        |         |             |

## 2.2 Test Mode

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

| Modulation   | Data Rate |
|--------------|-----------|
| 802.11b      | 1 Mbps    |
| 802.11g      | 6 Mbps    |
| 802.11n HT20 | MCS0      |
| 802.11n HT40 | MCS0      |

| Test Cases                                                                                                             |                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AC Conducted Emission</b>                                                                                           | Mode 1 :WCDMA Band II Idle + WLAN (2.4GHz) Link + Bluetooth Link + USB Cable (99MO084101) + USB File Transfer with Notebook (eMMC to Notebook) + Adaptor with DC Cable + NFC On + Dock (Charging with Tablet (ET56DT)) + Camera (Front) + SD Card (Play MP3) + Battery |
| <b>Remark:</b> USB File Transfer with Notebook means data application transferred mode between EUT and storage device. |                                                                                                                                                                                                                                                                        |

| Ch. #         | 2400-2483.5 MHz |           |              |              |
|---------------|-----------------|-----------|--------------|--------------|
|               | 802.11b         | 802.11g   | 802.11n HT20 | 802.11n HT40 |
| <b>Low</b>    | <b>01</b>       | <b>01</b> | <b>01</b>    | <b>03</b>    |
| <b>Middle</b> | <b>06</b>       | <b>06</b> | <b>06</b>    | <b>06</b>    |
| <b>High</b>   | <b>11</b>       | <b>11</b> | <b>11</b>    | <b>09</b>    |

**Remark:** For radiation spurious emission, the final modulation and the worst data rate was reference the max RF conducted power.

**<Ant. 1>**

| 802.11b RF Avg Output Power (dBm) |                 |                 |                    |                 |       |       |
|-----------------------------------|-----------------|-----------------|--------------------|-----------------|-------|-------|
| Power vs. Channel                 |                 |                 | Power vs Data Rate |                 |       |       |
| Channel                           | Frequency (MHz) | Data Rate (bps) | Channel            | Data Rate (bps) |       |       |
|                                   |                 | 1M              |                    | 2M              | 5.5M  | 11M   |
| CH 01                             | 2412            | 21.00           | CH 06              | 20.90           | 20.80 | 20.90 |
| CH 06                             | 2437            | 21.00           |                    |                 |       |       |
| CH 11                             | 2462            | 19.90           |                    |                 |       |       |

| 802.11g RF Avg Output Power (dBm) |                 |                 |                    |                 |        |        |        |        |        |
|-----------------------------------|-----------------|-----------------|--------------------|-----------------|--------|--------|--------|--------|--------|
| Power vs. Channel                 |                 |                 | Power vs Data Rate |                 |        |        |        |        |        |
| Channel                           | Frequency (MHz) | Data Rate (bps) | Channel            | Data Rate (bps) |        |        |        |        |        |
|                                   |                 | 6M              |                    | 9Mbps           | 12Mbps | 18Mbps | 24Mbps | 36Mbps | 48Mbps |
| CH 01                             | 2412            | 19.50           | CH 01              | 19.40           | 19.40  | 19.40  | 19.30  | 19.40  | 19.30  |
| CH 06                             | 2437            | 19.20           |                    |                 |        |        |        |        |        |
| CH 11                             | 2462            | 17.90           |                    |                 |        |        |        |        |        |

| 802.11n HT20 RF Avg Output Power (dBm) |                 |           |                    |           |       |       |       |       |       |
|----------------------------------------|-----------------|-----------|--------------------|-----------|-------|-------|-------|-------|-------|
| Power vs. Channel                      |                 |           | Power vs Data Rate |           |       |       |       |       |       |
| Channel                                | Frequency (MHz) | MCS Index | Channel            | MCS Index |       |       |       |       |       |
|                                        |                 | MCS 0     |                    | MCS 1     | MCS 2 | MCS 3 | MCS 4 | MCS 5 | MCS 6 |
| CH 01                                  | 2412            | 18.60     | CH 06              | 18.50     | 18.60 | 18.60 | 18.50 | 18.50 | 18.60 |
| CH 06                                  | 2437            | 18.70     |                    |           |       |       |       |       |       |
| CH 11                                  | 2462            | 17.00     |                    |           |       |       |       |       |       |

| 802.11n HT40 RF Avg Output Power (dBm) |                 |           |                    |           |       |       |       |       |       |
|----------------------------------------|-----------------|-----------|--------------------|-----------|-------|-------|-------|-------|-------|
| Power vs. Channel                      |                 |           | Power vs Data Rate |           |       |       |       |       |       |
| Channel                                | Frequency (MHz) | MCS Index | Channel            | MCS Index |       |       |       |       |       |
|                                        |                 | MCS 0     |                    | MCS 1     | MCS 2 | MCS 3 | MCS 4 | MCS 5 | MCS 6 |
| CH 03                                  | 2422            | 17.70     | CH 06              | 17.70     | 17.50 | 17.60 | 17.70 | 17.70 | 17.60 |
| CH 06                                  | 2437            | 17.80     |                    |           |       |       |       |       |       |
| CH 09                                  | 2452            | 16.00     |                    |           |       |       |       |       |       |

&lt;Ant. 2&gt;

| 802.11b RF Avg Output Power (dBm) |                 |                 |                    |                 |       |       |
|-----------------------------------|-----------------|-----------------|--------------------|-----------------|-------|-------|
| Power vs. Channel                 |                 |                 | Power vs Data Rate |                 |       |       |
| Channel                           | Frequency (MHz) | Data Rate (bps) | Channel            | Data Rate (bps) |       |       |
|                                   |                 | 1M              |                    | 2M              | 5.5M  | 11M   |
| CH 01                             | 2412            | 21.10           | CH 01              | 21.00           | 20.90 | 21.00 |
| CH 06                             | 2437            | 21.10           |                    |                 |       |       |
| CH 11                             | 2462            | 21.00           |                    |                 |       |       |

| 802.11g RF Avg Output Power (dBm) |                 |                 |                    |                 |        |        |        |        |        |
|-----------------------------------|-----------------|-----------------|--------------------|-----------------|--------|--------|--------|--------|--------|
| Power vs. Channel                 |                 |                 | Power vs Data Rate |                 |        |        |        |        |        |
| Channel                           | Frequency (MHz) | Data Rate (bps) | Channel            | Data Rate (bps) |        |        |        |        |        |
|                                   |                 | 6M              |                    | 9Mbps           | 12Mbps | 18Mbps | 24Mbps | 36Mbps | 48Mbps |
| CH 01                             | 2412            | 19.40           | CH 01              | 16.90           | 16.90  | 16.90  | 16.80  | 16.90  | 16.80  |
| CH 06                             | 2437            | 19.30           |                    |                 |        |        |        |        |        |
| CH 11                             | 2462            | 19.20           |                    |                 |        |        |        |        |        |

| 802.11n HT20 RF Avg Output Power (dBm) |                 |           |                    |           |       |       |       |       |       |
|----------------------------------------|-----------------|-----------|--------------------|-----------|-------|-------|-------|-------|-------|
| Power vs. Channel                      |                 |           | Power vs Data Rate |           |       |       |       |       |       |
| Channel                                | Frequency (MHz) | MCS Index | Channel            | MCS Index |       |       |       |       |       |
|                                        |                 | MCS 0     |                    | MCS 1     | MCS 2 | MCS 3 | MCS 4 | MCS 5 | MCS 6 |
| CH 01                                  | 2412            | 17.60     | CH 11              | 18.70     | 18.80 | 18.80 | 18.70 | 18.70 | 18.80 |
| CH 06                                  | 2437            | 18.80     |                    |           |       |       |       |       |       |
| CH 11                                  | 2462            | 18.90     |                    |           |       |       |       |       |       |

| 802.11n HT40 RF Avg Output Power (dBm) |                 |           |                    |           |       |       |       |       |       |
|----------------------------------------|-----------------|-----------|--------------------|-----------|-------|-------|-------|-------|-------|
| Power vs. Channel                      |                 |           | Power vs Data Rate |           |       |       |       |       |       |
| Channel                                | Frequency (MHz) | MCS Index | Channel            | MCS Index |       |       |       |       |       |
|                                        |                 | MCS 0     |                    | MCS 1     | MCS 2 | MCS 3 | MCS 4 | MCS 5 | MCS 6 |
| CH 03                                  | 2422            | 14.80     | CH 06              | 17.50     | 17.30 | 17.40 | 17.50 | 17.50 | 17.40 |
| CH 06                                  | 2437            | 17.60     |                    |           |       |       |       |       |       |
| CH 09                                  | 2452            | 15.90     |                    |           |       |       |       |       |       |

**MIMO <Ant. 1+2>**

| 802.11b RF Avg Output Power (dBm) |                 |                 |                    |                 |       |       |
|-----------------------------------|-----------------|-----------------|--------------------|-----------------|-------|-------|
| Power vs. Channel                 |                 |                 | Power vs Data Rate |                 |       |       |
| Channel                           | Frequency (MHz) | Data Rate (bps) | Channel            | Data Rate (bps) |       |       |
|                                   |                 | 1M              |                    | 2M              | 5.5M  | 11M   |
| CH 01                             | 2412            | 23.77           | CH 11              | 23.81           | 23.76 | 23.66 |
| CH 06                             | 2437            | 23.71           |                    |                 |       |       |
| CH 11                             | 2462            | 23.96           |                    |                 |       |       |

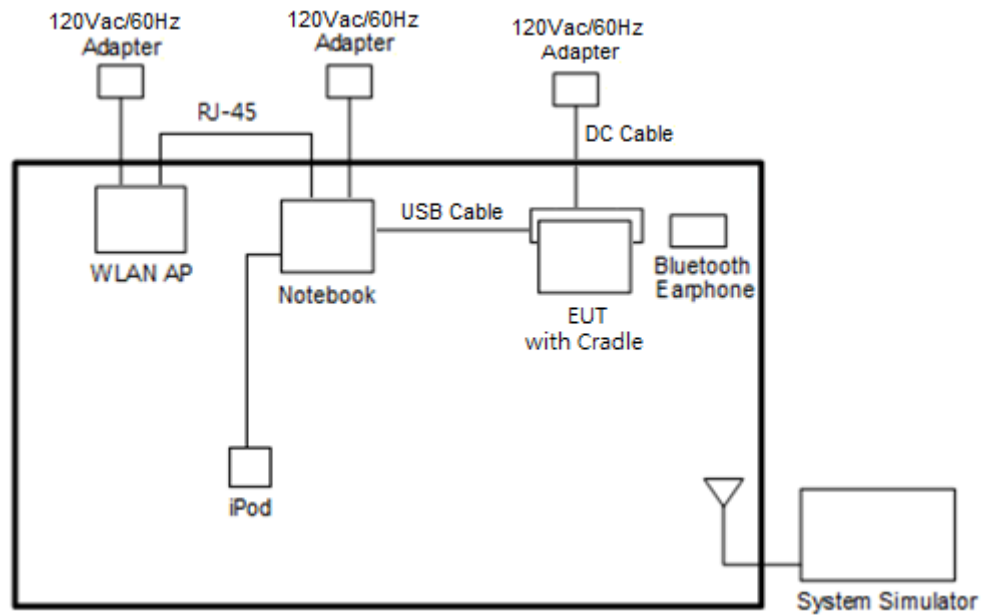
| 802.11g RF Avg Output Power (dBm) |                 |                 |                    |                 |        |        |        |        |        |        |
|-----------------------------------|-----------------|-----------------|--------------------|-----------------|--------|--------|--------|--------|--------|--------|
| Power vs. Channel                 |                 |                 | Power vs Data Rate |                 |        |        |        |        |        |        |
| Channel                           | Frequency (MHz) | Data Rate (bps) | Channel            | Data Rate (bps) |        |        |        |        |        |        |
|                                   |                 | 6M              |                    | 9Mbps           | 12Mbps | 18Mbps | 24Mbps | 36Mbps | 48Mbps | 54Mbps |
| CH 01                             | 2412            | 19.81           | CH 06              | 22.01           | 22.01  | 22.06  | 21.96  | 22.06  | 21.96  | 21.91  |
| CH 06                             | 2437            | 22.11           |                    |                 |        |        |        |        |        |        |
| CH 11                             | 2462            | 20.87           |                    |                 |        |        |        |        |        |        |

| 802.11n HT20 RF Avg Output Power (dBm) |                 |           |                    |           |       |       |       |       |       |       |
|----------------------------------------|-----------------|-----------|--------------------|-----------|-------|-------|-------|-------|-------|-------|
| Power vs. Channel                      |                 |           | Power vs Data Rate |           |       |       |       |       |       |       |
| Channel                                | Frequency (MHz) | MCS Index | Channel            | MCS Index |       |       |       |       |       |       |
|                                        |                 | MCS0      |                    | MCS1      | MCS2  | MCS3  | MCS4  | MCS5  | MCS6  | MCS7  |
| CH 01                                  | 2412            | 19.42     | CH 06              | 21.36     | 21.46 | 21.46 | 21.36 | 21.36 | 21.46 | 21.46 |
| CH 06                                  | 2437            | 21.56     |                    |           |       |       |       |       |       |       |
| CH 11                                  | 2462            | 19.77     |                    |           |       |       |       |       |       |       |

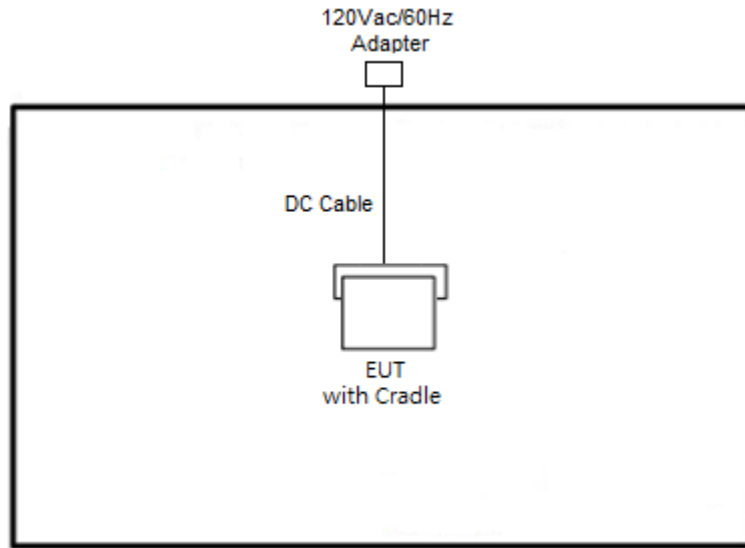
| 802.11n HT40 RF Output Power (dBm) |                 |           |                    |           |       |       |       |       |       |       |
|------------------------------------|-----------------|-----------|--------------------|-----------|-------|-------|-------|-------|-------|-------|
| Power vs. Channel                  |                 |           | Power vs Data Rate |           |       |       |       |       |       |       |
| Channel                            | Frequency (MHz) | MCS Index | Channel            | MCS Index |       |       |       |       |       |       |
|                                    |                 | MCS0      |                    | MCS1      | MCS2  | MCS3  | MCS4  | MCS5  | MCS6  | MCS7  |
| CH 03                              | 2422            | 17.17     | CH 06              | 17.50     | 17.30 | 17.40 | 17.50 | 17.50 | 17.40 | 17.30 |
| CH 06                              | 2437            | 20.87     |                    |           |       |       |       |       |       |       |
| CH 09                              | 2452            | 18.31     |                    |           |       |       |       |       |       |       |

## 2.3 Connection Diagram of Test System

### <AC Conducted Emission Mode>



### <WLAN Tx Mode>



## 2.4 Support Unit used in test configuration and system

| Item | Equipment          | Brand Name    | Model Name    | FCC ID      | Data Cable     | Power Cord                                                 |
|------|--------------------|---------------|---------------|-------------|----------------|------------------------------------------------------------|
| 1.   | System Simulator   | Anritsu       | MT8820C       | N/A         | N/A            | Unshielded, 1.8 m                                          |
| 2.   | Bluetooth Earphone | Sony Ericsson | MW600         | PY7DDA-2029 | N/A            | N/A                                                        |
| 3.   | WLAN AP            | ASUS          | RT-AC66U      | MSQ-RTAC66U | N/A            | Unshielded, 1.8 m                                          |
| 4.   | iPod               | Apple         | A1285         | DoC         | Shielded, 1.0m | N/A                                                        |
| 5.   | Notebook           | Dell          | Latitude 3400 | FCC DoC     | N/A            | AC I/P :<br>Unshielded, 1.2m<br>DC O/P :<br>Shielded, 1.8m |
| 6.   | SD Card            | SanDisk       | MicroSD HC    | FCC DoC     | N/A            | N/A                                                        |
| 7.   | USB Cable          | Moshi         | 99MO084101    | FCC DoC     | N/A            | N/A                                                        |

## 2.5 EUT Operation Test Setup

The RF test items, utility "QRCT V3.0.303.0" 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.

*Offset(dB) = RF cable loss(dB) + attenuator factor(dB).*

*= 4.2 + 10 = 14.2 (dB)*

### 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.

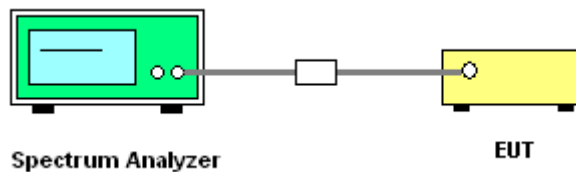
##### 3.1.2 Measuring Instruments

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





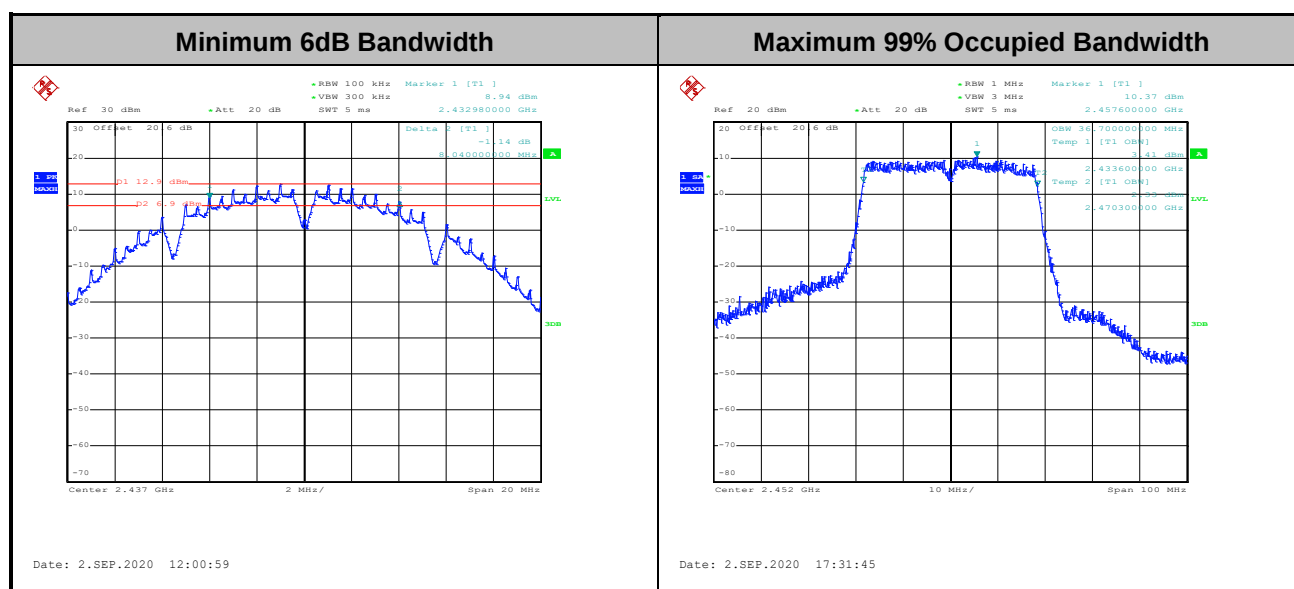
## 3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

|                 |                       |                     |             |
|-----------------|-----------------------|---------------------|-------------|
| Test Engineer : | Hank Hsu and Jacob Yu | Temperature :       | 23.5~24.5°C |
|                 |                       | Relative Humidity : | 53~54.5%    |

| 2.4GHz Band Single Antenna |           |     |     |             |                       |       |              |       |                    |           |
|----------------------------|-----------|-----|-----|-------------|-----------------------|-------|--------------|-------|--------------------|-----------|
| Mod.                       | Data Rate | NTX | CH. | Freq. (MHz) | 99% Occupied BW (MHz) |       | 6dB BW (MHz) |       | 6dB BW Limit (MHz) | Pass/Fail |
|                            |           |     |     |             | Ant1                  | Ant2  | Ant1         | Ant2  |                    |           |
| 11b                        | 1Mbps     | 1   | 1   | 2412        | 14.35                 | 14.20 | 8.10         | 8.08  | 0.50               | Pass      |
| 11b                        | 1Mbps     | 1   | 6   | 2437        | 13.80                 | 13.85 | 8.06         | 8.06  | 0.50               | Pass      |
| 11b                        | 1Mbps     | 1   | 11  | 2462        | 14.45                 | 14.95 | 8.10         | 9.04  | 0.50               | Pass      |
| 11g                        | 6Mbps     | 1   | 1   | 2412        | 16.95                 | 17.00 | 16.04        | 15.64 | 0.50               | Pass      |
| 11g                        | 6Mbps     | 1   | 6   | 2437        | 16.75                 | 16.65 | 15.42        | 15.44 | 0.50               | Pass      |
| 11g                        | 6Mbps     | 1   | 11  | 2462        | 16.60                 | 16.80 | 15.12        | 15.12 | 0.50               | Pass      |
| HT20                       | MCS0      | 1   | 1   | 2412        | 18.10                 | 18.05 | 16.80        | 16.90 | 0.50               | Pass      |
| HT20                       | MCS0      | 1   | 6   | 2437        | 17.85                 | 17.80 | 15.96        | 15.96 | 0.50               | Pass      |
| HT20                       | MCS0      | 1   | 11  | 2462        | 17.70                 | 17.90 | 15.12        | 15.10 | 0.50               | Pass      |
| HT40                       | MCS0      | 1   | 3   | 2422        | 36.50                 | 36.50 | 35.12        | 35.12 | 0.50               | Pass      |
| HT40                       | MCS0      | 1   | 6   | 2437        | 36.50                 | 36.50 | 35.12        | 35.12 | 0.50               | Pass      |
| HT40                       | MCS0      | 1   | 9   | 2452        | 36.60                 | 36.70 | 35.68        | 35.76 | 0.50               | Pass      |



| 2.4GHz Band MIMO |           |     |     |             |                       |       |              |       |                    |           |
|------------------|-----------|-----|-----|-------------|-----------------------|-------|--------------|-------|--------------------|-----------|
| Mod.             | Data Rate | NTX | CH. | Freq. (MHz) | 99% Occupied BW (MHz) |       | 6dB BW (MHz) |       | 6dB BW Limit (MHz) | Pass/Fail |
|                  |           |     |     |             | Ant1                  | Ant2  | Ant1         | Ant2  |                    |           |
| 11b              | 1Mbps     | 2   | 1   | 2412        | 14.75                 | 14.40 | 10.00        | 8.08  | 0.50               | Pass      |
| 11b              | 1Mbps     | 2   | 6   | 2437        | 13.90                 | 13.65 | 8.04         | 8.04  | 0.50               | Pass      |
| 11b              | 1Mbps     | 2   | 11  | 2462        | 15.40                 | 14.90 | 9.04         | 9.04  | 0.50               | Pass      |
| 11g              | 6Mbps     | 2   | 1   | 2412        | 16.90                 | 16.75 | 16.04        | 16.04 | 0.50               | Pass      |
| 11g              | 6Mbps     | 2   | 6   | 2437        | 16.75                 | 16.65 | 15.68        | 15.72 | 0.50               | Pass      |
| 11g              | 6Mbps     | 2   | 11  | 2462        | 16.65                 | 16.55 | 15.12        | 15.32 | 0.50               | Pass      |
| HT20             | MCS0      | 2   | 1   | 2412        | 18.10                 | 17.95 | 17.16        | 17.16 | 0.50               | Pass      |
| HT20             | MCS0      | 2   | 6   | 2437        | 17.90                 | 17.75 | 15.96        | 15.96 | 0.50               | Pass      |
| HT20             | MCS0      | 2   | 11  | 2462        | 17.70                 | 17.75 | 15.12        | 15.12 | 0.50               | Pass      |
| HT40             | MCS0      | 2   | 3   | 2422        | 36.50                 | 36.50 | 35.12        | 35.12 | 0.50               | Pass      |
| HT40             | MCS0      | 2   | 6   | 2437        | 36.60                 | 36.40 | 35.08        | 35.04 | 0.50               | Pass      |
| HT40             | MCS0      | 2   | 9   | 2452        | 36.50                 | 36.60 | 35.76        | 35.76 | 0.50               | Pass      |



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 output power is 30dBm. If transmitting antenna with directional gain greater than 6dBi is used, the 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.

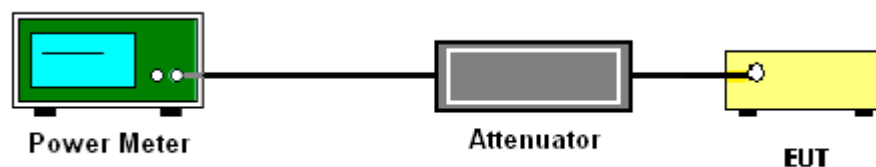
### 3.2.2 Measuring Instruments

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

|                 |                       |                     |             |
|-----------------|-----------------------|---------------------|-------------|
| Test Engineer : | Hank Hsu and Jacob Yu | Temperature :       | 23.5~24.5°C |
|                 |                       | Relative Humidity : | 53~54.5%    |

| 2.4GHz Band Single Antenna |           |                 |     |             |                               |       |     |                             |       |          |      |                  |       |                        |       |            |
|----------------------------|-----------|-----------------|-----|-------------|-------------------------------|-------|-----|-----------------------------|-------|----------|------|------------------|-------|------------------------|-------|------------|
| Mod.                       | Data Rate | N <sub>TX</sub> | CH. | Freq. (MHz) | Average Conducted Power (dBm) |       |     | Conducted Power Limit (dBm) |       | DG (dBi) |      | EIRP Power (dBm) |       | EIRP Power Limit (dBm) |       | Pass /Fail |
|                            |           |                 |     |             | Ant1                          | Ant2  | SUM | Ant1                        | Ant2  | Ant1     | Ant2 | Ant1             | Ant2  | Ant1                   | Ant2  |            |
| 11b                        | 1Mbps     | 1               | 1   | 2412        | 21.00                         | 21.10 | -   | 30.00                       | 30.00 | 0.85     | 2.05 | 21.85            | 23.15 | 36.00                  | 36.00 | Pass       |
| 11b                        | 1Mbps     | 1               | 6   | 2437        | 21.00                         | 21.10 |     | 30.00                       | 30.00 | 0.85     | 2.05 | 21.85            | 23.15 | 36.00                  | 36.00 | Pass       |
| 11b                        | 1Mbps     | 1               | 11  | 2462        | 19.90                         | 21.00 |     | 30.00                       | 30.00 | 0.85     | 2.05 | 20.75            | 23.05 | 36.00                  | 36.00 | Pass       |
| 11g                        | 6Mbps     | 1               | 1   | 2412        | 19.50                         | 19.40 |     | 30.00                       | 30.00 | 0.85     | 2.05 | 20.35            | 21.45 | 36.00                  | 36.00 | Pass       |
| 11g                        | 6Mbps     | 1               | 6   | 2437        | 19.20                         | 19.30 |     | 30.00                       | 30.00 | 0.85     | 2.05 | 20.05            | 21.35 | 36.00                  | 36.00 | Pass       |
| 11g                        | 6Mbps     | 1               | 11  | 2462        | 17.90                         | 19.20 |     | 30.00                       | 30.00 | 0.85     | 2.05 | 18.75            | 21.25 | 36.00                  | 36.00 | Pass       |
| HT20                       | MCS0      | 1               | 1   | 2412        | 18.60                         | 17.60 |     | 30.00                       | 30.00 | 0.85     | 2.05 | 19.45            | 19.65 | 36.00                  | 36.00 | Pass       |
| HT20                       | MCS0      | 1               | 6   | 2437        | 18.70                         | 18.80 |     | 30.00                       | 30.00 | 0.85     | 2.05 | 19.55            | 20.85 | 36.00                  | 36.00 | Pass       |
| HT20                       | MCS0      | 1               | 11  | 2462        | 17.00                         | 18.90 |     | 30.00                       | 30.00 | 0.85     | 2.05 | 17.85            | 20.95 | 36.00                  | 36.00 | Pass       |
| HT40                       | MCS0      | 1               | 3   | 2422        | 17.70                         | 14.80 |     | 30.00                       | 30.00 | 0.85     | 2.05 | 18.55            | 16.85 | 36.00                  | 36.00 | Pass       |
| HT40                       | MCS0      | 1               | 6   | 2437        | 17.80                         | 17.60 |     | 30.00                       | 30.00 | 0.85     | 2.05 | 18.65            | 19.65 | 36.00                  | 36.00 | Pass       |
| HT40                       | MCS0      | 1               | 9   | 2452        | 16.00                         | 15.90 |     | 30.00                       | 30.00 | 0.85     | 2.05 | 16.85            | 17.95 | 36.00                  | 36.00 | Pass       |

| 2.4GHz Band MIMO |           |     |     |             |                               |       |       |                             |      |          |      |                  |      |                        |      |            |
|------------------|-----------|-----|-----|-------------|-------------------------------|-------|-------|-----------------------------|------|----------|------|------------------|------|------------------------|------|------------|
| 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 |
|                  |           |     |     |             | Ant1                          | Ant2  | SUM   | Ant1                        | Ant2 | Ant1     | Ant2 | Ant1             | Ant2 | Ant1                   | Ant2 |            |
| 11b              | 1Mbps     | 2   | 1   | 2412        | 21.00                         | 20.50 | 23.77 | 30.00                       |      | 2.05     |      | 25.82            |      | 36.00                  |      | Pass       |
| 11b              | 1Mbps     | 2   | 6   | 2437        | 20.80                         | 20.60 | 23.71 | 30.00                       |      | 2.05     |      | 25.76            |      | 36.00                  |      | Pass       |
| 11b              | 1Mbps     | 2   | 11  | 2462        | 21.00                         | 20.90 | 23.96 | 30.00                       |      | 2.05     |      | 26.01            |      | 36.00                  |      | Pass       |
| 11g              | 6Mbps     | 2   | 1   | 2412        | 17.00                         | 16.60 | 19.81 | 30.00                       |      | 2.05     |      | 21.86            |      | 36.00                  |      | Pass       |
| 11g              | 6Mbps     | 2   | 6   | 2437        | 19.30                         | 18.90 | 22.11 | 30.00                       |      | 2.05     |      | 24.16            |      | 36.00                  |      | Pass       |
| 11g              | 6Mbps     | 2   | 11  | 2462        | 18.10                         | 17.60 | 20.87 | 30.00                       |      | 2.05     |      | 22.92            |      | 36.00                  |      | Pass       |
| HT20             | MCS0      | 2   | 1   | 2412        | 16.70                         | 16.10 | 19.42 | 30.00                       |      | 2.05     |      | 21.47            |      | 36.00                  |      | Pass       |
| HT20             | MCS0      | 2   | 6   | 2437        | 18.70                         | 18.40 | 21.56 | 30.00                       |      | 2.05     |      | 23.61            |      | 36.00                  |      | Pass       |
| HT20             | MCS0      | 2   | 11  | 2462        | 17.00                         | 16.50 | 19.77 | 30.00                       |      | 2.05     |      | 21.82            |      | 36.00                  |      | Pass       |
| HT40             | MCS0      | 2   | 3   | 2422        | 14.50                         | 13.80 | 17.17 | 30.00                       |      | 2.05     |      | 19.22            |      | 36.00                  |      | Pass       |
| HT40             | MCS0      | 2   | 6   | 2437        | 18.10                         | 17.60 | 20.87 | 30.00                       |      | 2.05     |      | 22.92            |      | 36.00                  |      | Pass       |
| HT40             | MCS0      | 2   | 9   | 2452        | 15.50                         | 15.10 | 18.31 | 30.00                       |      | 2.05     |      | 20.36            |      | 36.00                  |      | Pass       |

### 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.

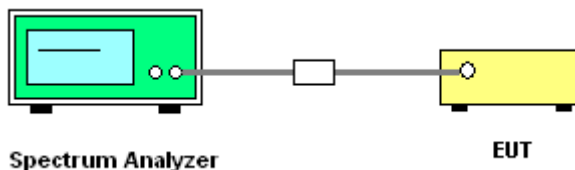
If measurements performed using method (2) plus  $10 \log(N)$  exceeds the emission limit, the test should choose method (1) before declaring that the device fails the emission limit.

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

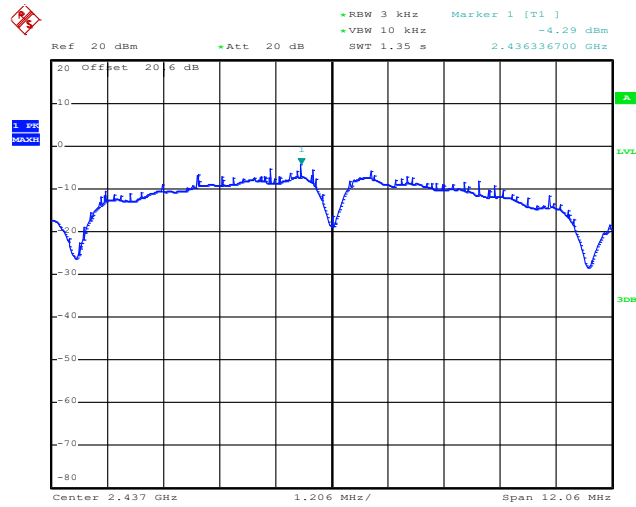
|                        |                       |                            |             |
|------------------------|-----------------------|----------------------------|-------------|
| <b>Test Engineer :</b> | Hank Hsu and Jacob Yu | <b>Temperature :</b>       | 23.5~24.5°C |
|                        |                       | <b>Relative Humidity :</b> | 53~54.5%    |

| 2.4GHz Band Single Antenna |           |     |     |             |                     |        |              |          |      |                           |      |           |
|----------------------------|-----------|-----|-----|-------------|---------------------|--------|--------------|----------|------|---------------------------|------|-----------|
| Mod.                       | Data Rate | NTX | CH. | Freq. (MHz) | Peak PSD (dBm/3kHz) |        |              | DG (dBi) |      | Peak PSD Limit (dBm/3kHz) |      | Pass/Fail |
|                            |           |     |     |             | Ant1                | Ant2   | Worse + 3.01 | Ant1     | Ant2 | Ant1                      | Ant2 |           |
| 11b                        | 1Mbps     | 1   | 1   | 2412        | -4.92               | -4.06  |              | 0.85     | 2.05 | 8.00                      | 8.00 | Pass      |
| 11b                        | 1Mbps     | 1   | 6   | 2437        | -4.85               | -4.23  |              | 0.85     | 2.05 | 8.00                      | 8.00 | Pass      |
| 11b                        | 1Mbps     | 1   | 11  | 2462        | -6.01               | -4.69  |              | 0.85     | 2.05 | 8.00                      | 8.00 | Pass      |
| 11g                        | 6Mbps     | 1   | 1   | 2412        | -5.49               | -7.69  |              | 0.85     | 2.05 | 8.00                      | 8.00 | Pass      |
| 11g                        | 6Mbps     | 1   | 6   | 2437        | -8.15               | -9.07  |              | 0.85     | 2.05 | 8.00                      | 8.00 | Pass      |
| 11g                        | 6Mbps     | 1   | 11  | 2462        | -9.81               | -8.57  |              | 0.85     | 2.05 | 8.00                      | 8.00 | Pass      |
| HT20                       | MCS0      | 1   | 1   | 2412        | -8.95               | -10.49 |              | 0.85     | 2.05 | 8.00                      | 8.00 | Pass      |
| HT20                       | MCS0      | 1   | 6   | 2437        | -8.56               | -8.43  |              | 0.85     | 2.05 | 8.00                      | 8.00 | Pass      |
| HT20                       | MCS0      | 1   | 11  | 2462        | -10.00              | -8.37  |              | 0.85     | 2.05 | 8.00                      | 8.00 | Pass      |
| HT40                       | MCS0      | 1   | 3   | 2422        | -11.89              | -13.85 |              | 0.85     | 2.05 | 8.00                      | 8.00 | Pass      |
| HT40                       | MCS0      | 1   | 6   | 2437        | -11.57              | -11.70 |              | 0.85     | 2.05 | 8.00                      | 8.00 | Pass      |
| HT40                       | MCS0      | 1   | 9   | 2452        | -13.13              | -14.02 |              | 0.85     | 2.05 | 8.00                      | 8.00 | Pass      |

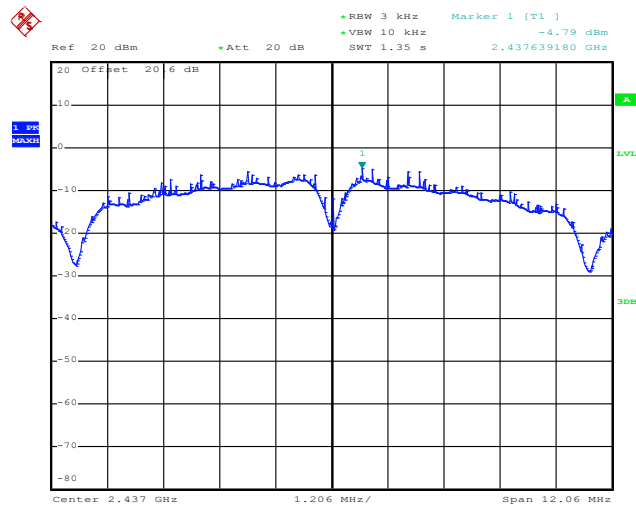


| 2.4GHz Band MIMO |           |     |     |             |                     |        |              |          |      |                           |      |           |
|------------------|-----------|-----|-----|-------------|---------------------|--------|--------------|----------|------|---------------------------|------|-----------|
| Mod.             | Data Rate | NTX | CH. | Freq. (MHz) | Peak PSD (dBm/3kHz) |        |              | DG (dBi) |      | Peak PSD Limit (dBm/3kHz) |      | Pass/Fail |
|                  |           |     |     |             | Ant1                | Ant2   | Worse + 3.01 | Ant1     | Ant2 | Ant1                      | Ant2 |           |
| 11b              | 1Mbps     | 2   | 1   | 2412        | -5.19               | -6.21  | -2.18        | 4.48     |      | 8.00                      |      | Pass      |
| 11b              | 1Mbps     | 2   | 6   | 2437        | -4.29               | -4.79  | -1.28        | 4.48     |      | 8.00                      |      | Pass      |
| 11b              | 1Mbps     | 2   | 11  | 2462        | -6.38               | -5.20  | -2.19        | 4.48     |      | 8.00                      |      | Pass      |
| 11g              | 6Mbps     | 2   | 1   | 2412        | -11.56              | -12.31 | -8.55        | 4.48     |      | 8.00                      |      | Pass      |
| 11g              | 6Mbps     | 2   | 6   | 2437        | -9.21               | -9.52  | -6.20        | 4.48     |      | 8.00                      |      | Pass      |
| 11g              | 6Mbps     | 2   | 11  | 2462        | -9.54               | -9.77  | -6.53        | 4.48     |      | 8.00                      |      | Pass      |
| HT20             | MCS0      | 2   | 1   | 2412        | -11.92              | -12.58 | -8.91        | 4.48     |      | 8.00                      |      | Pass      |
| HT20             | MCS0      | 2   | 6   | 2437        | -8.62               | -9.06  | -5.61        | 4.48     |      | 8.00                      |      | Pass      |
| HT20             | MCS0      | 2   | 11  | 2462        | -10.46              | -10.42 | -7.41        | 4.48     |      | 8.00                      |      | Pass      |
| HT40             | MCS0      | 2   | 3   | 2422        | -12.54              | -14.11 | -9.53        | 4.48     |      | 8.00                      |      | Pass      |
| HT40             | MCS0      | 2   | 6   | 2437        | -10.28              | -11.00 | -7.27        | 4.48     |      | 8.00                      |      | Pass      |
| HT40             | MCS0      | 2   | 9   | 2452        | -14.34              | -14.53 | -11.33       | 4.48     |      | 8.00                      |      | Pass      |

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

**Worst Case Power Density (dBm/3kHz) for MIMO Ant. 1**


Date: 2.SEP.2020 12:01:30

**Worst Case Power Density (dBm/3kHz) for MIMO Ant. 2**


Date: 2.SEP.2020 12:06:11

## 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.

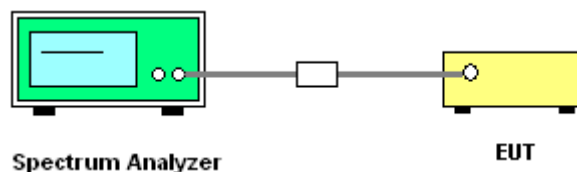
### 3.4.2 Measuring Instruments

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



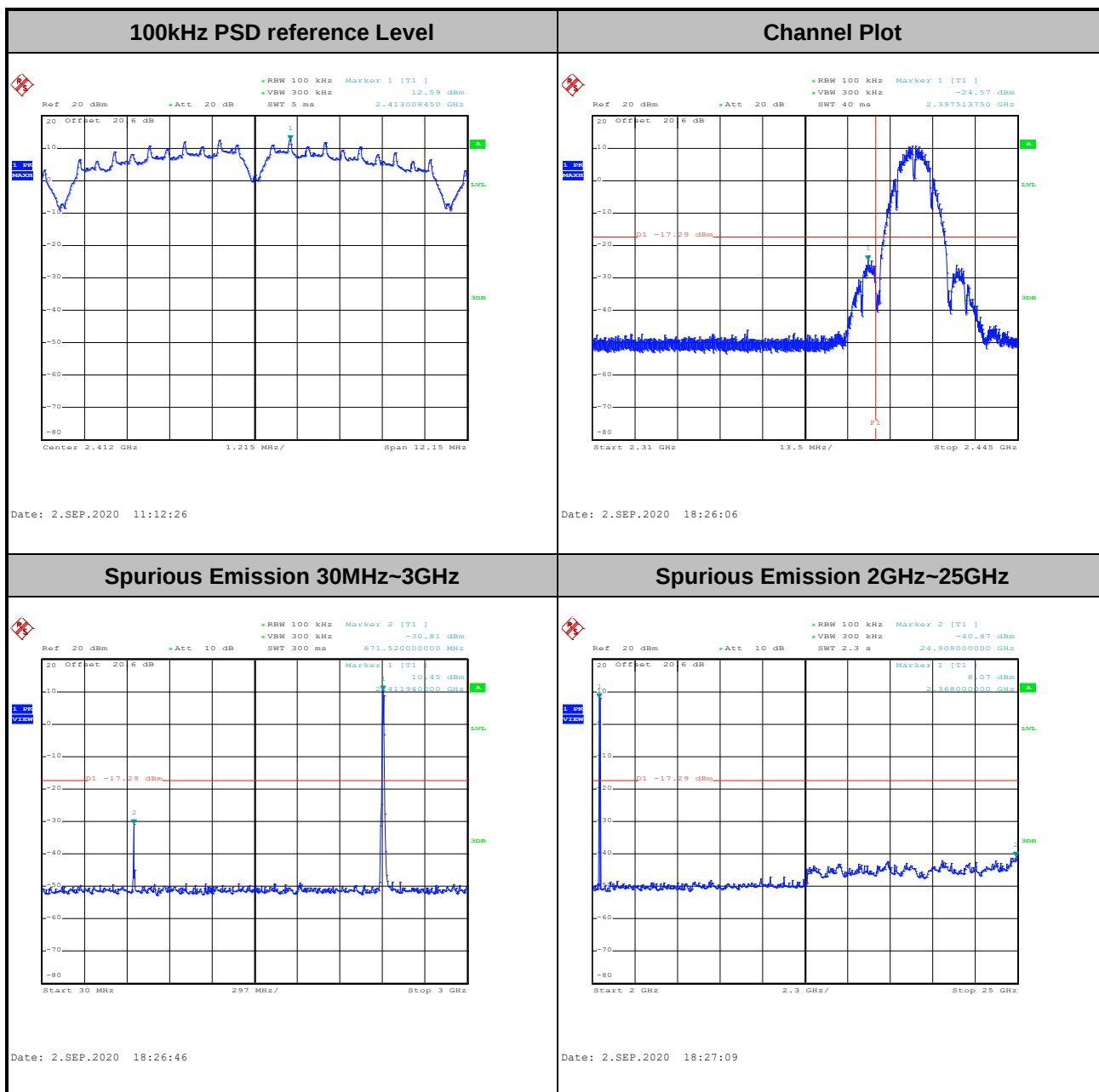


## 3.4.5 Test Result of Conducted Band Edges and Spurious Emission

|                 |                       |                     |             |
|-----------------|-----------------------|---------------------|-------------|
| Test Engineer : | Hank Hsu and Jacob Yu | Temperature :       | 23.5~24.5°C |
|                 |                       | Relative Humidity : | 53~54.5%    |

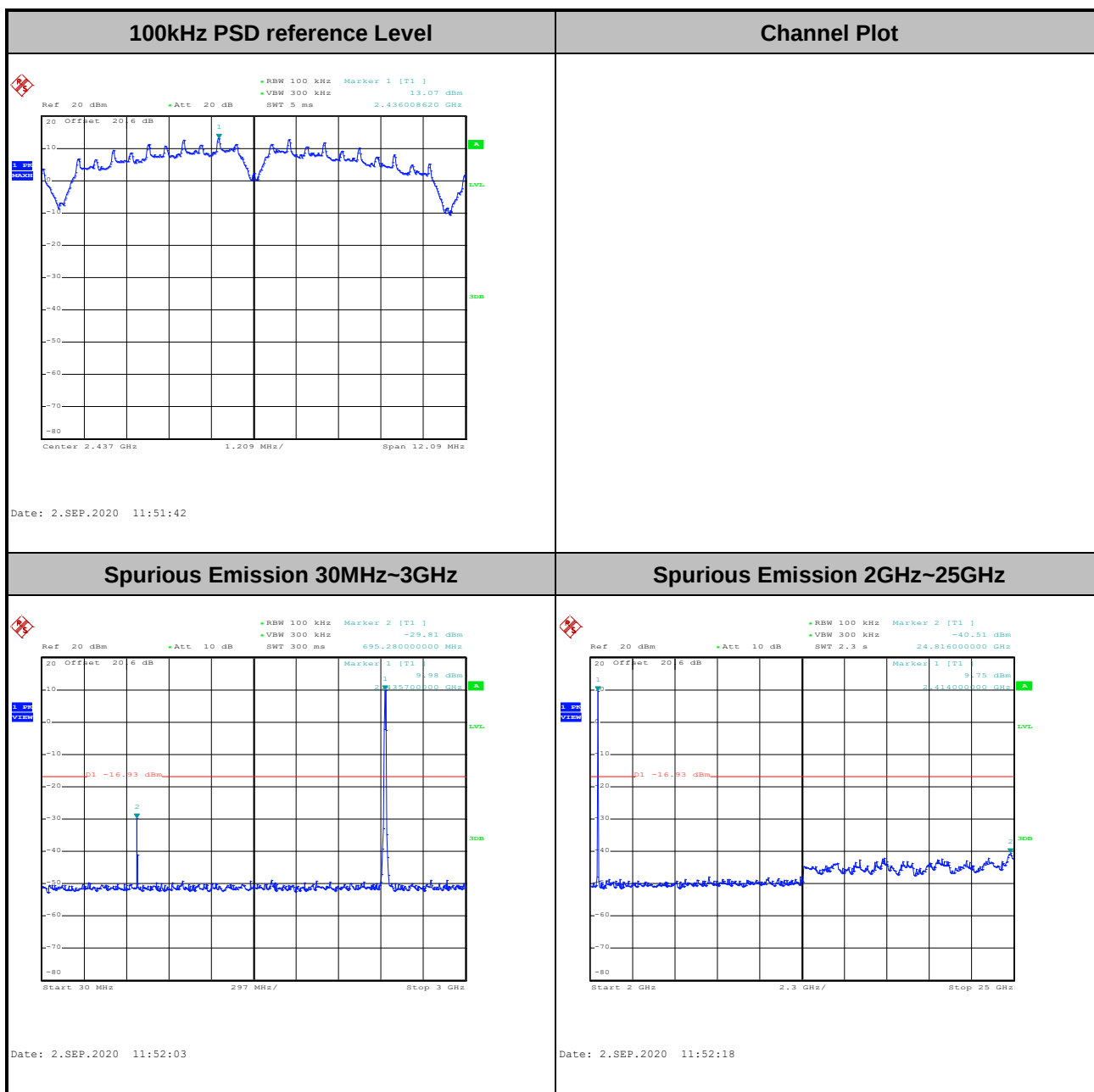
Number of TX = 1, Ant. 1 (Measured)

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



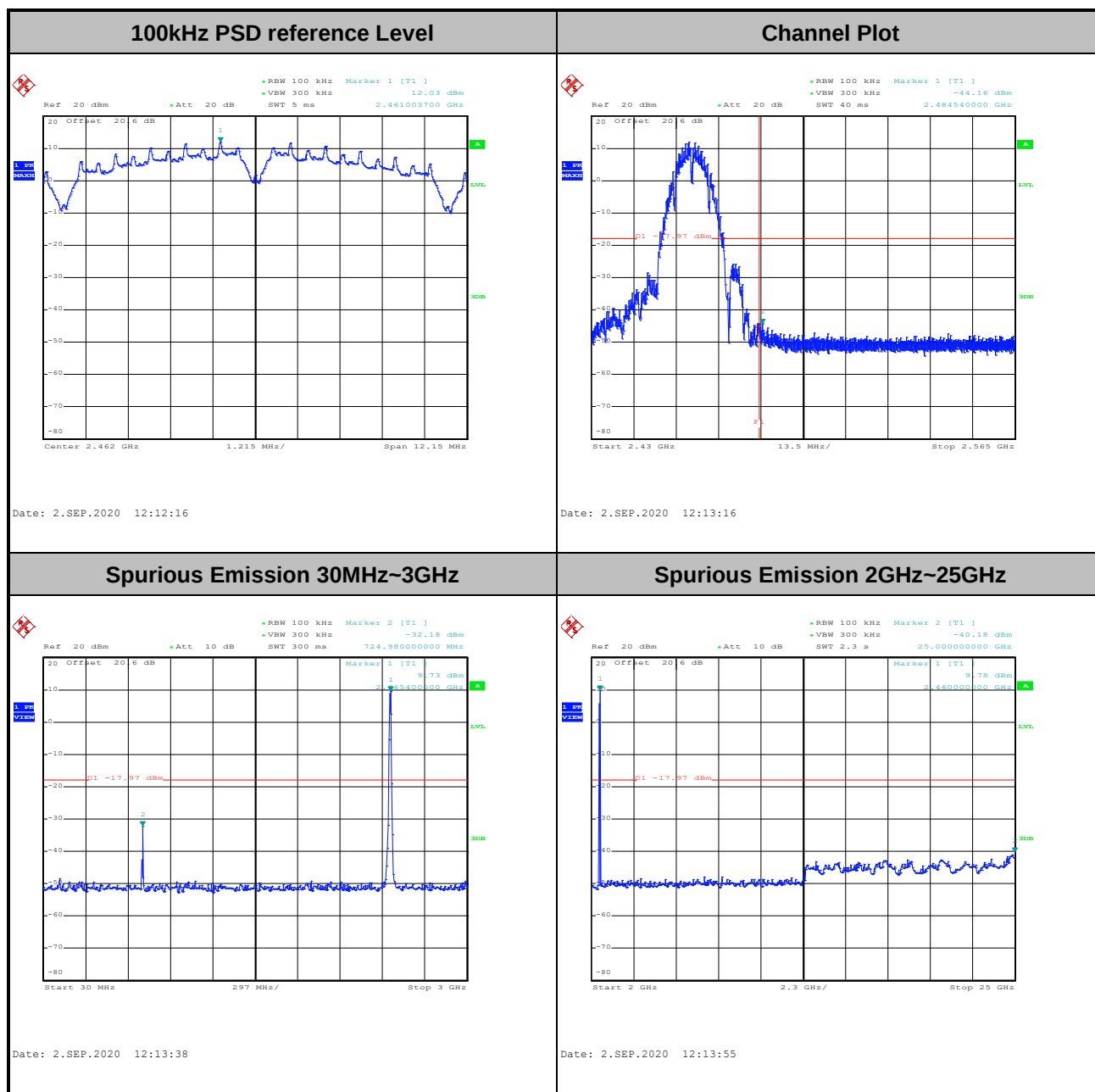


|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11b | Test Channel : | 06 |
|-------------|---------|----------------|----|



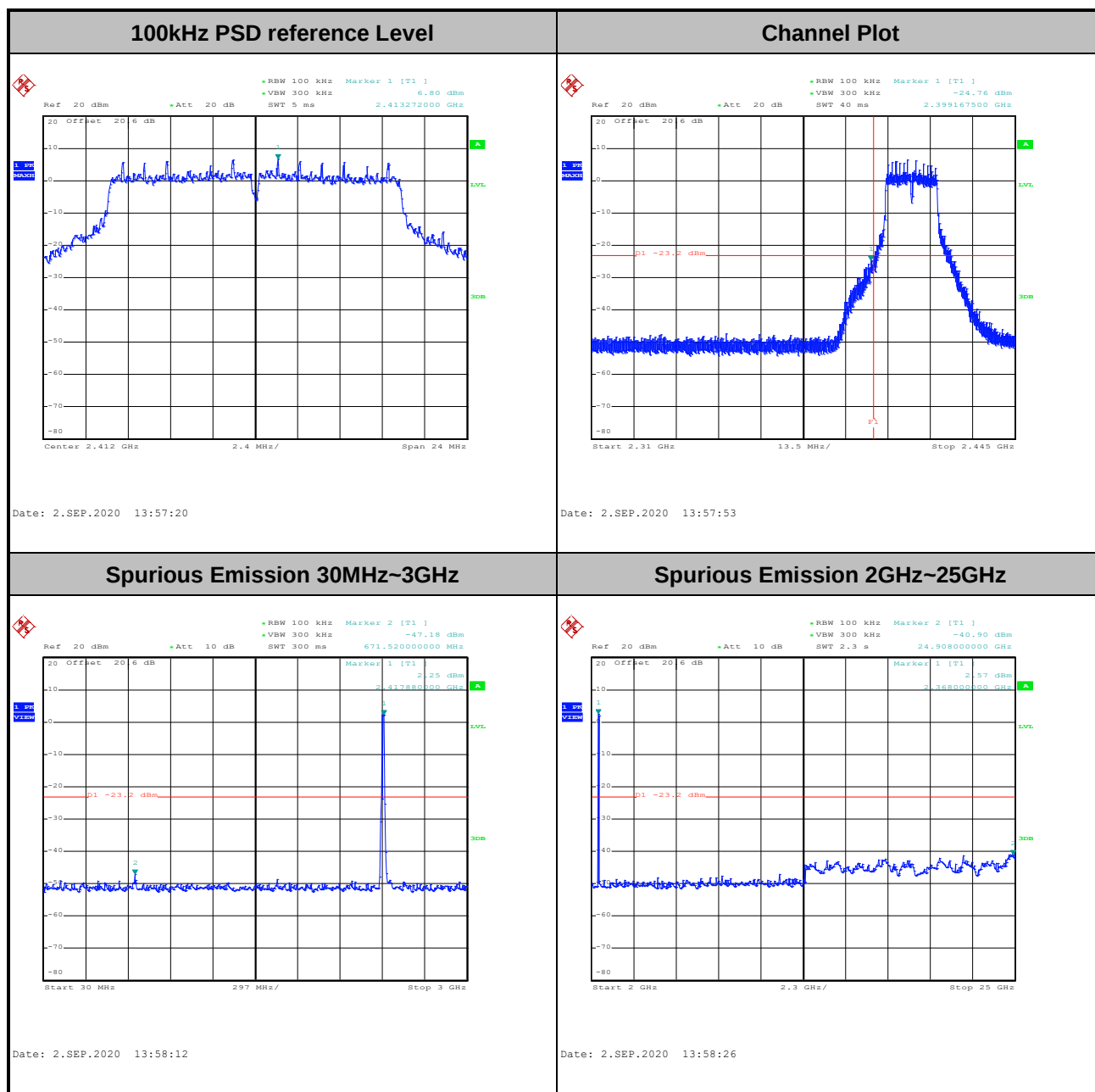


|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11b | Test Channel : | 11 |
|-------------|---------|----------------|----|





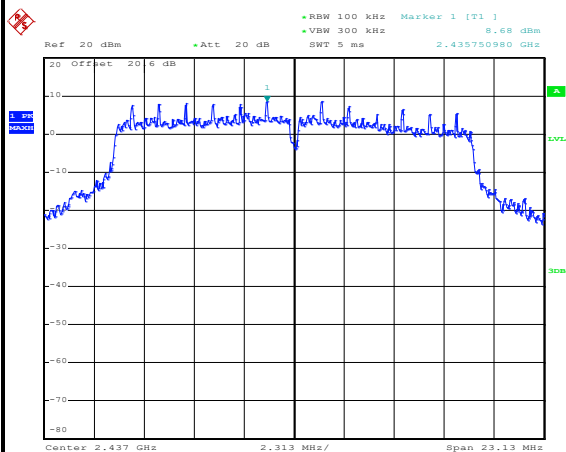
|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11g | Test Channel : | 01 |
|-------------|---------|----------------|----|





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

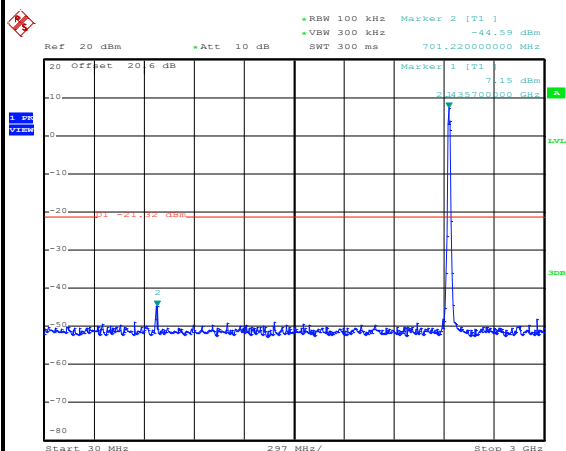
100kHz PSD reference Level



Date: 2.SEP.2020 14:20:10

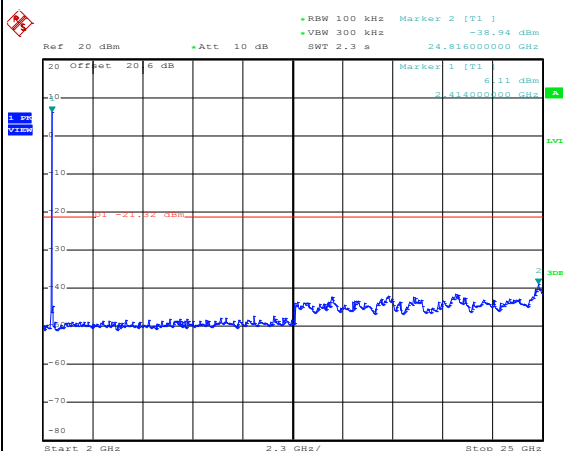
Channel Plot

Spurious Emission 30MHz~3GHz



Date: 2.SEP.2020 14:20:31

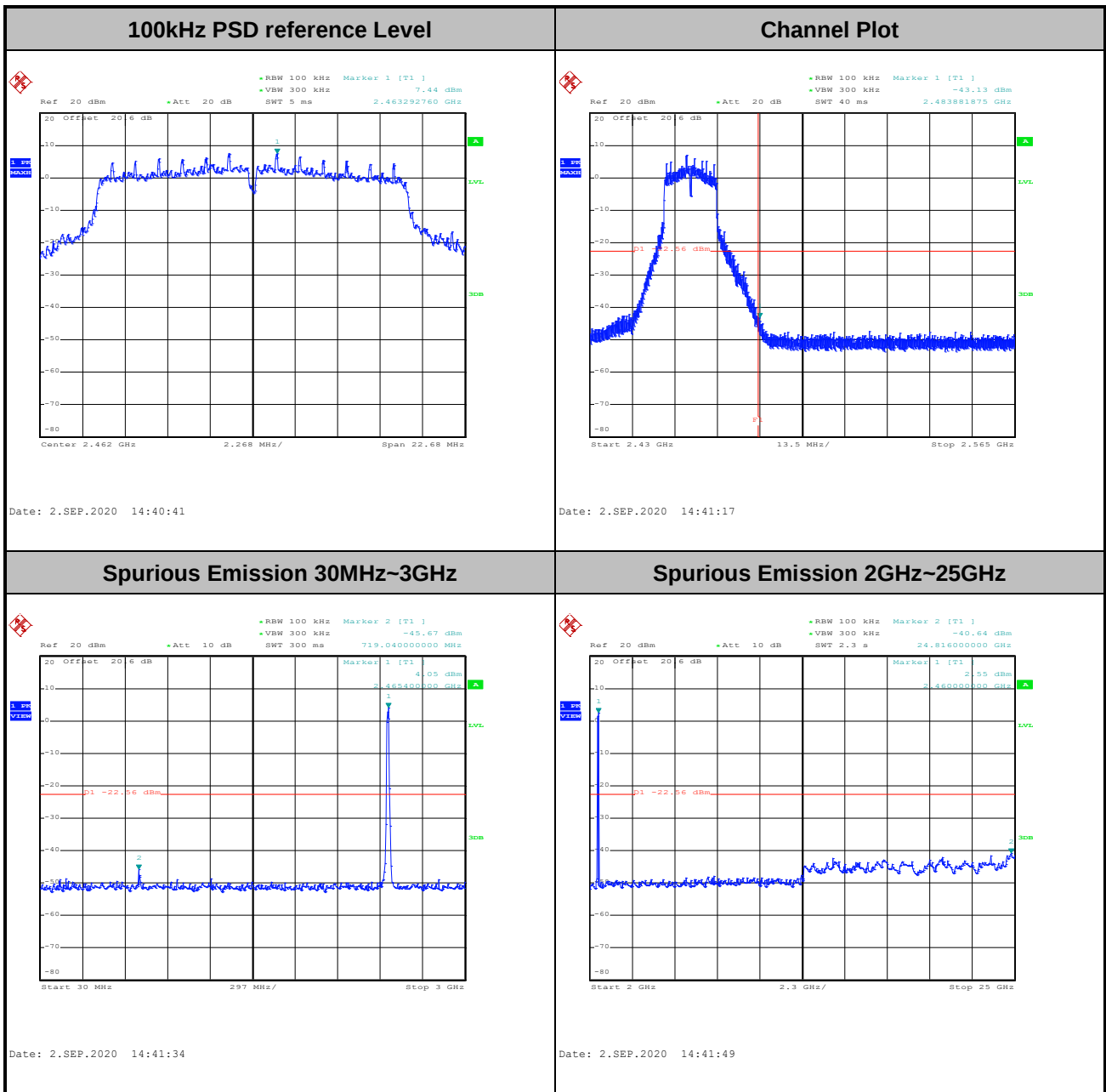
Spurious Emission 2GHz~25GHz



Date: 2.SEP.2020 14:21:21

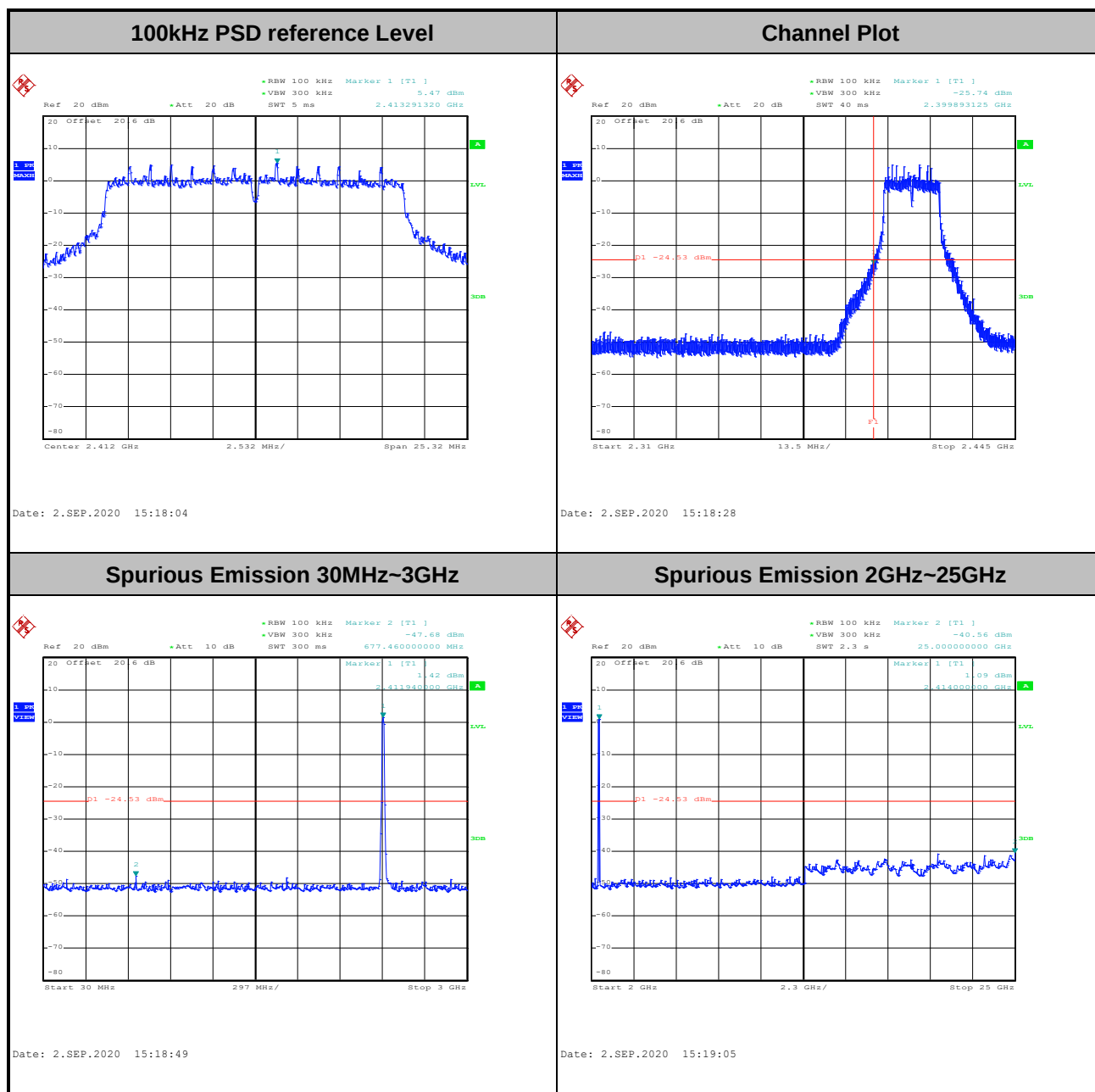


|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11g | Test Channel : | 11 |
|-------------|---------|----------------|----|





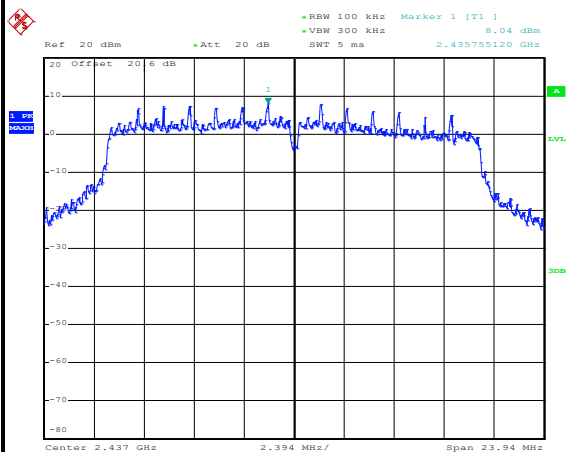
|             |              |                |    |
|-------------|--------------|----------------|----|
| Test Mode : | 802.11n HT20 | Test Channel : | 01 |
|-------------|--------------|----------------|----|





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

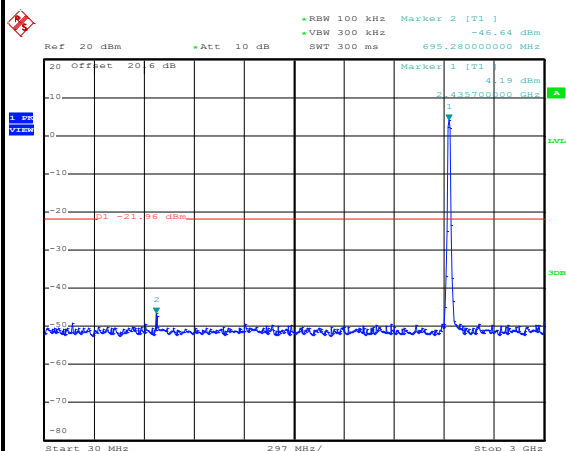
100kHz PSD reference Level



Date: 2.SEP.2020 15:45:48

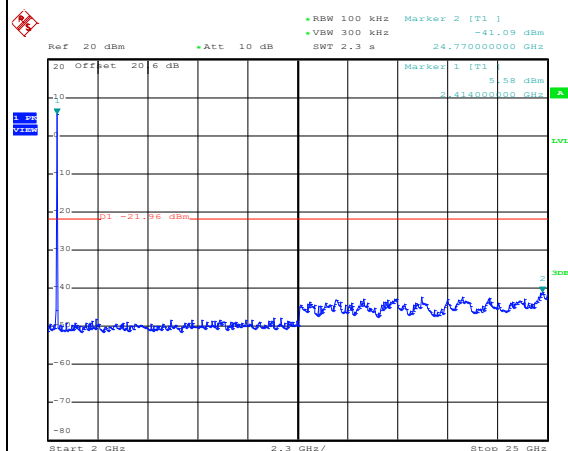
Channel Plot

Spurious Emission 30MHz~3GHz



Date: 2.SEP.2020 15:46:58

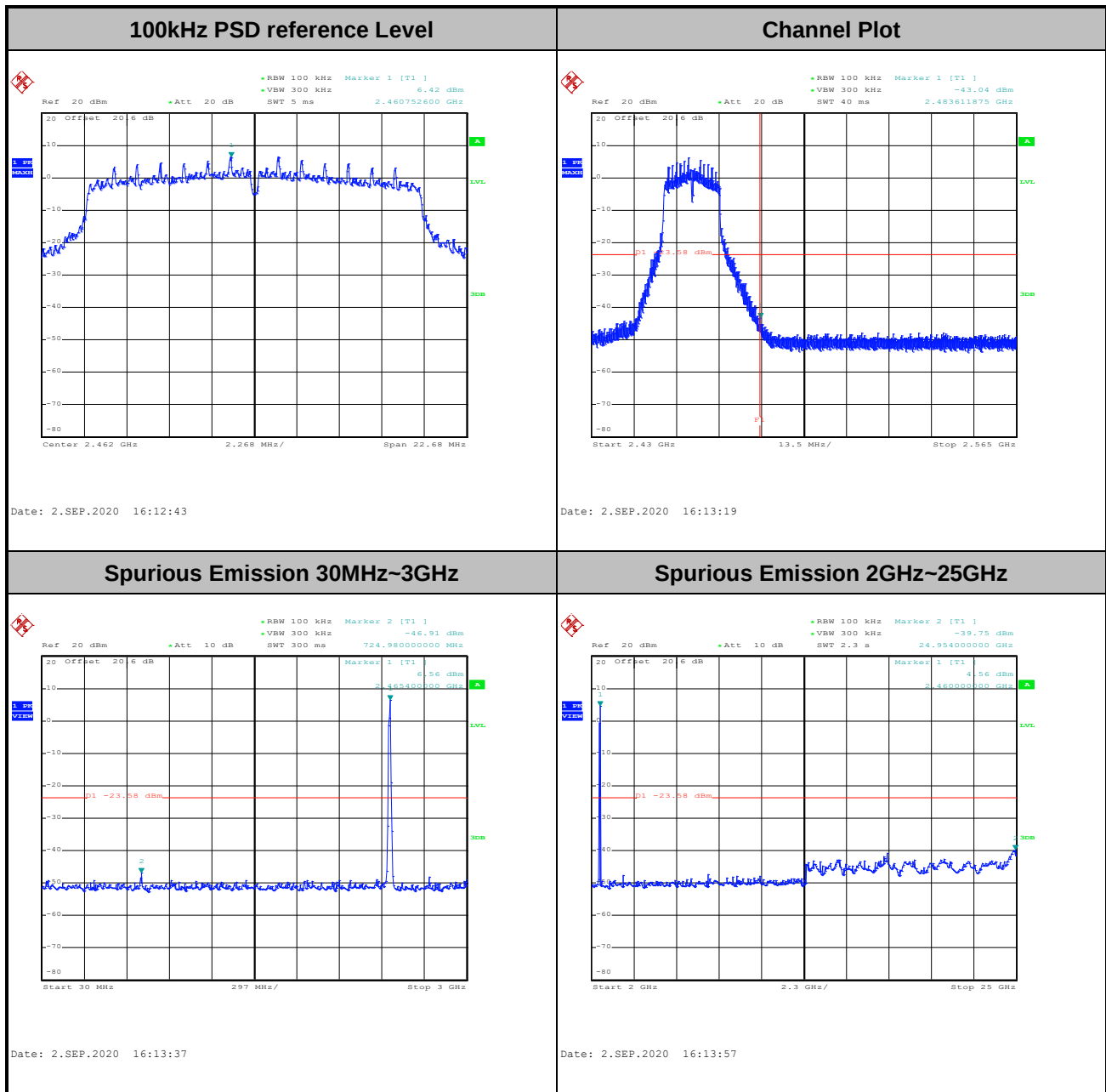
Spurious Emission 2GHz~25GHz

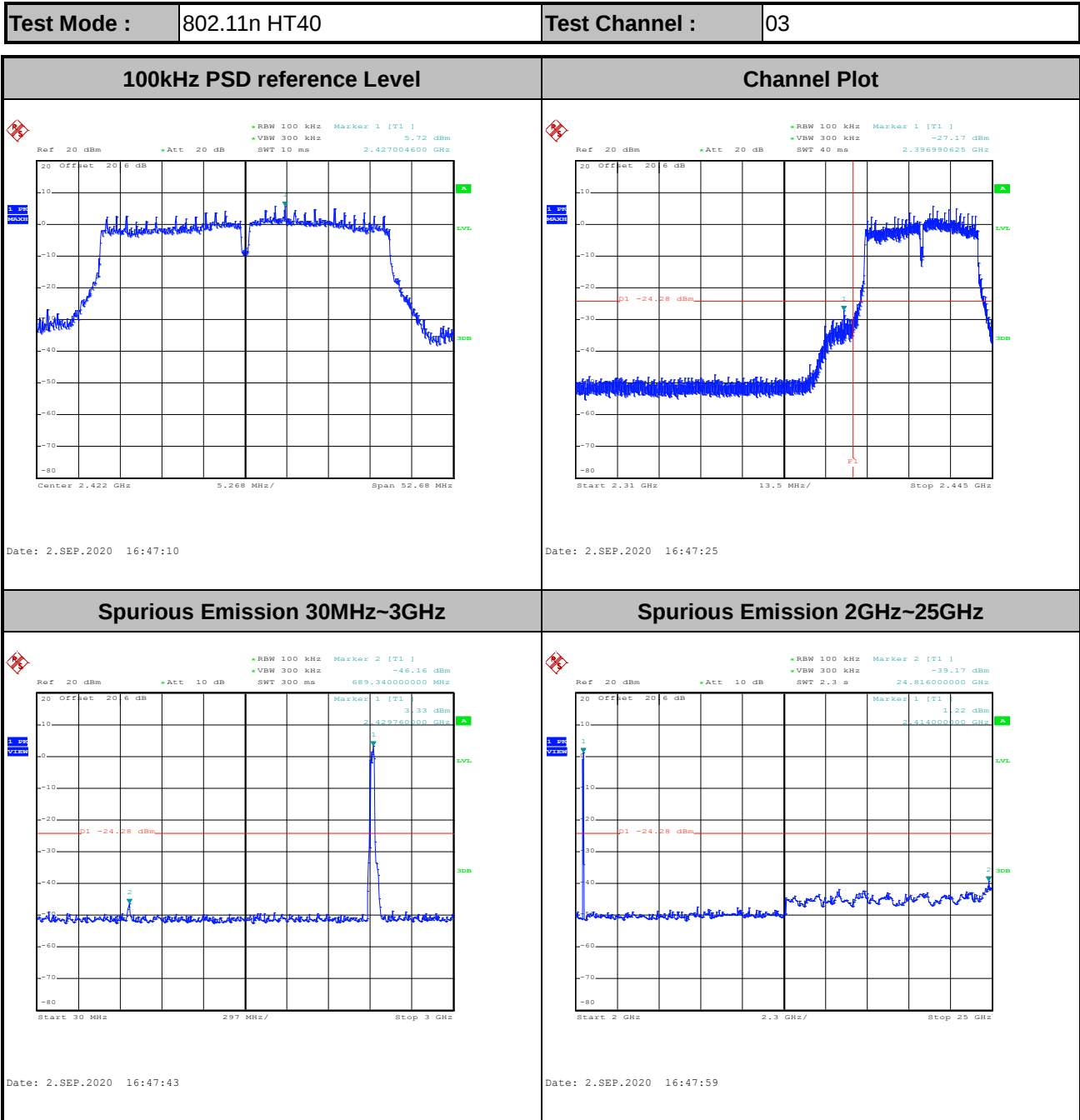


Date: 2.SEP.2020 15:47:22



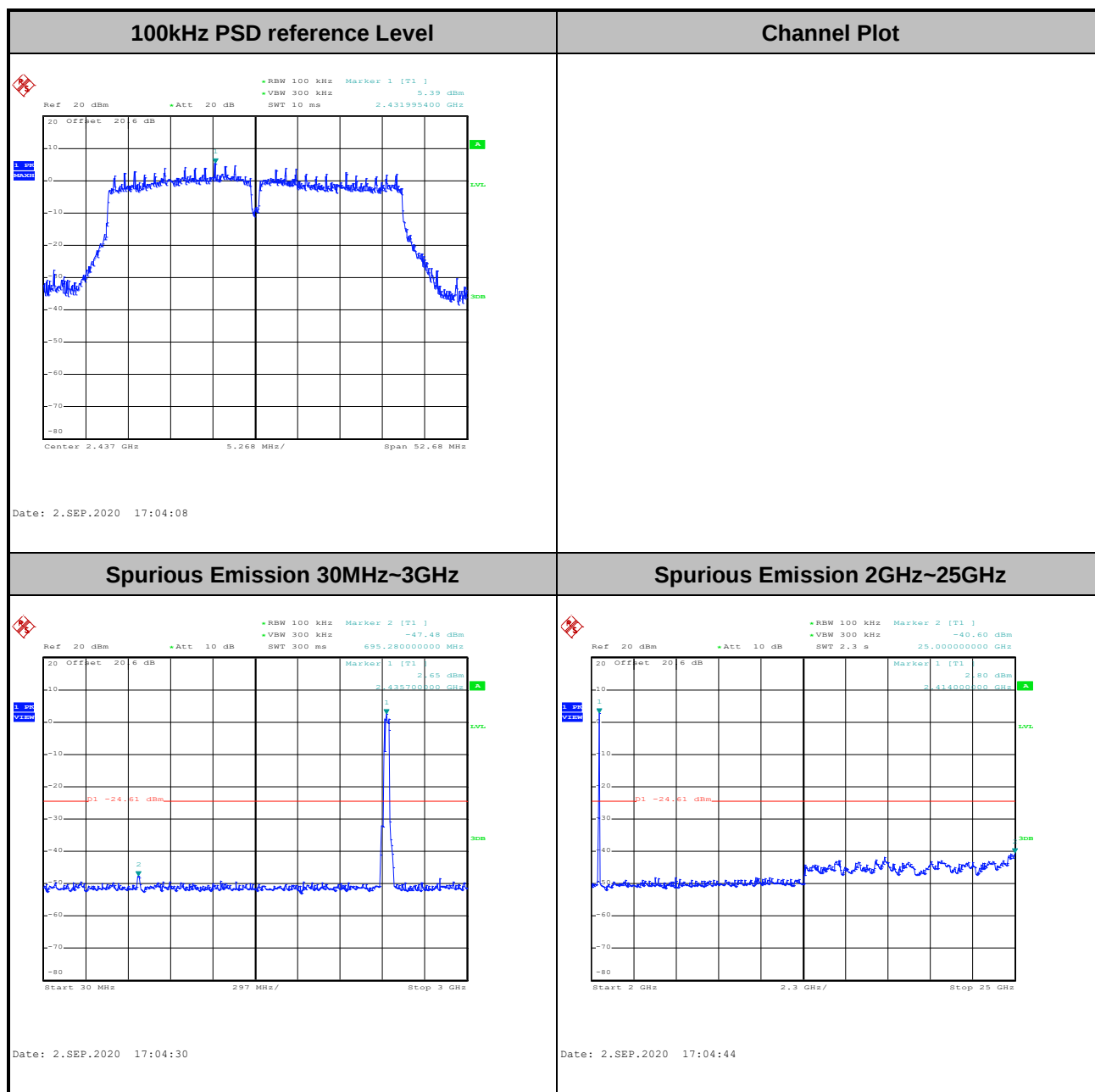
|             |              |                |    |
|-------------|--------------|----------------|----|
| Test Mode : | 802.11n HT20 | Test Channel : | 11 |
|-------------|--------------|----------------|----|







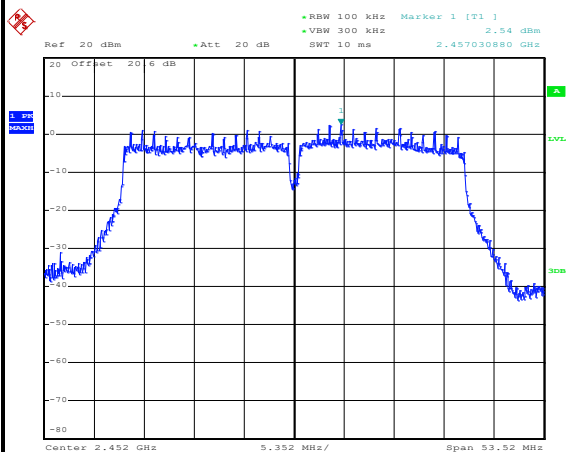
|             |              |                |    |
|-------------|--------------|----------------|----|
| Test Mode : | 802.11n HT40 | Test Channel : | 06 |
|-------------|--------------|----------------|----|





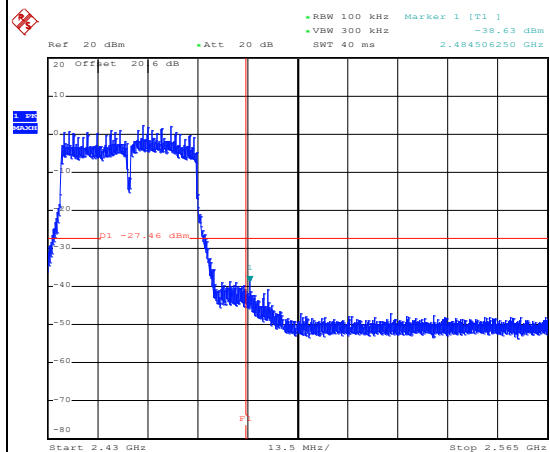
|             |              |                |    |
|-------------|--------------|----------------|----|
| Test Mode : | 802.11n HT40 | Test Channel : | 09 |
|-------------|--------------|----------------|----|

100kHz PSD reference Level



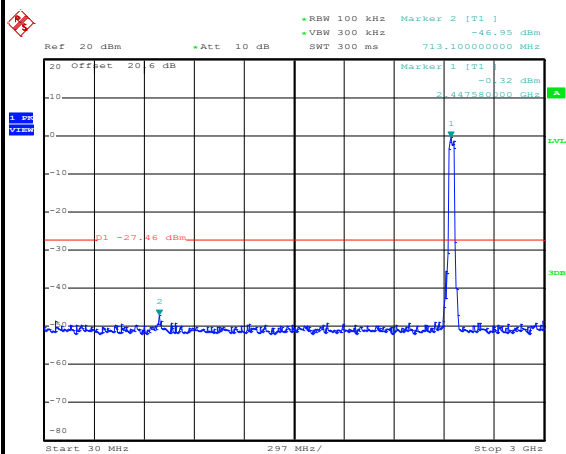
Date: 2.SEP.2020 17:23:38

Channel Plot



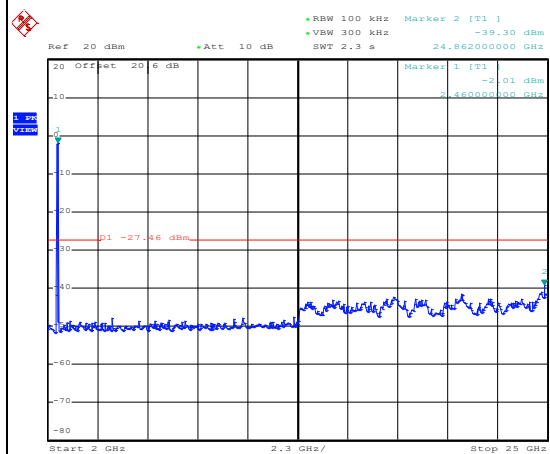
Date: 2.SEP.2020 17:24:15

Spurious Emission 30MHz~3GHz



Date: 2.SEP.2020 17:26:15

Spurious Emission 2GHz~25GHz

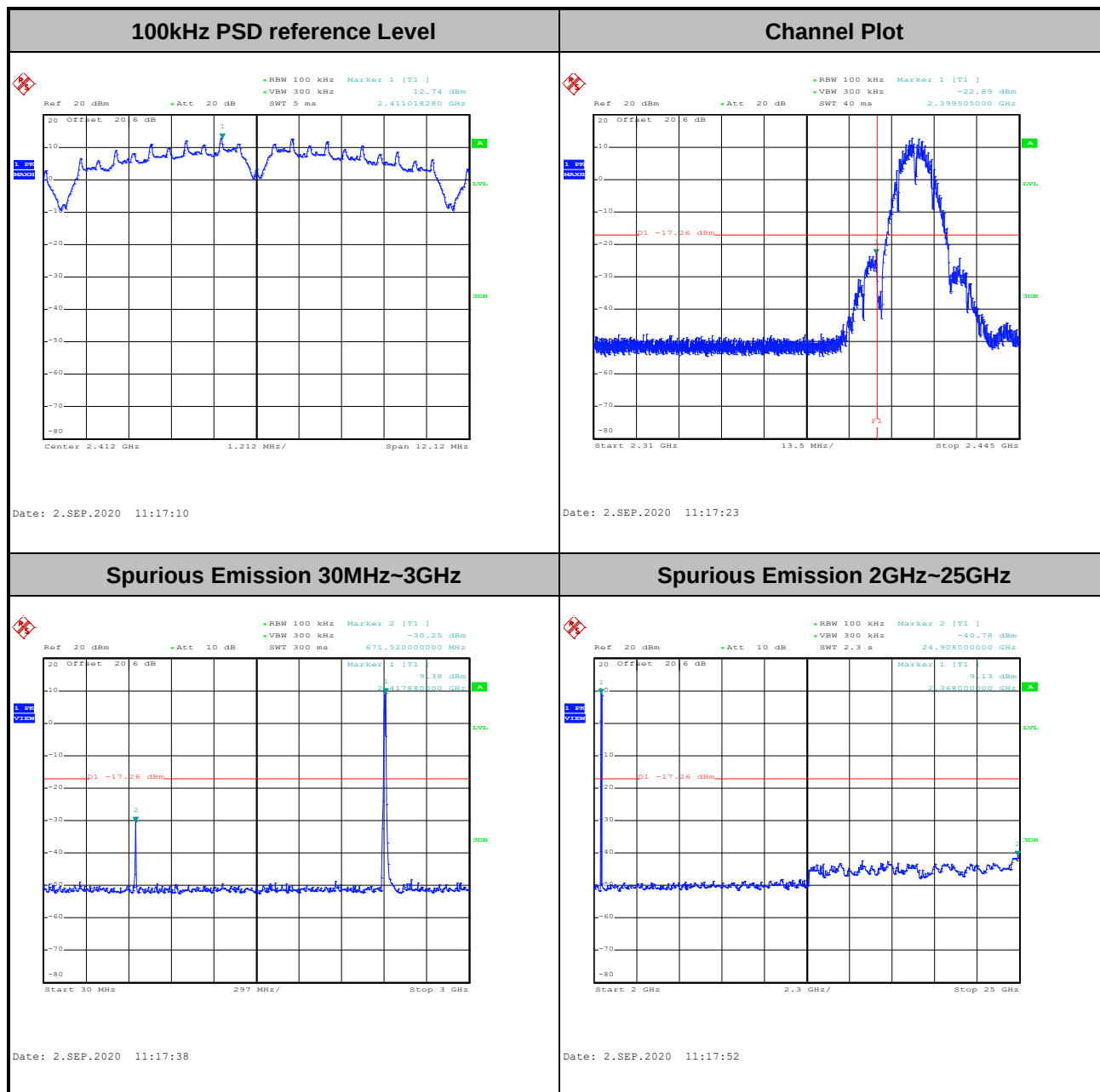


Date: 2.SEP.2020 17:26:32



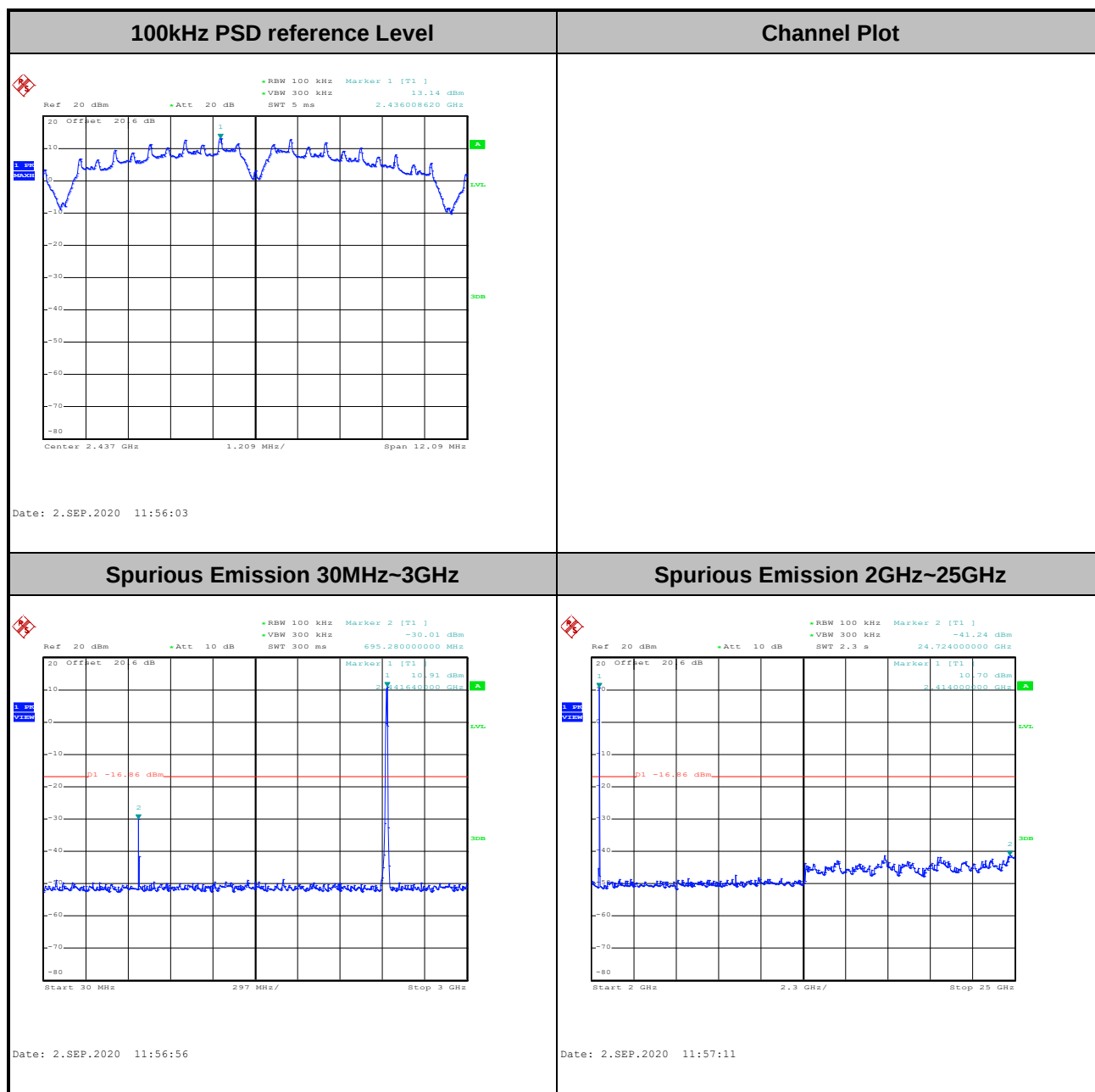
Number of TX = 1, Ant. 2 (Measured)

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



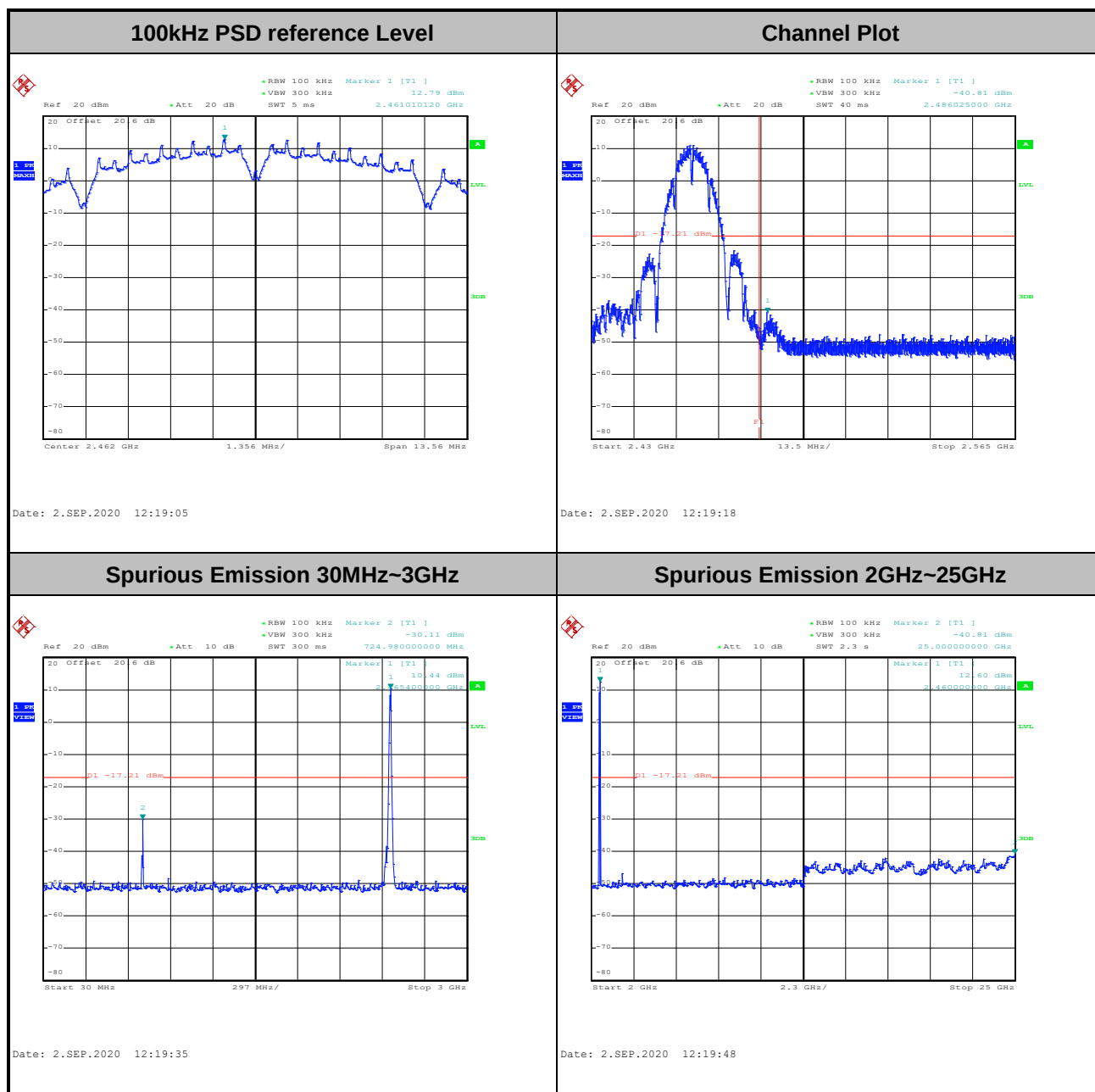


|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11b | Test Channel : | 06 |
|-------------|---------|----------------|----|



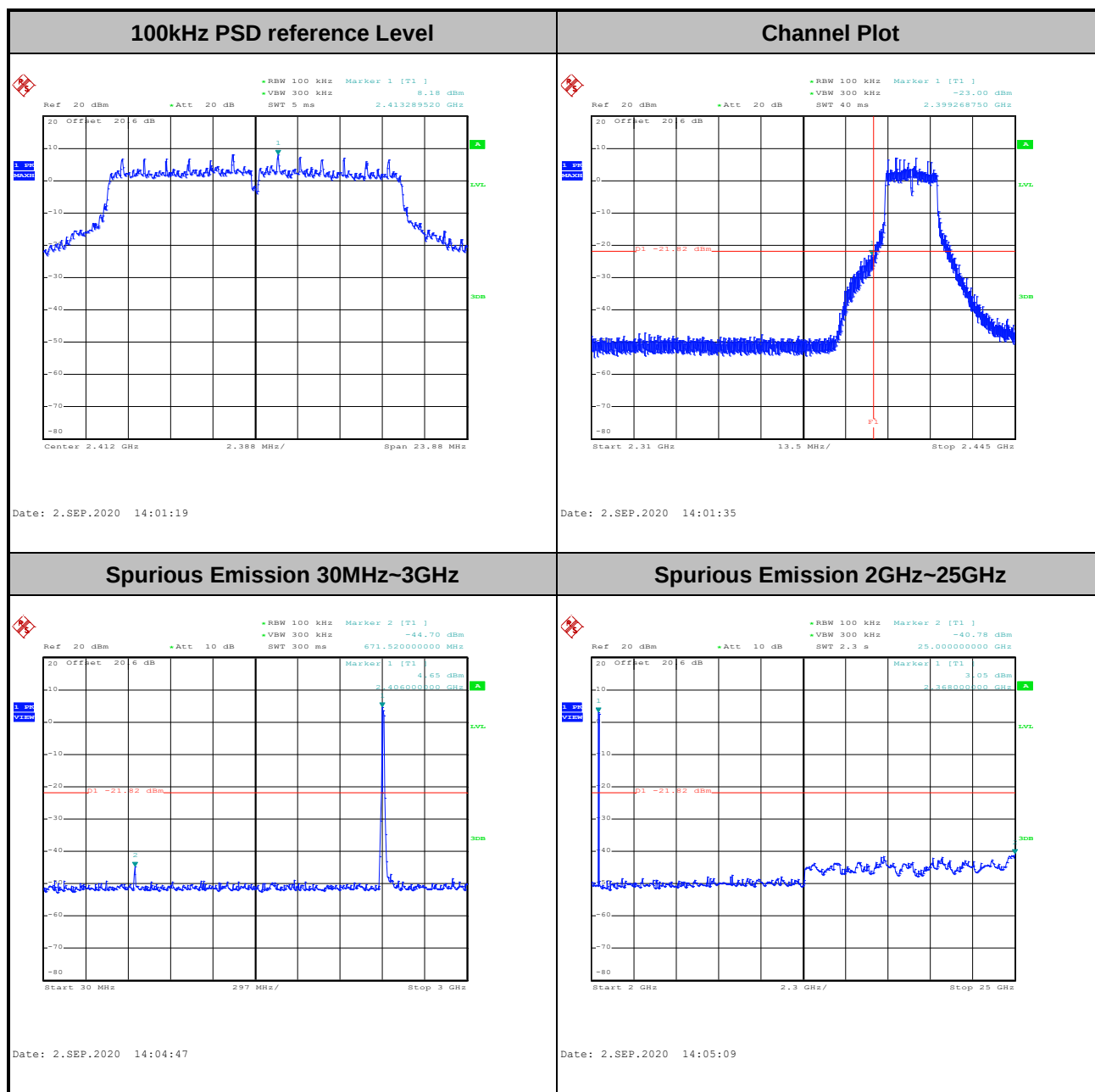


|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11b | Test Channel : | 11 |
|-------------|---------|----------------|----|





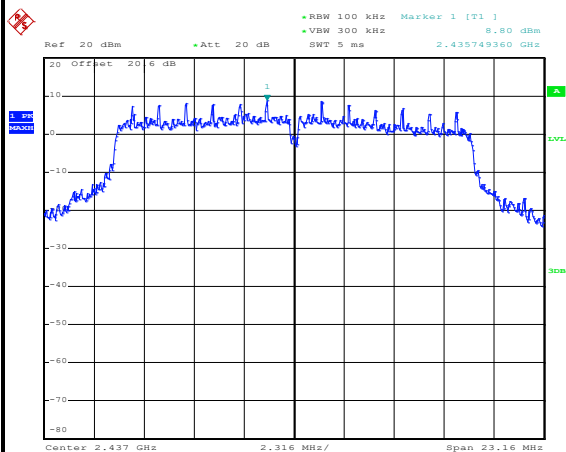
|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11g | Test Channel : | 01 |
|-------------|---------|----------------|----|





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

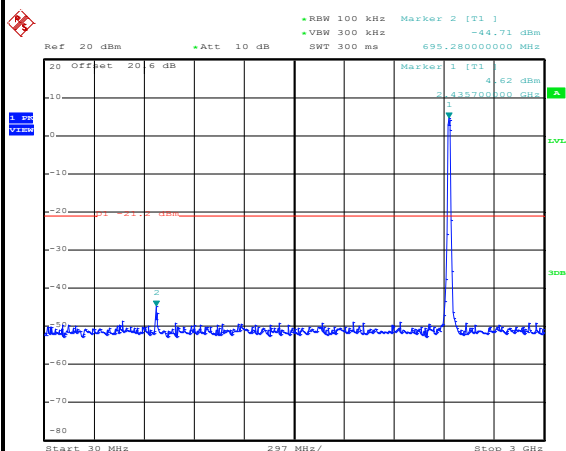
100kHz PSD reference Level



Date: 2.SEP.2020 14:24:21

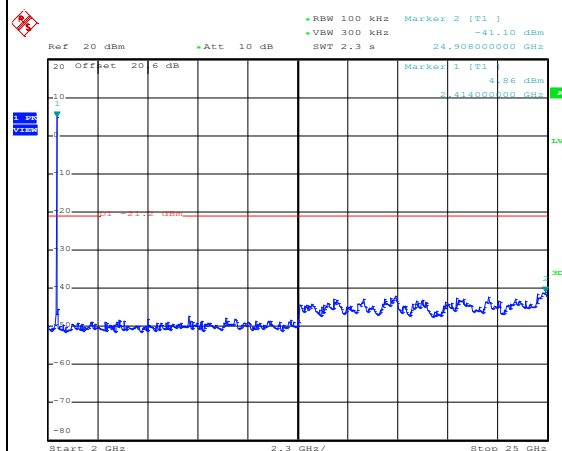
Channel Plot

Spurious Emission 30MHz~3GHz



Date: 2.SEP.2020 14:24:42

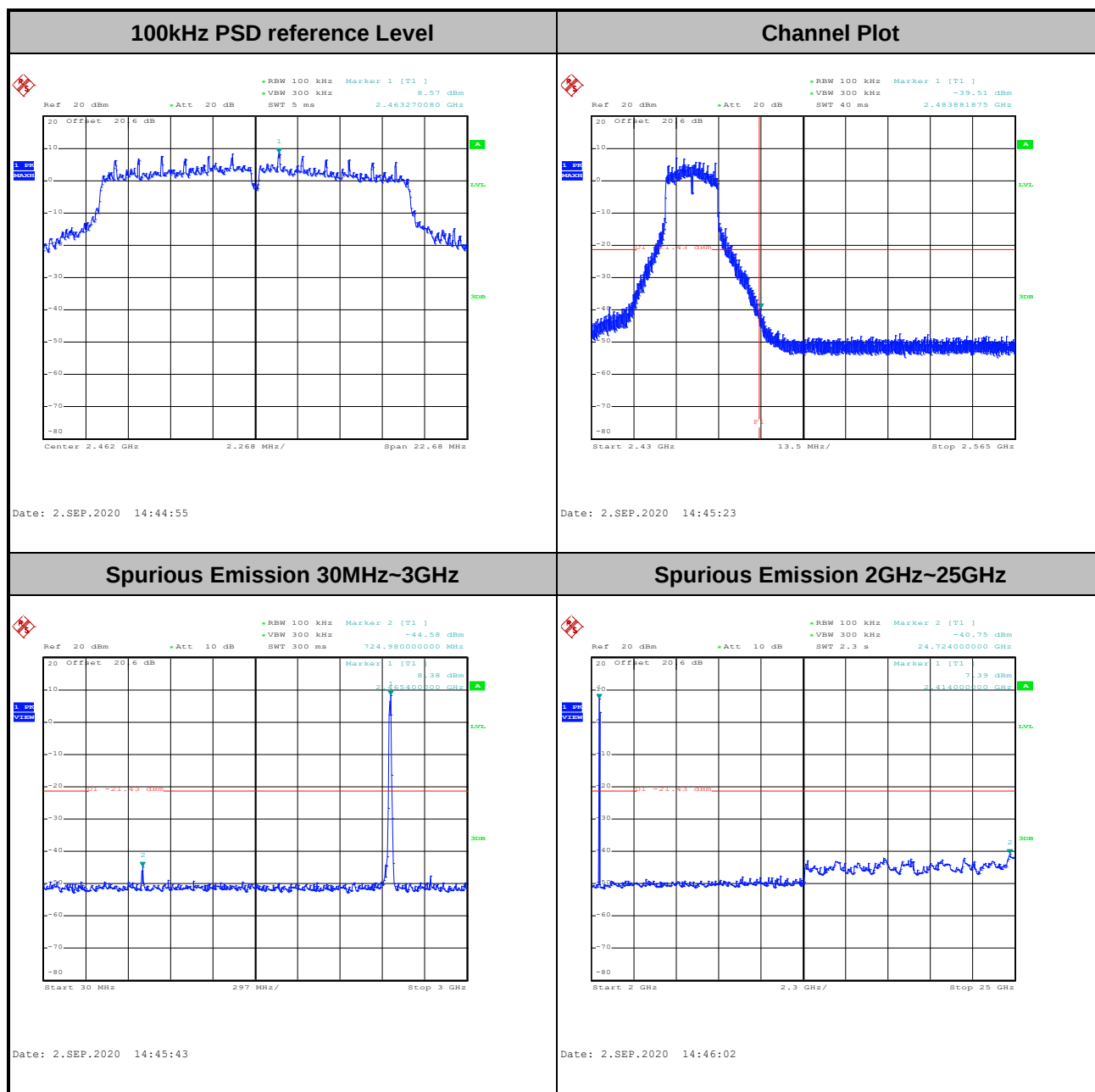
Spurious Emission 2GHz~25GHz



Date: 2.SEP.2020 14:25:06

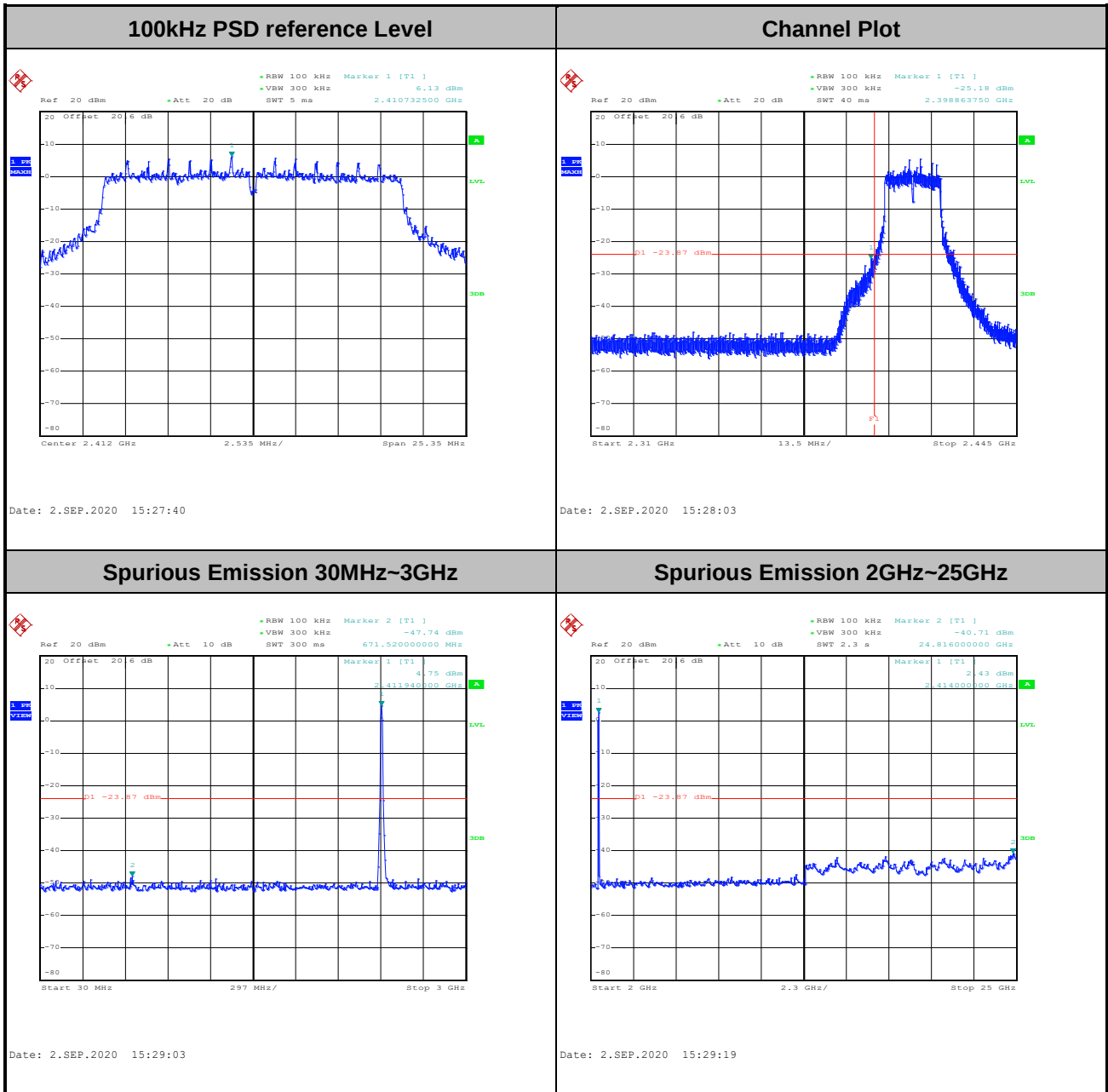


|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11g | Test Channel : | 11 |
|-------------|---------|----------------|----|



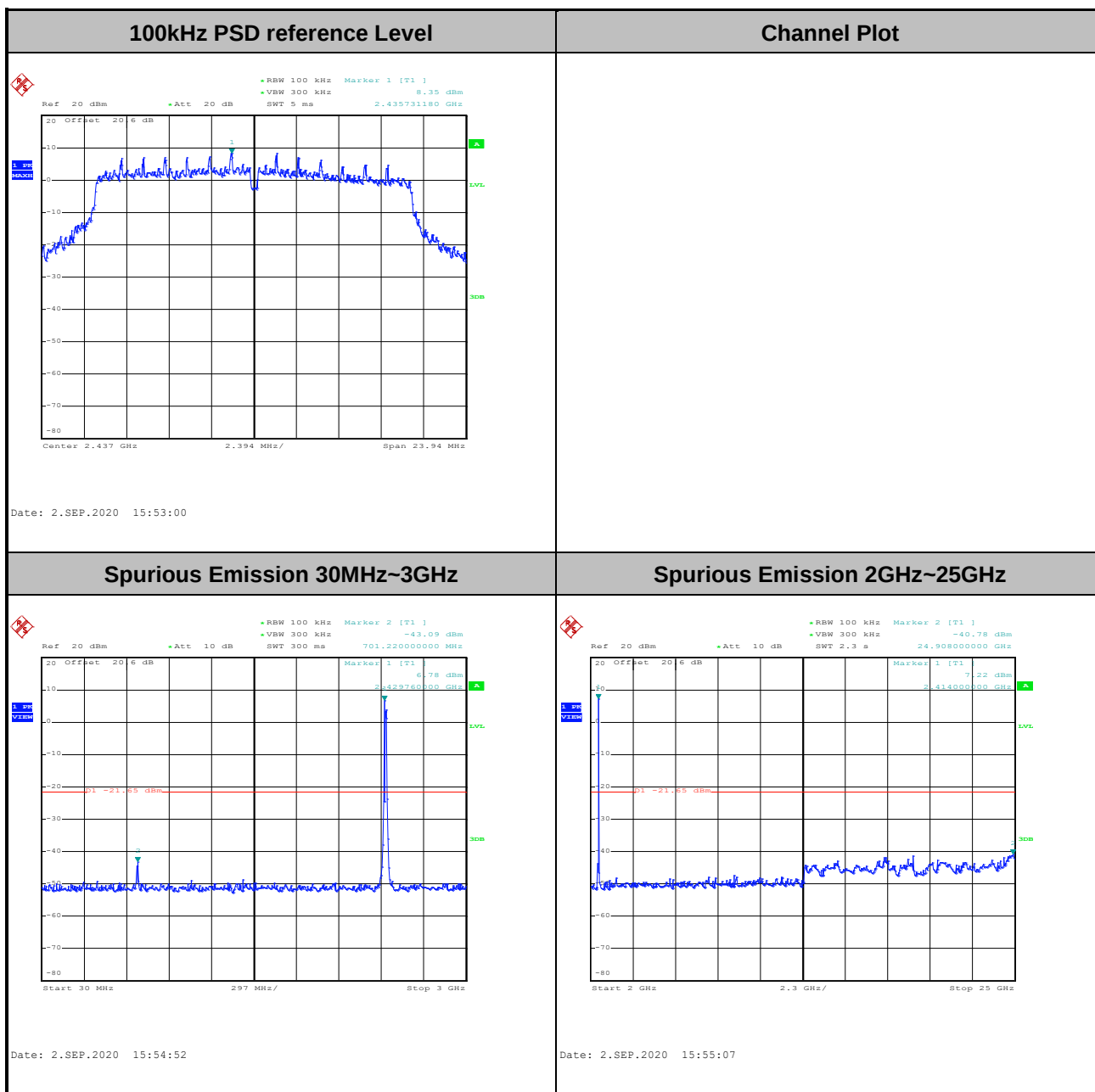


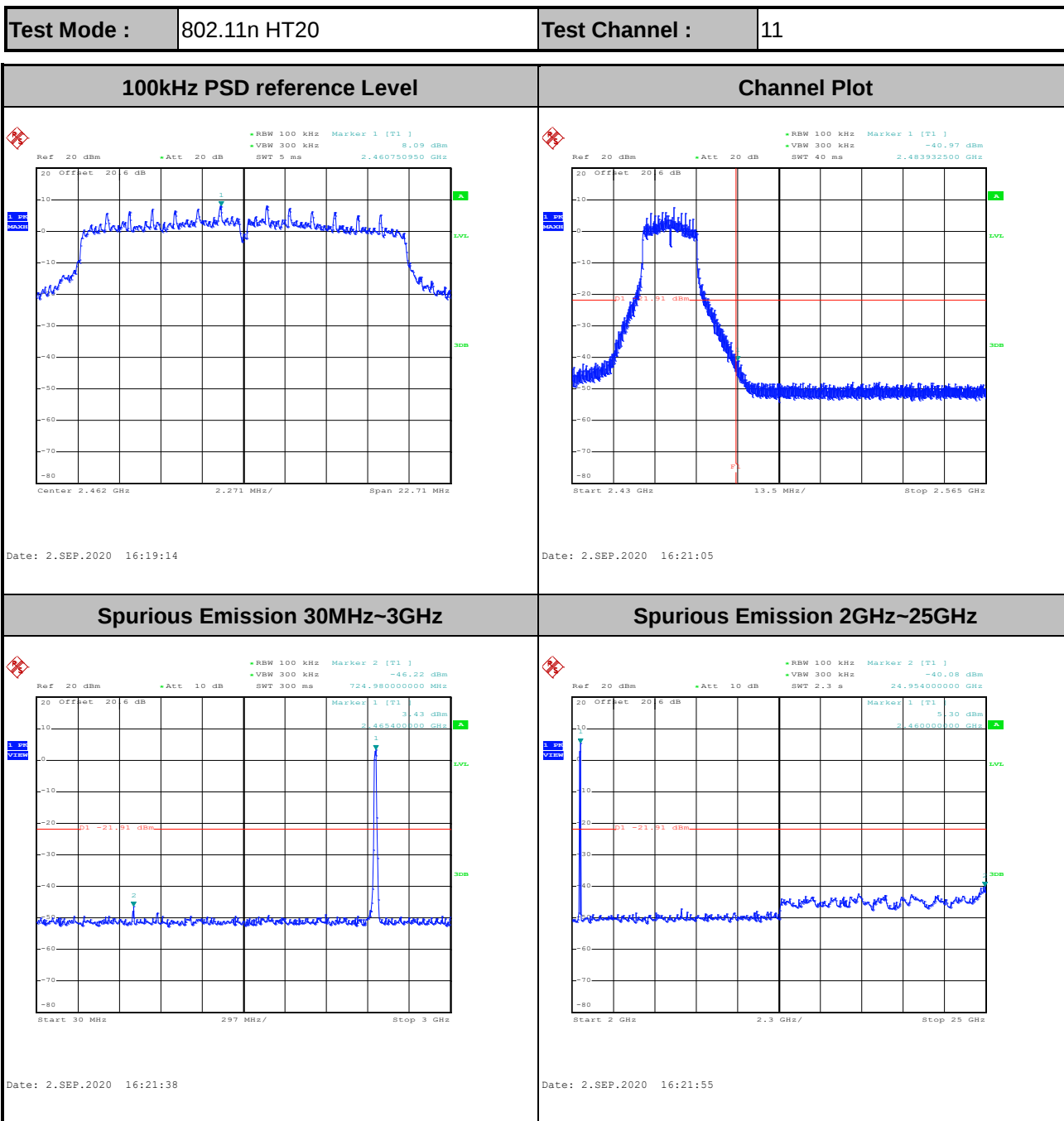
|             |              |                |    |
|-------------|--------------|----------------|----|
| Test Mode : | 802.11n HT20 | Test Channel : | 01 |
|-------------|--------------|----------------|----|





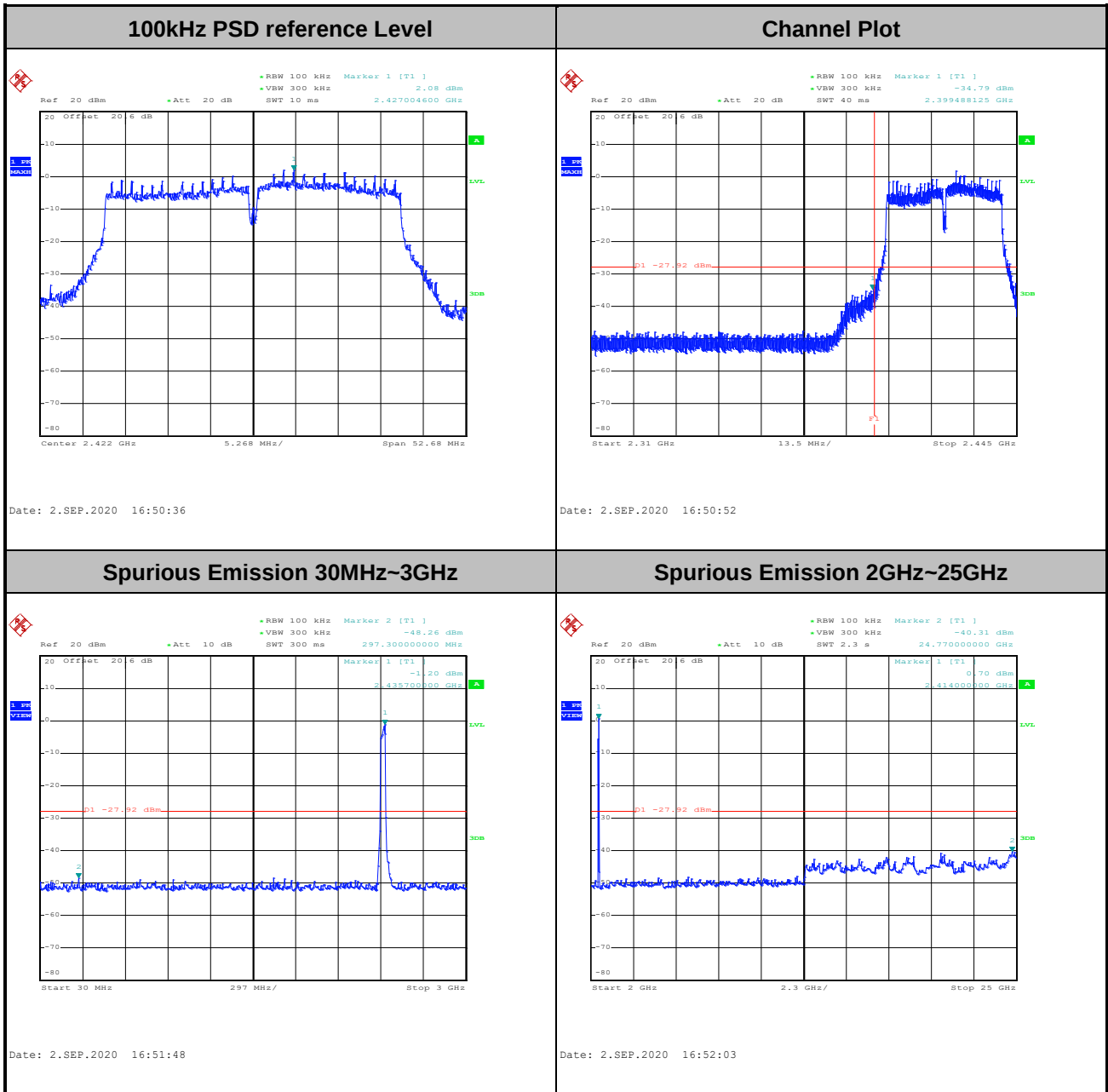
|             |              |                |    |
|-------------|--------------|----------------|----|
| Test Mode : | 802.11n HT20 | Test Channel : | 06 |
|-------------|--------------|----------------|----|

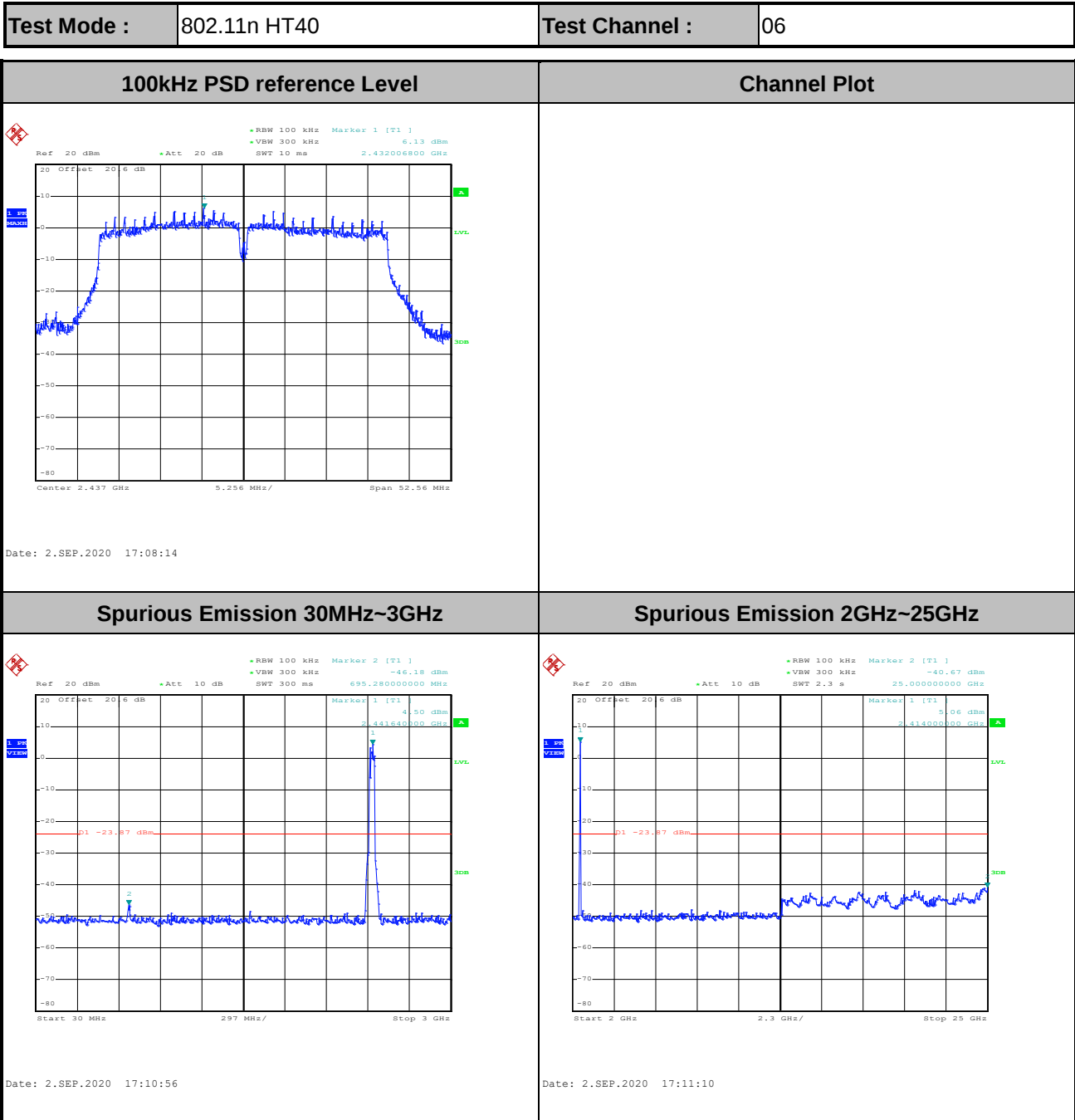


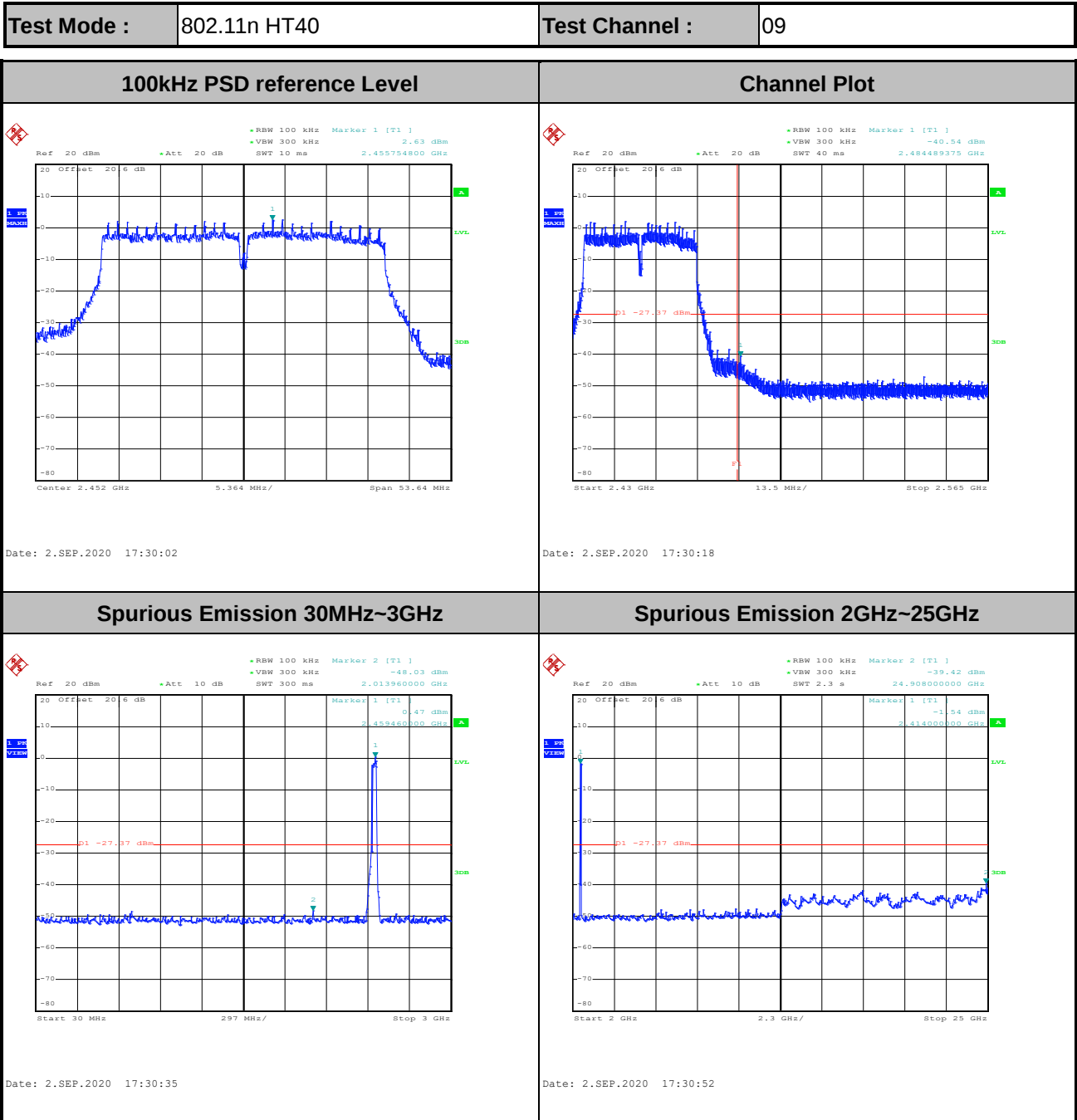




|                    |              |                       |    |
|--------------------|--------------|-----------------------|----|
| <b>Test Mode :</b> | 802.11n HT40 | <b>Test Channel :</b> | 03 |
|--------------------|--------------|-----------------------|----|



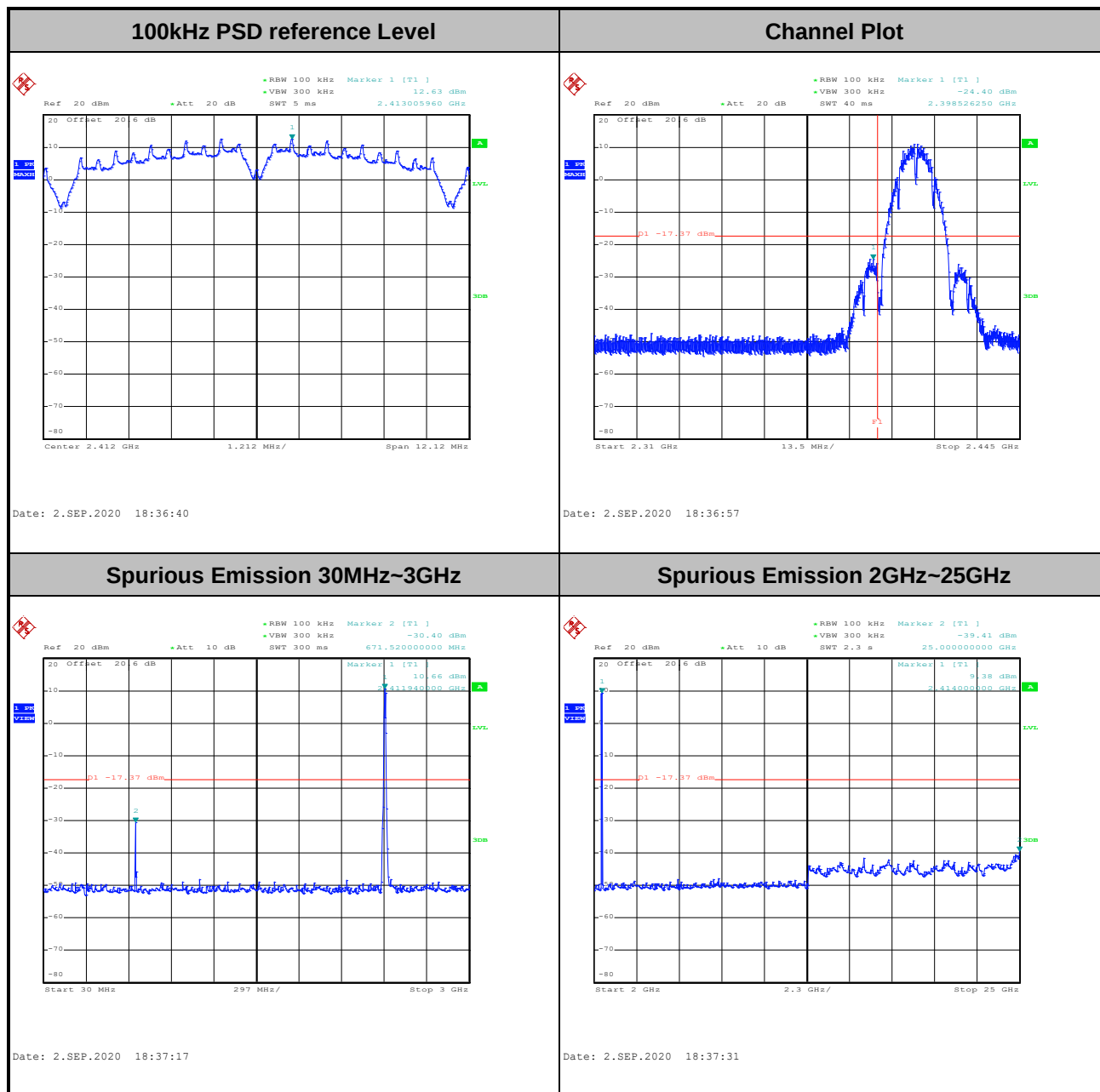






Number of TX = 2, Ant. 1 (Measured)

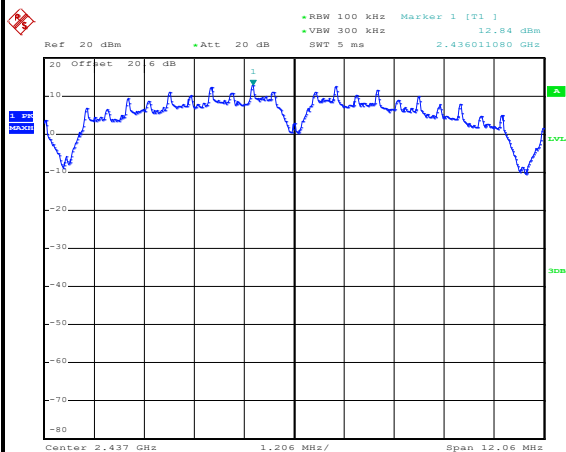
|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11b | Test Channel : | 01 |
|-------------|---------|----------------|----|





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

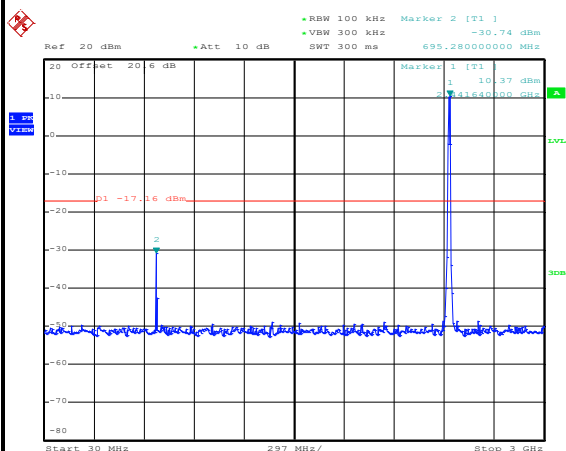
## 100kHz PSD reference Level



Date: 2.SEP.2020 12:01:52

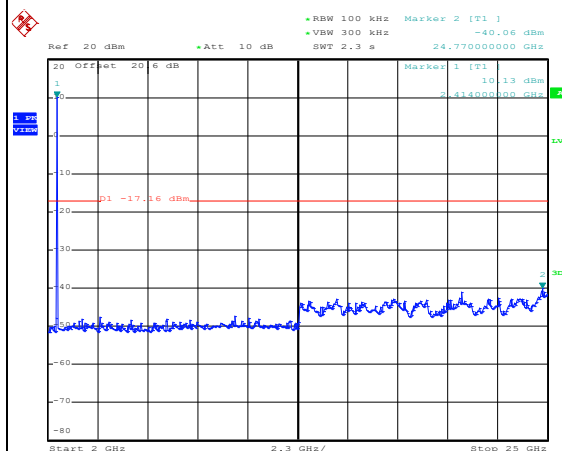
## Channel Plot

## Spurious Emission 30MHz~3GHz



Date: 2.SEP.2020 12:02:10

## Spurious Emission 2GHz~25GHz

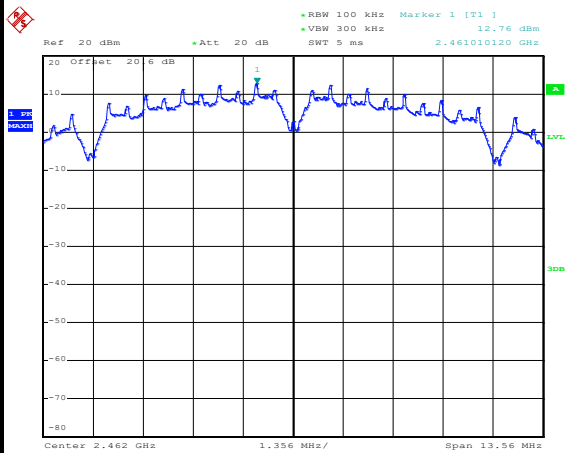


Date: 2.SEP.2020 12:02:24



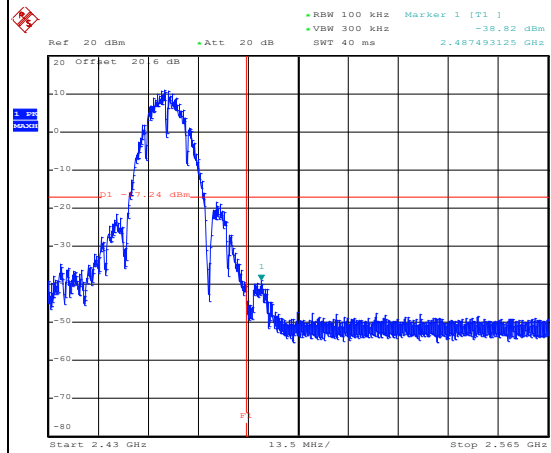
|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11b | Test Channel : | 11 |
|-------------|---------|----------------|----|

100kHz PSD reference Level



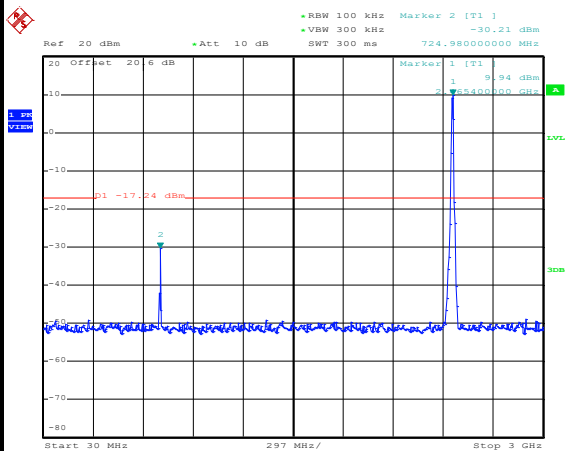
Date: 2.SEP.2020 13:44:10

Channel Plot



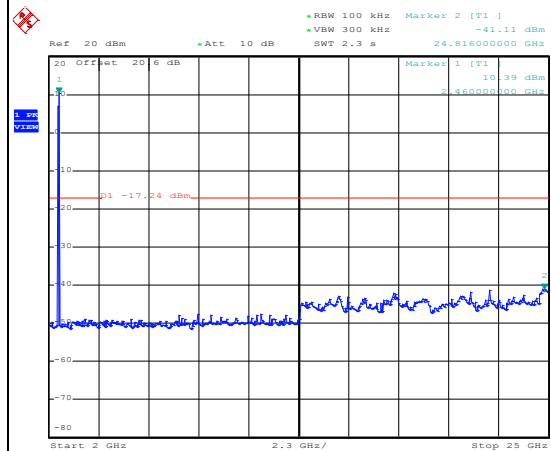
Date: 2.SEP.2020 13:44:26

Spurious Emission 30MHz~3GHz



Date: 2.SEP.2020 13:44:42

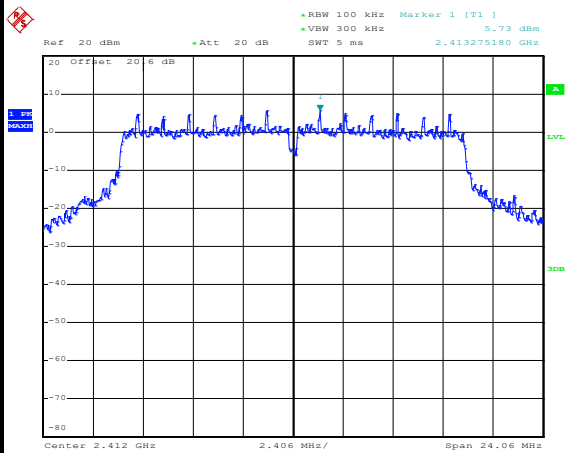
Spurious Emission 2GHz~25GHz



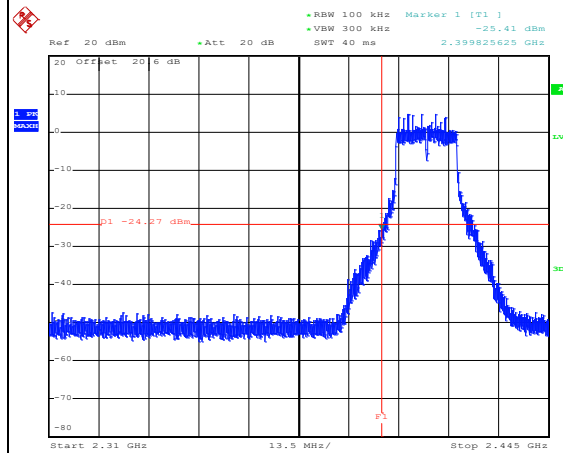
Date: 2.SEP.2020 13:45:06



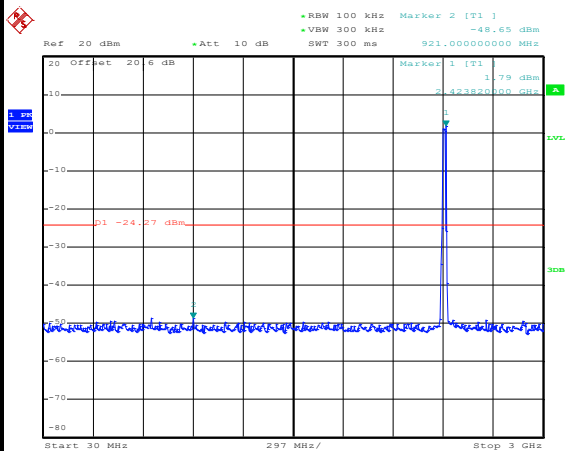
|                    |         |                       |    |
|--------------------|---------|-----------------------|----|
| <b>Test Mode :</b> | 802.11g | <b>Test Channel :</b> | 01 |
|--------------------|---------|-----------------------|----|

**100kHz PSD reference Level**

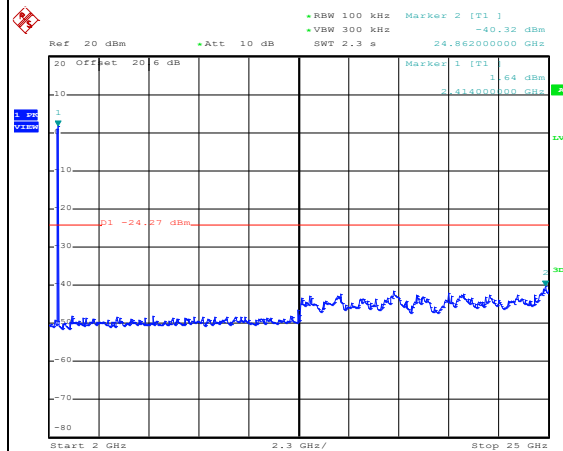
Date: 2.SEP.2020 14:10:08

**Channel Plot**

Date: 2.SEP.2020 14:10:26

**Spurious Emission 30MHz~3GHz**

Date: 2.SEP.2020 14:10:44

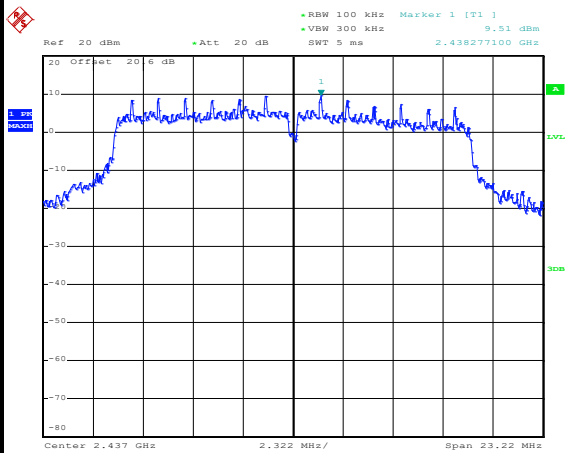
**Spurious Emission 2GHz~25GHz**

Date: 2.SEP.2020 14:11:39



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

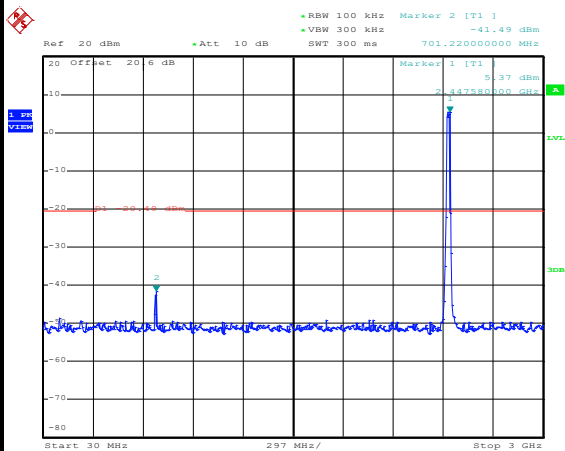
100kHz PSD reference Level



Date: 2.SEP.2020 14:31:04

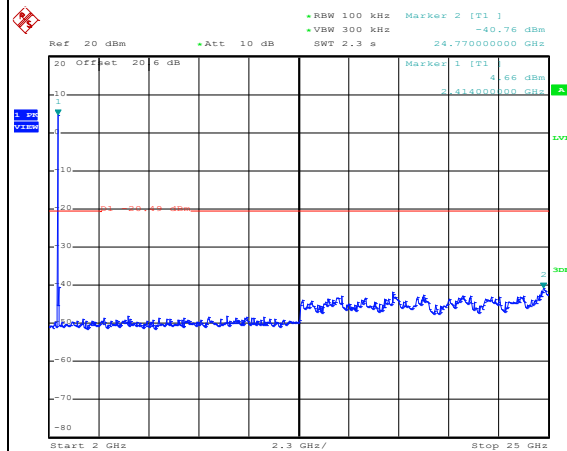
Channel Plot

Spurious Emission 30MHz~3GHz



Date: 2.SEP.2020 14:31:24

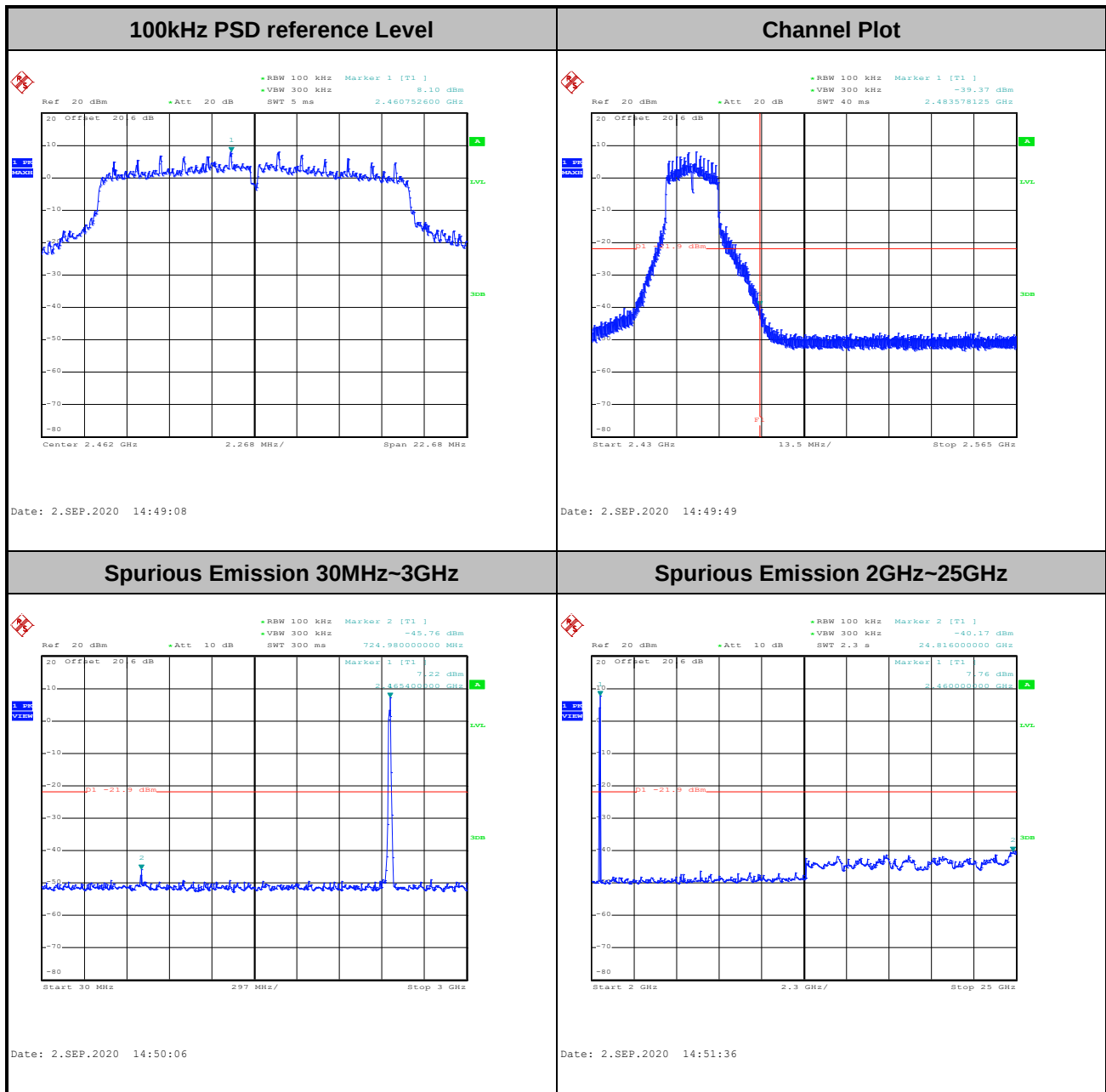
Spurious Emission 2GHz~25GHz

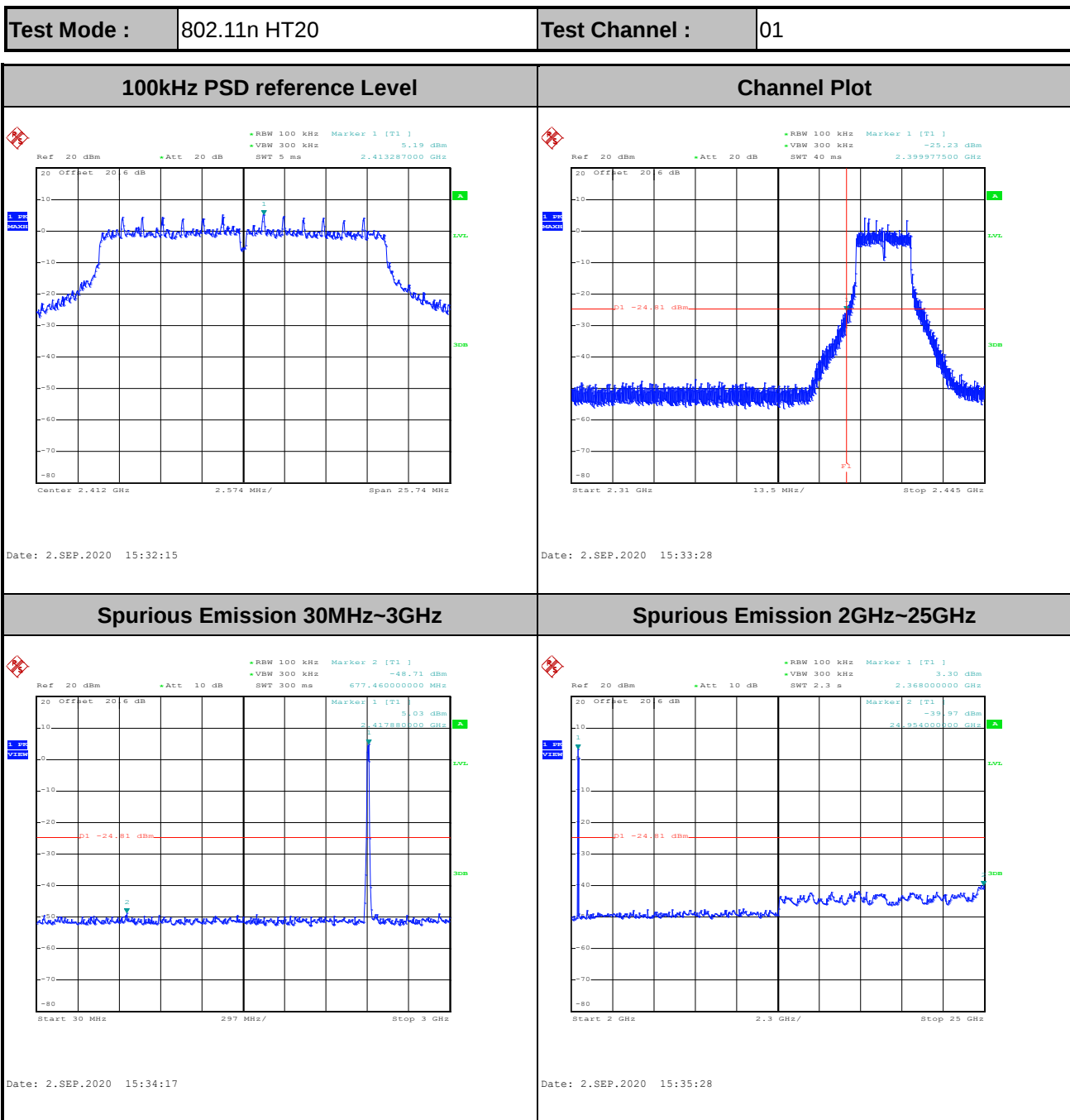


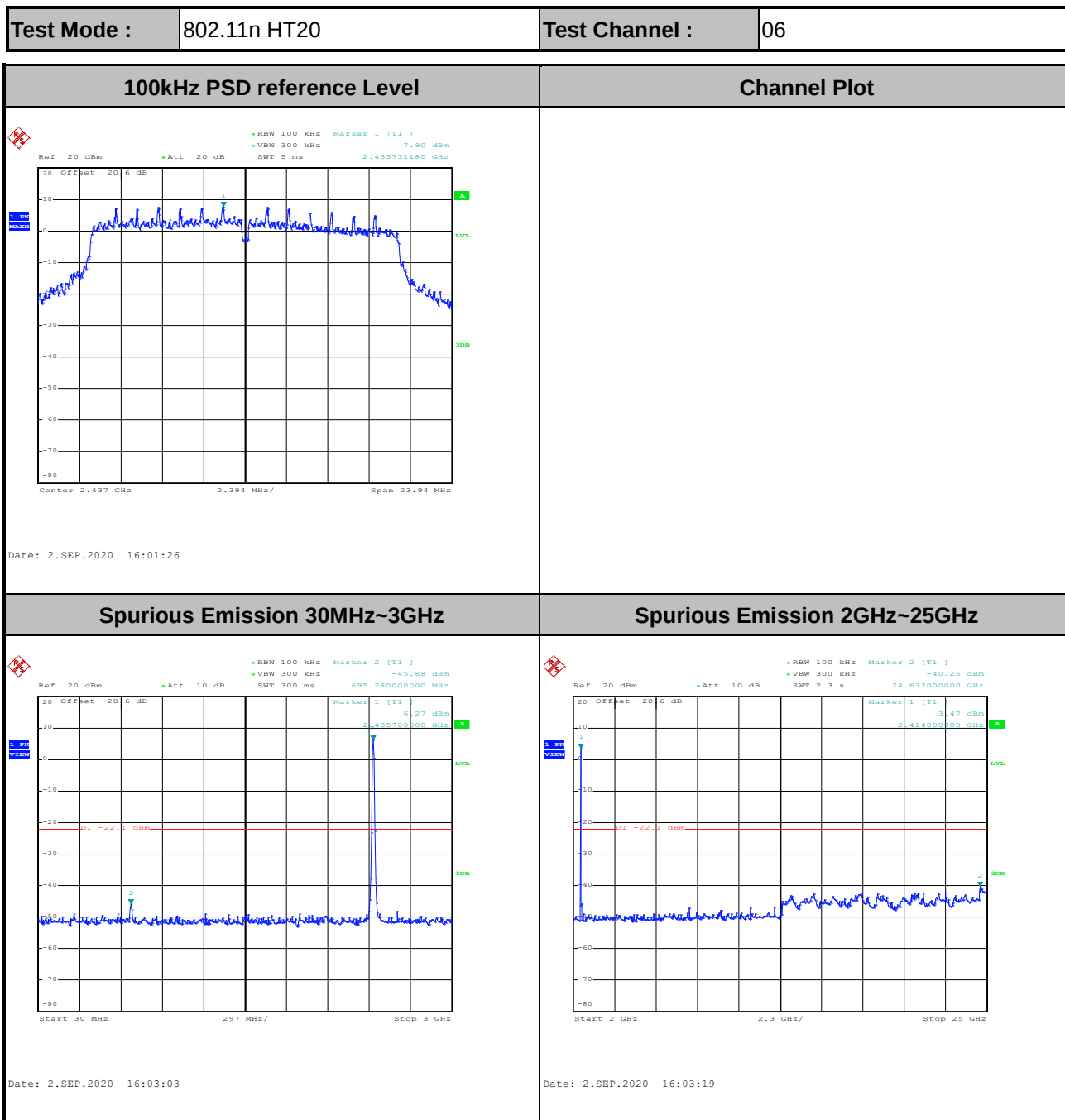
Date: 2.SEP.2020 14:31:46

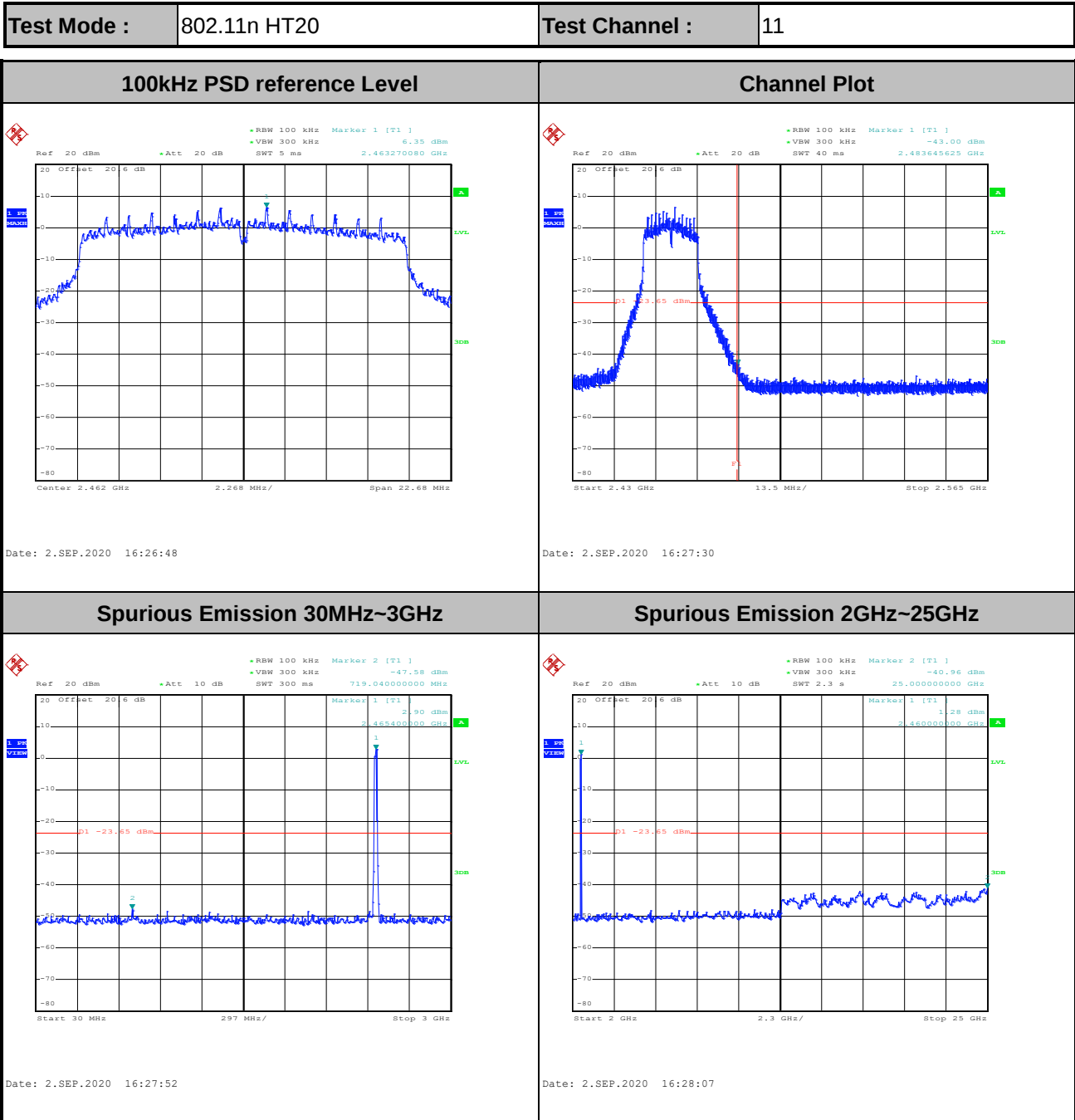


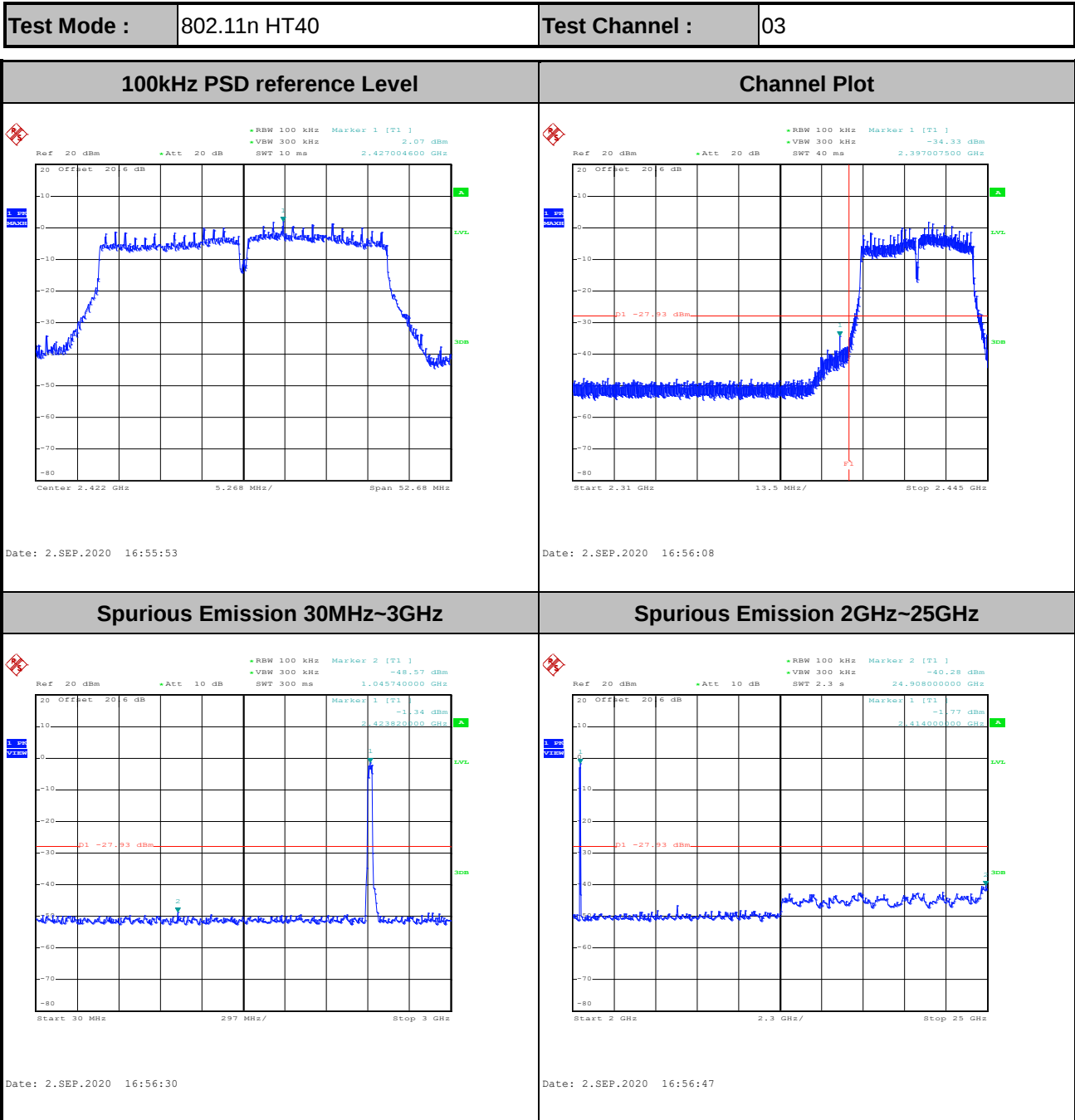
|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11g | Test Channel : | 11 |
|-------------|---------|----------------|----|

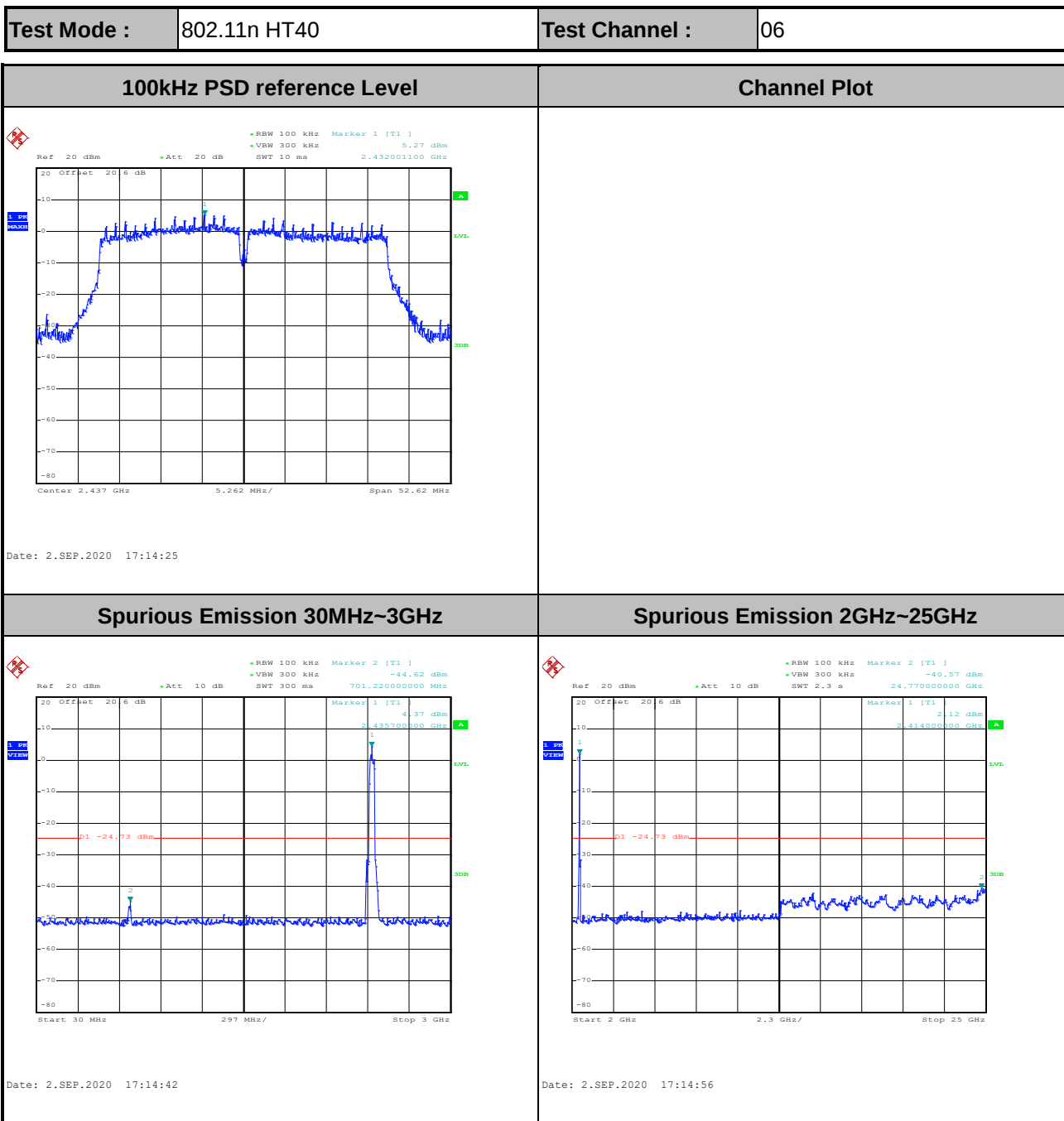








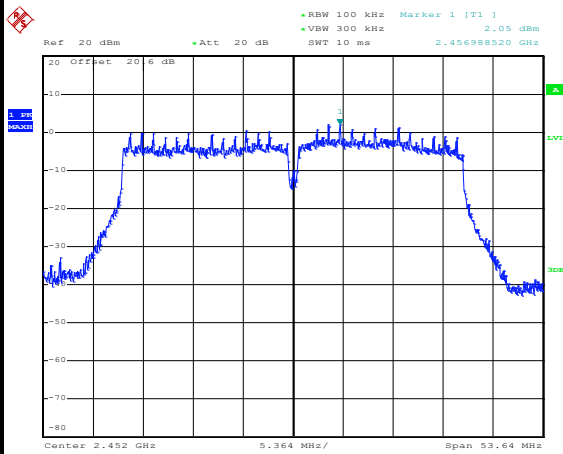






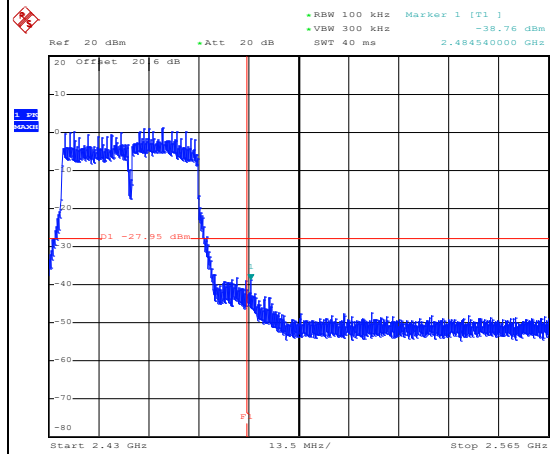
|             |              |                |    |
|-------------|--------------|----------------|----|
| Test Mode : | 802.11n HT40 | Test Channel : | 09 |
|-------------|--------------|----------------|----|

100kHz PSD reference Level



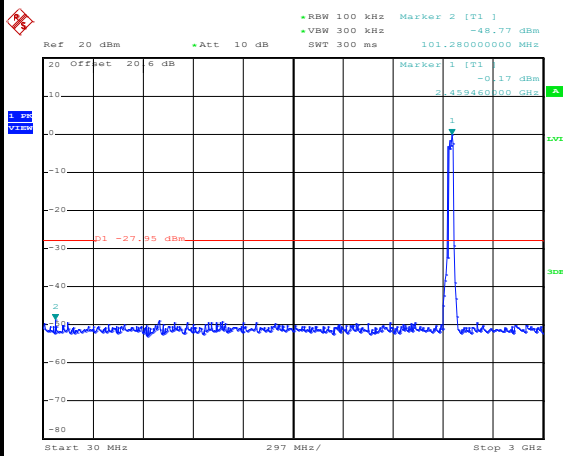
Date: 2.SEP.2020 17:47:36

Channel Plot



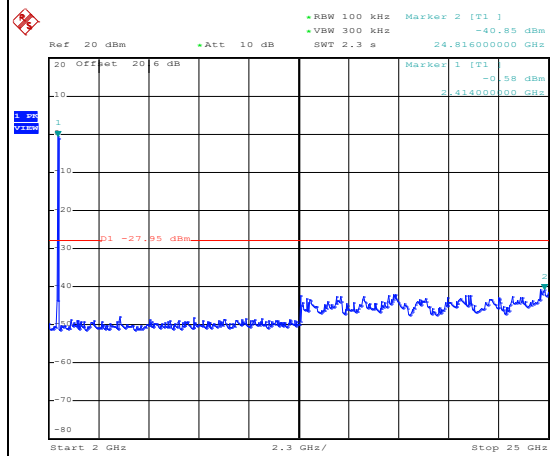
Date: 2.SEP.2020 17:48:16

Spurious Emission 30MHz~3GHz



Date: 2.SEP.2020 17:48:40

Spurious Emission 2GHz~25GHz

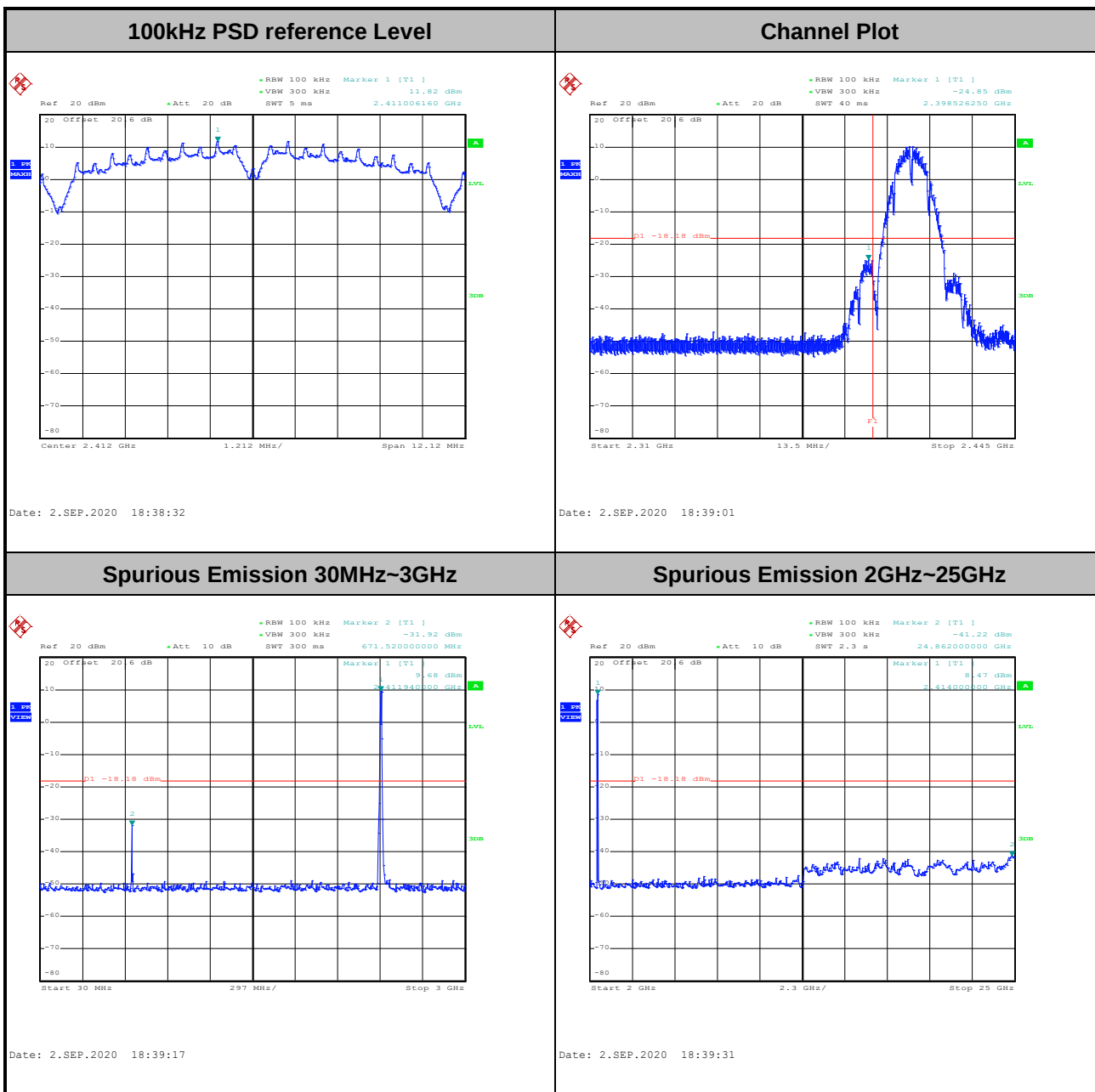


Date: 2.SEP.2020 17:48:56



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

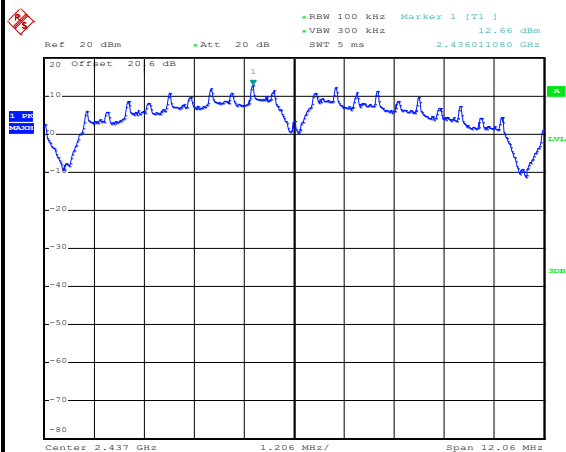
|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11b | Test Channel : | 01 |
|-------------|---------|----------------|----|





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

100kHz PSD reference Level

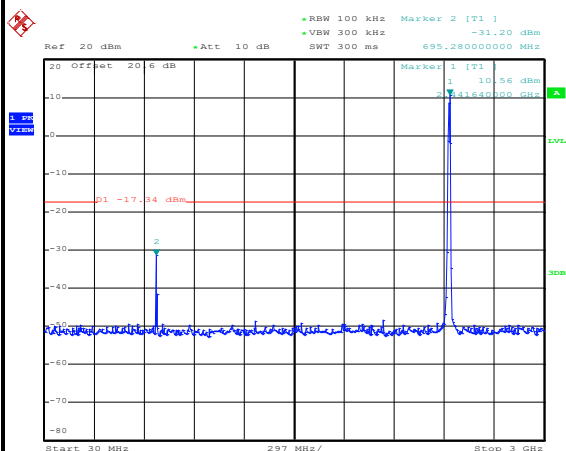


Date: 2.SEP.2020 12:07:16

Channel Plot

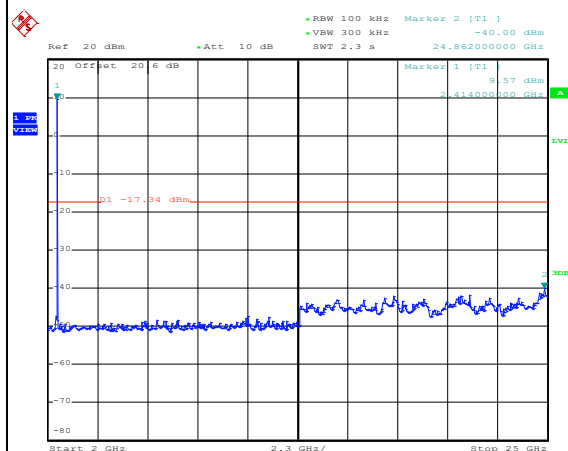


Spurious Emission 30MHz~3GHz



Date: 2.SEP.2020 12:07:34

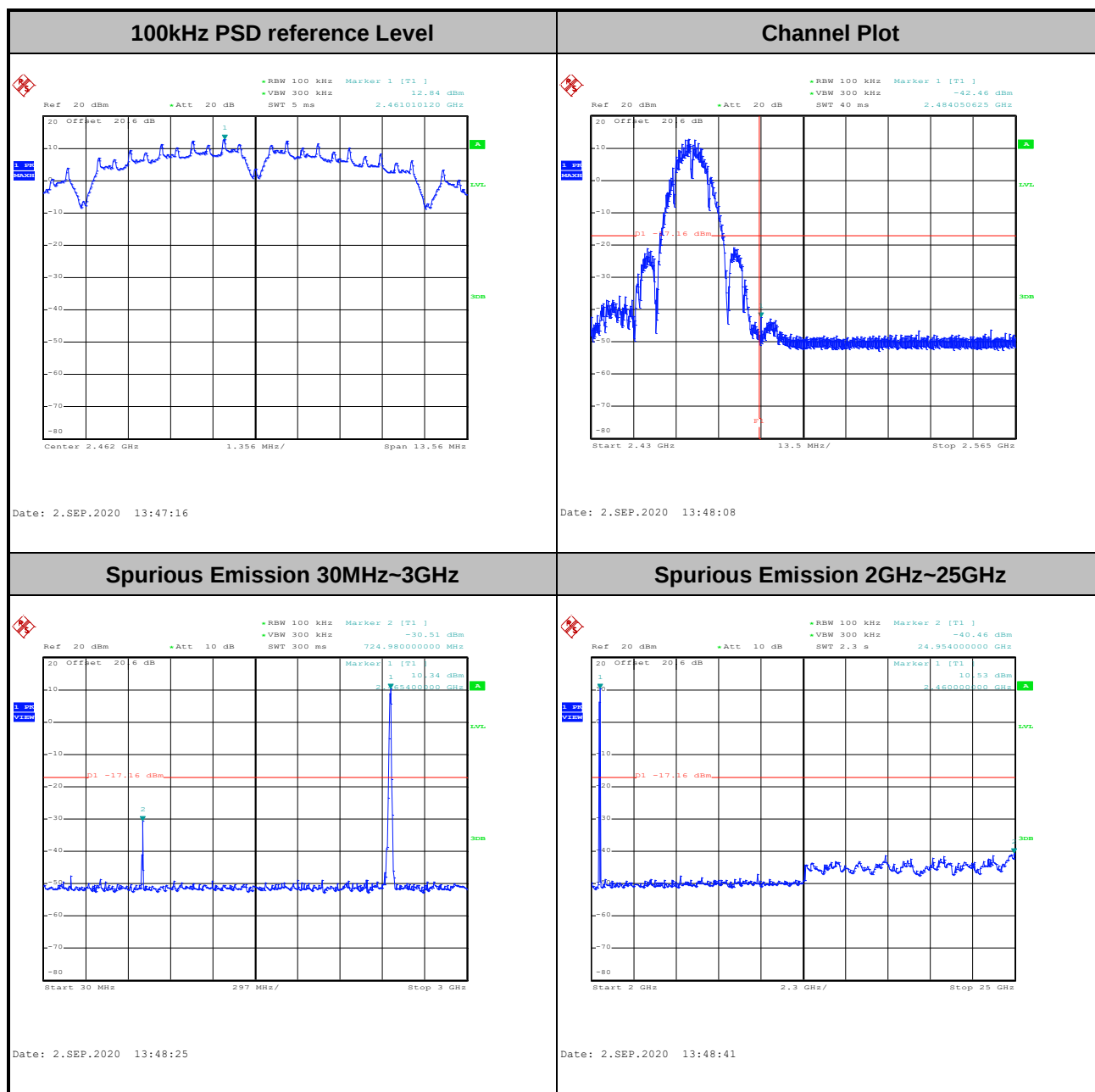
Spurious Emission 2GHz~25GHz



Date: 2.SEP.2020 12:08:10

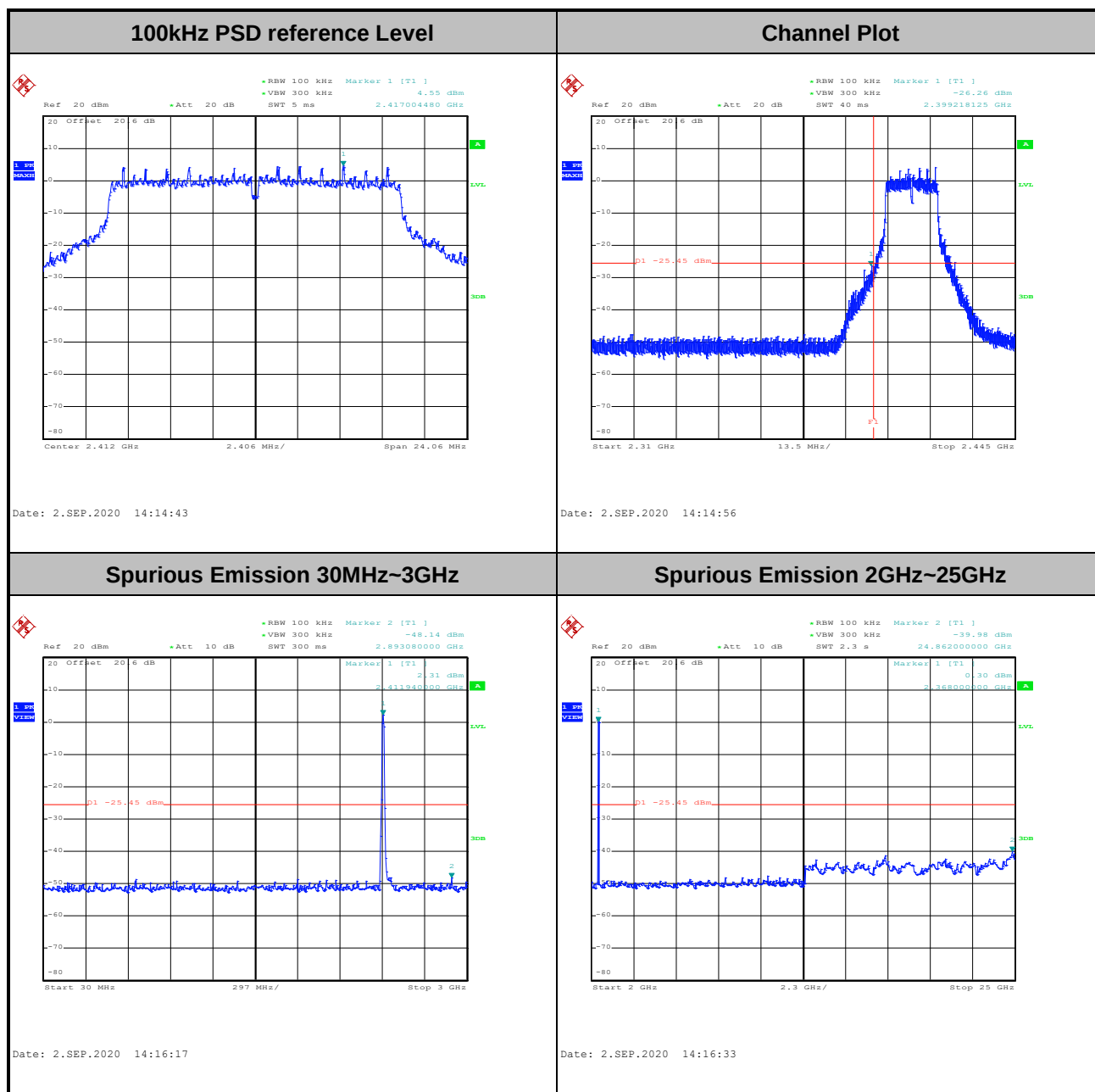


|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11b | Test Channel : | 11 |
|-------------|---------|----------------|----|



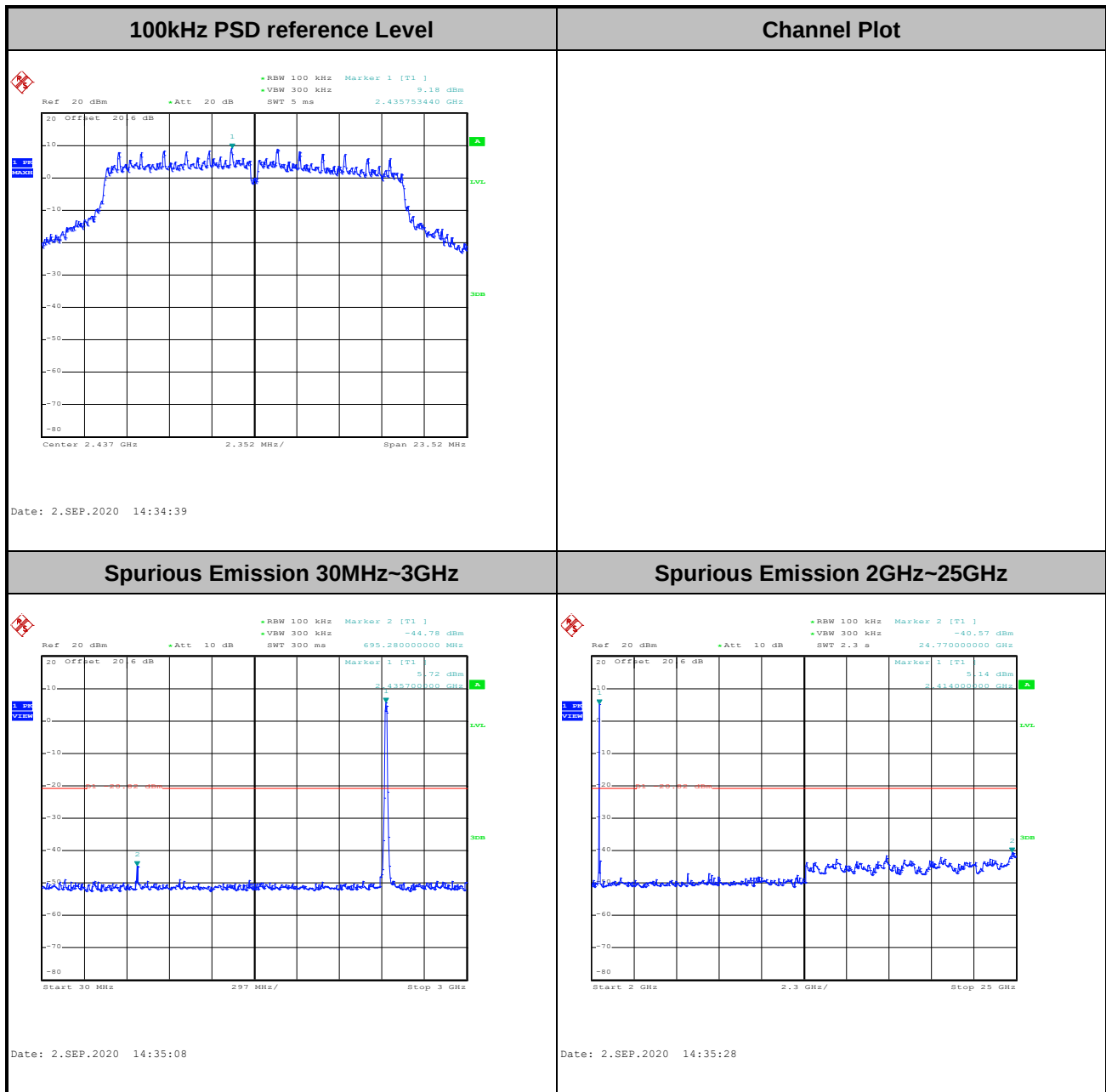


|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11g | Test Channel : | 01 |
|-------------|---------|----------------|----|



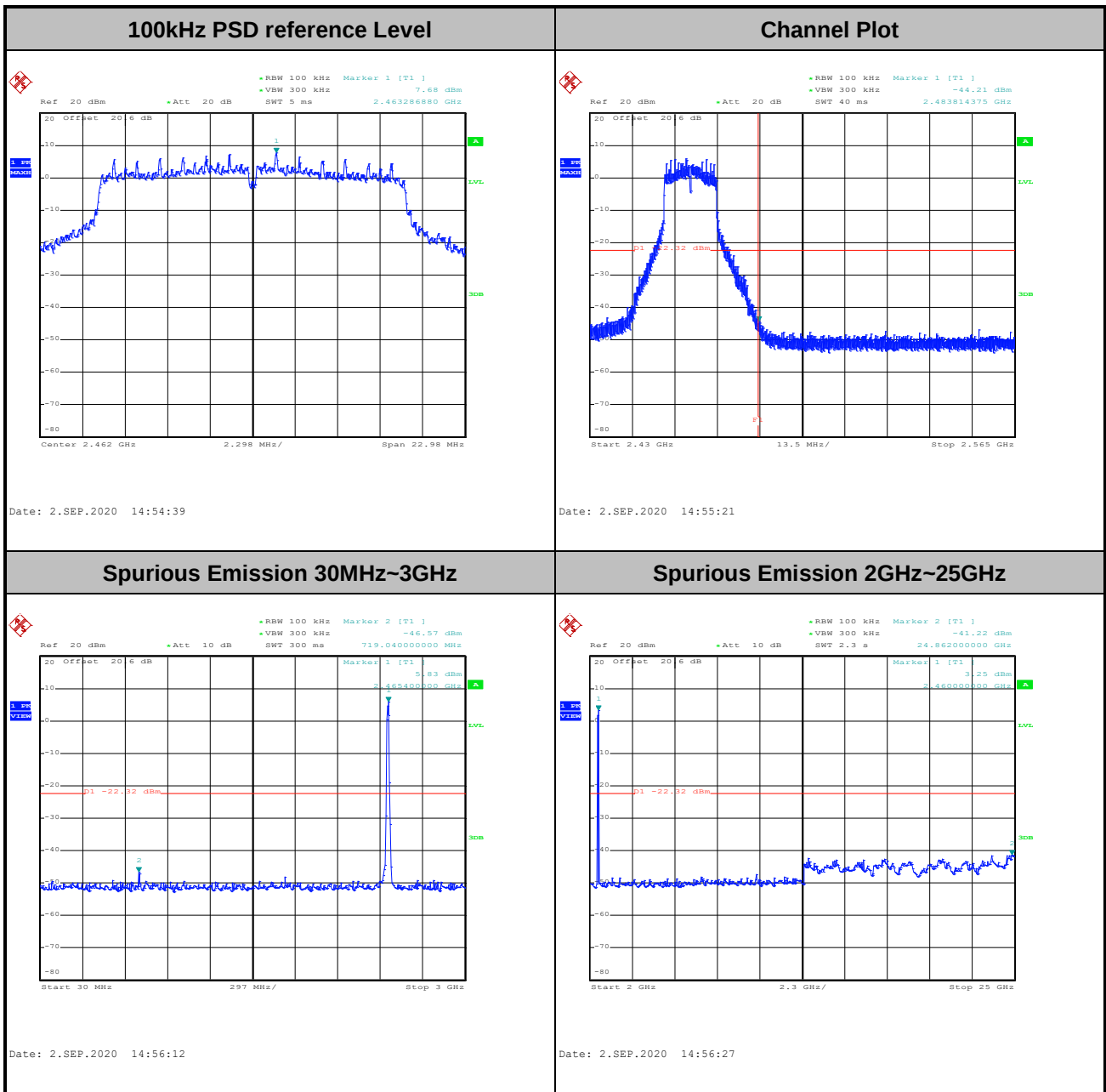


|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11g | Test Channel : | 06 |
|-------------|---------|----------------|----|





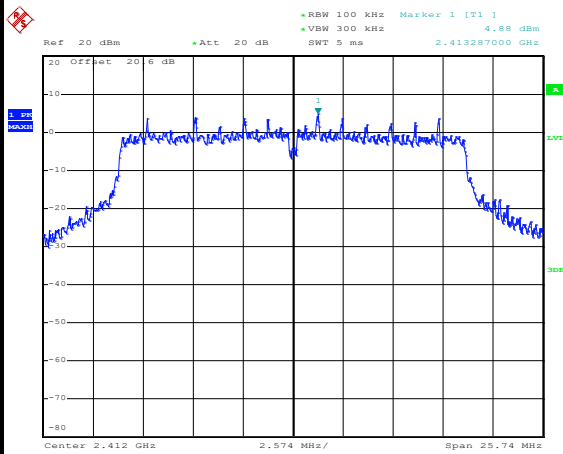
|             |         |                |    |
|-------------|---------|----------------|----|
| Test Mode : | 802.11g | Test Channel : | 11 |
|-------------|---------|----------------|----|





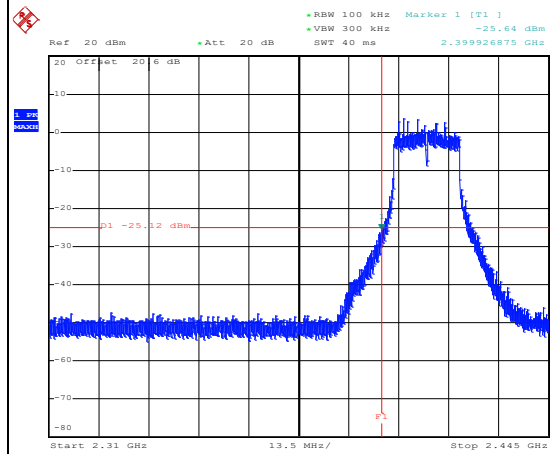
|             |              |                |    |
|-------------|--------------|----------------|----|
| Test Mode : | 802.11n HT20 | Test Channel : | 01 |
|-------------|--------------|----------------|----|

100kHz PSD reference Level



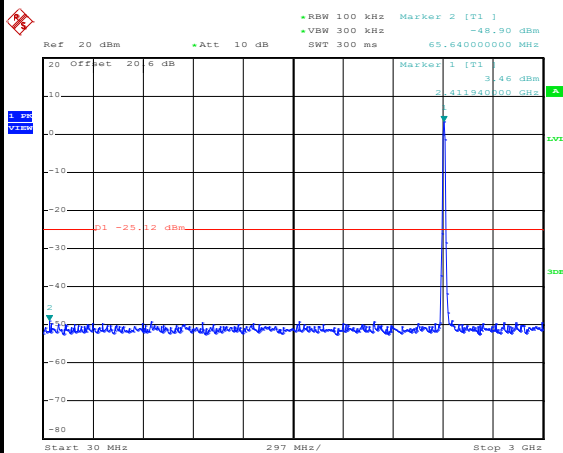
Date: 2.SEP.2020 15:39:44

Channel Plot



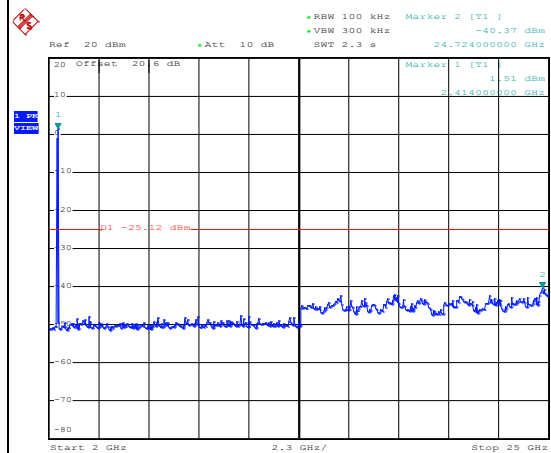
Date: 2.SEP.2020 15:40:09

Spurious Emission 30MHz~3GHz



Date: 2.SEP.2020 15:40:26

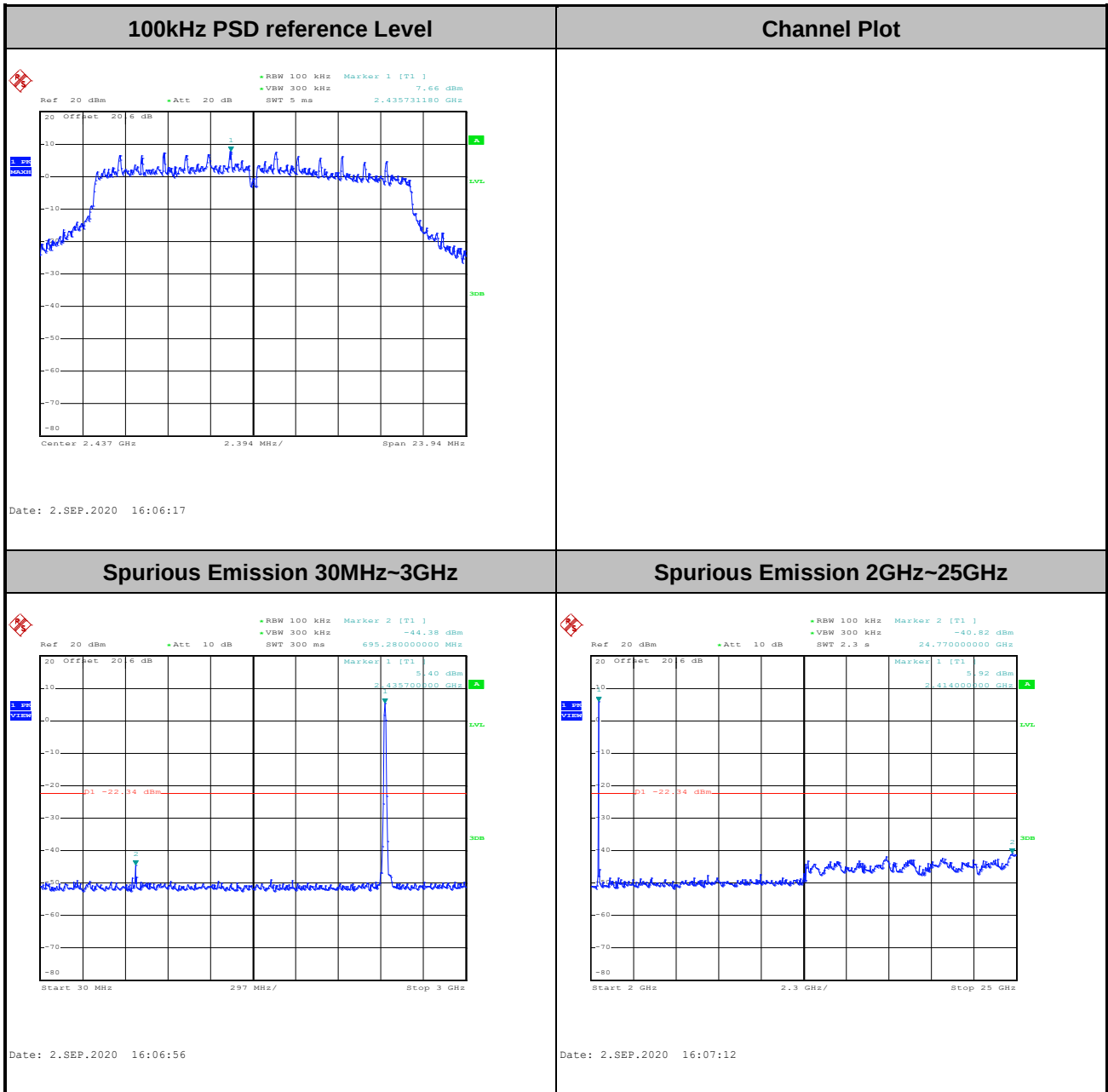
Spurious Emission 2GHz~25GHz



Date: 2.SEP.2020 15:41:26



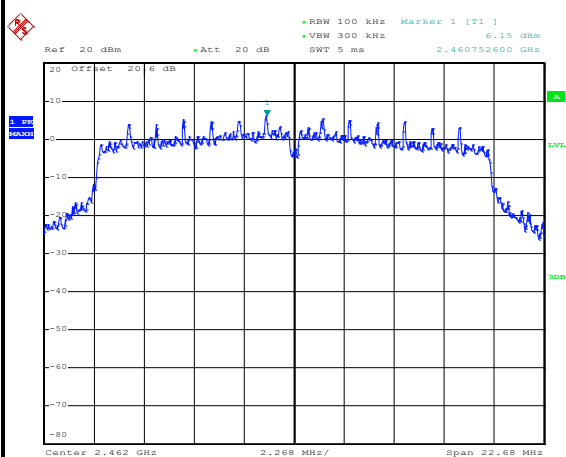
|             |              |                |    |
|-------------|--------------|----------------|----|
| Test Mode : | 802.11n HT20 | Test Channel : | 06 |
|-------------|--------------|----------------|----|





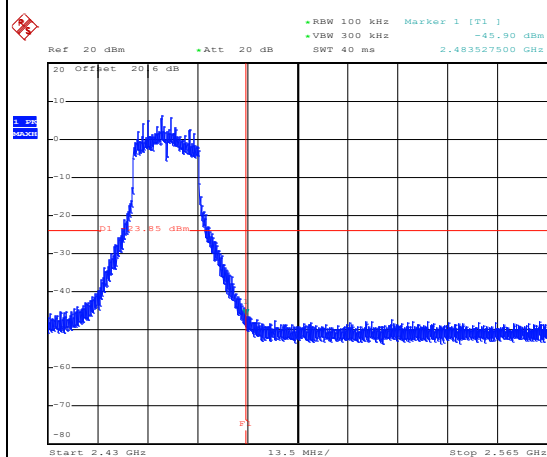
|             |              |                |    |
|-------------|--------------|----------------|----|
| Test Mode : | 802.11n HT20 | Test Channel : | 11 |
|-------------|--------------|----------------|----|

100kHz PSD reference Level



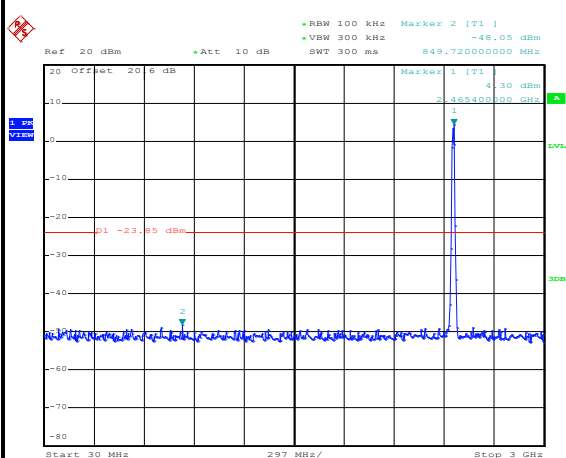
Date: 2.SEP.2020 16:31:23

Channel Plot



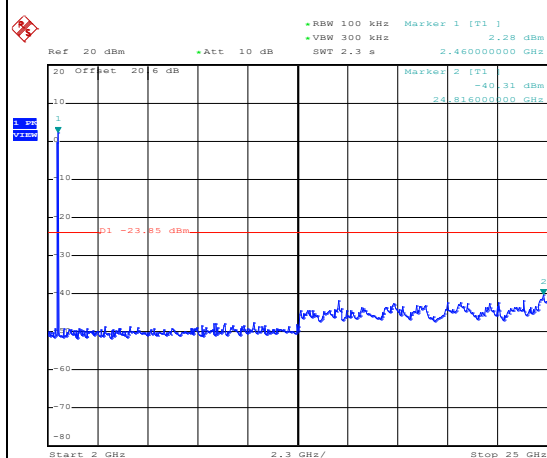
Date: 2.SEP.2020 16:32:26

Spurious Emission 30MHz~3GHz



Date: 2.SEP.2020 16:32:45

Spurious Emission 2GHz~25GHz



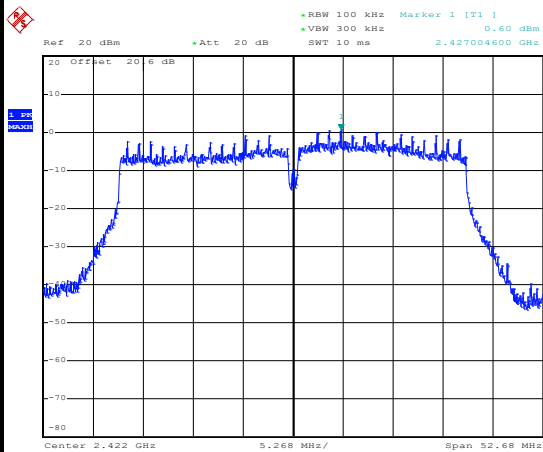
Date: 2.SEP.2020 16:33:22



Test Mode : 802.11n HT40

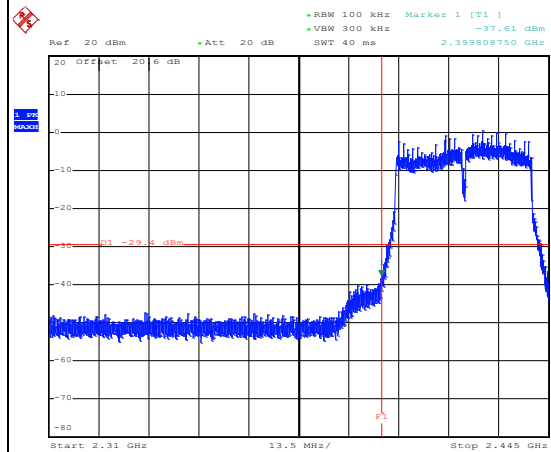
Test Channel : 03

## 100kHz PSD reference Level



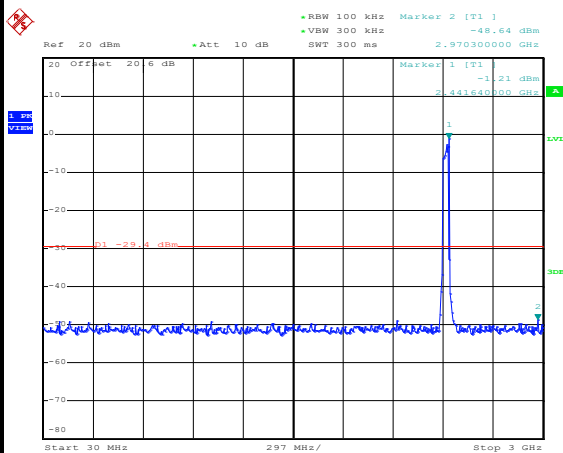
Date: 2.SEP.2020 17:00:07

## Channel Plot



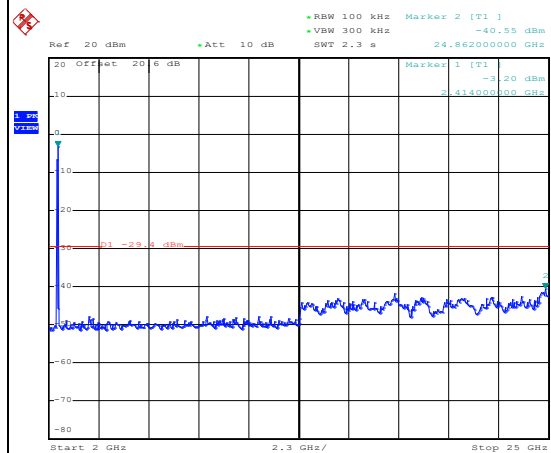
Date: 2.SEP.2020 17:00:25

## Spurious Emission 30MHz~3GHz

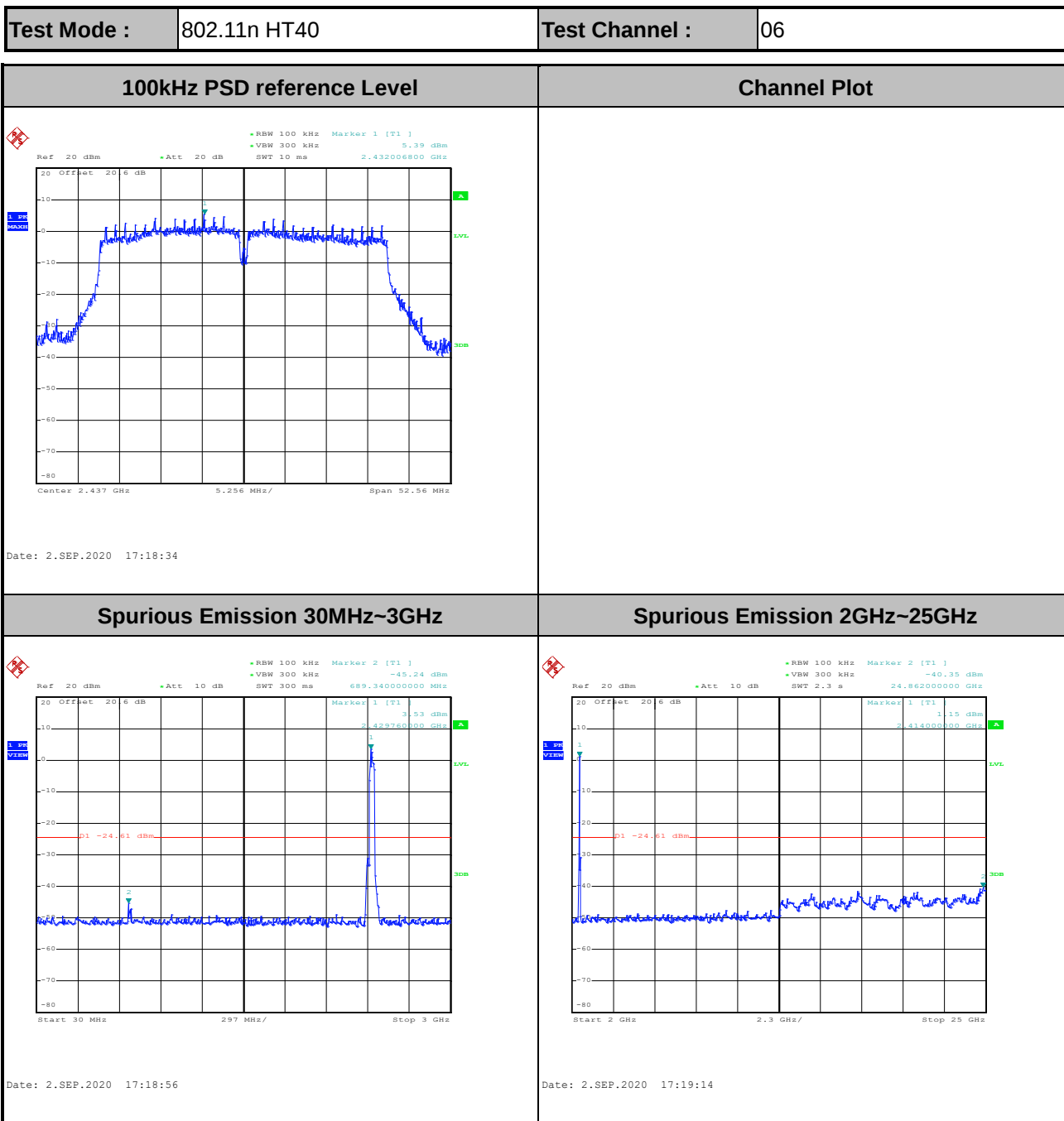


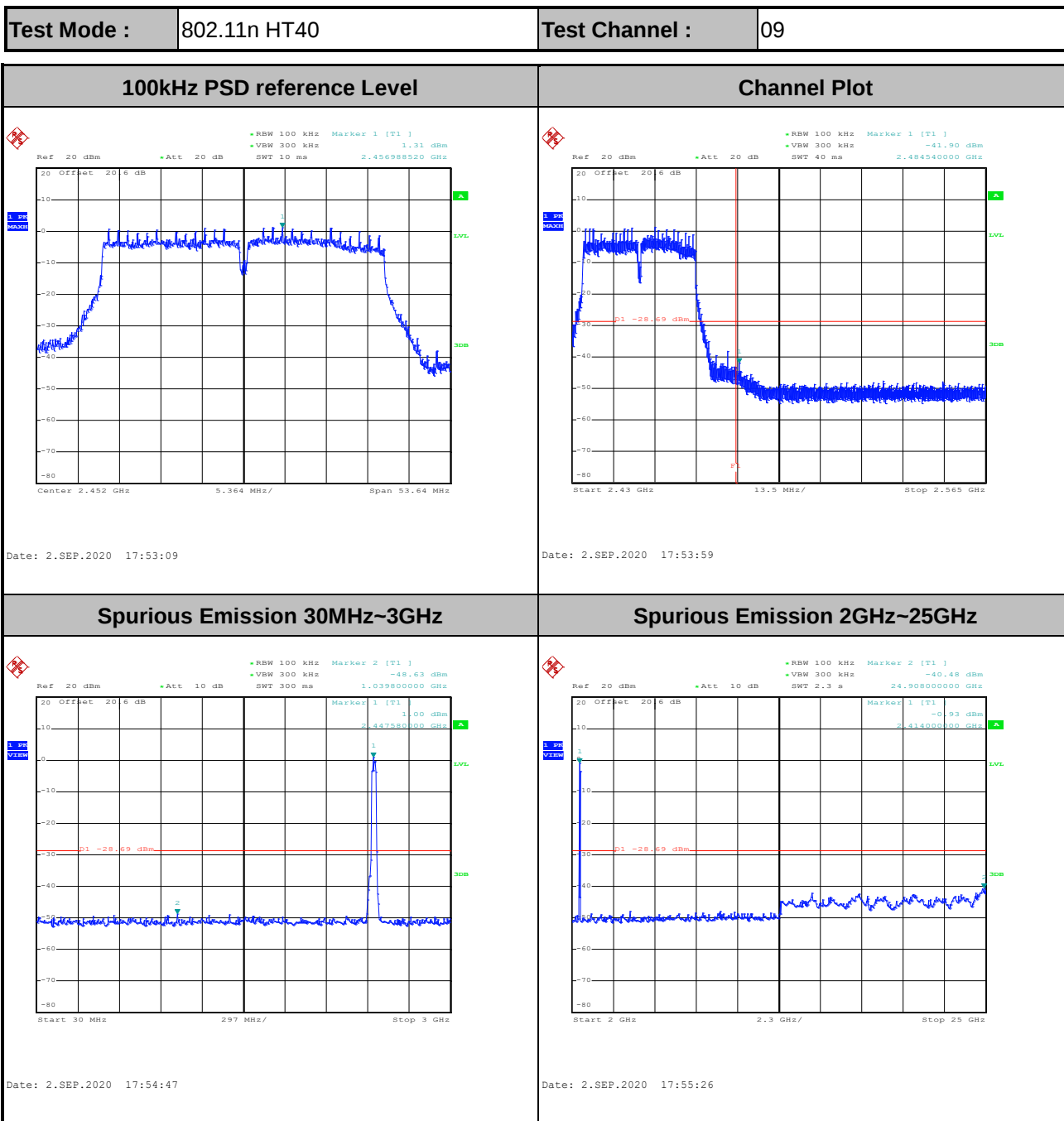
Date: 2.SEP.2020 17:00:46

## Spurious Emission 2GHz~25GHz



Date: 2.SEP.2020 17:01:04





### 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

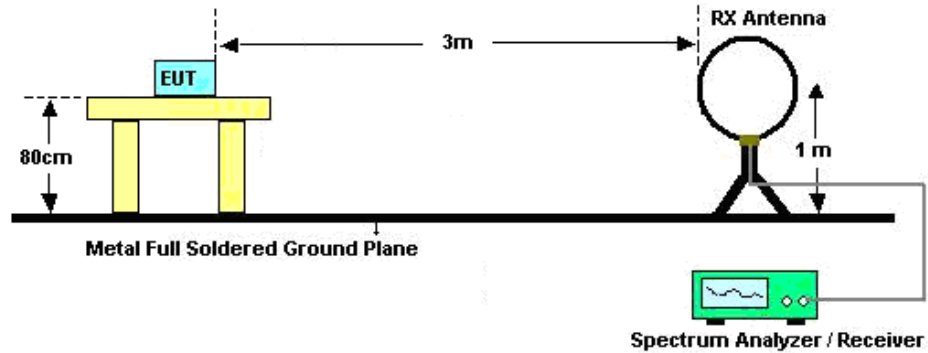
See list of measuring equipment of this test report.

### 3.5.3 Test Procedures

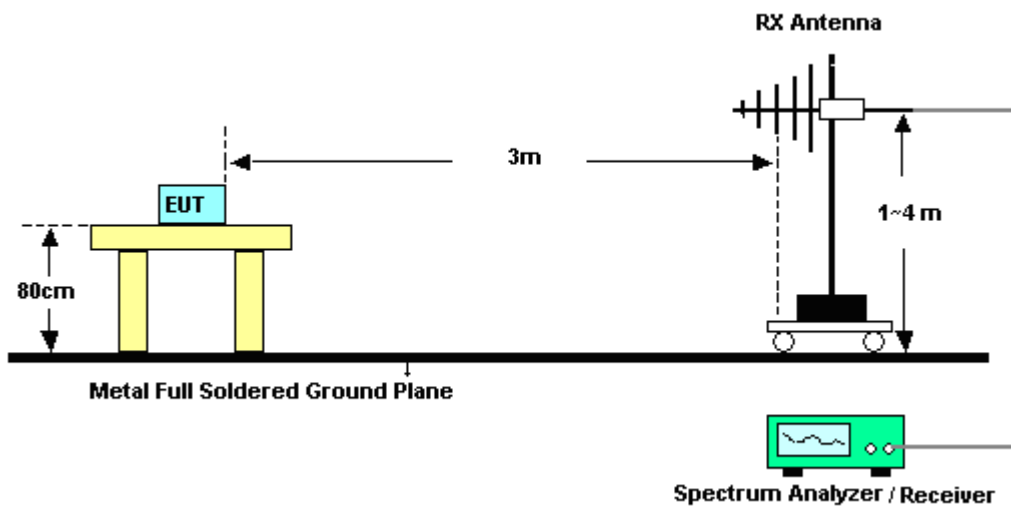
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the 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

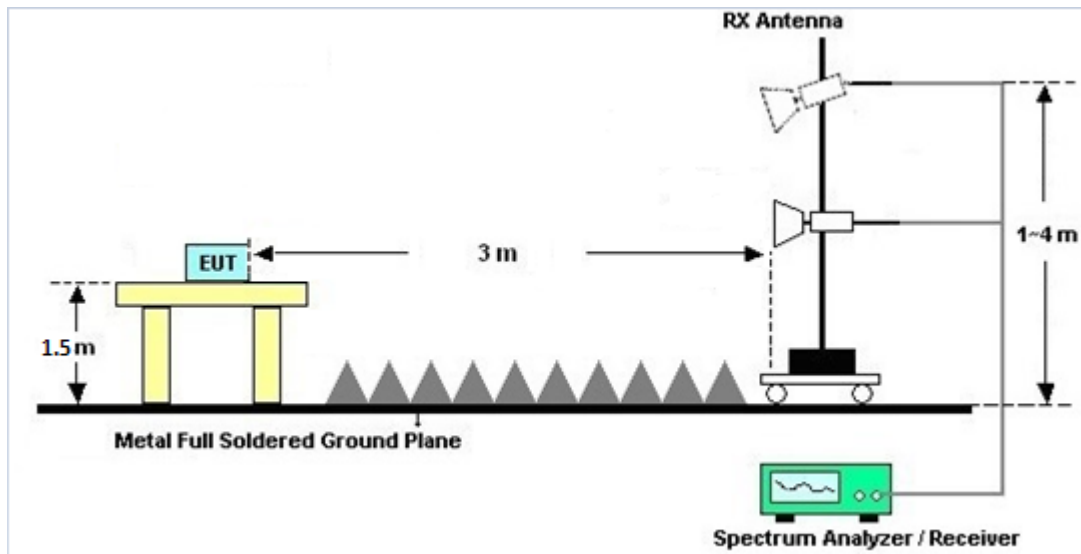
For radiated emissions below 30MHz



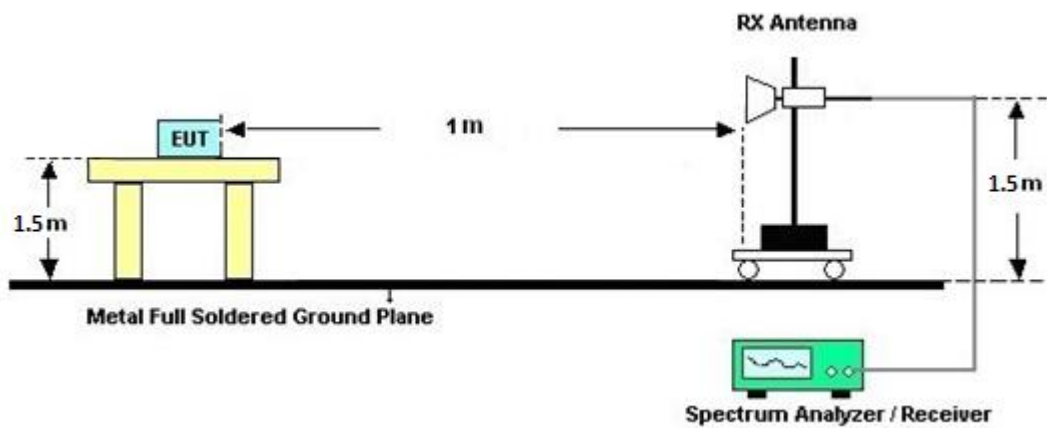
For radiated emissions from 30MHz to 1GHz



For radiated emissions from 1GHz~18GHz



For radiated emissions above 18GHz





### **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 B and C.

### **3.5.7 Duty Cycle**

Please refer to Appendix D.

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

Please refer to Appendix B and C.

### 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.

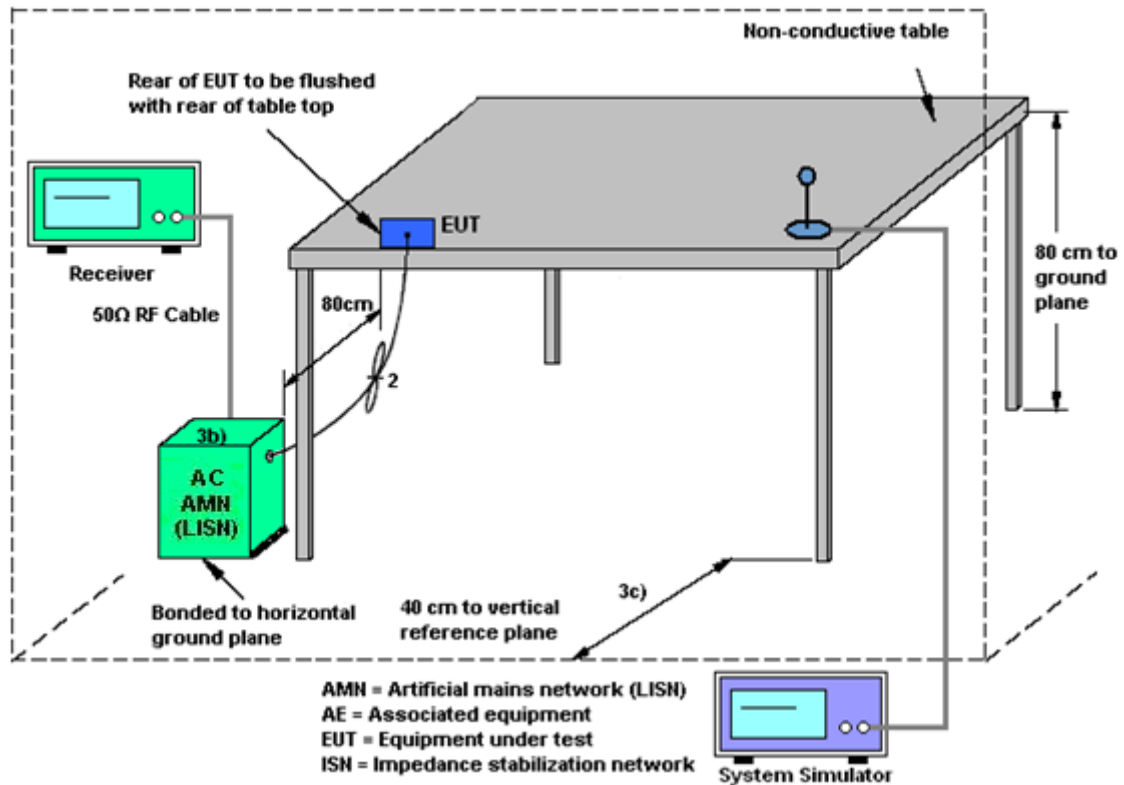
#### 3.6.2 Measuring Instruments

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 A.

### 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> |                 |                 |                             |                           |                                     |                                   |
|-------------|-----------------|-----------------|-----------------------------|---------------------------|-------------------------------------|-----------------------------------|
|             |                 |                 | 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) |
|             | Ant. 1<br>(dBi) | Ant. 2<br>(dBi) |                             |                           |                                     |                                   |
| 2.4 GHz     | 0.85            | 2.05            | 2.05                        | 4.48                      | 0.00                                | 0.00                              |

*Power Limit Reduction =  $DG(\text{Power}) - 6\text{dBi}$ , ( min = 0 )*

*PSD Limit Reduction =  $DG(\text{PSD}) - 6\text{dBi}$ , ( min = 0 )*



## 4 List of Measuring Equipment

| Instrument              | Brand Name            | Model No.                       | Serial No.        | Characteristics | Calibration Date | Test Date                       | Due Date      | Remark                   |
|-------------------------|-----------------------|---------------------------------|-------------------|-----------------|------------------|---------------------------------|---------------|--------------------------|
| Hygrometer              | Testo                 | HTC-1                           | 2                 | N/A             | Mar. 02, 2020    | Aug. 05, 2020~<br>Sep. 04, 2020 | Mar. 01, 2021 | Conducted<br>(TH05-HY)   |
| Power Sensor            | DARE                  | RPR3006W                        | 17I00015S<br>NO36 | 10MHz~6GHz      | Jan. 22, 2020    | Aug. 05, 2020~<br>Sep. 04, 2020 | Jan. 21, 2021 | Conducted<br>(TH05-HY)   |
| Spectrum Analyzer       | Rohde & Schwarz       | FSP30                           | 101067            | 9kHz~30GHz      | Nov. 26, 2019    | Aug. 05, 2020~<br>Sep. 04, 2020 | Nov. 25, 2020 | Conducted<br>(TH05-HY)   |
| Switch Control Manframe | EM Electronics        | EMSW18SE                        | SW200302          | N/A             | Mar. 17, 2020    | Aug. 05, 2020~<br>Sep. 04, 2020 | Mar. 16, 2021 | Conducted<br>(TH05-HY)   |
| AC Power Source         | ChainTek              | APC-1000W                       | N/A               | N/A             | N/A              | Aug. 04, 2020                   | N/A           | Conduction<br>(CO05-HY)  |
| EMI Test Receiver       | Rohde & Schwarz       | ESR3                            | 102388            | 9kHz~3.6GHz     | Nov. 15, 2019    | Aug. 04, 2020                   | Nov. 14, 2020 | Conduction<br>(CO05-HY)  |
| Hygrometer              | Testo                 | 608-H1                          | 34913912          | N/A             | Nov. 07, 2019    | Aug. 04, 2020                   | Nov. 06, 2020 | Conduction<br>(CO05-HY)  |
| LISN                    | Rohde & Schwarz       | ENV216                          | 100080            | 9kHz~30MHz      | Nov. 20, 2019    | Aug. 04, 2020                   | Nov. 19, 2020 | Conduction<br>(CO05-HY)  |
| LISN                    | Rohde & Schwarz       | ENV216                          | 100081            | 9kHz~30MHz      | Nov. 15, 2019    | Aug. 04, 2020                   | Nov. 14, 2020 | Conduction<br>(CO05-HY)  |
| Software                | Rohde & Schwarz       | EMC32<br>V10.30                 | N/A               | N/A             | N/A              | Aug. 04, 2020                   | N/A           | Conduction<br>(CO05-HY)  |
| LF Cable                | HUBER +<br>SUHNER     | RG-214/U                        | LF01              | N/A             | Jan. 02, 2020    | Aug. 04, 2020                   | Jan. 01, 2021 | Conduction<br>(CO05-HY)  |
| Pulse Limiter           | Rohde & Schwarz       | ESH3-Z2                         | 100851            | N/A             | Jan. 02, 2020    | Aug. 04, 2020                   | Jan. 01, 2021 | Conduction<br>(CO05-HY)  |
| Loop Antenna            | Rohde & Schwarz       | HFH2-Z2                         | 100488            | 9 kHz~30 MHz    | Jan. 09, 2020    | Aug. 08, 2020~<br>Sep. 02, 2020 | Jan. 08, 2021 | Radiation<br>(03CH13-HY) |
| Horn Antenna            | SCHWARZBE<br>CK       | BBHA 9120 D                     | 9120D-121<br>2    | 1GHz ~ 18GHz    | May 20, 2020     | Aug. 08, 2020~<br>Sep. 02, 2020 | May 19, 2021  | Radiation<br>(03CH13-HY) |
| Bilog Antenna           | TESEQ                 | CBL<br>6111D&00800<br>N1D01N-06 | 40103&07          | 30MHz to 1GHz   | Apr. 29, 2020    | Aug. 08, 2020~<br>Sep. 02, 2020 | Apr. 28, 2021 | Radiation<br>(03CH13-HY) |
| SHF-EHF Horn Antenna    | SCHWARZBE<br>CK       | BBHA 9170                       | BBHA9170<br>584   | 18GHz- 40GHz    | Dec.10, 2019     | Aug. 08, 2020~<br>Sep. 02, 2020 | Dec. 09, 2020 | Radiation<br>(03CH13-HY) |
| Preamplifier            | Keysight              | 83017A                          | MY532701<br>47    | 1GHz~26.5GHz    | Oct. 28, 2019    | Aug. 08, 2020~<br>Sep. 02, 2020 | Oct. 27, 2020 | Radiation<br>(03CH13-HY) |
| Preamplifier            | MITEQ                 | AMF-7D-0010<br>1800-30-10P      | 1590074           | 1GHz~18GHz      | May 19, 2020     | Aug. 08, 2020~<br>Sep. 02, 2020 | May 18, 2021  | Radiation<br>(03CH13-HY) |
| Amplifier               | Sonoma-Instru<br>ment | 310 N                           | 187282            | 9KHz~1GHz       | Dec. 17, 2019    | Aug. 08, 2020~<br>Sep. 02, 2020 | Dec. 16, 2020 | Radiation<br>(03CH13-HY) |
| Preamplifier            | EMEC                  | EM18G40G                        | 060715            | 18GHz ~ 40GHz   | Dec. 13, 2019    | Aug. 08, 2020~<br>Sep. 02, 2020 | Dec. 12, 2020 | Radiation<br>(03CH13-HY) |
| Hygrometer              | TECPEL                | DTM-303B                        | TP150115          | N/A             | Nov. 08, 2019    | Aug. 08, 2020~<br>Sep. 02, 2020 | Nov. 07, 2020 | Radiation<br>(03CH13-HY) |



| Instrument        | Brand Name     | Model No.                            | Serial No.  | Characteristics               | Calibration Date | Test Date                       | Due Date      | Remark                   |
|-------------------|----------------|--------------------------------------|-------------|-------------------------------|------------------|---------------------------------|---------------|--------------------------|
| RF Cable          | HUBER + SUHNER | SUCOFLEX 126E                        | 0030/126E   | 30M-18G                       | Feb. 12, 2020    | Aug. 08, 2020~<br>Sep. 02, 2020 | Feb. 11, 2021 | Radiation<br>(03CH13-HY) |
| RF Cable          | HUBER + SUHNER | SUCOFLEX 104                         | 804793/4    | 30M-18G                       | Feb. 12, 2020    | Aug. 08, 2020~<br>Sep. 02, 2020 | Feb. 11, 2021 | Radiation<br>(03CH13-HY) |
| RF Cable          | HUBER + SUHNER | SUCOFLEX 104                         | MY24961/4   | 30M-18G                       | Feb. 12, 2020    | Aug. 08, 2020~<br>Sep. 02, 2020 | Feb. 11, 2021 | Radiation<br>(03CH13-HY) |
| RF Cable          | HUBER + SUHNER | SUCOFLEX 102                         | MY2859/2    | 30M~40GHz                     | Mar. 12, 2020    | Aug. 08, 2020~<br>Sep. 02, 2020 | Mar. 11, 2021 | Radiation<br>(03CH13-HY) |
| RF Cable          | HUBER + SUHNER | SUCOFLEX 102                         | MY4274/2    | 30M~40GHz                     | Mar. 12, 2020    | Aug. 08, 2020~<br>Sep. 02, 2020 | Mar. 11, 2021 | Radiation<br>(03CH13-HY) |
| RF Cable          | HUBER + SUHNER | SUCOFLEX 104                         | MY9837/4 PE | 9kHz~30MHz                    | Mar. 12, 2020    | Aug. 08, 2020~<br>Sep. 02, 2020 | Mar. 11, 2021 | Radiation<br>(03CH13-HY) |
| Spectrum Analyzer | Keysight       | N9010A                               | MY54200485  | 10Hz~44GHz                    | Feb. 10, 2020    | Aug. 08, 2020~<br>Sep. 02, 2020 | Feb. 09, 2021 | Radiation<br>(03CH13-HY) |
| Controller        | EMEC           | EM1000                               | N/A         | Control Turn table & Ant Mast | N/A              | Aug. 08, 2020~<br>Sep. 02, 2020 | N/A           | Radiation<br>(03CH13-HY) |
| Antenna Mast      | EMEC           | AM-BS-4500-B                         | N/A         | 1m~4m                         | N/A              | Aug. 08, 2020~<br>Sep. 02, 2020 | N/A           | Radiation<br>(03CH13-HY) |
| Turn Table        | EMEC           | TT2000                               | N/A         | 0~360 Degree                  | N/A              | Aug. 08, 2020~<br>Sep. 02, 2020 | N/A           | Radiation<br>(03CH13-HY) |
| Software          | AUDIX          | E3<br>6.2009-8-24c                   | RK-001124   | N/A                           | N/A              | Aug. 08, 2020~<br>Sep. 02, 2020 | N/A           | Radiation<br>(03CH13-HY) |
| EMI Test Receiver | Keysight       | N9038A(MXE )                         | MY54130085  | 20Hz ~ 8.4GHz                 | Nov. 01, 2019    | Aug. 08, 2020~<br>Sep. 02, 2020 | Oct. 31, 2020 | Radiation<br>(03CH13-HY) |
| Filter            | Wainwright     | WHKX8-5872.<br>5-6750-18000<br>-40ST | SN6         | 6.75GHz High<br>Pass Filter   | Mar. 12, 2020    | Aug. 08, 2020~<br>Sep. 02, 2020 | Mar. 11, 2021 | Radiation<br>(03CH13-HY) |
| Filter            | Wainwright     | WLK4-1000-1<br>530-8000-40S<br>S     | SN12        | 1.53GHz Low<br>Pass Filter    | Sep. 16, 2019    | Aug. 08, 2020~<br>Sep. 02, 2020 | Sep. 15, 2020 | Radiation<br>(03CH13-HY) |

## 5 Uncertainty of Evaluation

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

|                                                                         |     |
|-------------------------------------------------------------------------|-----|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ ) | 2.3 |
|-------------------------------------------------------------------------|-----|

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

|                                                                         |     |
|-------------------------------------------------------------------------|-----|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ ) | 4.8 |
|-------------------------------------------------------------------------|-----|

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

|                                                                         |     |
|-------------------------------------------------------------------------|-----|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ ) | 5.1 |
|-------------------------------------------------------------------------|-----|

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

|                                                                         |     |
|-------------------------------------------------------------------------|-----|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ ) | 4.8 |
|-------------------------------------------------------------------------|-----|



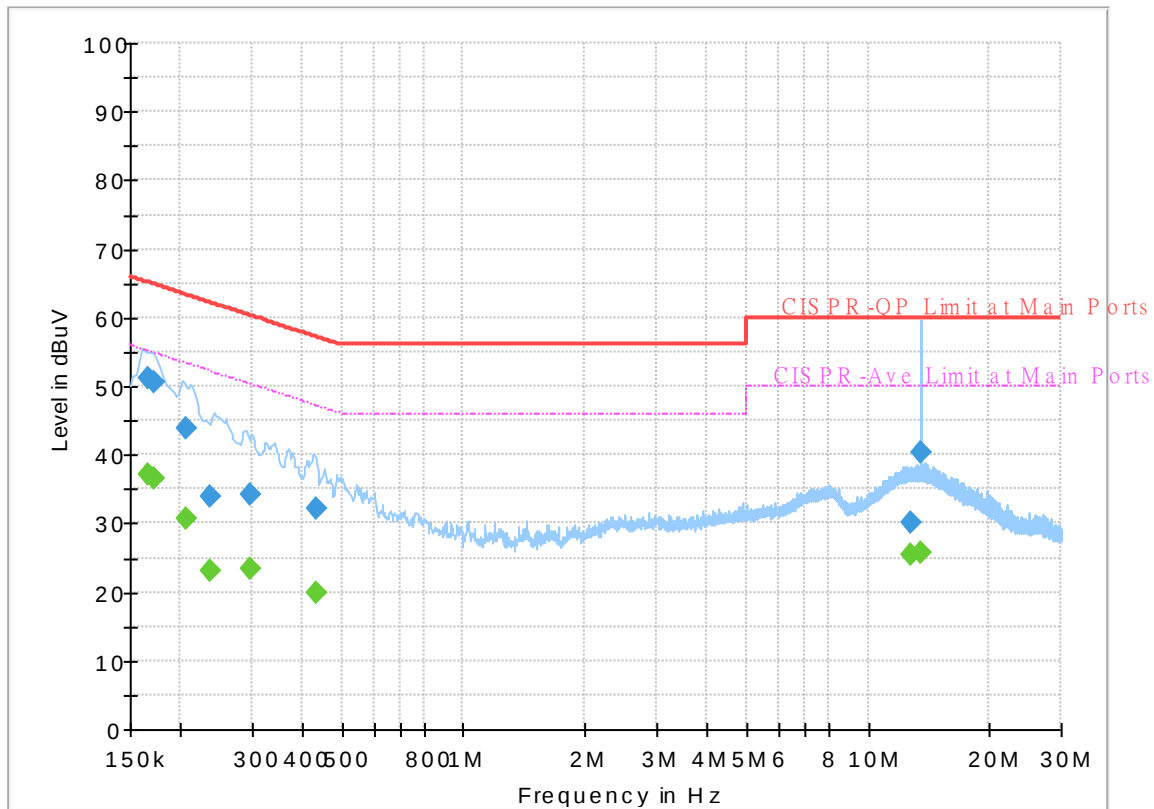
## Appendix A. AC Conducted Emission Test Results

|                 |         |                     |        |
|-----------------|---------|---------------------|--------|
| Test Engineer : | Tom Lee | Temperature :       | 23~25℃ |
|                 |         | Relative Humidity : | 42~50% |

## EUT Information

Report NO : 072903-01  
Test Mode : Mode 1  
Test Voltage : 120Vac/60Hz  
Phase : Line

Full Spectrum



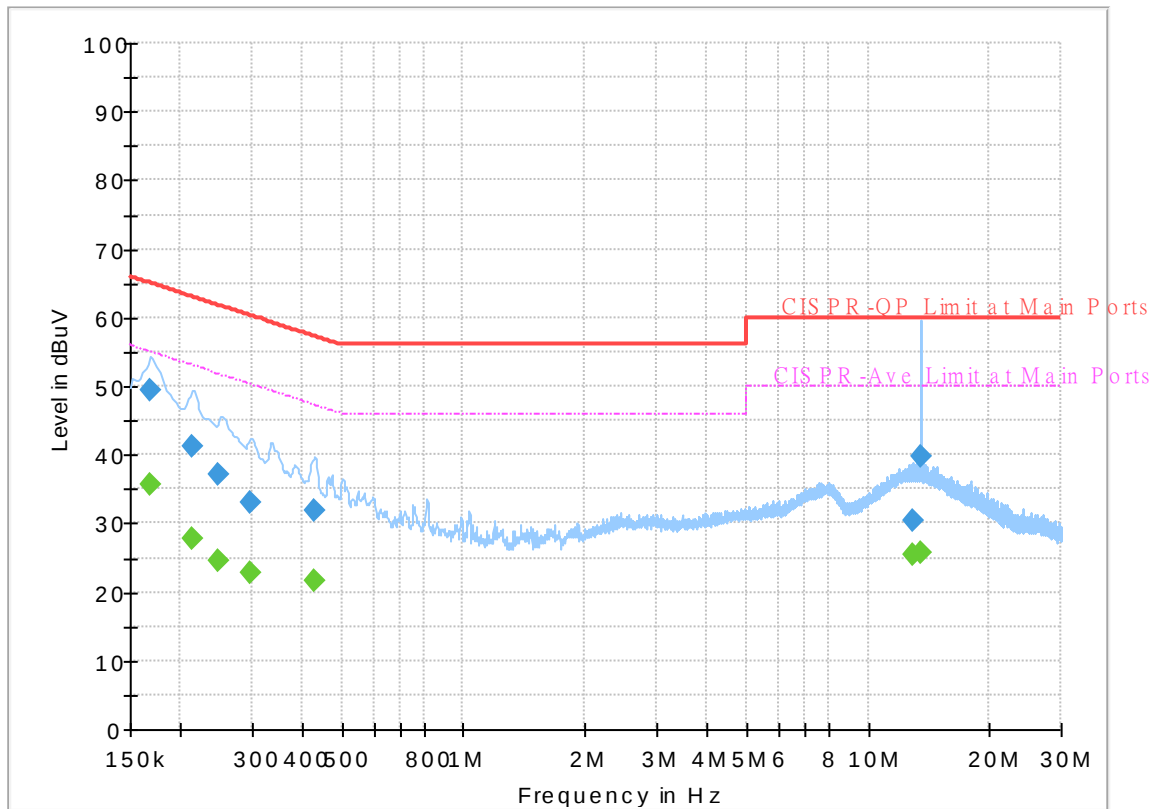
## Final\_Result

| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|------|--------|------------|
| 0.165750        | ---              | 37.25           | 55.17        | 17.92       | L1   | OFF    | 19.5       |
| 0.165750        | 51.06            | ---             | 65.17        | 14.11       | L1   | OFF    | 19.5       |
| 0.171060        | ---              | 36.65           | 54.91        | 18.26       | L1   | OFF    | 19.5       |
| 0.171060        | 50.56            | ---             | 64.91        | 14.35       | L1   | OFF    | 19.5       |
| 0.206250        | ---              | 30.65           | 53.36        | 22.71       | L1   | OFF    | 19.5       |
| 0.206250        | 43.83            | ---             | 63.36        | 19.53       | L1   | OFF    | 19.5       |
| 0.237750        | ---              | 22.99           | 52.17        | 29.18       | L1   | OFF    | 19.5       |
| 0.237750        | 33.85            | ---             | 62.17        | 28.32       | L1   | OFF    | 19.5       |
| 0.296250        | ---              | 23.44           | 50.35        | 26.91       | L1   | OFF    | 19.5       |
| 0.296250        | 34.07            | ---             | 60.35        | 26.28       | L1   | OFF    | 19.5       |
| 0.431250        | ---              | 19.76           | 47.23        | 27.47       | L1   | OFF    | 19.5       |
| 0.431250        | 32.11            | ---             | 57.23        | 25.12       | L1   | OFF    | 19.5       |
| 12.700500       | ---              | 25.30           | 50.00        | 24.70       | L1   | OFF    | 19.8       |
| 12.700500       | 30.22            | ---             | 60.00        | 29.78       | L1   | OFF    | 19.8       |
| 13.560000       | ---              | 25.65           | 50.00        | 24.35       | L1   | OFF    | 19.8       |
| 13.560000       | 40.46            | ---             | 60.00        | 19.54       | L1   | OFF    | 19.8       |

## EUT Information

Report NO : 072903-01  
Test Mode : Mode 1  
Test Voltage : 120Vac/60Hz  
Phase : Neutral

Full Spectrum



## Final\_Result

| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|------|--------|------------|
| 0.168000        | ---              | 35.57           | 55.06        | 19.49       | N    | OFF    | 19.5       |
| 0.168000        | 49.28            | ---             | 65.06        | 15.78       | N    | OFF    | 19.5       |
| 0.213000        | ---              | 27.70           | 53.09        | 25.39       | N    | OFF    | 19.5       |
| 0.213000        | 41.17            | ---             | 63.09        | 21.92       | N    | OFF    | 19.5       |
| 0.249000        | ---              | 24.62           | 51.79        | 27.17       | N    | OFF    | 19.5       |
| 0.249000        | 37.16            | ---             | 61.79        | 24.63       | N    | OFF    | 19.5       |
| 0.296250        | ---              | 22.80           | 50.35        | 27.55       | N    | OFF    | 19.5       |
| 0.296250        | 32.98            | ---             | 60.35        | 27.37       | N    | OFF    | 19.5       |
| 0.428550        | ---              | 21.56           | 47.28        | 25.72       | N    | OFF    | 19.5       |
| 0.428550        | 31.79            | ---             | 57.28        | 25.49       | N    | OFF    | 19.5       |
| 12.876090       | ---              | 25.56           | 50.00        | 24.44       | N    | OFF    | 19.9       |
| 12.876090       | 30.53            | ---             | 60.00        | 29.47       | N    | OFF    | 19.9       |
| 13.560000       | ---              | 25.83           | 50.00        | 24.17       | N    | OFF    | 19.9       |
| 13.560000       | 39.75            | ---             | 60.00        | 20.25       | N    | OFF    | 19.9       |



## Appendix B. Radiated Spurious Emission

|                 |                                      |                     |             |
|-----------------|--------------------------------------|---------------------|-------------|
| Test Engineer : | Daniel Lee, Jacky Hong and Wilson Wu | Temperature :       | 22.8~24.2°C |
|                 |                                      | Relative Humidity : | 51.2~58.5%  |

### 2.4GHz 2400~2483.5MHz

#### WIFI 802.11b (Band Edge @ 3m)

| WIFI Ant.                   | Note | Frequency | Level      | Over Limit | Limit Line | Read Level | Antenna Factor | Path Loss | Preampl Factor | Ant Pos | Table Pos | Peak Avg. | Pol.    |
|-----------------------------|------|-----------|------------|------------|------------|------------|----------------|-----------|----------------|---------|-----------|-----------|---------|
| 1                           |      | ( MHz )   | ( dBμV/m ) | ( dB )     | ( dBμV/m ) | ( dBμV )   | ( dB/m )       | ( dB )    | ( dB )         | ( cm )  | ( deg )   | ( P/A )   | ( H/V ) |
| 802.11b<br>CH 01<br>2412MHz |      | 2313.36   | 56.48      | -17.52     | 74         | 42.09      | 27.77          | 13.92     | 27.3           | 143     | 219       | P         | H       |
|                             |      | 2389.065  | 45.23      | -8.77      | 54         | 30.91      | 27.62          | 13.99     | 27.29          | 143     | 219       | A         | H       |
|                             | *    | 2412      | 107.82     | -          | -          | 93.51      | 27.58          | 14.01     | 27.28          | 143     | 219       | P         | H       |
|                             | *    | 2412      | 104.65     | -          | -          | 90.34      | 27.58          | 14.01     | 27.28          | 143     | 219       | A         | H       |
|                             |      |           |            |            |            |            |                |           |                |         |           |           | H       |
|                             |      | 2329.95   | 56.02      | -17.98     | 74         | 41.65      | 27.74          | 13.93     | 27.3           | 306     | 355       | P         | V       |
|                             |      | 2389.17   | 44.73      | -9.27      | 54         | 30.41      | 27.62          | 13.99     | 27.29          | 306     | 355       | A         | V       |
|                             | *    | 2412      | 105.31     | -          | -          | 91         | 27.58          | 14.01     | 27.28          | 306     | 355       | P         | V       |
|                             | *    | 2412      | 102.08     | -          | -          | 87.77      | 27.58          | 14.01     | 27.28          | 306     | 355       | A         | V       |
|                             |      |           |            |            |            |            |                |           |                |         |           |           | V       |
| 802.11b<br>CH 06<br>2437MHz |      | 2376.36   | 55.42      | -18.58     | 74         | 41.08      | 27.65          | 13.98     | 27.29          | 143     | 191       | P         | H       |
|                             |      | 2389.94   | 44.16      | -9.84      | 54         | 29.84      | 27.62          | 13.99     | 27.29          | 143     | 191       | A         | H       |
|                             | *    | 2437      | 107.81     | -          | -          | 93.53      | 27.53          | 14.03     | 27.28          | 143     | 191       | P         | H       |
|                             | *    | 2437      | 104.61     | -          | -          | 90.33      | 27.53          | 14.03     | 27.28          | 143     | 191       | A         | H       |
|                             |      | 2489.92   | 55.15      | -18.85     | 74         | 40.84      | 27.5           | 14.08     | 27.27          | 143     | 191       | P         | H       |
|                             |      | 2484.04   | 44.63      | -9.37      | 54         | 30.32      | 27.5           | 14.08     | 27.27          | 143     | 191       | A         | H       |
|                             |      | 2344.86   | 55.24      | -18.76     | 74         | 40.87      | 27.71          | 13.95     | 27.29          | 345     | 344       | P         | V       |
|                             |      | 2383.78   | 44.03      | -9.97      | 54         | 29.71      | 27.63          | 13.98     | 27.29          | 345     | 344       | A         | V       |
|                             | *    | 2437      | 107.28     | -          | -          | 93         | 27.53          | 14.03     | 27.28          | 345     | 344       | P         | V       |
|                             | *    | 2437      | 103.92     | -          | -          | 89.64      | 27.53          | 14.03     | 27.28          | 345     | 344       | A         | V       |
|                             |      | 2484.88   | 55.21      | -18.79     | 74         | 40.9       | 27.5           | 14.08     | 27.27          | 345     | 344       | P         | V       |
|                             |      | 2483.83   | 44.32      | -9.68      | 54         | 30.01      | 27.5           | 14.08     | 27.27          | 345     | 344       | A         | V       |



|                                      |                                                                                             |         |        |        |    |       |      |       |       |     |     |   |   |
|--------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|-------|------|-------|-------|-----|-----|---|---|
| <b>802.11b<br/>CH 11<br/>2462MHz</b> | *                                                                                           | 2462    | 110.41 | -      | -  | 96.13 | 27.5 | 14.06 | 27.28 | 200 | 128 | P | H |
|                                      | *                                                                                           | 2462    | 107.4  | -      | -  | 93.12 | 27.5 | 14.06 | 27.28 | 200 | 128 | A | H |
|                                      |                                                                                             | 2483.68 | 58.72  | -15.28 | 74 | 44.41 | 27.5 | 14.08 | 27.27 | 200 | 128 | P | H |
|                                      |                                                                                             | 2483.52 | 51.11  | -2.89  | 54 | 36.8  | 27.5 | 14.08 | 27.27 | 200 | 128 | A | H |
|                                      |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                      |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                      | *                                                                                           | 2462    | 105.17 | -      | -  | 90.89 | 27.5 | 14.06 | 27.28 | 284 | 82  | P | V |
|                                      | *                                                                                           | 2462    | 102.23 | -      | -  | 87.95 | 27.5 | 14.06 | 27.28 | 284 | 82  | A | V |
|                                      |                                                                                             | 2487.96 | 56.23  | -17.77 | 74 | 41.92 | 27.5 | 14.08 | 27.27 | 284 | 82  | P | V |
|                                      |                                                                                             | 2483.52 | 47.38  | -6.62  | 54 | 33.07 | 27.5 | 14.08 | 27.27 | 284 | 82  | A | 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

## WIFI 802.11b (Harmonic @ 3m)

| WIFI<br>Ant.<br>1           | Note                                                                                        | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | 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                 | 42.44               | -31.56                  | 74                          | 61.75                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4824                 | 42.87               | -31.13                  | 74                          | 62.18                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11b<br>CH 06<br>2437MHz |                                                                                             | 4874                 | 39.01               | -34.99                  | 74                          | 58.16                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             | 7311                 | 44.09               | -29.91                  | 74                          | 56.08                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4874                 | 40.37               | -33.63                  | 74                          | 59.52                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             | 7311                 | 43.98               | -30.02                  | 74                          | 55.97                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11b<br>CH 11<br>2462MHz |                                                                                             | 4924                 | 38.48               | -35.52                  | 74                          | 57.41                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             | 7386                 | 44.2                | -29.8                   | 74                          | 56.51                     | 36.56                         | 8.33                   | 57.2                       | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4924                 | 39.06               | -34.94                  | 74                          | 57.99                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             | 7386                 | 44.13               | -29.87                  | 74                          | 56.44                     | 36.56                         | 8.33                   | 57.2                       | 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>1                    | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | 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> |      | 2389.905             | 61.13               | -12.87                  | 74                          | 46.81                     | 27.62                         | 13.99                  | 27.29                      | 108                  | 330                     | P                       | H               |
|                                      |      | 2390                 | 52.45               | -1.55                   | 54                          | 38.13                     | 27.62                         | 13.99                  | 27.29                      | 108                  | 330                     | A                       | H               |
|                                      | *    | 2412                 | 109.3               | -                       | -                           | 94.99                     | 27.58                         | 14.01                  | 27.28                      | 108                  | 330                     | P                       | H               |
|                                      | *    | 2412                 | 101.65              | -                       | -                           | 87.34                     | 27.58                         | 14.01                  | 27.28                      | 108                  | 330                     | A                       | H               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                      |      | 2390                 | 62.13               | -11.87                  | 74                          | 47.81                     | 27.62                         | 13.99                  | 27.29                      | 145                  | 248                     | P                       | V               |
|                                      |      | 2390                 | 51.44               | -2.56                   | 54                          | 37.12                     | 27.62                         | 13.99                  | 27.29                      | 145                  | 248                     | A                       | V               |
|                                      | *    | 2412                 | 109                 | -                       | -                           | 94.69                     | 27.58                         | 14.01                  | 27.28                      | 145                  | 248                     | P                       | V               |
|                                      | *    | 2412                 | 101.11              | -                       | -                           | 86.8                      | 27.58                         | 14.01                  | 27.28                      | 145                  | 248                     | A                       | V               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| <b>802.11g<br/>CH 06<br/>2437MHz</b> |      | 2362.92              | 55.28               | -18.72                  | 74                          | 40.94                     | 27.67                         | 13.96                  | 27.29                      | 137                  | 210                     | P                       | H               |
|                                      |      | 2325.4               | 44.94               | -9.06                   | 54                          | 30.56                     | 27.75                         | 13.93                  | 27.3                       | 137                  | 210                     | A                       | H               |
|                                      | *    | 2437                 | 106.92              | -                       | -                           | 92.64                     | 27.53                         | 14.03                  | 27.28                      | 137                  | 210                     | P                       | H               |
|                                      | *    | 2437                 | 99.47               | -                       | -                           | 85.19                     | 27.53                         | 14.03                  | 27.28                      | 137                  | 210                     | A                       | H               |
|                                      |      | 2487.05              | 55.6                | -18.4                   | 74                          | 41.29                     | 27.5                          | 14.08                  | 27.27                      | 137                  | 210                     | P                       | H               |
|                                      |      | 2484.53              | 45.85               | -8.15                   | 54                          | 31.54                     | 27.5                          | 14.08                  | 27.27                      | 137                  | 210                     | A                       | H               |
|                                      |      | 2356.48              | 55.53               | -18.47                  | 74                          | 41.17                     | 27.69                         | 13.96                  | 27.29                      | 346                  | 340                     | P                       | V               |
|                                      |      | 2380.84              | 45.18               | -8.82                   | 54                          | 30.85                     | 27.64                         | 13.98                  | 27.29                      | 346                  | 340                     | A                       | V               |
|                                      | *    | 2437                 | 106.71              | -                       | -                           | 92.43                     | 27.53                         | 14.03                  | 27.28                      | 346                  | 340                     | P                       | V               |
|                                      | *    | 2437                 | 98.88               | -                       | -                           | 84.6                      | 27.53                         | 14.03                  | 27.28                      | 346                  | 340                     | A                       | V               |
|                                      |      | 2494.26              | 54.59               | -19.41                  | 74                          | 40.28                     | 27.5                          | 14.08                  | 27.27                      | 346                  | 340                     | P                       | V               |
|                                      |      | 2483.83              | 45.3                | -8.7                    | 54                          | 30.99                     | 27.5                          | 14.08                  | 27.27                      | 346                  | 340                     | A                       | V               |



|                                                  |                                                                                             |         |        |        |    |       |      |       |       |     |     |   |   |
|--------------------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|-------|------|-------|-------|-----|-----|---|---|
| <b>802.11g</b><br><b>CH 11</b><br><b>2462MHz</b> | *                                                                                           | 2462    | 108.62 | -      | -  | 94.34 | 27.5 | 14.06 | 27.28 | 201 | 130 | P | H |
|                                                  | *                                                                                           | 2462    | 101.15 | -      | -  | 86.87 | 27.5 | 14.06 | 27.28 | 201 | 130 | A | H |
|                                                  |                                                                                             | 2483.6  | 61.98  | -12.02 | 74 | 47.67 | 27.5 | 14.08 | 27.27 | 201 | 130 | P | H |
|                                                  |                                                                                             | 2483.52 | 52.77  | -1.23  | 54 | 38.46 | 27.5 | 14.08 | 27.27 | 201 | 130 | A | H |
|                                                  |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                                  |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                                  | *                                                                                           | 2462    | 104.35 | -      | -  | 90.07 | 27.5 | 14.06 | 27.28 | 320 | 76  | P | V |
|                                                  | *                                                                                           | 2462    | 96.69  | -      | -  | 82.41 | 27.5 | 14.06 | 27.28 | 320 | 76  | A | V |
|                                                  |                                                                                             | 2483.56 | 57.78  | -16.22 | 74 | 43.47 | 27.5 | 14.08 | 27.27 | 320 | 76  | P | V |
|                                                  |                                                                                             | 2483.52 | 48.98  | -5.02  | 54 | 34.67 | 27.5 | 14.08 | 27.27 | 320 | 76  | A | 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

## WIFI 802.11g (Harmonic @ 3m)

| WIFI<br>Ant.<br>1           | Note                                                                                        | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | 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                 | 38.46               | -35.54                  | 74                          | 57.77                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4824                 | 38.32               | -35.68                  | 74                          | 57.63                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11g<br>CH 06<br>2437MHz |                                                                                             | 4874                 | 38.38               | -35.62                  | 74                          | 57.53                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             | 7311                 | 44.11               | -29.89                  | 74                          | 56.1                      | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4874                 | 38.4                | -35.6                   | 74                          | 57.55                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             | 7311                 | 43.58               | -30.42                  | 74                          | 55.57                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11g<br>CH 11<br>2462MHz |                                                                                             | 4924                 | 39.63               | -34.37                  | 74                          | 58.56                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             | 7386                 | 44.2                | -29.8                   | 74                          | 56.51                     | 36.56                         | 8.33                   | 57.2                       | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4924                 | 39.31               | -34.69                  | 74                          | 58.24                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             | 7386                 | 43.85               | -30.15                  | 74                          | 56.16                     | 36.56                         | 8.33                   | 57.2                       | 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>1                   | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | 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                 | 62.7                | -11.3                   | 74                          | 48.38                     | 27.62                         | 13.99                  | 27.29                      | 109                  | 324                     | P                       | H               |
|                                     |      | 2390                 | 52.84               | -1.16                   | 54                          | 38.52                     | 27.62                         | 13.99                  | 27.29                      | 109                  | 324                     | A                       | H               |
|                                     | *    | 2412                 | 108.53              | -                       | -                           | 94.22                     | 27.58                         | 14.01                  | 27.28                      | 109                  | 324                     | P                       | H               |
|                                     | *    | 2412                 | 100.76              | -                       | -                           | 86.45                     | 27.58                         | 14.01                  | 27.28                      | 109                  | 324                     | A                       | H               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |      | 2390                 | 59.82               | -14.18                  | 74                          | 45.5                      | 27.62                         | 13.99                  | 27.29                      | 190                  | 263                     | P                       | V               |
|                                     |      | 2390                 | 50.23               | -3.77                   | 54                          | 35.91                     | 27.62                         | 13.99                  | 27.29                      | 190                  | 263                     | A                       | V               |
|                                     | *    | 2412                 | 106.58              | -                       | -                           | 92.27                     | 27.58                         | 14.01                  | 27.28                      | 190                  | 263                     | P                       | V               |
|                                     | *    | 2412                 | 98.79               | -                       | -                           | 84.48                     | 27.58                         | 14.01                  | 27.28                      | 190                  | 263                     | A                       | V               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT20<br>CH 06<br>2437MHz |      | 2331.28              | 55.4                | -18.6                   | 74                          | 41.03                     | 27.74                         | 13.93                  | 27.3                       | 295                  | 207                     | P                       | H               |
|                                     |      | 2313.22              | 44.95               | -9.05                   | 54                          | 30.56                     | 27.77                         | 13.92                  | 27.3                       | 295                  | 207                     | A                       | H               |
|                                     | *    | 2437                 | 106.98              | -                       | -                           | 92.7                      | 27.53                         | 14.03                  | 27.28                      | 295                  | 207                     | P                       | H               |
|                                     | *    | 2437                 | 99                  | -                       | -                           | 84.72                     | 27.53                         | 14.03                  | 27.28                      | 295                  | 207                     | A                       | H               |
|                                     |      | 2494.05              | 55.62               | -18.38                  | 74                          | 41.31                     | 27.5                          | 14.08                  | 27.27                      | 295                  | 207                     | P                       | H               |
|                                     |      | 2484.11              | 45.42               | -8.58                   | 54                          | 31.11                     | 27.5                          | 14.08                  | 27.27                      | 295                  | 207                     | A                       | H               |
|                                     |      | 2351.16              | 55.15               | -18.85                  | 74                          | 40.79                     | 27.7                          | 13.95                  | 27.29                      | 346                  | 16                      | P                       | V               |
|                                     |      | 2323.44              | 45.03               | -8.97                   | 54                          | 30.65                     | 27.75                         | 13.93                  | 27.3                       | 346                  | 16                      | A                       | V               |
|                                     | *    | 2437                 | 106.42              | -                       | -                           | 92.14                     | 27.53                         | 14.03                  | 27.28                      | 346                  | 16                      | P                       | V               |
|                                     | *    | 2437                 | 98.82               | -                       | -                           | 84.54                     | 27.53                         | 14.03                  | 27.28                      | 346                  | 16                      | A                       | V               |
|                                     |      | 2483.5               | 56.38               | -17.62                  | 74                          | 42.07                     | 27.5                          | 14.08                  | 27.27                      | 346                  | 16                      | P                       | V               |
|                                     |      | 2483.83              | 45.86               | -8.14                   | 54                          | 31.55                     | 27.5                          | 14.08                  | 27.27                      | 346                  | 16                      | A                       | V               |



|                                               |                                                                                             |         |        |        |    |       |      |       |       |     |     |   |   |
|-----------------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|-------|------|-------|-------|-----|-----|---|---|
| <b>802.11n<br/>HT20<br/>CH 11<br/>2462MHz</b> | *                                                                                           | 2462    | 108.52 | -      | -  | 94.24 | 27.5 | 14.06 | 27.28 | 204 | 129 | P | H |
|                                               | *                                                                                           | 2462    | 100.6  | -      | -  | 86.32 | 27.5 | 14.06 | 27.28 | 204 | 129 | A | H |
|                                               |                                                                                             | 2483.96 | 61.75  | -12.25 | 74 | 47.44 | 27.5 | 14.08 | 27.27 | 204 | 129 | P | H |
|                                               |                                                                                             | 2483.52 | 51.1   | -2.9   | 54 | 36.79 | 27.5 | 14.08 | 27.27 | 204 | 129 | A | H |
|                                               |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                               |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                               | *                                                                                           | 2462    | 103.2  | -      | -  | 88.92 | 27.5 | 14.06 | 27.28 | 289 | 79  | P | V |
|                                               | *                                                                                           | 2462    | 95.08  | -      | -  | 80.8  | 27.5 | 14.06 | 27.28 | 289 | 79  | A | V |
|                                               |                                                                                             | 2483.56 | 57.2   | -16.8  | 74 | 42.89 | 27.5 | 14.08 | 27.27 | 289 | 79  | P | V |
|                                               |                                                                                             | 2483.56 | 47.91  | -6.09  | 54 | 33.6  | 27.5 | 14.08 | 27.27 | 289 | 79  | A | 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**  
**WIFI 802.11n HT20 (Harmonic @ 3m)**

| WIFI<br>Ant.<br>1                   | Note                                                                                        | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | 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                 | 38.2                | -35.8                   | 74                          | 57.51                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4824                 | 38.64               | -35.36                  | 74                          | 57.95                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT20<br>CH 06<br>2437MHz |                                                                                             | 4874                 | 37.96               | -36.04                  | 74                          | 57.11                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             | 7311                 | 43.96               | -30.04                  | 74                          | 55.95                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4874                 | 37.9                | -36.1                   | 74                          | 57.05                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             | 7311                 | 43.27               | -30.73                  | 74                          | 55.26                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT20<br>CH 11<br>2462MHz |                                                                                             | 4924                 | 37.9                | -36.1                   | 74                          | 56.83                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             | 7386                 | 43.2                | -30.8                   | 74                          | 55.51                     | 36.56                         | 8.33                   | 57.2                       | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4924                 | 37.34               | -36.66                  | 74                          | 56.27                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             | 7386                 | 44.3                | -29.7                   | 74                          | 56.61                     | 36.56                         | 8.33                   | 57.2                       | 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 HT40 (Band Edge @ 3m)

| WIFI<br>Ant.<br>1                   | Note | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | 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>HT40<br>CH 03<br>2422MHz |      | 2389.94              | 62.71               | -11.29                  | 74                          | 48.39                     | 27.62                         | 13.99                  | 27.29                      | 102                  | 323                     | P                       | H               |
|                                     |      | 2389.94              | 52.35               | -1.65                   | 54                          | 38.03                     | 27.62                         | 13.99                  | 27.29                      | 102                  | 323                     | A                       | H               |
|                                     | *    | 2422                 | 104.53              | -                       | -                           | 90.23                     | 27.56                         | 14.02                  | 27.28                      | 102                  | 323                     | P                       | H               |
|                                     | *    | 2422                 | 96.32               | -                       | -                           | 82.02                     | 27.56                         | 14.02                  | 27.28                      | 102                  | 323                     | A                       | H               |
|                                     |      | 2484.04              | 55.79               | -18.21                  | 74                          | 41.48                     | 27.5                          | 14.08                  | 27.27                      | 102                  | 323                     | P                       | H               |
|                                     |      | 2483.5               | 46.17               | -7.83                   | 54                          | 31.86                     | 27.5                          | 14.08                  | 27.27                      | 102                  | 323                     | A                       | H               |
|                                     |      | 2389.94              | 60.3                | -13.7                   | 74                          | 45.98                     | 27.62                         | 13.99                  | 27.29                      | 153                  | 259                     | P                       | V               |
|                                     |      | 2389.94              | 52.25               | -1.75                   | 54                          | 37.93                     | 27.62                         | 13.99                  | 27.29                      | 153                  | 259                     | A                       | V               |
|                                     | *    | 2422                 | 103.24              | -                       | -                           | 88.94                     | 27.56                         | 14.02                  | 27.28                      | 153                  | 259                     | P                       | V               |
|                                     | *    | 2422                 | 95.15               | -                       | -                           | 80.85                     | 27.56                         | 14.02                  | 27.28                      | 153                  | 259                     | A                       | V               |
|                                     |      | 2484.67              | 55.32               | -18.68                  | 74                          | 41.01                     | 27.5                          | 14.08                  | 27.27                      | 153                  | 259                     | P                       | V               |
|                                     |      | 2484.88              | 46.1                | -7.9                    | 54                          | 31.79                     | 27.5                          | 14.08                  | 27.27                      | 153                  | 259                     | A                       | V               |
| 802.11n<br>HT40<br>CH 06<br>2437MHz |      | 2389.24              | 58.35               | -15.65                  | 74                          | 44.03                     | 27.62                         | 13.99                  | 27.29                      | 331                  | 199                     | P                       | H               |
|                                     |      | 2389.94              | 48.98               | -5.02                   | 54                          | 34.66                     | 27.62                         | 13.99                  | 27.29                      | 331                  | 199                     | A                       | H               |
|                                     | *    | 2437                 | 104.96              | -                       | -                           | 90.68                     | 27.53                         | 14.03                  | 27.28                      | 331                  | 199                     | P                       | H               |
|                                     | *    | 2437                 | 97.33               | -                       | -                           | 83.05                     | 27.53                         | 14.03                  | 27.28                      | 331                  | 199                     | A                       | H               |
|                                     |      | 2483.83              | 62.07               | -11.93                  | 74                          | 47.76                     | 27.5                          | 14.08                  | 27.27                      | 331                  | 199                     | P                       | H               |
|                                     |      | 2483.5               | 51.33               | -2.67                   | 54                          | 37.02                     | 27.5                          | 14.08                  | 27.27                      | 331                  | 199                     | A                       | H               |
|                                     |      | 2389.52              | 55.27               | -18.73                  | 74                          | 40.95                     | 27.62                         | 13.99                  | 27.29                      | 332                  | 352                     | P                       | V               |
|                                     |      | 2389.94              | 45.67               | -8.33                   | 54                          | 31.35                     | 27.62                         | 13.99                  | 27.29                      | 332                  | 352                     | A                       | V               |
|                                     | *    | 2437                 | 103.47              | -                       | -                           | 89.19                     | 27.53                         | 14.03                  | 27.28                      | 332                  | 352                     | P                       | V               |
|                                     | *    | 2437                 | 95.98               | -                       | -                           | 81.7                      | 27.53                         | 14.03                  | 27.28                      | 332                  | 352                     | A                       | V               |
|                                     |      | 2483.69              | 62.96               | -11.04                  | 74                          | 48.65                     | 27.5                          | 14.08                  | 27.27                      | 332                  | 352                     | P                       | V               |
|                                     |      | 2483.55              | 52.58               | -1.42                   | 54                          | 38.27                     | 27.5                          | 14.08                  | 27.27                      | 332                  | 352                     | A                       | V               |



|                                                                 |                                                                                             |         |       |        |    |       |       |       |       |     |     |   |   |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------|-------|--------|----|-------|-------|-------|-------|-----|-----|---|---|
| <b>802.11n</b><br><b>HT40</b><br><b>CH 09</b><br><b>2452MHz</b> |                                                                                             | 2362.92 | 54.99 | -19.01 | 74 | 40.65 | 27.67 | 13.96 | 27.29 | 200 | 131 | P | H |
|                                                                 |                                                                                             | 2371.32 | 45.14 | -8.86  | 54 | 30.8  | 27.66 | 13.97 | 27.29 | 200 | 131 | A | H |
|                                                                 | *                                                                                           | 2452    | 104.4 | -      | -  | 90.13 | 27.5  | 14.05 | 27.28 | 200 | 131 | P | H |
|                                                                 | *                                                                                           | 2452    | 96.36 | -      | -  | 82.09 | 27.5  | 14.05 | 27.28 | 200 | 131 | A | H |
|                                                                 |                                                                                             | 2484.18 | 61.22 | -12.78 | 74 | 46.91 | 27.5  | 14.08 | 27.27 | 200 | 131 | P | H |
|                                                                 |                                                                                             | 2484.6  | 52.27 | -1.73  | 54 | 37.96 | 27.5  | 14.08 | 27.27 | 200 | 131 | A | H |
|                                                                 |                                                                                             | 2370.9  | 54.86 | -19.14 | 74 | 40.52 | 27.66 | 13.97 | 27.29 | 295 | 82  | P | V |
|                                                                 |                                                                                             | 2373.14 | 44.97 | -9.03  | 54 | 30.64 | 27.65 | 13.97 | 27.29 | 295 | 82  | A | V |
|                                                                 | *                                                                                           | 2452    | 98.92 | -      | -  | 84.65 | 27.5  | 14.05 | 27.28 | 295 | 82  | P | V |
|                                                                 | *                                                                                           | 2452    | 90.63 | -      | -  | 76.36 | 27.5  | 14.05 | 27.28 | 295 | 82  | A | V |
|                                                                 |                                                                                             | 2484.74 | 57.74 | -16.26 | 74 | 43.43 | 27.5  | 14.08 | 27.27 | 295 | 82  | P | V |
|                                                                 |                                                                                             | 2483.62 | 48.52 | -5.48  | 54 | 34.21 | 27.5  | 14.08 | 27.27 | 295 | 82  | A | 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**  
**WIFI 802.11n HT40 (Harmonic @ 3m)**

| WIFI<br>Ant.<br>1                   | Note                                                                                        | Frequency<br>( MHz ) | Level<br>( dBμV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBμV/m ) | Read<br>Level<br>( dBμV ) | Antenna<br>Factor<br>( dB/m ) | 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>HT40<br>CH 03<br>2422MHz |                                                                                             | 4844                 | 38.49               | -35.51                  | 74                          | 57.72                     | 31.19                         | 6.99                   | 57.41                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             | 7266                 | 44.2                | -29.8                   | 74                          | 56.1                      | 36.8                          | 8.32                   | 57.02                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4844                 | 38.55               | -35.45                  | 74                          | 57.78                     | 31.19                         | 6.99                   | 57.41                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             | 7266                 | 43.95               | -30.05                  | 74                          | 55.85                     | 36.8                          | 8.32                   | 57.02                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT40<br>CH 06<br>2437MHz |                                                                                             | 4874                 | 37.41               | -36.59                  | 74                          | 56.56                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             | 7311                 | 43.16               | -30.84                  | 74                          | 55.15                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4874                 | 37.65               | -36.35                  | 74                          | 56.8                      | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             | 7311                 | 43.39               | -30.61                  | 74                          | 55.38                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT40<br>CH 09<br>2452MHz |                                                                                             | 4904                 | 37.34               | -36.66                  | 74                          | 56.4                      | 31.22                         | 7                      | 57.28                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             | 7356                 | 44.09               | -29.91                  | 74                          | 56.23                     | 36.68                         | 8.33                   | 57.15                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4904                 | 37.39               | -36.61                  | 74                          | 56.45                     | 31.22                         | 7                      | 57.28                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             | 7356                 | 43.42               | -30.58                  | 74                          | 55.56                     | 36.68                         | 8.33                   | 57.15                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| Remark                              | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         |                 |

## Emission below 1GHz

**2.4GHz WIFI 802.11n HT40 (LF)**

| WIFI                                | Note                                                                       | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|-------------------------------------|----------------------------------------------------------------------------|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                |                                                                            |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| 1                                   |                                                                            | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| 2.4GHz<br>802.11n<br><br>HT40<br>LF |                                                                            | 30.97     | 22.66      | -17.34 | 40         | 30.2   | 24.21    | 0.48   | 32.23  | -      | -       | P     | H     |
|                                     |                                                                            | 129.91    | 22.01      | -21.49 | 43.5       | 35.58  | 17.61    | 0.99   | 32.17  | -      | -       | P     | H     |
|                                     |                                                                            | 312.27    | 26.34      | -19.66 | 46         | 37.36  | 19.41    | 1.52   | 31.95  | -      | -       | P     | H     |
|                                     |                                                                            | 473.29    | 27.89      | -18.11 | 46         | 34.78  | 23.52    | 1.87   | 32.28  | -      | -       | P     | H     |
|                                     |                                                                            | 914.64    | 32.19      | -13.81 | 46         | 32.02  | 28.94    | 2.68   | 31.45  | -      | -       | P     | H     |
|                                     |                                                                            | 956.35    | 32.75      | -13.25 | 46         | 30.3   | 30.66    | 2.71   | 30.92  | 100    | 0       | P     | H     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                     |                                                                            | 93.05     | 23.2       | -20.3  | 43.5       | 39.24  | 15.29    | 0.81   | 32.14  | -      | -       | P     | V     |
|                                     |                                                                            | 108.57    | 22.98      | -20.52 | 43.5       | 37.28  | 16.95    | 0.88   | 32.13  | -      | -       | P     | V     |
|                                     |                                                                            | 114.39    | 23.44      | -20.06 | 43.5       | 37.39  | 17.26    | 0.93   | 32.14  | -      | -       | P     | V     |
|                                     |                                                                            | 123.12    | 25.4       | -18.1  | 43.5       | 38.91  | 17.67    | 0.98   | 32.16  | -      | -       | P     | V     |
|                                     |                                                                            | 193.93    | 20.5       | -23    | 43.5       | 36.62  | 14.93    | 1.25   | 32.3   | -      | -       | P     | V     |
|                                     |                                                                            | 914.64    | 33.3       | -12.7  | 46         | 33.13  | 28.94    | 2.68   | 31.45  | 100    | 0       | P     | V     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | V     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | V     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         | V     |       |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         | V     |       |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         | V     |       |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         | V     |       |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         | V     |       |
| Remark                              | 1. No other spurious found.<br>2. All results are PASS against limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (Band Edge @ 3m)

| WIFI<br>Ant.<br>2           | 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 |      | 2337.72              | 55.59               | -18.41                  | 74                          | 41.23                     | 27.72                         | 13.94                  | 27.3                       | 132                  | 293                     | P                       | H               |
|                             |      | 2390                 | 46.15               | -7.85                   | 54                          | 31.83                     | 27.62                         | 13.99                  | 27.29                      | 132                  | 293                     | A                       | H               |
|                             | *    | 2412                 | 112.48              | -                       | -                           | 98.17                     | 27.58                         | 14.01                  | 27.28                      | 132                  | 293                     | P                       | H               |
|                             | *    | 2412                 | 109.28              | -                       | -                           | 94.97                     | 27.58                         | 14.01                  | 27.28                      | 132                  | 293                     | A                       | H               |
|                             |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |      | 2381.295             | 55.22               | -18.78                  | 74                          | 40.89                     | 27.64                         | 13.98                  | 27.29                      | 400                  | 168                     | P                       | V               |
|                             |      | 2389.17              | 45.95               | -8.05                   | 54                          | 31.63                     | 27.62                         | 13.99                  | 27.29                      | 400                  | 168                     | A                       | V               |
|                             | *    | 2412                 | 111.69              | -                       | -                           | 97.38                     | 27.58                         | 14.01                  | 27.28                      | 400                  | 168                     | P                       | V               |
|                             | *    | 2412                 | 108.48              | -                       | -                           | 94.17                     | 27.58                         | 14.01                  | 27.28                      | 400                  | 168                     | A                       | V               |
|                             |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11b<br>CH 06<br>2437MHz |      | 2389.1               | 56.29               | -17.71                  | 74                          | 41.97                     | 27.62                         | 13.99                  | 27.29                      | 137                  | 258                     | P                       | H               |
|                             |      | 2389.94              | 44.97               | -9.03                   | 54                          | 30.65                     | 27.62                         | 13.99                  | 27.29                      | 137                  | 258                     | A                       | H               |
|                             | *    | 2437                 | 114.27              | -                       | -                           | 99.99                     | 27.53                         | 14.03                  | 27.28                      | 137                  | 258                     | P                       | H               |
|                             | *    | 2437                 | 111.12              | -                       | -                           | 96.84                     | 27.53                         | 14.03                  | 27.28                      | 137                  | 258                     | A                       | H               |
|                             |      | 2488.1               | 55.67               | -18.33                  | 74                          | 41.36                     | 27.5                          | 14.08                  | 27.27                      | 137                  | 258                     | P                       | H               |
|                             |      | 2484.04              | 45.85               | -8.15                   | 54                          | 31.54                     | 27.5                          | 14.08                  | 27.27                      | 137                  | 258                     | A                       | H               |
|                             |      | 2384.76              | 55.51               | -18.49                  | 74                          | 41.18                     | 27.63                         | 13.99                  | 27.29                      | 388                  | 160                     | P                       | V               |
|                             |      | 2389.94              | 44.35               | -9.65                   | 54                          | 30.03                     | 27.62                         | 13.99                  | 27.29                      | 388                  | 160                     | A                       | V               |
|                             | *    | 2437                 | 110.25              | -                       | -                           | 95.97                     | 27.53                         | 14.03                  | 27.28                      | 388                  | 160                     | P                       | V               |
|                             | *    | 2437                 | 106.9               | -                       | -                           | 92.62                     | 27.53                         | 14.03                  | 27.28                      | 388                  | 160                     | A                       | V               |
|                             |      | 2497.48              | 55.21               | -18.79                  | 74                          | 40.89                     | 27.5                          | 14.09                  | 27.27                      | 388                  | 160                     | P                       | V               |
|                             |      | 2484.11              | 44.72               | -9.28                   | 54                          | 30.41                     | 27.5                          | 14.08                  | 27.27                      | 388                  | 160                     | A                       | V               |



|                                      |                                                                                             |         |        |        |    |        |      |       |       |     |     |   |   |
|--------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|--------|------|-------|-------|-----|-----|---|---|
| <b>802.11b<br/>CH 11<br/>2462MHz</b> | *                                                                                           | 2462    | 114.45 | -      | -  | 100.17 | 27.5 | 14.06 | 27.28 | 132 | 259 | P | H |
|                                      | *                                                                                           | 2462    | 111.22 | -      | -  | 96.94  | 27.5 | 14.06 | 27.28 | 132 | 259 | A | H |
|                                      |                                                                                             | 2483.56 | 57.34  | -16.66 | 74 | 43.03  | 27.5 | 14.08 | 27.27 | 132 | 259 | P | H |
|                                      |                                                                                             | 2483.52 | 50.11  | -3.89  | 54 | 35.8   | 27.5 | 14.08 | 27.27 | 132 | 259 | A | H |
|                                      |                                                                                             |         |        |        |    |        |      |       |       |     |     |   | H |
|                                      |                                                                                             |         |        |        |    |        |      |       |       |     |     |   | H |
|                                      | *                                                                                           | 2462    | 111.08 | -      | -  | 96.8   | 27.5 | 14.06 | 27.28 | 390 | 161 | P | V |
|                                      | *                                                                                           | 2462    | 107.85 | -      | -  | 93.57  | 27.5 | 14.06 | 27.28 | 390 | 161 | A | V |
|                                      |                                                                                             | 2483.52 | 56.07  | -17.93 | 74 | 41.76  | 27.5 | 14.08 | 27.27 | 390 | 161 | P | V |
|                                      |                                                                                             | 2483.52 | 47.03  | -6.97  | 54 | 32.72  | 27.5 | 14.08 | 27.27 | 390 | 161 | A | 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

## WIFI 802.11b (Harmonic @ 3m)

| WIFI<br>Ant.<br>2           | 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                 | 39.33               | -34.67                  | 74                          | 58.64                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4824                 | 40.12               | -33.88                  | 74                          | 59.43                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11b<br>CH 06<br>2437MHz |                                                                                             | 4874                 | 38.22               | -35.78                  | 74                          | 57.37                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             | 7311                 | 43.88               | -30.12                  | 74                          | 55.87                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4874                 | 38.09               | -35.91                  | 74                          | 57.24                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             | 7311                 | 44.37               | -29.63                  | 74                          | 56.36                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11b<br>CH 11<br>2462MHz |                                                                                             | 4924                 | 38.08               | -35.92                  | 74                          | 57.01                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             | 7386                 | 43.75               | -30.25                  | 74                          | 56.06                     | 36.56                         | 8.33                   | 57.2                       | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4924                 | 38.45               | -35.55                  | 74                          | 57.38                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             | 7386                 | 44.37               | -29.63                  | 74                          | 56.68                     | 36.56                         | 8.33                   | 57.2                       | 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                    | 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                 | 63.3                | -10.7                   | 74                          | 48.98                     | 27.62                         | 13.99                  | 27.29                      | 184                  | 311                     | P                       | H               |
|                                      |      | 2390                 | 52.21               | -1.79                   | 54                          | 37.89                     | 27.62                         | 13.99                  | 27.29                      | 184                  | 311                     | A                       | H               |
|                                      | *    | 2412                 | 109.75              | -                       | -                           | 95.44                     | 27.58                         | 14.01                  | 27.28                      | 184                  | 311                     | P                       | H               |
|                                      | *    | 2412                 | 101.75              | -                       | -                           | 87.44                     | 27.58                         | 14.01                  | 27.28                      | 184                  | 311                     | A                       | H               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                      |      | 2390                 | 62.01               | -11.99                  | 74                          | 47.69                     | 27.62                         | 13.99                  | 27.29                      | 196                  | 272                     | P                       | V               |
|                                      |      | 2390                 | 52.32               | -1.68                   | 54                          | 38                        | 27.62                         | 13.99                  | 27.29                      | 196                  | 272                     | A                       | V               |
|                                      | *    | 2412                 | 110.09              | -                       | -                           | 95.78                     | 27.58                         | 14.01                  | 27.28                      | 196                  | 272                     | P                       | V               |
|                                      | *    | 2412                 | 102.15              | -                       | -                           | 87.84                     | 27.58                         | 14.01                  | 27.28                      | 196                  | 272                     | A                       | V               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| <b>802.11g<br/>CH 06<br/>2437MHz</b> |      | 2354.38              | 55.18               | -18.82                  | 74                          | 40.82                     | 27.69                         | 13.96                  | 27.29                      | 100                  | 291                     | P                       | H               |
|                                      |      | 2389.94              | 45.66               | -8.34                   | 54                          | 31.34                     | 27.62                         | 13.99                  | 27.29                      | 100                  | 291                     | A                       | H               |
|                                      | *    | 2437                 | 111.09              | -                       | -                           | 96.81                     | 27.53                         | 14.03                  | 27.28                      | 100                  | 291                     | P                       | H               |
|                                      | *    | 2437                 | 103.35              | -                       | -                           | 89.07                     | 27.53                         | 14.03                  | 27.28                      | 100                  | 291                     | A                       | H               |
|                                      |      | 2484.53              | 56.24               | -17.76                  | 74                          | 41.93                     | 27.5                          | 14.08                  | 27.27                      | 100                  | 291                     | P                       | H               |
|                                      |      | 2483.62              | 47.1                | -6.9                    | 54                          | 32.79                     | 27.5                          | 14.08                  | 27.27                      | 100                  | 291                     | A                       | H               |
|                                      |      | 2353.82              | 56.71               | -17.29                  | 74                          | 42.35                     | 27.69                         | 13.96                  | 27.29                      | 400                  | 142                     | P                       | V               |
|                                      |      | 2389.66              | 45.25               | -8.75                   | 54                          | 30.93                     | 27.62                         | 13.99                  | 27.29                      | 400                  | 142                     | A                       | V               |
|                                      | *    | 2437                 | 109.28              | -                       | -                           | 95                        | 27.53                         | 14.03                  | 27.28                      | 400                  | 142                     | P                       | V               |
|                                      | *    | 2437                 | 101.48              | -                       | -                           | 87.2                      | 27.53                         | 14.03                  | 27.28                      | 400                  | 142                     | A                       | V               |
|                                      |      | 2485.93              | 55.74               | -18.26                  | 74                          | 41.43                     | 27.5                          | 14.08                  | 27.27                      | 400                  | 142                     | P                       | V               |
|                                      |      | 2483.69              | 45.96               | -8.04                   | 54                          | 31.65                     | 27.5                          | 14.08                  | 27.27                      | 400                  | 142                     | A                       | V               |



|                                      |                                                                                             |         |        |        |    |       |      |       |       |     |     |   |   |
|--------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|-------|------|-------|-------|-----|-----|---|---|
| <b>802.11g<br/>CH 11<br/>2462MHz</b> | *                                                                                           | 2462    | 109.71 | -      | -  | 95.43 | 27.5 | 14.06 | 27.28 | 181 | 315 | P | H |
|                                      | *                                                                                           | 2462    | 101.89 | -      | -  | 87.61 | 27.5 | 14.06 | 27.28 | 181 | 315 | A | H |
|                                      |                                                                                             | 2483.52 | 61.14  | -12.86 | 74 | 46.83 | 27.5 | 14.08 | 27.27 | 181 | 315 | P | H |
|                                      |                                                                                             | 2483.52 | 51.98  | -2.02  | 54 | 37.67 | 27.5 | 14.08 | 27.27 | 181 | 315 | A | H |
|                                      |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                      |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                      | *                                                                                           | 2462    | 109.15 | -      | -  | 94.87 | 27.5 | 14.06 | 27.28 | 113 | 273 | P | V |
|                                      | *                                                                                           | 2462    | 101.38 | -      | -  | 87.1  | 27.5 | 14.06 | 27.28 | 113 | 273 | A | V |
|                                      |                                                                                             | 2484.64 | 60.63  | -13.37 | 74 | 46.32 | 27.5 | 14.08 | 27.27 | 113 | 273 | P | V |
|                                      |                                                                                             | 2483.52 | 52.16  | -1.84  | 54 | 37.85 | 27.5 | 14.08 | 27.27 | 113 | 273 | A | 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

## WIFI 802.11g (Harmonic @ 3m)

| WIFI<br>Ant.<br>2           | 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                 | 38.65               | -35.35                  | 74                          | 57.96                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4824                 | 38.36               | -35.64                  | 74                          | 57.67                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11g<br>CH 06<br>2437MHz |                                                                                             | 4874                 | 37.93               | -36.07                  | 74                          | 57.08                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             | 7311                 | 44.26               | -29.74                  | 74                          | 56.25                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4874                 | 38.02               | -35.98                  | 74                          | 57.17                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             | 7311                 | 43.64               | -30.36                  | 74                          | 55.63                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11g<br>CH 11<br>2462MHz |                                                                                             | 4924                 | 38.7                | -35.3                   | 74                          | 57.63                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             | 7386                 | 43.96               | -30.04                  | 74                          | 56.27                     | 36.56                         | 8.33                   | 57.2                       | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4924                 | 37.63               | -36.37                  | 74                          | 56.56                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             | 7386                 | 44                  | -30                     | 74                          | 56.31                     | 36.56                         | 8.33                   | 57.2                       | 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                   | 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 |      | 2389.8               | 61.5                | -12.5                   | 74                          | 47.18                     | 27.62                         | 13.99                  | 27.29                      | 205                  | 311                     | P                       | H               |
|                                     |      | 2390                 | 50.39               | -3.61                   | 54                          | 36.07                     | 27.62                         | 13.99                  | 27.29                      | 205                  | 311                     | A                       | H               |
|                                     | *    | 2412                 | 106.92              | -                       | -                           | 92.61                     | 27.58                         | 14.01                  | 27.28                      | 205                  | 311                     | P                       | H               |
|                                     | *    | 2412                 | 98.99               | -                       | -                           | 84.68                     | 27.58                         | 14.01                  | 27.28                      | 205                  | 311                     | A                       | H               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |      | 2390                 | 61.15               | -12.85                  | 74                          | 46.83                     | 27.62                         | 13.99                  | 27.29                      | 192                  | 261                     | P                       | V               |
|                                     |      | 2390                 | 51.19               | -2.81                   | 54                          | 36.87                     | 27.62                         | 13.99                  | 27.29                      | 192                  | 261                     | A                       | V               |
|                                     | *    | 2412                 | 107.55              | -                       | -                           | 93.24                     | 27.58                         | 14.01                  | 27.28                      | 192                  | 261                     | P                       | V               |
|                                     | *    | 2412                 | 99.52               | -                       | -                           | 85.21                     | 27.58                         | 14.01                  | 27.28                      | 192                  | 261                     | A                       | V               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT20<br>CH 06<br>2437MHz |      | 2379.58              | 55.37               | -18.63                  | 74                          | 41.04                     | 27.64                         | 13.98                  | 27.29                      | 100                  | 294                     | P                       | H               |
|                                     |      | 2389.38              | 45.83               | -8.17                   | 54                          | 31.51                     | 27.62                         | 13.99                  | 27.29                      | 100                  | 294                     | A                       | H               |
|                                     | *    | 2437                 | 110.55              | -                       | -                           | 96.27                     | 27.53                         | 14.03                  | 27.28                      | 100                  | 294                     | P                       | H               |
|                                     | *    | 2437                 | 102.78              | -                       | -                           | 88.5                      | 27.53                         | 14.03                  | 27.28                      | 100                  | 294                     | A                       | H               |
|                                     |      | 2485.09              | 56.14               | -17.86                  | 74                          | 41.83                     | 27.5                          | 14.08                  | 27.27                      | 100                  | 294                     | P                       | H               |
|                                     |      | 2483.5               | 47                  | -7                      | 54                          | 32.69                     | 27.5                          | 14.08                  | 27.27                      | 100                  | 294                     | A                       | H               |
|                                     |      | 2359.56              | 55.33               | -18.67                  | 74                          | 40.98                     | 27.68                         | 13.96                  | 27.29                      | 400                  | 170                     | P                       | V               |
|                                     |      | 2389.52              | 45.8                | -8.2                    | 54                          | 31.48                     | 27.62                         | 13.99                  | 27.29                      | 400                  | 170                     | A                       | V               |
|                                     | *    | 2437                 | 109.25              | -                       | -                           | 94.97                     | 27.53                         | 14.03                  | 27.28                      | 400                  | 170                     | P                       | V               |
|                                     | *    | 2437                 | 101.45              | -                       | -                           | 87.17                     | 27.53                         | 14.03                  | 27.28                      | 400                  | 170                     | A                       | V               |
|                                     |      | 2484.46              | 55.3                | -18.7                   | 74                          | 40.99                     | 27.5                          | 14.08                  | 27.27                      | 400                  | 170                     | P                       | V               |
|                                     |      | 2483.62              | 45.87               | -8.13                   | 54                          | 31.56                     | 27.5                          | 14.08                  | 27.27                      | 400                  | 170                     | A                       | V               |



|                                                                 |                                                                                             |         |        |        |    |       |      |       |       |     |     |   |   |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|-------|------|-------|-------|-----|-----|---|---|
| <b>802.11n</b><br><b>HT20</b><br><b>CH 11</b><br><b>2462MHz</b> | *                                                                                           | 2462    | 110.14 | -      | -  | 95.86 | 27.5 | 14.06 | 27.28 | 253 | 301 | P | H |
|                                                                 | *                                                                                           | 2462    | 101.81 | -      | -  | 87.53 | 27.5 | 14.06 | 27.28 | 253 | 301 | A | H |
|                                                                 |                                                                                             | 2484.36 | 59.7   | -14.3  | 74 | 45.39 | 27.5 | 14.08 | 27.27 | 253 | 301 | P | H |
|                                                                 |                                                                                             | 2483.68 | 50.27  | -3.73  | 54 | 35.96 | 27.5 | 14.08 | 27.27 | 253 | 301 | A | H |
|                                                                 |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                                                 |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                                                 | *                                                                                           | 2462    | 111.45 | -      | -  | 97.17 | 27.5 | 14.06 | 27.28 | 243 | 279 | P | V |
|                                                                 | *                                                                                           | 2462    | 103.12 | -      | -  | 88.84 | 27.5 | 14.06 | 27.28 | 243 | 279 | A | V |
|                                                                 |                                                                                             | 2483.52 | 60.48  | -13.52 | 74 | 46.17 | 27.5 | 14.08 | 27.27 | 243 | 279 | P | V |
|                                                                 |                                                                                             | 2483.52 | 51.44  | -2.56  | 54 | 37.13 | 27.5 | 14.08 | 27.27 | 243 | 279 | A | 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**  
**WIFI 802.11n HT20 (Harmonic @ 3m)**

| WIFI<br>Ant.<br>2                   | 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                 | 38.5                | -35.5                   | 74                          | 57.81                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4824                 | 38.8                | -35.2                   | 74                          | 58.11                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT20<br>CH 06<br>2437MHz |                                                                                             | 4874                 | 38.55               | -35.45                  | 74                          | 57.7                      | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             | 7311                 | 44.47               | -29.53                  | 74                          | 56.46                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4874                 | 38.7                | -35.3                   | 74                          | 57.85                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             | 7311                 | 44.28               | -29.72                  | 74                          | 56.27                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT20<br>CH 11<br>2462MHz |                                                                                             | 4924                 | 38.47               | -35.53                  | 74                          | 57.4                      | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             | 7386                 | 44.28               | -29.72                  | 74                          | 56.59                     | 36.56                         | 8.33                   | 57.2                       | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4924                 | 39.39               | -34.61                  | 74                          | 58.32                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             | 7386                 | 43.5                | -30.5                   | 74                          | 55.81                     | 36.56                         | 8.33                   | 57.2                       | 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 HT40 (Band Edge @ 3m)

| WIFI<br>Ant.<br>2                   | 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>HT40<br>CH 03<br>2422MHz |      | 2389.94              | 59.07               | -14.93                  | 74                          | 44.75                     | 27.62                         | 13.99                  | 27.29                      | 176                  | 282                     | P                       | H               |
|                                     |      | 2389.94              | 50.12               | -3.88                   | 54                          | 35.8                      | 27.62                         | 13.99                  | 27.29                      | 176                  | 282                     | A                       | H               |
|                                     | *    | 2422                 | 104.36              | -                       | -                           | 90.06                     | 27.56                         | 14.02                  | 27.28                      | 176                  | 282                     | P                       | H               |
|                                     | *    | 2422                 | 96.34               | -                       | -                           | 82.04                     | 27.56                         | 14.02                  | 27.28                      | 176                  | 282                     | A                       | H               |
|                                     |      | 2491.6               | 55.86               | -18.14                  | 74                          | 41.55                     | 27.5                          | 14.08                  | 27.27                      | 176                  | 282                     | P                       | H               |
|                                     |      | 2484.11              | 45.96               | -8.04                   | 54                          | 31.65                     | 27.5                          | 14.08                  | 27.27                      | 176                  | 282                     | A                       | H               |
|                                     |      | 2389.24              | 59.76               | -14.24                  | 74                          | 45.44                     | 27.62                         | 13.99                  | 27.29                      | 222                  | 253                     | P                       | V               |
|                                     |      | 2389.94              | 52.23               | -1.77                   | 54                          | 37.91                     | 27.62                         | 13.99                  | 27.29                      | 222                  | 253                     | A                       | V               |
|                                     | *    | 2422                 | 107.18              | -                       | -                           | 92.88                     | 27.56                         | 14.02                  | 27.28                      | 222                  | 253                     | P                       | V               |
|                                     | *    | 2422                 | 99.54               | -                       | -                           | 85.24                     | 27.56                         | 14.02                  | 27.28                      | 222                  | 253                     | A                       | V               |
|                                     |      | 2485.23              | 55.51               | -18.49                  | 74                          | 41.2                      | 27.5                          | 14.08                  | 27.27                      | 222                  | 253                     | P                       | V               |
|                                     |      | 2484.53              | 46.49               | -7.51                   | 54                          | 32.18                     | 27.5                          | 14.08                  | 27.27                      | 222                  | 253                     | A                       | V               |
| 802.11n<br>HT40<br>CH 06<br>2437MHz |      | 2366                 | 55.67               | -18.33                  | 74                          | 41.32                     | 27.67                         | 13.97                  | 27.29                      | 236                  | 66                      | P                       | H               |
|                                     |      | 2389.94              | 46.57               | -7.43                   | 54                          | 32.25                     | 27.62                         | 13.99                  | 27.29                      | 236                  | 66                      | A                       | H               |
|                                     | *    | 2437                 | 101.78              | -                       | -                           | 87.5                      | 27.53                         | 14.03                  | 27.28                      | 236                  | 66                      | P                       | H               |
|                                     | *    | 2437                 | 94.16               | -                       | -                           | 79.88                     | 27.53                         | 14.03                  | 27.28                      | 236                  | 66                      | A                       | H               |
|                                     |      | 2485.58              | 56.06               | -17.94                  | 74                          | 41.75                     | 27.5                          | 14.08                  | 27.27                      | 236                  | 66                      | P                       | H               |
|                                     |      | 2484.25              | 46.16               | -7.84                   | 54                          | 31.85                     | 27.5                          | 14.08                  | 27.27                      | 236                  | 66                      | A                       | H               |
|                                     |      | 2389.66              | 61.08               | -12.92                  | 74                          | 46.76                     | 27.62                         | 13.99                  | 27.29                      | 100                  | 265                     | P                       | V               |
|                                     |      | 2389.94              | 50.5                | -3.5                    | 54                          | 36.18                     | 27.62                         | 13.99                  | 27.29                      | 100                  | 265                     | A                       | V               |
|                                     | *    | 2437                 | 108.92              | -                       | -                           | 94.64                     | 27.53                         | 14.03                  | 27.28                      | 100                  | 265                     | P                       | V               |
|                                     | *    | 2437                 | 101.3               | -                       | -                           | 87.02                     | 27.53                         | 14.03                  | 27.28                      | 100                  | 265                     | A                       | V               |
|                                     |      | 2483.9               | 60.81               | -13.19                  | 74                          | 46.5                      | 27.5                          | 14.08                  | 27.27                      | 100                  | 265                     | P                       | V               |
|                                     |      | 2483.55              | 51.47               | -2.53                   | 54                          | 37.16                     | 27.5                          | 14.08                  | 27.27                      | 100                  | 265                     | A                       | V               |



|                                                                 |                                                                                             |         |        |        |    |       |       |       |       |     |     |   |   |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|-------|-------|-------|-------|-----|-----|---|---|
| <b>802.11n</b><br><b>HT40</b><br><b>CH 09</b><br><b>2452MHz</b> |                                                                                             | 2356.06 | 55.93  | -18.07 | 74 | 41.57 | 27.69 | 13.96 | 27.29 | 178 | 63  | P | H |
|                                                                 |                                                                                             | 2348.08 | 45.26  | -8.74  | 54 | 30.9  | 27.7  | 13.95 | 27.29 | 178 | 63  | A | H |
|                                                                 | *                                                                                           | 2452    | 97.99  | -      | -  | 83.72 | 27.5  | 14.05 | 27.28 | 178 | 63  | P | H |
|                                                                 | *                                                                                           | 2452    | 89.51  | -      | -  | 75.24 | 27.5  | 14.05 | 27.28 | 178 | 63  | A | H |
|                                                                 |                                                                                             | 2484.25 | 56.14  | -17.86 | 74 | 41.83 | 27.5  | 14.08 | 27.27 | 178 | 63  | P | H |
|                                                                 |                                                                                             | 2484.25 | 46.69  | -7.31  | 54 | 32.38 | 27.5  | 14.08 | 27.27 | 178 | 63  | A | H |
|                                                                 |                                                                                             | 2334.36 | 55.29  | -18.71 | 74 | 40.92 | 27.73 | 13.94 | 27.3  | 100 | 265 | P | V |
|                                                                 |                                                                                             | 2389.8  | 45.35  | -8.65  | 54 | 31.03 | 27.62 | 13.99 | 27.29 | 100 | 265 | A | V |
|                                                                 | *                                                                                           | 2452    | 106.01 | -      | -  | 91.74 | 27.5  | 14.05 | 27.28 | 100 | 265 | P | V |
|                                                                 | *                                                                                           | 2452    | 97.71  | -      | -  | 83.44 | 27.5  | 14.05 | 27.28 | 100 | 265 | A | V |
|                                                                 |                                                                                             | 2483.83 | 61.31  | -12.69 | 74 | 47    | 27.5  | 14.08 | 27.27 | 100 | 265 | P | V |
|                                                                 |                                                                                             | 2483.5  | 52.23  | -1.77  | 54 | 37.92 | 27.5  | 14.08 | 27.27 | 100 | 265 | A | 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**  
**WIFI 802.11n HT40 (Harmonic @ 3m)**

| WIFI<br>Ant.<br>2                   | 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>HT40<br>CH 03<br>2422MHz |                                                                                             | 4844                 | 38.44               | -35.56                  | 74                          | 57.67                     | 31.19                         | 6.99                   | 57.41                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             | 7266                 | 44.82               | -29.18                  | 74                          | 56.72                     | 36.8                          | 8.32                   | 57.02                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4844                 | 38.14               | -35.86                  | 74                          | 57.37                     | 31.19                         | 6.99                   | 57.41                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             | 7266                 | 44.22               | -29.78                  | 74                          | 56.12                     | 36.8                          | 8.32                   | 57.02                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT40<br>CH 06<br>2437MHz |                                                                                             | 4874                 | 39.84               | -34.16                  | 74                          | 58.99                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             | 7311                 | 43.81               | -30.19                  | 74                          | 55.8                      | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4874                 | 38.89               | -35.11                  | 74                          | 58.04                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             | 7311                 | 43.9                | -30.1                   | 74                          | 55.89                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT40<br>CH 09<br>2452MHz |                                                                                             | 4904                 | 38.54               | -35.46                  | 74                          | 57.6                      | 31.22                         | 7                      | 57.28                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             | 7356                 | 44.18               | -29.82                  | 74                          | 56.32                     | 36.68                         | 8.33                   | 57.15                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4904                 | 38.2                | -35.8                   | 74                          | 57.26                     | 31.22                         | 7                      | 57.28                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             | 7356                 | 44.7                | -29.3                   | 74                          | 56.84                     | 36.68                         | 8.33                   | 57.15                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| Remark                              | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         |                 |

## Emission below 1GHz

**2.4GHz WIFI 802.11n HT40 (LF)**

| 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                                   |                                                                            | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| 2.4GHz<br>802.11n<br><br>HT40<br>LF |                                                                            | 107.6     | 22.74      | -20.76 | 43.5       | 37.1   | 16.9     | 0.87   | 32.13  | -      | -       | P     | H     |
|                                     |                                                                            | 117.3     | 23.05      | -20.45 | 43.5       | 36.81  | 17.43    | 0.95   | 32.14  | -      | -       | P     | H     |
|                                     |                                                                            | 304.51    | 26.4       | -19.6  | 46         | 37.56  | 19.32    | 1.49   | 31.97  | -      | -       | P     | H     |
|                                     |                                                                            | 473.29    | 28.56      | -17.44 | 46         | 35.45  | 23.52    | 1.87   | 32.28  | -      | -       | P     | H     |
|                                     |                                                                            | 762.35    | 29.22      | -16.78 | 46         | 30.67  | 28.01    | 2.37   | 31.83  | -      | -       | P     | H     |
|                                     |                                                                            | 943.74    | 32.62      | -13.38 | 46         | 30.85  | 30.17    | 2.68   | 31.08  | 100    | 0       | P     | H     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | H     |
|                                     |                                                                            | 77.53     | 20.3       | -19.7  | 40         | 38.47  | 13.26    | 0.77   | 32.2   | -      | -       | P     | V     |
|                                     |                                                                            | 93.05     | 23.6       | -19.9  | 43.5       | 39.64  | 15.29    | 0.81   | 32.14  | -      | -       | P     | V     |
|                                     |                                                                            | 115.36    | 21.7       | -21.8  | 43.5       | 35.51  | 17.39    | 0.94   | 32.14  | -      | -       | P     | V     |
|                                     |                                                                            | 122.15    | 28.89      | -14.61 | 43.5       | 42.47  | 17.59    | 0.98   | 32.15  | -      | -       | P     | V     |
|                                     |                                                                            | 192.96    | 21.14      | -22.36 | 43.5       | 37.28  | 14.91    | 1.25   | 32.3   | -      | -       | P     | V     |
|                                     |                                                                            | 958.29    | 32.53      | -13.47 | 46         | 30.11  | 30.6     | 2.72   | 30.9   | 100    | 0       | P     | V     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | V     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         |       | V     |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         | V     |       |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         | V     |       |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         | V     |       |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         | V     |       |
|                                     |                                                                            |           |            |        |            |        |          |        |        |        |         | V     |       |
| Remark                              | 1. No other spurious found.<br>2. All results are PASS against limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (Band Edge @ 3m)

| WIFI<br>Ant.<br>1+2         | 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 |      | 2354.625             | 55.9                | -18.1                   | 74                          | 41.54                     | 27.69                         | 13.96                  | 27.29                      | 112                  | 256                     | P                       | H               |
|                             |      | 2389.905             | 46.11               | -7.89                   | 54                          | 31.79                     | 27.62                         | 13.99                  | 27.29                      | 112                  | 256                     | A                       | H               |
|                             | *    | 2412                 | 114.88              | -                       | -                           | 100.57                    | 27.58                         | 14.01                  | 27.28                      | 112                  | 256                     | P                       | H               |
|                             | *    | 2412                 | 111.85              | -                       | -                           | 97.54                     | 27.58                         | 14.01                  | 27.28                      | 112                  | 256                     | A                       | H               |
|                             |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |      | 2346.54              | 56.13               | -17.87                  | 74                          | 41.76                     | 27.71                         | 13.95                  | 27.29                      | 361                  | 178                     | P                       | V               |
|                             |      | 2389.275             | 45.25               | -8.75                   | 54                          | 30.93                     | 27.62                         | 13.99                  | 27.29                      | 361                  | 178                     | A                       | V               |
|                             | *    | 2412                 | 109.05              | -                       | -                           | 94.74                     | 27.58                         | 14.01                  | 27.28                      | 361                  | 178                     | P                       | V               |
|                             | *    | 2412                 | 105.86              | -                       | -                           | 91.55                     | 27.58                         | 14.01                  | 27.28                      | 361                  | 178                     | A                       | V               |
|                             |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11b<br>CH 06<br>2437MHz |      | 2348.22              | 55.52               | -18.48                  | 74                          | 41.16                     | 27.7                          | 13.95                  | 27.29                      | 111                  | 261                     | P                       | H               |
|                             |      | 2389.94              | 44.72               | -9.28                   | 54                          | 30.4                      | 27.62                         | 13.99                  | 27.29                      | 111                  | 261                     | A                       | H               |
|                             | *    | 2437                 | 113.43              | -                       | -                           | 99.15                     | 27.53                         | 14.03                  | 27.28                      | 111                  | 261                     | P                       | H               |
|                             | *    | 2437                 | 110.5               | -                       | -                           | 96.22                     | 27.53                         | 14.03                  | 27.28                      | 111                  | 261                     | A                       | H               |
|                             |      | 2488.1               | 55.18               | -18.82                  | 74                          | 40.87                     | 27.5                          | 14.08                  | 27.27                      | 111                  | 261                     | P                       | H               |
|                             |      | 2483.9               | 45.28               | -8.72                   | 54                          | 30.97                     | 27.5                          | 14.08                  | 27.27                      | 111                  | 261                     | A                       | H               |
|                             |      | 2383.92              | 56.23               | -17.77                  | 74                          | 41.91                     | 27.63                         | 13.98                  | 27.29                      | 348                  | 182                     | P                       | V               |
|                             |      | 2389.94              | 44.52               | -9.48                   | 54                          | 30.2                      | 27.62                         | 13.99                  | 27.29                      | 348                  | 182                     | A                       | V               |
|                             | *    | 2437                 | 107.78              | -                       | -                           | 93.5                      | 27.53                         | 14.03                  | 27.28                      | 348                  | 182                     | P                       | V               |
|                             | *    | 2437                 | 104.6               | -                       | -                           | 90.32                     | 27.53                         | 14.03                  | 27.28                      | 348                  | 182                     | A                       | V               |
|                             |      | 2489.92              | 55.38               | -18.62                  | 74                          | 41.07                     | 27.5                          | 14.08                  | 27.27                      | 348                  | 182                     | P                       | V               |
|                             |      | 2483.83              | 44.63               | -9.37                   | 54                          | 30.32                     | 27.5                          | 14.08                  | 27.27                      | 348                  | 182                     | A                       | V               |



|                                      |                                                                                             |         |        |        |    |       |      |       |       |     |     |   |   |
|--------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|-------|------|-------|-------|-----|-----|---|---|
| <b>802.11b<br/>CH 11<br/>2462MHz</b> | *                                                                                           | 2462    | 112.93 | -      | -  | 98.65 | 27.5 | 14.06 | 27.28 | 105 | 258 | P | H |
|                                      | *                                                                                           | 2462    | 109.94 | -      | -  | 95.66 | 27.5 | 14.06 | 27.28 | 105 | 258 | A | H |
|                                      |                                                                                             | 2483.76 | 58.46  | -15.54 | 74 | 44.15 | 27.5 | 14.08 | 27.27 | 105 | 258 | P | H |
|                                      |                                                                                             | 2483.52 | 51.87  | -2.13  | 54 | 37.56 | 27.5 | 14.08 | 27.27 | 105 | 258 | A | H |
|                                      |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                      |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                      | *                                                                                           | 2462    | 113.35 | -      | -  | 99.07 | 27.5 | 14.06 | 27.28 | 387 | 150 | P | V |
|                                      | *                                                                                           | 2462    | 110.06 | -      | -  | 95.78 | 27.5 | 14.06 | 27.28 | 387 | 150 | A | V |
|                                      |                                                                                             | 2486.8  | 57.59  | -16.41 | 74 | 43.28 | 27.5 | 14.08 | 27.27 | 387 | 150 | P | V |
|                                      |                                                                                             | 2483.52 | 50.46  | -3.54  | 54 | 36.15 | 27.5 | 14.08 | 27.27 | 387 | 150 | A | 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

## WIFI 802.11b (Harmonic @ 3m)

| WIFI<br>Ant.<br>1+2         | 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                 | 41.93               | -32.07                  | 74                          | 61.24                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4824                 | 43.35               | -30.65                  | 74                          | 62.66                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11b<br>CH 06<br>2437MHz |                                                                                             | 4874                 | 41.98               | -32.02                  | 74                          | 61.13                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             | 7311                 | 45.2                | -28.8                   | 74                          | 57.19                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4874                 | 40.92               | -33.08                  | 74                          | 60.07                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             | 7311                 | 44.16               | -29.84                  | 74                          | 56.15                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11b<br>CH 11<br>2462MHz |                                                                                             | 4924                 | 41.13               | -32.87                  | 74                          | 60.06                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             | 7386                 | 44.37               | -29.63                  | 74                          | 56.68                     | 36.56                         | 8.33                   | 57.2                       | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4924                 | 40                  | -34                     | 74                          | 58.93                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             | 7386                 | 44.99               | -29.01                  | 74                          | 57.3                      | 36.56                         | 8.33                   | 57.2                       | 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>1+2                  | 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                 | 60.78               | -13.22                  | 74                          | 46.46                     | 27.62                         | 13.99                  | 27.29                      | 106                  | 252                     | P                       | H               |
|                                      |      | 2390                 | 51.83               | -2.17                   | 54                          | 37.51                     | 27.62                         | 13.99                  | 27.29                      | 106                  | 252                     | A                       | H               |
|                                      | *    | 2412                 | 112.14              | -                       | -                           | 97.83                     | 27.58                         | 14.01                  | 27.28                      | 106                  | 252                     | P                       | H               |
|                                      | *    | 2412                 | 104.56              | -                       | -                           | 90.25                     | 27.58                         | 14.01                  | 27.28                      | 106                  | 252                     | A                       | H               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                      |      | 2358.615             | 55.44               | -18.56                  | 74                          | 41.09                     | 27.68                         | 13.96                  | 27.29                      | 400                  | 150                     | P                       | V               |
|                                      |      | 2389.38              | 45.99               | -8.01                   | 54                          | 31.67                     | 27.62                         | 13.99                  | 27.29                      | 400                  | 150                     | A                       | V               |
|                                      | *    | 2412                 | 107.19              | -                       | -                           | 92.88                     | 27.58                         | 14.01                  | 27.28                      | 400                  | 150                     | P                       | V               |
|                                      | *    | 2412                 | 100.12              | -                       | -                           | 85.81                     | 27.58                         | 14.01                  | 27.28                      | 400                  | 150                     | A                       | V               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                      |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| <b>802.11g<br/>CH 06<br/>2437MHz</b> |      | 2321.9               | 55.25               | -18.75                  | 74                          | 40.86                     | 27.76                         | 13.93                  | 27.3                       | 116                  | 228                     | P                       | H               |
|                                      |      | 2389.94              | 45.89               | -8.11                   | 54                          | 31.57                     | 27.62                         | 13.99                  | 27.29                      | 116                  | 228                     | A                       | H               |
|                                      | *    | 2437                 | 113.22              | -                       | -                           | 98.94                     | 27.53                         | 14.03                  | 27.28                      | 116                  | 228                     | P                       | H               |
|                                      | *    | 2437                 | 105.85              | -                       | -                           | 91.57                     | 27.53                         | 14.03                  | 27.28                      | 116                  | 228                     | A                       | H               |
|                                      |      | 2486.14              | 55.95               | -18.05                  | 74                          | 41.64                     | 27.5                          | 14.08                  | 27.27                      | 116                  | 228                     | P                       | H               |
|                                      |      | 2483.55              | 47.07               | -6.93                   | 54                          | 32.76                     | 27.5                          | 14.08                  | 27.27                      | 116                  | 228                     | A                       | H               |
|                                      |      | 2387.98              | 56.03               | -17.97                  | 74                          | 41.71                     | 27.62                         | 13.99                  | 27.29                      | 396                  | 151                     | P                       | V               |
|                                      |      | 2389.52              | 45.35               | -8.65                   | 54                          | 31.03                     | 27.62                         | 13.99                  | 27.29                      | 396                  | 151                     | A                       | V               |
|                                      | *    | 2437                 | 110.37              | -                       | -                           | 96.09                     | 27.53                         | 14.03                  | 27.28                      | 396                  | 151                     | P                       | V               |
|                                      | *    | 2437                 | 103.06              | -                       | -                           | 88.78                     | 27.53                         | 14.03                  | 27.28                      | 396                  | 151                     | A                       | V               |
|                                      |      | 2496.22              | 55.46               | -18.54                  | 74                          | 41.14                     | 27.5                          | 14.09                  | 27.27                      | 396                  | 151                     | P                       | V               |
|                                      |      | 2484.18              | 45.7                | -8.3                    | 54                          | 31.39                     | 27.5                          | 14.08                  | 27.27                      | 396                  | 151                     | A                       | V               |



|                                      |                                                                                             |         |        |        |    |       |      |       |       |     |     |   |   |
|--------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|-------|------|-------|-------|-----|-----|---|---|
| <b>802.11g<br/>CH 11<br/>2462MHz</b> | *                                                                                           | 2462    | 112.72 | -      | -  | 98.44 | 27.5 | 14.06 | 27.28 | 188 | 250 | P | H |
|                                      | *                                                                                           | 2462    | 105.78 | -      | -  | 91.5  | 27.5 | 14.06 | 27.28 | 188 | 250 | A | H |
|                                      |                                                                                             | 2484.28 | 61.13  | -12.87 | 74 | 46.82 | 27.5 | 14.08 | 27.27 | 188 | 250 | P | H |
|                                      |                                                                                             | 2484.44 | 51.69  | -2.31  | 54 | 37.38 | 27.5 | 14.08 | 27.27 | 188 | 250 | A | H |
|                                      |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                      |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                      | *                                                                                           | 2462    | 111.28 | -      | -  | 97    | 27.5 | 14.06 | 27.28 | 386 | 150 | P | V |
|                                      | *                                                                                           | 2462    | 103.9  | -      | -  | 89.62 | 27.5 | 14.06 | 27.28 | 386 | 150 | A | V |
|                                      |                                                                                             | 2483.72 | 61.46  | -12.54 | 74 | 47.15 | 27.5 | 14.08 | 27.27 | 386 | 150 | P | V |
|                                      |                                                                                             | 2483.6  | 52.06  | -1.94  | 54 | 37.75 | 27.5 | 14.08 | 27.27 | 386 | 150 | A | 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

## WIFI 802.11g (Harmonic @ 3m)

| WIFI<br>Ant.<br>1+2         | 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                 | 38.44               | -35.56                  | 74                          | 57.75                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4824                 | 38.98               | -35.02                  | 74                          | 58.29                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11g<br>CH 06<br>2437MHz |                                                                                             | 4874                 | 38.72               | -35.28                  | 74                          | 57.87                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             | 7311                 | 44.83               | -29.17                  | 74                          | 56.82                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4874                 | 38.49               | -35.51                  | 74                          | 57.64                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             | 7311                 | 46.19               | -27.81                  | 74                          | 58.18                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11g<br>CH 11<br>2462MHz |                                                                                             | 4924                 | 38.44               | -35.56                  | 74                          | 57.37                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | H               |
|                             |                                                                                             | 7386                 | 43.9                | -30.1                   | 74                          | 56.21                     | 36.56                         | 8.33                   | 57.2                       | 100                  | 0                       | P                       | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                             |                                                                                             | 4924                 | 39.42               | -34.58                  | 74                          | 58.35                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | V               |
|                             |                                                                                             | 7386                 | 43.96               | -30.04                  | 74                          | 56.27                     | 36.56                         | 8.33                   | 57.2                       | 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>1+2                 | 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                 | 61.78               | -12.22                  | 74                          | 47.46                     | 27.62                         | 13.99                  | 27.29                      | 106                  | 256                     | P                       | H               |
|                                     |      | 2390                 | 52.62               | -1.38                   | 54                          | 38.3                      | 27.62                         | 13.99                  | 27.29                      | 106                  | 256                     | A                       | H               |
|                                     | *    | 2412                 | 111.47              | -                       | -                           | 97.16                     | 27.58                         | 14.01                  | 27.28                      | 106                  | 256                     | P                       | H               |
|                                     | *    | 2412                 | 103.55              | -                       | -                           | 89.24                     | 27.58                         | 14.01                  | 27.28                      | 106                  | 256                     | A                       | H               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |      | 2389.695             | 57.92               | -16.08                  | 74                          | 43.6                      | 27.62                         | 13.99                  | 27.29                      | 400                  | 156                     | P                       | V               |
|                                     |      | 2390                 | 48.79               | -5.21                   | 54                          | 34.47                     | 27.62                         | 13.99                  | 27.29                      | 400                  | 156                     | A                       | V               |
|                                     | *    | 2412                 | 107.86              | -                       | -                           | 93.55                     | 27.58                         | 14.01                  | 27.28                      | 400                  | 156                     | P                       | V               |
|                                     | *    | 2412                 | 100.27              | -                       | -                           | 85.96                     | 27.58                         | 14.01                  | 27.28                      | 400                  | 156                     | A                       | V               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |      |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT20<br>CH 06<br>2437MHz |      | 2355.78              | 55.8                | -18.2                   | 74                          | 41.44                     | 27.69                         | 13.96                  | 27.29                      | 141                  | 252                     | P                       | H               |
|                                     |      | 2389.8               | 46.03               | -7.97                   | 54                          | 31.71                     | 27.62                         | 13.99                  | 27.29                      | 141                  | 252                     | A                       | H               |
|                                     | *    | 2437                 | 113.42              | -                       | -                           | 99.14                     | 27.53                         | 14.03                  | 27.28                      | 141                  | 252                     | P                       | H               |
|                                     | *    | 2437                 | 105.41              | -                       | -                           | 91.13                     | 27.53                         | 14.03                  | 27.28                      | 141                  | 252                     | A                       | H               |
|                                     |      | 2484.6               | 56.76               | -17.24                  | 74                          | 42.45                     | 27.5                          | 14.08                  | 27.27                      | 141                  | 252                     | P                       | H               |
|                                     |      | 2483.62              | 46.88               | -7.12                   | 54                          | 32.57                     | 27.5                          | 14.08                  | 27.27                      | 141                  | 252                     | A                       | H               |
|                                     |      | 2362.5               | 55.48               | -18.52                  | 74                          | 41.13                     | 27.68                         | 13.96                  | 27.29                      | 395                  | 149                     | P                       | V               |
|                                     |      | 2389.94              | 45.25               | -8.75                   | 54                          | 30.93                     | 27.62                         | 13.99                  | 27.29                      | 395                  | 149                     | A                       | V               |
|                                     | *    | 2437                 | 110.05              | -                       | -                           | 95.77                     | 27.53                         | 14.03                  | 27.28                      | 395                  | 149                     | P                       | V               |
|                                     | *    | 2437                 | 102.36              | -                       | -                           | 88.08                     | 27.53                         | 14.03                  | 27.28                      | 395                  | 149                     | A                       | V               |
|                                     |      | 2484.6               | 54.93               | -19.07                  | 74                          | 40.62                     | 27.5                          | 14.08                  | 27.27                      | 395                  | 149                     | P                       | V               |
|                                     |      | 2483.76              | 45.64               | -8.36                   | 54                          | 31.33                     | 27.5                          | 14.08                  | 27.27                      | 395                  | 149                     | A                       | V               |



|                                                                 |                                                                                             |         |        |        |    |       |      |       |       |     |     |   |   |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|-------|------|-------|-------|-----|-----|---|---|
| <b>802.11n</b><br><b>HT20</b><br><b>CH 11</b><br><b>2462MHz</b> | *                                                                                           | 2462    | 112.33 | -      | -  | 98.05 | 27.5 | 14.06 | 27.28 | 106 | 227 | P | H |
|                                                                 | *                                                                                           | 2462    | 104.83 | -      | -  | 90.55 | 27.5 | 14.06 | 27.28 | 106 | 227 | A | H |
|                                                                 |                                                                                             | 2483.52 | 61.33  | -12.67 | 74 | 47.02 | 27.5 | 14.08 | 27.27 | 106 | 227 | P | H |
|                                                                 |                                                                                             | 2483.52 | 52.07  | -1.93  | 54 | 37.76 | 27.5 | 14.08 | 27.27 | 106 | 227 | A | H |
|                                                                 |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                                                 |                                                                                             |         |        |        |    |       |      |       |       |     |     |   | H |
|                                                                 | *                                                                                           | 2462    | 110.32 | -      | -  | 96.04 | 27.5 | 14.06 | 27.28 | 386 | 143 | P | V |
|                                                                 | *                                                                                           | 2462    | 102.62 | -      | -  | 88.34 | 27.5 | 14.06 | 27.28 | 386 | 143 | A | V |
|                                                                 |                                                                                             | 2484.32 | 57.83  | -16.17 | 74 | 43.52 | 27.5 | 14.08 | 27.27 | 386 | 143 | P | V |
|                                                                 |                                                                                             | 2483.52 | 49.19  | -4.81  | 54 | 34.88 | 27.5 | 14.08 | 27.27 | 386 | 143 | A | 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**  
**WIFI 802.11n HT20 (Harmonic @ 3m)**

| WIFI<br>Ant.<br>1+2                 | 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                 | 38.81               | -35.19                  | 74                          | 58.12                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4824                 | 38.56               | -35.44                  | 74                          | 57.87                     | 31.15                         | 6.99                   | 57.45                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT20<br>CH 06<br>2437MHz |                                                                                             | 4874                 | 38.88               | -35.12                  | 74                          | 58.03                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             | 7311                 | 43.55               | -30.45                  | 74                          | 55.54                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4874                 | 38.85               | -35.15                  | 74                          | 58                        | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             | 7311                 | 44.33               | -29.67                  | 74                          | 56.32                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT20<br>CH 11<br>2462MHz |                                                                                             | 4924                 | 38.9                | -35.1                   | 74                          | 57.83                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             | 7386                 | 44.47               | -29.53                  | 74                          | 56.78                     | 36.56                         | 8.33                   | 57.2                       | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4924                 | 38.5                | -35.5                   | 74                          | 57.43                     | 31.3                          | 7                      | 57.23                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             | 7386                 | 44.97               | -29.03                  | 74                          | 57.28                     | 36.56                         | 8.33                   | 57.2                       | 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 HT40 (Band Edge @ 3m)

| WIFI<br>Ant.<br>1+2                 | 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>HT40<br>CH 03<br>2422MHz |      | 2389.94              | 60.81               | -13.19                  | 74                          | 46.49                     | 27.62                         | 13.99                  | 27.29                      | 109                  | 255                     | P                       | H               |
|                                     |      | 2389.94              | 52.42               | -1.58                   | 54                          | 38.1                      | 27.62                         | 13.99                  | 27.29                      | 109                  | 255                     | A                       | H               |
|                                     | *    | 2422                 | 108.35              | -                       | -                           | 94.05                     | 27.56                         | 14.02                  | 27.28                      | 109                  | 255                     | P                       | H               |
|                                     | *    | 2422                 | 100.08              | -                       | -                           | 85.78                     | 27.56                         | 14.02                  | 27.28                      | 109                  | 255                     | A                       | H               |
|                                     |      | 2483.62              | 57.14               | -16.86                  | 74                          | 42.83                     | 27.5                          | 14.08                  | 27.27                      | 109                  | 255                     | P                       | H               |
|                                     |      | 2484.04              | 46.09               | -7.91                   | 54                          | 31.78                     | 27.5                          | 14.08                  | 27.27                      | 109                  | 255                     | A                       | H               |
|                                     |      | 2389.94              | 56.93               | -17.07                  | 74                          | 42.61                     | 27.62                         | 13.99                  | 27.29                      | 394                  | 150                     | P                       | V               |
|                                     |      | 2389.66              | 46.98               | -7.02                   | 54                          | 32.66                     | 27.62                         | 13.99                  | 27.29                      | 394                  | 150                     | A                       | V               |
|                                     | *    | 2422                 | 104.07              | -                       | -                           | 89.77                     | 27.56                         | 14.02                  | 27.28                      | 394                  | 150                     | P                       | V               |
|                                     | *    | 2422                 | 96.24               | -                       | -                           | 81.94                     | 27.56                         | 14.02                  | 27.28                      | 394                  | 150                     | A                       | V               |
|                                     |      | 2493.63              | 55.18               | -18.82                  | 74                          | 40.87                     | 27.5                          | 14.08                  | 27.27                      | 394                  | 150                     | P                       | V               |
|                                     |      | 2484.67              | 45.38               | -8.62                   | 54                          | 31.07                     | 27.5                          | 14.08                  | 27.27                      | 394                  | 150                     | A                       | V               |
| 802.11n<br>HT40<br>CH 06<br>2437MHz |      | 2387.42              | 57.5                | -16.5                   | 74                          | 43.17                     | 27.63                         | 13.99                  | 27.29                      | 103                  | 259                     | P                       | H               |
|                                     |      | 2389.66              | 47.49               | -6.51                   | 54                          | 33.17                     | 27.62                         | 13.99                  | 27.29                      | 103                  | 259                     | A                       | H               |
|                                     | *    | 2437                 | 112.7               | -                       | -                           | 98.42                     | 27.53                         | 14.03                  | 27.28                      | 103                  | 259                     | P                       | H               |
|                                     | *    | 2437                 | 104.26              | -                       | -                           | 89.98                     | 27.53                         | 14.03                  | 27.28                      | 103                  | 259                     | A                       | H               |
|                                     |      | 2483.5               | 62.06               | -11.94                  | 74                          | 47.75                     | 27.5                          | 14.08                  | 27.27                      | 103                  | 259                     | P                       | H               |
|                                     |      | 2483.62              | 51.66               | -2.34                   | 54                          | 37.35                     | 27.5                          | 14.08                  | 27.27                      | 103                  | 259                     | A                       | H               |
|                                     |      | 2389.8               | 60.14               | -13.86                  | 74                          | 45.82                     | 27.62                         | 13.99                  | 27.29                      | 394                  | 149                     | P                       | V               |
|                                     |      | 2389.94              | 48.92               | -5.08                   | 54                          | 34.6                      | 27.62                         | 13.99                  | 27.29                      | 394                  | 149                     | A                       | V               |
|                                     | *    | 2437                 | 108.77              | -                       | -                           | 94.49                     | 27.53                         | 14.03                  | 27.28                      | 394                  | 149                     | P                       | V               |
|                                     | *    | 2437                 | 100.35              | -                       | -                           | 86.07                     | 27.53                         | 14.03                  | 27.28                      | 394                  | 149                     | A                       | V               |
|                                     |      | 2485.3               | 56.78               | -17.22                  | 74                          | 42.47                     | 27.5                          | 14.08                  | 27.27                      | 394                  | 149                     | P                       | V               |
|                                     |      | 2483.83              | 47.11               | -6.89                   | 54                          | 32.8                      | 27.5                          | 14.08                  | 27.27                      | 394                  | 149                     | A                       | V               |



|                                                                 |                                                                                             |         |        |        |    |       |       |       |       |     |     |   |   |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------|--------|--------|----|-------|-------|-------|-------|-----|-----|---|---|
| <b>802.11n</b><br><b>HT40</b><br><b>CH 09</b><br><b>2452MHz</b> |                                                                                             | 2344.86 | 56.35  | -17.65 | 74 | 41.98 | 27.71 | 13.95 | 27.29 | 106 | 254 | P | H |
|                                                                 |                                                                                             | 2389.94 | 45.62  | -8.38  | 54 | 31.3  | 27.62 | 13.99 | 27.29 | 106 | 254 | A | H |
|                                                                 | *                                                                                           | 2452    | 107.88 | -      | -  | 93.61 | 27.5  | 14.05 | 27.28 | 106 | 254 | P | H |
|                                                                 | *                                                                                           | 2452    | 99.98  | -      | -  | 85.71 | 27.5  | 14.05 | 27.28 | 106 | 254 | A | H |
|                                                                 |                                                                                             | 2484.39 | 62.36  | -11.64 | 74 | 48.05 | 27.5  | 14.08 | 27.27 | 106 | 254 | P | H |
|                                                                 |                                                                                             | 2483.69 | 52.57  | -1.43  | 54 | 38.26 | 27.5  | 14.08 | 27.27 | 106 | 254 | A | H |
|                                                                 |                                                                                             | 2330.3  | 55.64  | -18.36 | 74 | 41.27 | 27.74 | 13.93 | 27.3  | 388 | 152 | P | V |
|                                                                 |                                                                                             | 2387.28 | 45.16  | -8.84  | 54 | 30.83 | 27.63 | 13.99 | 27.29 | 388 | 152 | A | V |
|                                                                 | *                                                                                           | 2452    | 106.87 | -      | -  | 92.6  | 27.5  | 14.05 | 27.28 | 388 | 152 | P | V |
|                                                                 | *                                                                                           | 2452    | 98.4   | -      | -  | 84.13 | 27.5  | 14.05 | 27.28 | 388 | 152 | A | V |
|                                                                 |                                                                                             | 2484.25 | 57.26  | -16.74 | 74 | 42.95 | 27.5  | 14.08 | 27.27 | 388 | 152 | P | V |
|                                                                 |                                                                                             | 2483.55 | 49.15  | -4.85  | 54 | 34.84 | 27.5  | 14.08 | 27.27 | 388 | 152 | A | 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**  
**WIFI 802.11n HT40 (Harmonic @ 3m)**

| WIFI<br>Ant.<br>1+2                 | 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>HT40<br>CH 03<br>2422MHz |                                                                                             | 4844                 | 38.8                | -35.2                   | 74                          | 58.03                     | 31.19                         | 6.99                   | 57.41                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             | 7266                 | 45.05               | -28.95                  | 74                          | 56.95                     | 36.8                          | 8.32                   | 57.02                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4844                 | 38.27               | -35.73                  | 74                          | 57.5                      | 31.19                         | 6.99                   | 57.41                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             | 7266                 | 44.32               | -29.68                  | 74                          | 56.22                     | 36.8                          | 8.32                   | 57.02                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT40<br>CH 06<br>2437MHz |                                                                                             | 4874                 | 38.63               | -35.37                  | 74                          | 57.78                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             | 7311                 | 44.1                | -29.9                   | 74                          | 56.09                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4874                 | 38.6                | -35.4                   | 74                          | 57.75                     | 31.2                          | 6.99                   | 57.34                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             | 7311                 | 44.54               | -29.46                  | 74                          | 56.53                     | 36.78                         | 8.32                   | 57.09                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| 802.11n<br>HT40<br>CH 09<br>2452MHz |                                                                                             | 4904                 | 38.91               | -35.09                  | 74                          | 57.97                     | 31.22                         | 7                      | 57.28                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             | 7356                 | 45.54               | -28.46                  | 74                          | 57.68                     | 36.68                         | 8.33                   | 57.15                      | 100                  | 0                       | P                       | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | H               |
|                                     |                                                                                             | 4904                 | 38.37               | -35.63                  | 74                          | 57.43                     | 31.22                         | 7                      | 57.28                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             | 7356                 | 44.25               | -29.75                  | 74                          | 56.39                     | 36.68                         | 8.33                   | 57.15                      | 100                  | 0                       | P                       | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
|                                     |                                                                                             |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         | V               |
| Remark                              | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                     |                         |                             |                           |                               |                        |                            |                      |                         |                         |                 |



## Emission below 1GHz

## 2.4GHz WIFI 802.11n HT40 (LF)

| WIFI                            | Note                                                                       | Frequency | Level      | Over   | Limit      | Read     | Antenna  | Path   | Preamp | Ant    | Table   | Peak    | Pol.    |
|---------------------------------|----------------------------------------------------------------------------|-----------|------------|--------|------------|----------|----------|--------|--------|--------|---------|---------|---------|
| Ant.                            |                                                                            |           |            | Limit  | Line       | Level    | Factor   | Loss   | Factor | Pos    | Pos     | Avg.    |         |
| 1+2                             |                                                                            | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | ( dBμV ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | ( P/A ) | ( H/V ) |
| 2.4GHz<br>802.11n<br>HT40<br>LF |                                                                            | 106.63    | 22.92      | -20.58 | 43.5       | 37.38    | 16.79    | 0.87   | 32.12  | -      | -       | P       | H       |
|                                 |                                                                            | 128.94    | 21.74      | -21.76 | 43.5       | 35.35    | 17.57    | 0.99   | 32.17  | -      | -       | P       | H       |
|                                 |                                                                            | 314.21    | 25.93      | -20.07 | 46         | 36.91    | 19.44    | 1.52   | 31.94  | -      | -       | P       | H       |
|                                 |                                                                            | 473.29    | 28.22      | -17.78 | 46         | 35.11    | 23.52    | 1.87   | 32.28  | -      | -       | P       | H       |
|                                 |                                                                            | 875.84    | 30.89      | -15.11 | 46         | 31.15    | 28.86    | 2.59   | 31.71  | -      | -       | P       | H       |
|                                 |                                                                            | 955.38    | 32.93      | -13.07 | 46         | 30.47    | 30.69    | 2.7    | 30.93  | 100    | 0       | P       | H       |
|                                 |                                                                            |           |            |        |            |          |          |        |        |        |         |         | H       |
|                                 |                                                                            |           |            |        |            |          |          |        |        |        |         |         | H       |
|                                 |                                                                            |           |            |        |            |          |          |        |        |        |         |         | H       |
|                                 |                                                                            |           |            |        |            |          |          |        |        |        |         |         | H       |
|                                 |                                                                            |           |            |        |            |          |          |        |        |        |         |         | H       |
|                                 |                                                                            |           |            |        |            |          |          |        |        |        |         |         | H       |
|                                 |                                                                            | 93.05     | 23.17      | -20.33 | 43.5       | 39.21    | 15.29    | 0.81   | 32.14  | -      | -       | P       | V       |
|                                 |                                                                            | 108.57    | 21.98      | -21.52 | 43.5       | 36.28    | 16.95    | 0.88   | 32.13  | -      | -       | P       | V       |
|                                 |                                                                            | 115.36    | 22.79      | -20.71 | 43.5       | 36.6     | 17.39    | 0.94   | 32.14  | -      | -       | P       | V       |
|                                 |                                                                            | 123.12    | 23.18      | -20.32 | 43.5       | 36.69    | 17.67    | 0.98   | 32.16  | -      | -       | P       | V       |
|                                 |                                                                            | 191.99    | 19.85      | -23.65 | 43.5       | 36.03    | 14.87    | 1.24   | 32.29  | -      | -       | P       | V       |
|                                 |                                                                            | 946.65    | 32.29      | -13.71 | 46         | 30.3     | 30.34    | 2.69   | 31.04  | 100    | 0       | 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>Peak</b> or <b>Average</b>                                                                                                                            |
| H/V | <b>Horizontal</b> or <b>Vertical</b>                                                                                                                     |

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

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

1. 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”.**



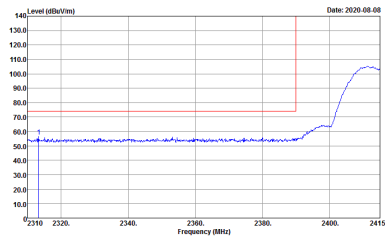
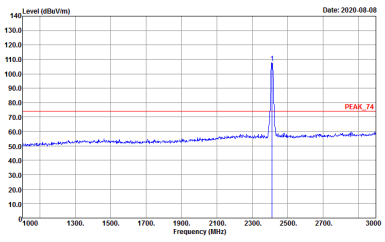
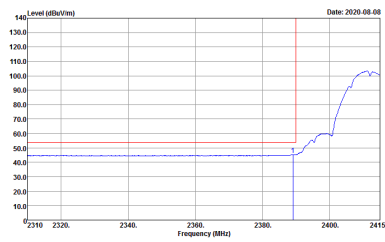
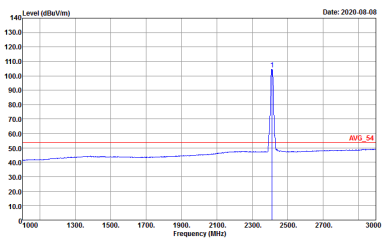
## Appendix C. Radiated Spurious Emission Plots

|                        |                                      |                            |             |
|------------------------|--------------------------------------|----------------------------|-------------|
| <b>Test Engineer :</b> | Daniel Lee, Jacky Hong and Wilson Wu | <b>Temperature :</b>       | 22.8~24.2°C |
|                        |                                      | <b>Relative Humidity :</b> | 51.2~58.5%  |

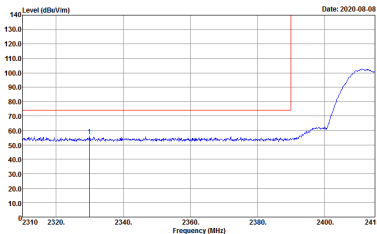
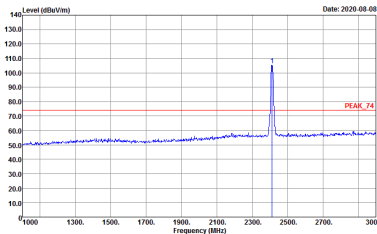
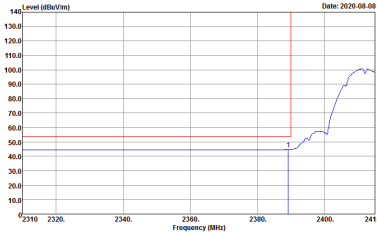
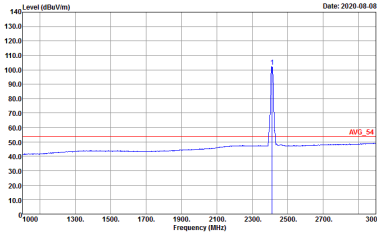
### Note symbol

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

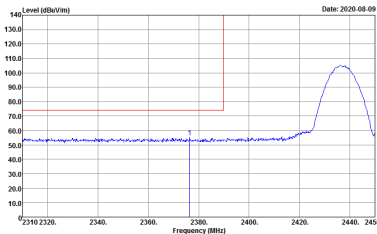
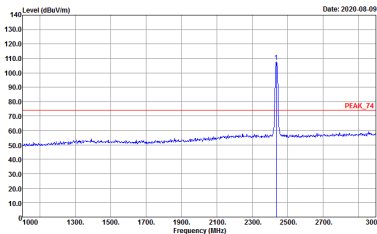
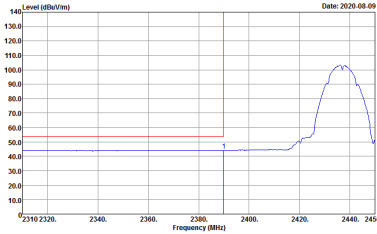
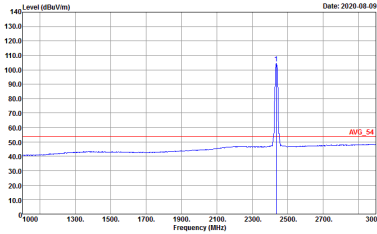
**2.4GHz 2400~2483.5MHz**
**WIFI 802.11b (Band Edge @ 3m)**

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                              |                                                                                                                                                                                                                 |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11b CH01 2412MHz                                                                                                                                                                                              |                                                                                                                                                                                                                 |
| 1    | Horizontal                                                                                                                                                                                                        | Fundamental                                                                                                                                                                                                     |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   |  <p>Site : 03CH13-HY<br/>Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   |

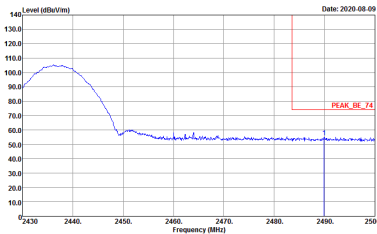
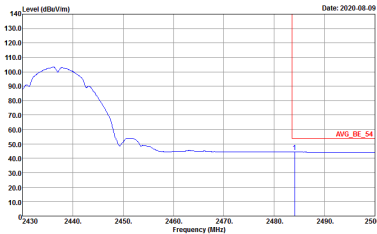


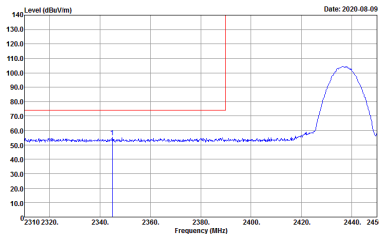
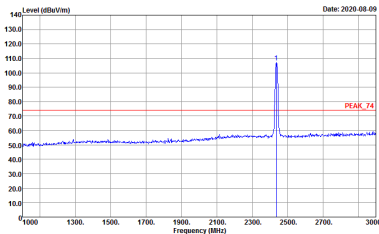
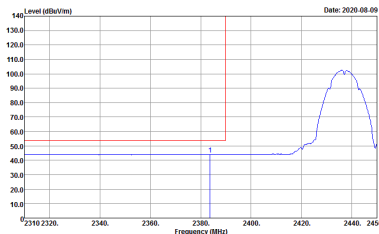
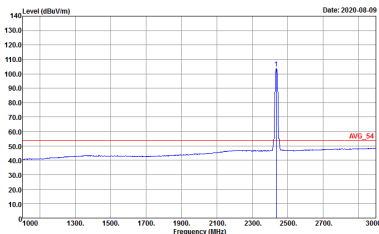
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                            |                                                                                                                                                                                                               |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11b CH01 2412MHz                                                                                                                                                                                            |                                                                                                                                                                                                               |
| 1    | Vertical                                                                                                                                                                                                        | Fundamental                                                                                                                                                                                                   |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH13-HY<br/>Condition : PEAK_F4 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AV6_BE_54 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   |  <p>Site : 03CH13-HY<br/>Condition : AV6_F4 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   |



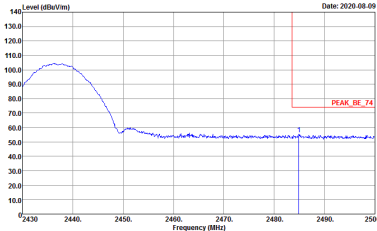
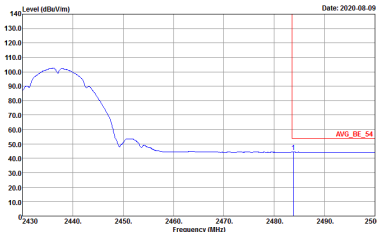
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                              |                                                                                                                                                                                                                 |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11b CH06 2437MHz - L                                                                                                                                                                                          |                                                                                                                                                                                                                 |
| 1    | Horizontal                                                                                                                                                                                                        | Fundamental                                                                                                                                                                                                     |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH13-HY<br/>Condition : PEAK_F4 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   |  <p>Site : 03CH13-HY<br/>Condition : AVG_F4 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   |

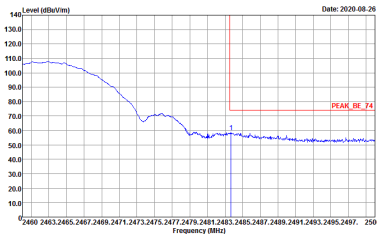
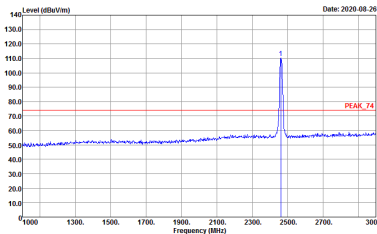
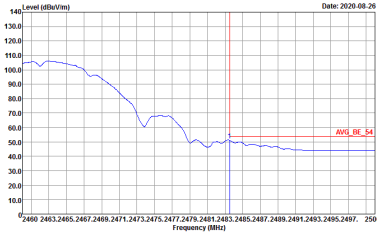
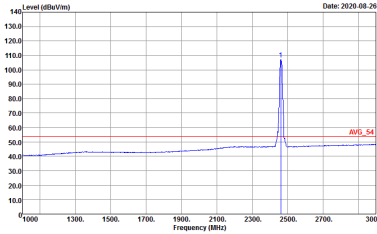


| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                            |             |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11b CH06 2437MHz - R                                                                                                                                                                                        |             |
| 1    | Horizontal                                                                                                                                                                                                      | Fundamental |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | Left blank  |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   | Left blank  |

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                            |                                                                                                                                                                                                               |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11b CH06 2437MHz - L                                                                                                                                                                                        |                                                                                                                                                                                                               |
| 1    | Vertical                                                                                                                                                                                                        | Fundamental                                                                                                                                                                                                   |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AV6_BE_54 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   |  <p>Site : 03CH13-HY<br/>Condition : AV6_54 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   |



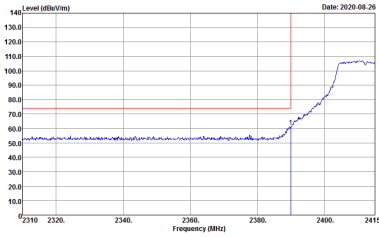
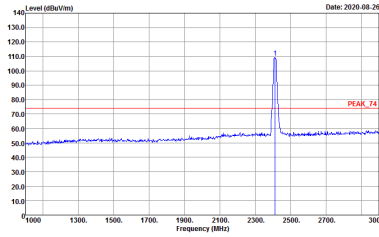
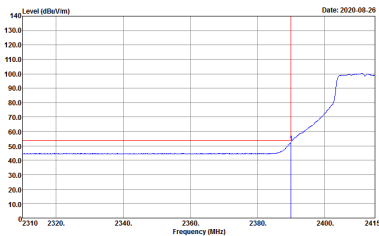
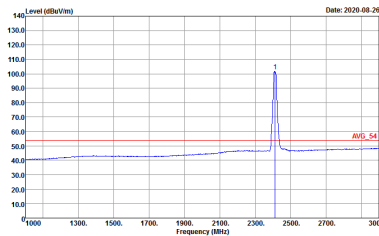
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                            |             |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11b CH06 2437MHz - R                                                                                                                                                                                        |             |
| 1    | Vertical                                                                                                                                                                                                        | Fundamental |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | Left blank  |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   | Left blank  |

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                            |                                                                                                                                                                                                               |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11b CH11 2462MHz                                                                                                                                                                                            |                                                                                                                                                                                                               |
| 1    | Horizontal                                                                                                                                                                                                      | Fundamental                                                                                                                                                                                                   |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AV6_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   |  <p>Site : 03CH13-HY<br/>Condition : AV6_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>   |



| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                            |                                                                                                                              |
|------|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11b CH11 2462MHz                                                                                                            |                                                                                                                              |
| 1    | Vertical                                                                                                                        | Fundamental                                                                                                                  |
| Peak | <p>Site : 03CH13-HY<br/>Condition : : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | <p>Site : 03CH13-HY<br/>Condition : : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. | <p>Site : 03CH13-HY<br/>Condition : : AV6_BE_54 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>     | <p>Site : 03CH13-HY<br/>Condition : : AV6_54 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto</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                                                                                                                                                                                              |                                                                                                                                                                                                                 |
| 1    | Horizontal                                                                                                                                                                                                        | Fundamental                                                                                                                                                                                                     |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:1000KHz SWT:Auto</p>    |  <p>Site : 03CH13-HY<br/>Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:1000KHz SWT:Auto</p>    |

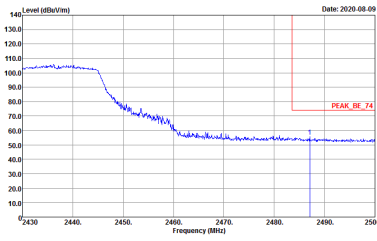
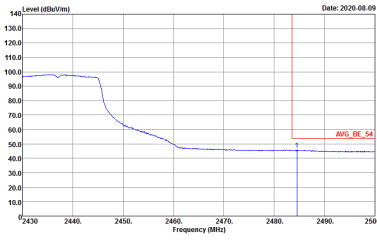


| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                          |                                                                                                                            |
|------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11g CH01 2412MHz                                                                                                          |                                                                                                                            |
| 1    | Vertical                                                                                                                      | Fundamental                                                                                                                |
| Peak | <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | <p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. | <p>Site : 03CH13-HY<br/>Condition : AV6_BE_54 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:1000KHz SWT:Auto</p>      | <p>Site : 03CH13-HY<br/>Condition : AV6_54 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:1000KHz SWT:Auto</p>      |



| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                            |                                                                                                                              |
|------|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11g CH06 2437MHz - L                                                                                                        |                                                                                                                              |
| 1    | Horizontal                                                                                                                      | Fundamental                                                                                                                  |
| Peak | <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | <p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. | <p>Site : 03CH13-HY<br/>Condition : AV6_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:1000KHz SWT:Auto</p>      | <p>Site : 03CH13-HY<br/>Condition : AV6_54 3m HORN_91200_1241 HORIZONTAL<br/>: RBW:1000.000KHz VBW:1000KHz SWT:Auto</p>      |

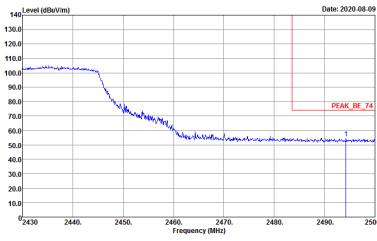
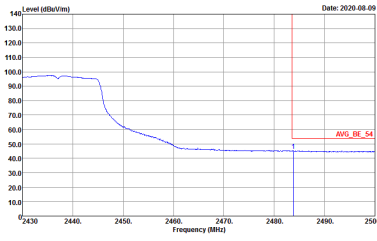


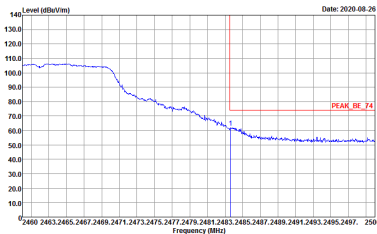
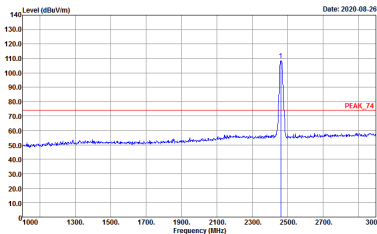
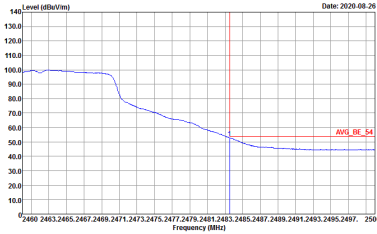
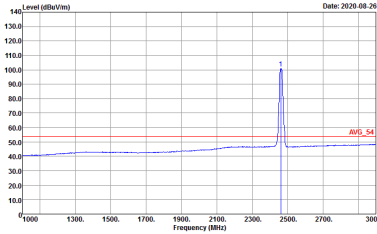
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                                                    |             |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11g CH06 2437MHz - R                                                                                                                                                                                                                |             |
| 1    | Horizontal                                                                                                                                                                                                                              | Fundamental |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> <p>Date: 2020-08-09</p> | Left blank  |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AV6_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:1000KHz SWT:Auto</p> <p>Date: 2020-08-09</p>    | Left blank  |

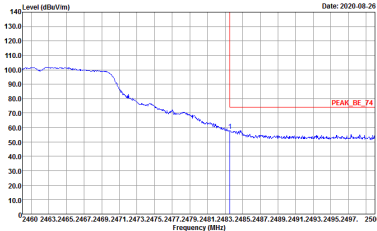
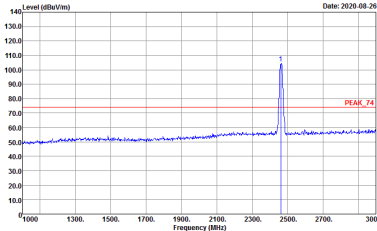
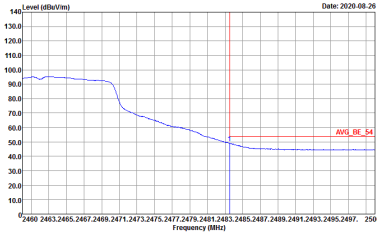
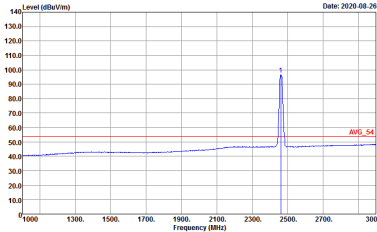


| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                          |                                                                                                                            |
|------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11g CH06 2437MHz - L                                                                                                      |                                                                                                                            |
| 1    | Vertical                                                                                                                      | Fundamental                                                                                                                |
| Peak | <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | <p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. | <p>Site : 03CH13-HY<br/>Condition : AV6_BE_54 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:1000KHz SWT:Auto</p>      | <p>Site : 03CH13-HY<br/>Condition : AV6_54 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:1000KHz SWT:Auto</p>      |



| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                              |             |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| ANT  | 802.11g CH06 2437MHz - R                                                                                                                                                                                          |             |
| 1    | Vertical                                                                                                                                                                                                          | Fundamental |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> | Left Blank  |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : : AV6_BE_54 3m HORN_91200_1241 VERTICAL<br/>: RBW:1000.000KHz VBW:1000KHz SWT:Auto</p>    | Left Blank  |

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                            |                                                                                                                                                                                                               |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11g CH11 2462MHz                                                                                                                                                                                            |                                                                                                                                                                                                               |
| 1    | Horizontal                                                                                                                                                                                                      | Fundamental                                                                                                                                                                                                   |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:1000KHz SWT:Auto</p>    |  <p>Site : 03CH13-HY<br/>Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL<br/>RBW:1000.000KHz VBW:1000KHz SWT:Auto</p>    |

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m                                                                                                                                                                          |                                                                                                                                                                                                             |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANT  | 802.11g CH11 2462MHz                                                                                                                                                                                          |                                                                                                                                                                                                             |
| 1    | Vertical                                                                                                                                                                                                      | Fundamental                                                                                                                                                                                                 |
| Peak |  <p>Site : 03CH13-HY<br/>Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |  <p>Site : 03CH13-HY<br/>Condition : PEAK_74 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p> |
| Avg. |  <p>Site : 03CH13-HY<br/>Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.000KHz VBW:1000KHz SWT:Auto</p>    |  <p>Site : 03CH13-HY<br/>Condition : AVG_54 3m HORN_91200_1241 VERTICAL<br/>RBW:1000.000KHz VBW:1000KHz SWT:Auto</p>    |