# RADIO TEST REPORT

## FCC 47 CFR PART 15 SUBPART E

## INDUSTRY CANADA RSS-247

| | |
|---|---|
| **Test Standard** | **FCC Part 15.407+<br>RSS-247 issue 2 and RSS-GEN issue 5** |
| **Brand name** | **ICON/iFit** |
| **Product name** | **Tablet** |
| **Model No.** | **MP10-ARGON-C** |
| **Test Result** | **Pass** |
| **Statements of Conformity** | **Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.** |

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.
The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc.(Wugu Laboratory)

*Approved by:*

Kevin Tsai
Deputy Manager

# Revision History

| Rev. | Issue Date | Revisions | Effect Page | Revised By |
|---|---|---|---|---|
| 00 | June 22, 2020 | Initial Issue | ALL | Allison Chen |

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# 1. GENERAL INFORMATION

## 1.1 EUT INFORMATION

| | |
|---|---|
| FCC Applicant | Compal Electronics Inc<br>No.581 & 581-1, Ruiguang Rd., Neihu District, Taipei city, 11492 Taiwan |
| IC Applicant | COMPAL ELECTRONICS INC.<br>No. 581 & 581-1, Ruiguang Rd,, Neihu District Taipei R.O.C. 114 Taiwan |
| Manufacturer | Compal Electronics Inc<br>No.581 & 581-1, Ruiguang Rd., Neihu District, Taipei city, 11492 Taiwan |
| Equipment | Tablet |
| Model No. | MP10-ARGON-C |
| Model Discrepancy | N/A |
| Trade Name | ICON/iFit |
| Received Date | May 5, 2020 |
| Date of Test | May 5 ~ 14, 2020 |
| Power Operation | EUT Power from Host device (DC12V) |
| HW Version | LA-J302P |
| SW Version | Android 8 |

## 1.2 EUT CHANNEL INFORMATION

| | |
|---|---|
| Frequency Range | **UNII-1** |
| | IEEE 802.11a: 5180 ~ 5240 MHz |
| | IEEE 802.11n HT 20 MHz: 5180 ~ 5240 MHz |
| | IEEE 802.11n HT 40 MHz: 5190 ~ 5230 MHz |
| | **UNII-2a** |
| | IEEE 802.11a: 5260 ~ 5320 MHz |
| | IEEE 802.11n HT 20 MHz: 5260 ~ 5320 MHz |
| | IEEE 802.11n HT 40 MHz: 5270 ~ 5310 MHz |
| | **UNII-2c** |
| | IEEE 802.11a: 5500 ~ 5700 MHz |
| | IEEE 802.11n HT 20 MHz: 5500 ~ 5700 MHz |
| | IEEE 802.11n HT 40 MHz: 5510 ~ 5670 MHz |
| | **UNII-3** |
| | IEEE 802.11a: 5745 ~ 5825 MHz |
| | IEEE 802.11n HT 20 MHz: 5745 ~ 5825 MHz |
| | IEEE 802.11n HT 40 MHz: 5755 ~ 5795 MHz |
| Modulation Type | 1. IEEE 802.11a mode: OFDM<br>2. IEEE 802.11n HT 20 MHz mode: OFDM<br>3. IEEE 802.11n HT 40 MHz mode: OFDM |

**Remark:**
Refer as ANSI C63.10: 2013 clause 5.6.1 Table 4 for test channels

| Number of frequencies to be tested | | |
|---|---|---|
| **Frequency range in which device operates** | **Number of frequencies** | **Location in frequency range of operation** |
| ☐ 1 MHz or less | 1 | Middle |
| ☐ 1 MHz to 10 MHz | 2 | 1 near top and 1 near bottom |
| ☒ More than 10 MHz | 3 | 1 near top, 1 near middle, and 1 near bottom |

## 1.3 ANTENNA INFORMATION

| | |
|---|---|
| **Antenna Type** | ☒ PIFA ☐ PCB ☐ Dipole ☐ Coils |
| **Antenna Gain** | 0.69 dBi |
| **Antenna Connector** | IPEX |

## 1.4 MEASUREMENT UNCERTAINTY

| PARAMETER | UNCERTAINTY |
|---|---|
| AC Powerline Conducted Emission | +/- 1.2575 |
| Emission bandwidth, 20dB bandwidth | +/- 0.0014 |
| RF output power, conducted | +/- 1.14 |
| Power density, conducted | +/- 1.40 |
| 3M Semi Anechoic Chamber / 30M~200M | +/- 4.12 |
| 3M Semi Anechoic Chamber / 200M~1000M | +/- 4.68 |
| 3M Semi Anechoic Chamber / 1G~8G | +/- 5.18 |
| 3M Semi Anechoic Chamber / 8G~18G | +/- 5.47 |
| 3M Semi Anechoic Chamber / 18G~26G | +/- 3.81 |
| 3M Semi Anechoic Chamber / 26G~40G | +/- 3.87 |

***Remark***:
*1.This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2*
*2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.*

# 1.5 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at

*No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan. (R.O.C.)*

| Test site | Test Engineer | Remark |
|---|---|---|
| AC Conduction Room | Dally Hong | - |
| Radiation | Jerry Chang | - |
| RF Conducted | Dally Hong | - |

***Remark:*** *The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.*

# 1.6 INSTRUMENT CALIBRATION

| RF Conducted Test Site | | | | | |
|---|---|---|---|---|---|
| **Name of Equipment** | **Manufacturer** | **Model** | **Serial Number** | **Calibration Date** | **Calibration Due** |
| Coaxial Cable | Woken | WC12 | CC003 | 06/28/2019 | 06/27/2020 |
| Coaxial Cable | Woken | WC12 | CC001 | 06/28/2019 | 06/27/2020 |
| EXA Signal Analyzer | KEYSIGHT | N9010B | MY55460167 | 07/31/2019 | 07/30/2020 |
| Power Meter | Anritsu | ML2495A | 1149001 | 05/23/2019 | 05/22/2020 |
| Power Seneor | Anritsu | MA2491A | 030982 | 05/23/2019 | 05/22/2020 |
| Software | N/A | | | | |

| 3M 966 Chamber Test Site | | | | | |
|---|---|---|---|---|---|
| **Equipment** | **Manufacturer** | **Model** | **S/N** | **Cal Date** | **Cal Due** |
| Bilog Antenna | Sunol Sciences | JB3 | A030105 | 07/26/2019 | 07/25/2020 |
| Coaxial Cable | HUBER SUHNER | SUCOFLEX 104PEA | 20995 | 02/25/2020 | 02/24/2021 |
| Coaxial Cable | EMCI | EMC105 | 190914+25111 | 09/20/2019 | 09/19/2020 |
| Digital Thermo-Hygro Meter | WISEWIND | 1206 | D07 | 01/15/2020 | 01/14/2021 |
| double Ridged Guide Horn Antenna | ETC | MCTD 1209 | DRH13M02003 | 10/04/2019 | 10/03/2020 |
| High Pass Filters | MICRO TRONICS | HPM13195 | 003 | 02/25/2020 | 02/24/2021 |
| Horn Antenna | ETS LINDGREN | 3116 | 00026370 | 12/18/2019 | 12/17/2020 |
| Loop Ant | COM-POWER | AL-130 | 121051 | 03/27/2020 | 03/26/2021 |
| Pre-Amplifier | EMEC | EM330 | 060609 | 02/25/2020 | 02/24/2021 |
| Pre-Amplifier | HP | 8449B | 3008A00965 | 02/25/2020 | 02/24/2021 |
| Pre-Amplifier | MITEQ | AMF-6F-18004000-37-8P | 985646 | 06/18/2019 | 06/17/2020 |
| PSA Series Spectrum Analyzer | Agilent | E4446A | MY46180323 | 05/29/2019 | 05/28/2020 |
| Antenna Tower | CCS | CC-A-1F | N/A | N.C.R | N.C.R |
| Controller | CCS | CC-C-1F | N/A | N.C.R | N.C.R |
| Turn Table | CCS | CC-T-1F | N/A | N.C.R | N.C.R |
| Software | e3 6.11-20180413 | | | | |

| Conducted Emission Room # B | | | | | |
|---|---|---|---|---|---|
| **Name of Equipment** | **Manufacturer** | **Model** | **Serial Number** | **Calibration Date** | **Calibration Due** |
| CABLE | EMCI | CFD300-NL | CERF | 06/27/2019 | 06/26/2020 |
| EMI Test Receiver | R&S | ESCI | 100064 | 07/26/2019 | 07/25/2020 |
| LISN | SCHAFFNER | NNB 41 | 03/10013 | 02/13/2020 | 02/12/2021 |
| Software | EZ-EMC(CCS-3A1-CE) | | | | |

***Remark:***
*1. Each piece of equipment is scheduled for calibration once a year.*
*2. N.C.R. = No Calibration Required.*

## 1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

| EUT Accessories Equipment | | | | | |
|---|---|---|---|---|---|
| **No.** | **Equipment** | **Brand** | **Model** | **Series No.** | **FCC ID** |
| | N/A | | | | |

| Support Equipment | | | | | |
|---|---|---|---|---|---|
| **No.** | **Equipment** | **Brand** | **Model** | **Series No.** | **FCC ID** |
| 1 | Adapter | WEIHAI POWER | HAS060123-EA | N/A | N/A |

## 1.8 TEST METHODOLOGY AND APPLIED STANDARDS

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10:2013, FCC Part 2, FCC Part 15.407, KDB 789033 D02, KDB 905462 D02, RSS-247 Issue 2 and RSS-GEN Issue 5.

# 2. TEST SUMMERY

| FCC Standard Sec. | IC Standard Sec. | Chapter | Test Item | Result |
|---|---|---|---|---|
| 15.203 | - | 1.3 | Antenna Requirement | Pass |
| 15.207 | RSS-Gen(8.8) | 4.1 | AC Conducted Emission | Pass |
| 15.403(i) | - | 4.2 | 26dB Bandwidth | Pass |
| 15.407(e) | RSS-247(6.2.4) | 4.2 | 6dB Bandwidth | Pass |
| 15.403(i) | RSS-Gen (6.7) | 4.2 | Occupied Bandwidth (99%) | Pass |
| 15.407(a) | RSS-247(6.2.1.1)<br>RSS-247(6.2.2.1)<br>RSS-247(6.2.3.1)<br>RSS-247(6.2.4.1) | 4.3 | Output Power Measurement | Pass |
| 15.407(a) | RSS-247(6.2.1.1)<br>RSS-247(6.2.2.1)<br>RSS-247(6.2.3.1)<br>RSS-247(6.2.4.1) | 4.4 | Power Spectral Density | Pass |
| 15.407(b) | RSS-247(6.2.1.2)<br>RSS-247(6.2.2.2)<br>RSS-247(6.2.3.2)<br>RSS-247(6.2.4.2) | 4.5 | Radiation Band Edge | Pass |
| 15.407(b) | RSS-247(6.2.1.2)<br>RSS-247(6.2.2.2)<br>RSS-247(6.2.3.2)<br>RSS-247(6.2.4.2) | 4.5 | Radiation Spurious Emission | Pass |
| 15.407(g) | RSS-Gen(6.11) | 4.6 | Frequency Stability | Pass |
| 15.407(h) | - | 4.7 | Dynamic Frequency Selection | Pass |

# 3. DESCRIPTION OF TEST MODES

## 3.1 THE EUT CHANNEL NUMBER OF OPERATING CONDITION

<table>
<tr><td>Operation mode</td><td>1. IEEE 802.11a mode: 6Mbps<br>2. IEEE 802.11n HT 20 MHz mode: MCS0<br>3. IEEE 802.11n HT 40 MHz mode: MCS0</td></tr>
<tr><td>Operating Frequency</td><td>
<table>
<tr><th></th><th>Mode</th><th>Frequency Range (MHz)</th></tr>
<tr><td rowspan="3">U-NII-1</td><td>IEEE 802.11a</td><td>5180, 5220, 5240</td></tr>
<tr><td>IEEE 802.11n HT 20 MHz</td><td>5180, 5220, 5240</td></tr>
<tr><td>IEEE 802.11n HT 40 MHz</td><td>5190, 5230</td></tr>
<tr><td rowspan="3">U-NII-2a</td><td>IEEE 802.11a</td><td>5260, 5280, 5320</td></tr>
<tr><td>IEEE 802.11n HT 20 MHz</td><td>5260, 5280, 5320</td></tr>
<tr><td>IEEE 802.11n HT 40 MHz</td><td>5270, 5310</td></tr>
<tr><td rowspan="3">U-NII-2c</td><td>IEEE 802.11a</td><td>5500, 5580, 5700</td></tr>
<tr><td>IEEE 802.11n HT 20 MHz</td><td>5500, 5580, 5700</td></tr>
<tr><td>IEEE 802.11n HT 40 MHz</td><td>5510, 5550, 5670</td></tr>
<tr><td rowspan="3">U-NII-3</td><td>IEEE 802.11a</td><td>5745, 5785, 5825</td></tr>
<tr><td>IEEE 802.11n HT 20 MHz</td><td>5745, 5785, 5825</td></tr>
<tr><td>IEEE 802.11n HT 40 MHz</td><td>5755, 5795</td></tr>
</table>
</td></tr>
</table>

*Remark:*
*1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.*
*2. For Canada the EUT Frequency Range 5600~5650MHz will be disabled.*

## 3.2 THE WORST MODE OF MEASUREMENT

| AC Power Line Conducted Emission | |
|---|---|
| Test Condition | AC Power line conducted emission for line and neutral |
| Power supply Mode | Mode 1: EUT power by Host Device. |
| Worst Mode | ☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4 |

| Radiated Emission Measurement Below 1G | |
|---|---|
| Test Condition | Radiated Emission Below 1G |
| Power supply Mode | Mode 1: EUT power by Host Device. |
| Worst Mode | ☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4 |

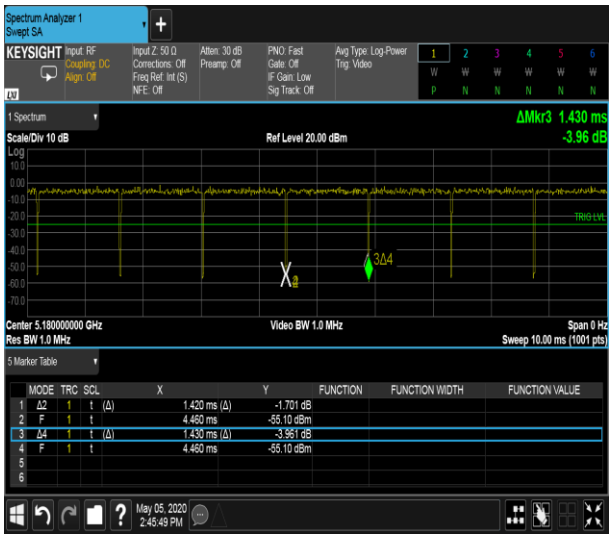
| Radiated Emission Measurement Above 1G | |
|---|---|
| Test Condition | Radiated Emission Above 1G |
| Power supply Mode | Mode 1: EUT power by Host Device. |
| Worst Mode | ☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4 |
| Worst Position | ☐ Placed in fixed position.<br>☐ Placed in fixed position at X-Plane (E2-Plane)<br>☒ Placed in fixed position at Y-Plane (E1-Plane)<br>☐ Placed in fixed position at Z-Plane (H-Plane) |

*Remark:*
*1. The worst mode was record in this test report.*
*2. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(Y-Plane) were recorded in this report*
*3. AC power line conducted emission and for below 1G radiation emission were performed the EUT transmit at the highest output power channel as worse case.*

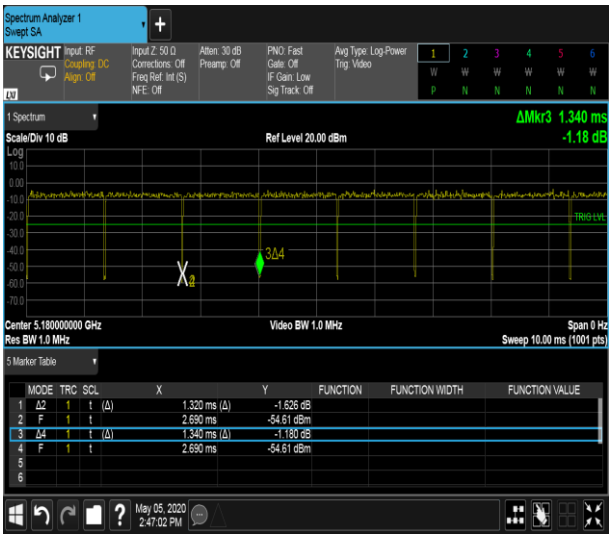
## 3.3 EUT DUTY CYCLE

| Duty Cycle | | | | |
|---|---|---|---|---|
| Configuration | Duty Cycle (%) | Duty Factor (dB) =10*log (1/Duty Cycle) | 1/T (kHz) | VBW setting (kHz) |
| 802.11a | 99.30% | 0.03 | N/A | 0.01 |
| 802.11n HT20 | 98.51% | 0.07 | N/A | 0.01 |
| 802.11n HT40 | 98.53% | 0.06 | N/A | 0.01 |

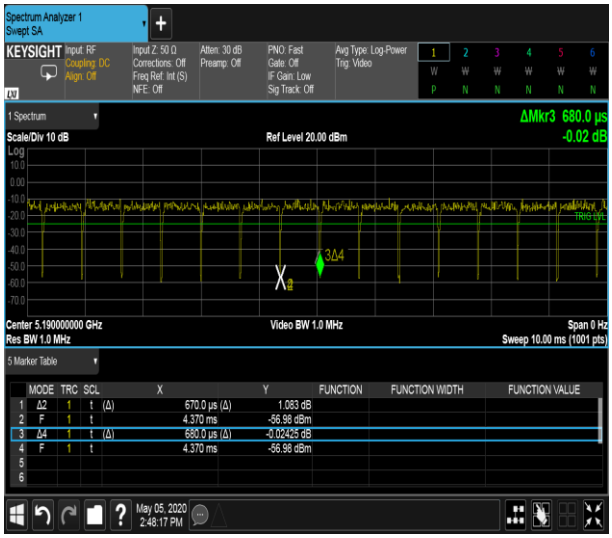
802.11a




802.11n HT20




802.11n HT40



# 4. TEST RESULT

## 4.1 AC POWER LINE CONDUCTED EMISSION

### 4.1.1 Test Limit

According to §15.207(a) and RSS-GEN section 8.8,

| Frequency Range (MHz) | Limits(dBμV) | |
|---|---|---|
| | Quasi-peak | Average |
| 0.15 to 0.50 | 66 to 56* | 56 to 46* |
| 0.50 to 5 | 56 | 46 |
| 5 to 30 | 60 | 50 |

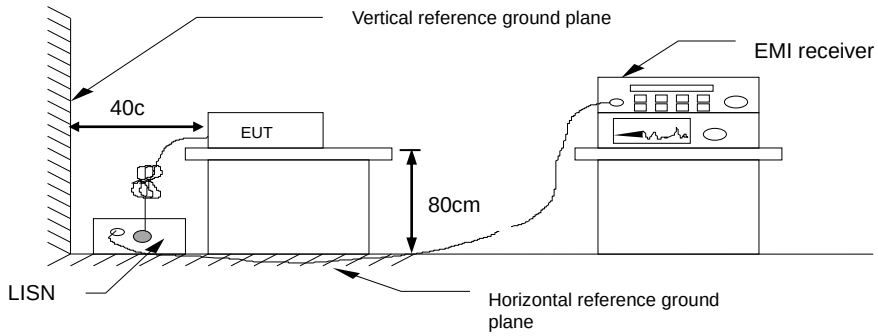
* Decreases with the logarithm of the frequency.

### 4.1.2 Test Procedure

Test method Refer as ANSI C63.10: 2013 clause 6.2,

1. The EUT was placed on a non-conducted table, which is 0.8m above horizontal ground plane and 0.4m above vertical ground plane.
2. EUT connected to the line impedance stabilization network (LISN)
3. Receiver set RBW of 9kHz and Detector Peak, and note as quasi-peak and average.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. Recorded Line for Neutral and Line.

### 4.1.3 Test Setup

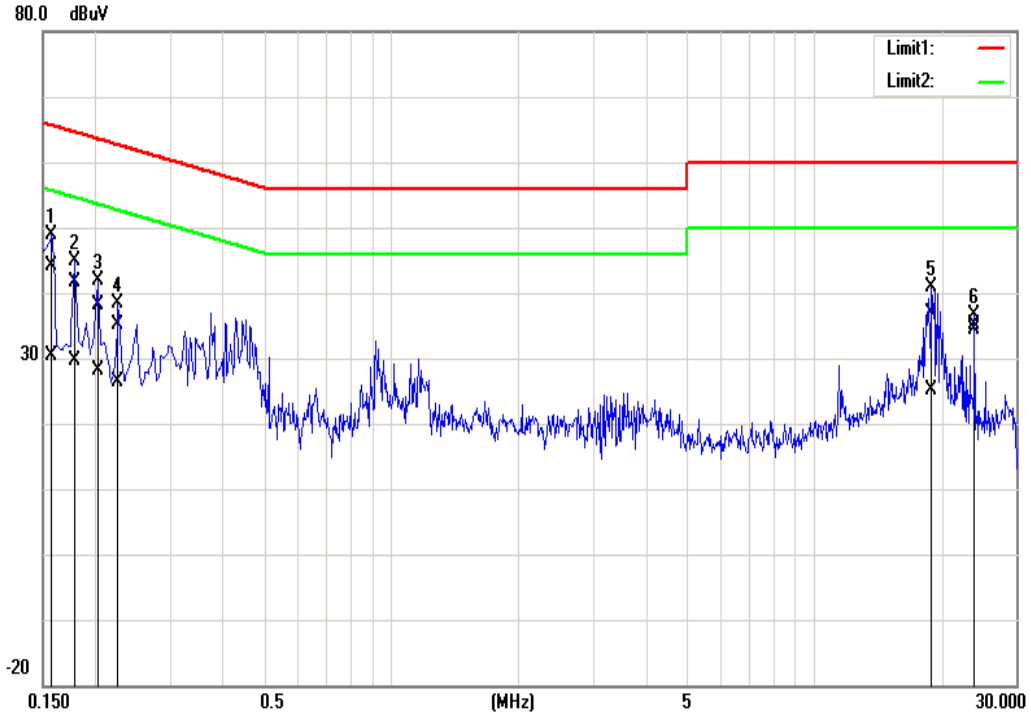



### 4.1.4 Test Result

***Pass.***

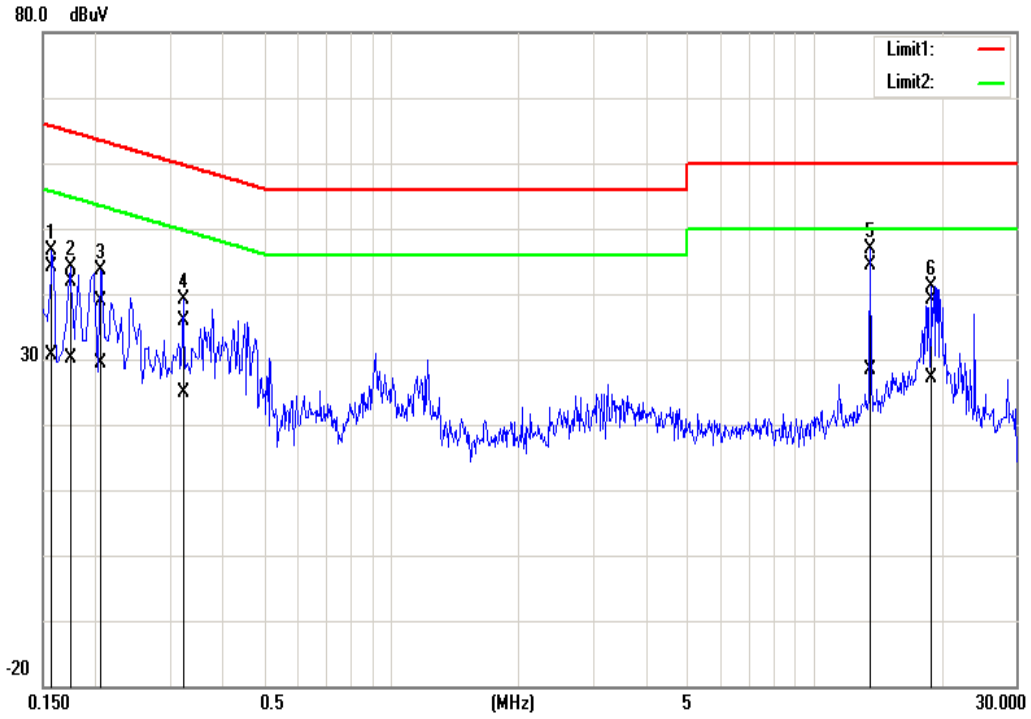
## Test Data

| Test Mode: | Mode 1 | Temp/Hum | 24(℃)/ 50%RH |
|---|---|---|---|
| Phase: | Line | Test Date | May 14, 2020 |
| | | Test Engineer | Dally Hong |




| Frequency (MHz) | Quasi Peak reading (dBuV) | Average reading (d uV) | Correction factor (dB) | Quasi Peak result (dBuV) | Average result (dBuV) | Quasi Peak limit (dBuV) | Average limit (dBuV) | Quasi Peak margin (dB) | Average margin (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.1580 | 33.88 | 20.19 | 10.22 | 44.10 | 30.41 | 65.57 | 55.57 | -21.47 | -25.16 | Pass |
| 0.1780 | 31.48 | 19.36 | 10.21 | 41.69 | 29.57 | 64.58 | 54.58 | -22.89 | -25.01 | Pass |
| 0.2020 | 28.03 | 17.92 | 10.21 | 38.24 | 28.13 | 63.53 | 53.53 | -25.29 | -25.40 | Pass |
| 0.2260 | 24.92 | 16.13 | 10.21 | 35.13 | 26.34 | 62.60 | 52.60 | -27.47 | -26.26 | Pass |
| 18.9380 | 26.37 | 14.83 | 10.42 | 36.79 | 25.25 | 60.00 | 50.00 | -23.21 | -24.75 | Pass |
| 23.9260 | 24.76 | 24.11 | 10.33 | 35.09 | 34.44 | 60.00 | 50.00 | -24.91 | -15.56 | Pass |

| Test Mode: | Mode 1 | Temp/Hum | 24(℃)/ 50%RH |
|---|---|---|---|
| Phase: | Neutral | Test Date | May 14, 2020 |
| | | Test Engineer | Dally Hong |




| Frequency (MHz) | Quasi Peak reading dBuV) | Average reading (dBuV) | Correction factor (dB) | Quasi Peak result (dBuV) | Average result (dBuV) | Quasi Peak limit (dBuV) | Average limit (dBuV) | Quasi Peak margin (dB) | Average margin (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.1580 | 33.86 | 20.33 | 10.19 | 44.05 | 30.52 | 65.57 | 55.57 | -21.52 | -25.05 | Pass |
| 0.1740 | 31.67 | 19.97 | 10.19 | 41.86 | 30.16 | 64.77 | 54.77 | -22.91 | -24.61 | Pass |
| 0.2060 | 28.64 | 19.24 | 10.19 | 38.83 | 29.43 | 63.37 | 53.37 | -24.54 | -23.94 | Pass |
| 0.3220 | 25.72 | 14.69 | 10.19 | 35.91 | 24.88 | 59.66 | 49.66 | -23.75 | -24.78 | Pass |
| 13.5620 | 34.05 | 17.94 | 10.39 | 44.44 | 28.33 | 60.00 | 50.00 | -15.56 | -21.67 | Pass |
| 18.9380 | 28.78 | 16.62 | 10.43 | 39.21 | 27.05 | 60.00 | 50.00 | -20.79 | -22.95 | Pass |

# 4.2 26dB BANDWIDTH, 6dB BANDWIDTH AND OCCUPIED BANDWIDTH(99%)

## 4.2.1 Test Limit

**26 dB Bandwidth** ：For reporting purposes only.

**6 dB Bandwidth** ：Least 500kHz.

**Occupied Bandwidth(99%)** ： For reporting purposes only.

## 4.2.2 Test Procedure

### 26dB

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

2. Set RBW: approximately 1% of the emission bandwidth.

3. Set the VBW>RBW.

4. Detoctor = Peak.

5. Trace mode = max hold.

6. Measure the maximum width of the emission that is 26dB down from the peak of the emission. Compare this with the RBW setting of the analyser. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

### 6dB

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

2. Set RBW = 100 kHz.

3. Set the video bandwidth (VBW) ≥ 3 x RBW.

4. Detoctor = Peak.

5. Trace mode = max hold.

6. Sweep = auto couple.

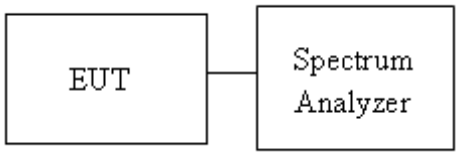
7. Allow the trace to stabilize.

8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

**99%**

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set center frequency to the nominal EUT channel center frequency.
3. Set span = 1.5 times to 5.0 times the OBW.
4. Set RBW = 1 % to 5% of the OBW.
5. Set VBW ≧ 3 xRBW

## 4.2.3 Test Setup



### 4.2.4 Test Result

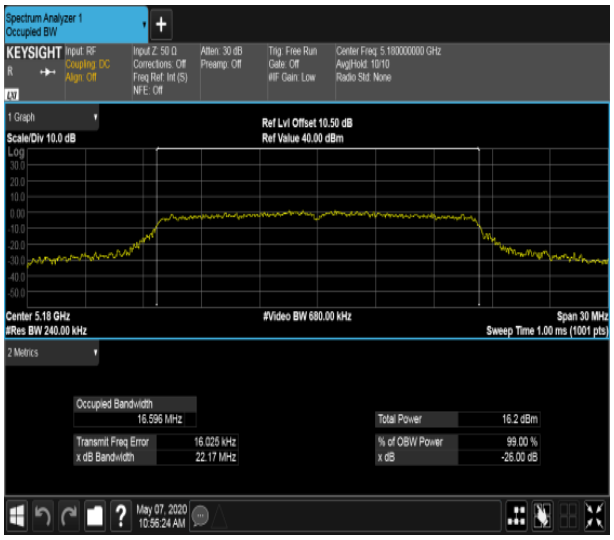
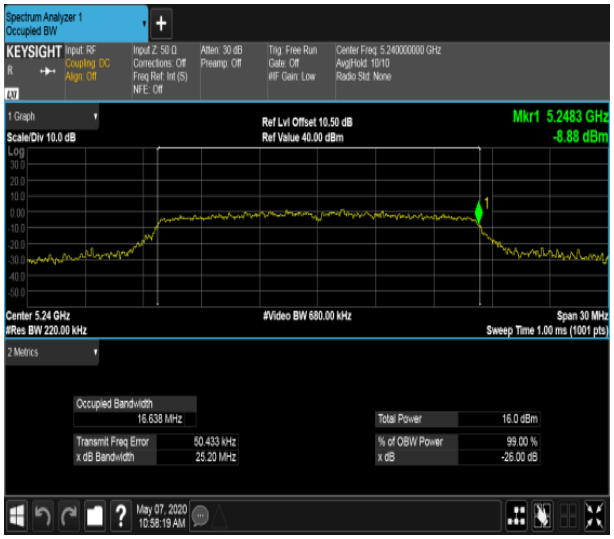
| UNII-1 5150-5250 MHz | | | | | |
|---|---|---|---|---|---|
| **Test mode: IEEE 802.11a mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 OBW (99%) (MHz)** | **Chain 1 OBW (99%) (MHz)** | **Chain 0 26dB BW (MHz)** | **Chain 1 26dB BW (MHz)** |
| Low | 5180 | 16.596 | - | 22.17 | - |
| Mid | 5220 | 16.632 | - | 23.41 | - |
| High | 5240 | 16.638 | - | 25.20 | - |
| **Test mode: IEEE 802.11n HT20 mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 OBW (99%) (MHz)** | **Chain 1 OBW (99%) (MHz)** | **Chain 0 26dB BW (MHz)** | **Chain 1 26dB BW (MHz)** |
| Low | 5180 | 17.652 | - | 24.96 | - |
| Mid | 5220 | 17.651 | - | 22.85 | - |
| High | 5240 | 17.699 | - | 25.20 | - |
| **Test mode: IEEE 802.11n HT40 mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 OBW (99%) (MHz)** | **Chain 1 OBW (99%) (MHz)** | **Chain 0 26dB BW (MHz)** | **Chain 1 26dB BW (MHz)** |
| Low | 5190 | 36.030 | - | 48.83 | - |
| High | 5230 | 36.050 | - | 47.56 | - |

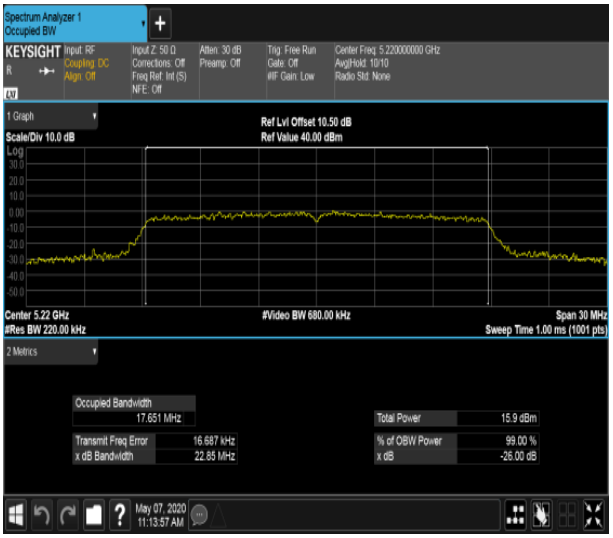
| UNII-2a 5250-5350 MHz | | | | | |
|---|---|---|---|---|---|
| **Test mode: IEEE 802.11a mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 OBW (99%) (MHz)** | **Chain 1 OBW (99%) (MHz)** | **Chain 0 26dB BW (MHz)** | **Chain 1 26dB BW (MHz)** |
| Low | 5260 | 16.621 | - | 23.63 | - |
| Mid | 5280 | 16.498 | - | 22.15 | - |
| High | 5320 | 16.620 | - | 22.11 | - |
| **Test mode: IEEE 802.11n HT20 mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 OBW (99%) (MHz)** | **Chain 1 OBW (99%) (MHz)** | **Chain 0 26dB BW (MHz)** | **Chain 1 26dB BW (MHz)** |
| Low | 5260 | 17.601 | - | 20.63 | - |
| Mid | 5280 | 17.587 | - | 21.71 | - |
| High | 5320 | 17.831 | - | 28.04 | - |
| **Test mode: IEEE 802.11n HT40 mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 OBW (99%) (MHz)** | **Chain 1 OBW (99%) (MHz)** | **Chain 0 26dB BW (MHz)** | **Chain 1 26dB BW (MHz)** |
| Low | 5270 | 36.022 | - | 48.37 | - |
| High | 5310 | 36.015 | - | 45.90 | - |

| UNII-2c 5475-5725 MHz | | | | | |
|---|---|---|---|---|---|
| **Test mode: IEEE 802.11a mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 OBW (99%) (MHz)** | **Chain 1 OBW (99%) (MHz)** | **Chain 0 26dB BW (MHz)** | **Chain 1 26dB BW (MHz)** |
| Low | 5500 | 16.998 | - | 27.79 | - |
| Mid | 5580 | 17.034 | - | 28.40 | - |
| High | 5700 | 17.331 | - | 29.37 | - |
| **Test mode: IEEE 802.11n HT20 mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 OBW (99%) (MHz)** | **Chain 1 OBW (99%) (MHz)** | **Chain 0 26dB BW (MHz)** | **Chain 1 26dB BW (MHz)** |
| Low | 5500 | 17.838 | - | 29.43 | - |
| Mid | 5580 | 17.887 | - | 29.15 | - |
| High | 5700 | 18.125 | - | 29.82 | - |
| **Test mode: IEEE 802.11n HT40 mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 OBW (99%) (MHz)** | **Chain 1 OBW(99%) (MHz)** | **Chain 0 26dB BW (MHz)** | **Chain 1 26dB BW (MHz)** |
| Low | 5510 | 36.096 | - | 49.66 | - |
| Mid | 5550 | 36.170 | - | 50.00 | - |
| High | 5670 | 36.271 | - | 49.99 | - |

| UNII-3 5725-5825MHz | | | | | |
|---|---|---|---|---|---|
| **Test mode: IEEE 802.11a mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 OBW(99%) (MHz)** | **Chain 1 OBW(99%) (MHz)** | **Chain 0 6dB BW (MHz)** | **Chain 1 6dB BW (MHz)** |
| Low | 5745 | 16.980 | - | 15.13 | - |
| Mid | 5785 | 16.721 | - | 15.36 | - |
| High | 5825 | 16.763 | - | 15.62 | - |
| **Test mode: IEEE 802.11n HT20 mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 OBW(99%) (MHz)** | **Chain 1 OBW(99%) (MHz)** | **Chain 0 6dB BW (MHz)** | **Chain 1 6dB BW (MHz)** |
| Low | 5745 | 17.897 | - | 17.01 | - |
| Mid | 5785 | 17.721 | - | 15.05 | - |
| High | 5825 | 17.684 | - | 16.72 | - |
| **Test mode: IEEE 802.11n HT40 mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 OBW(99%) (MHz)** | **Chain 1 OBW(99%) (MHz)** | **Chain 0 6dB BW (MHz)** | **Chain 1 6dB BW (MHz)** |
| Low | 5755 | 36.154 | - | 35.18 | - |
| High | 5795 | 36.063 | - | 35.13 | - |

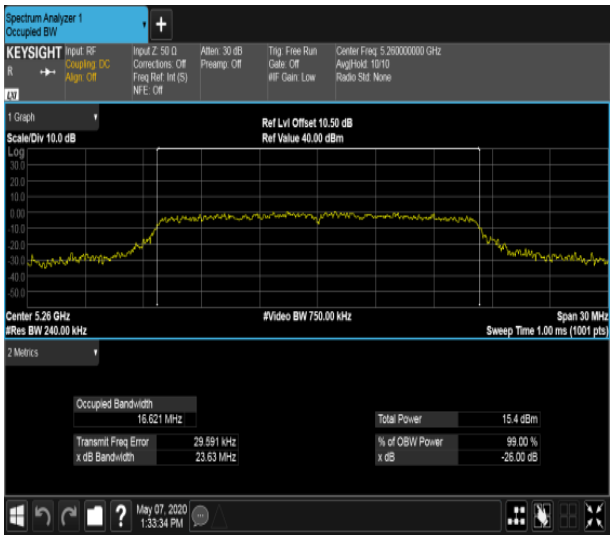
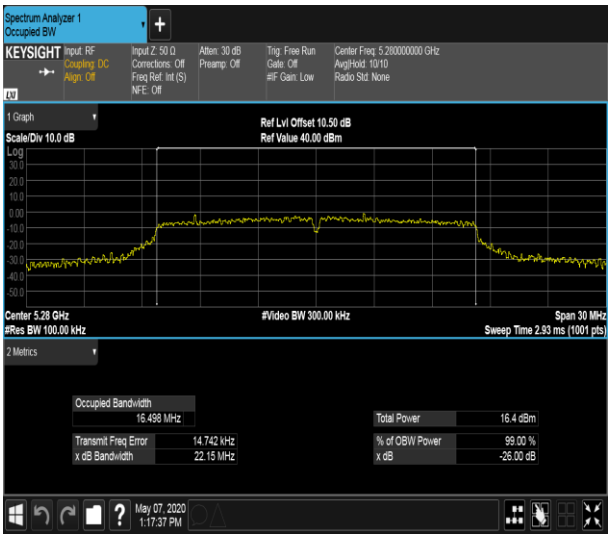
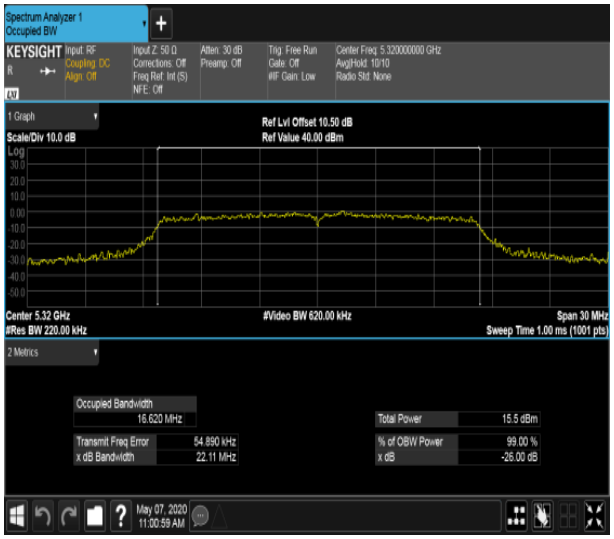
## Test Data (99%OBW and 26dB BANDWIDTH)

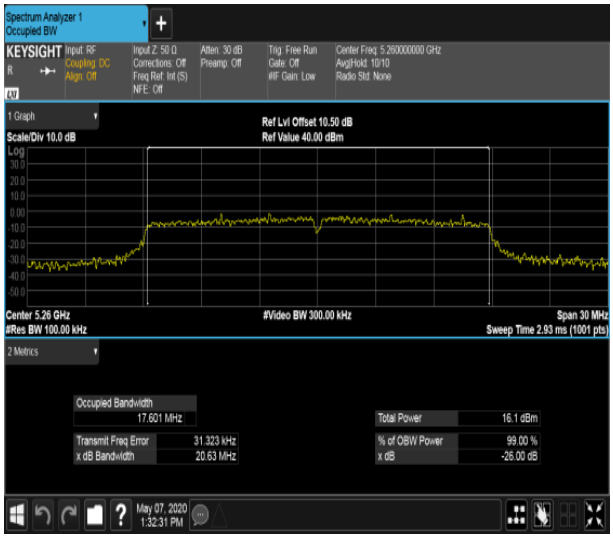
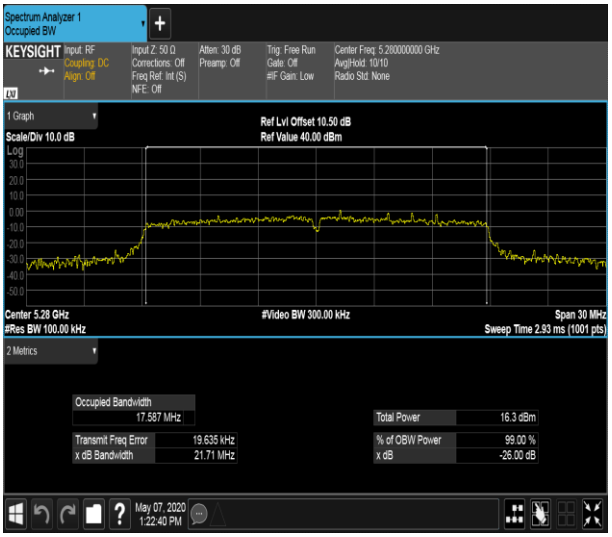
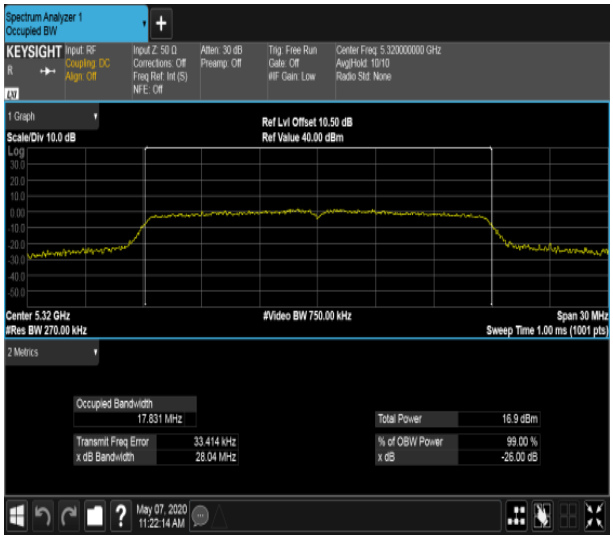
| UNII-1 IEEE 802.11a mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

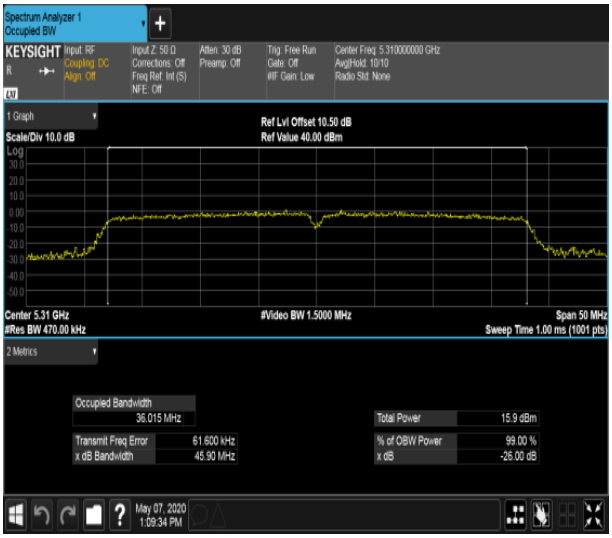
| UNII-1 IEEE 802.11n HT20 mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

| UNII-1 IEEE 802.11n HT40 mode- chain 0 | |
|---|---|
| **Low CH** | **High CH** |
|  |  |

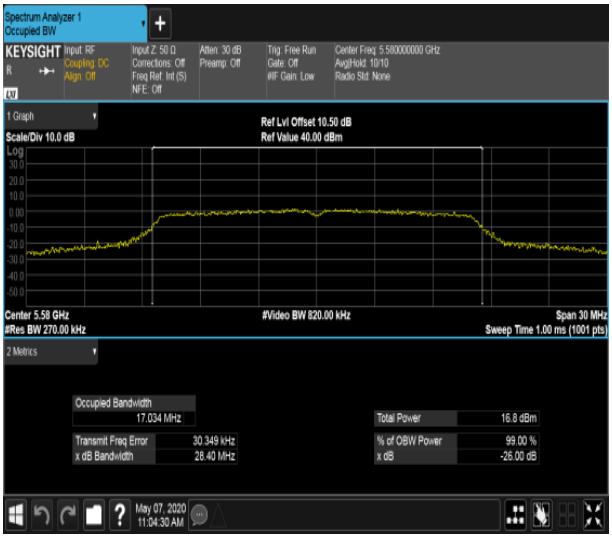
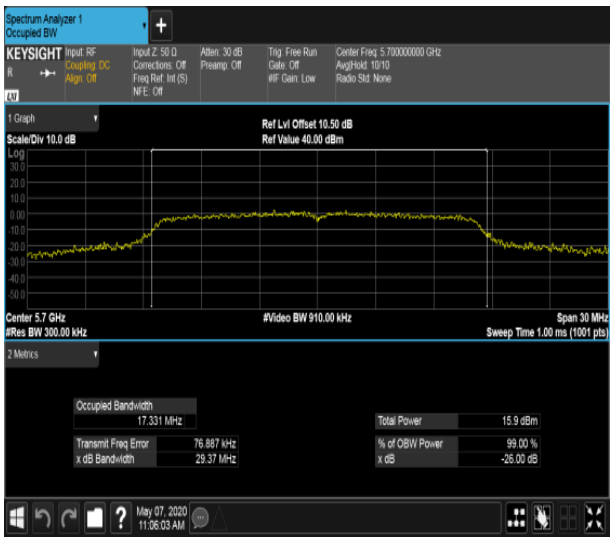
## Test Data (26dB BANDWIDTH)

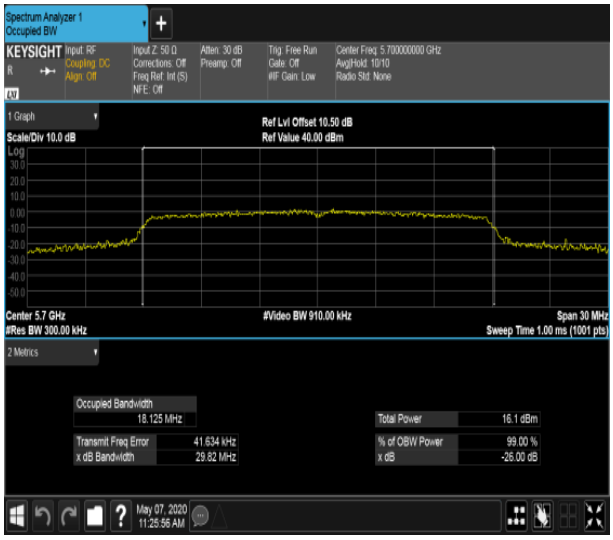
| UNII-2a IEEE 802.11a mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

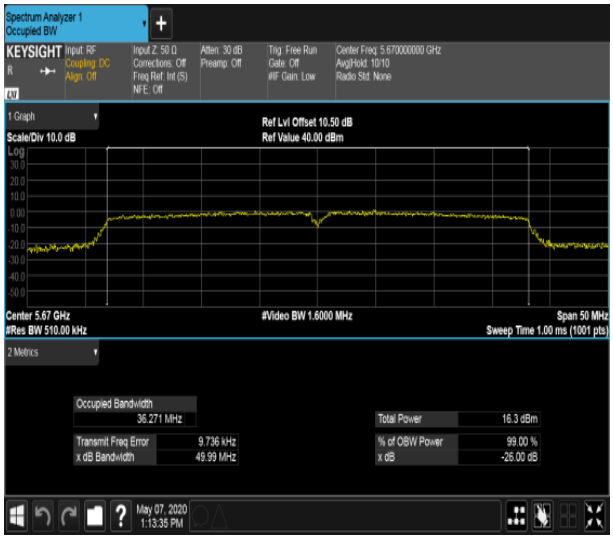
| UNII-2a IEEE 802.11n HT20 mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

| UNII-2a IEEE 802.11n HT40 mode- chain 0 | |
|---|---|
| **Low CH** | **High CH** |
|  |  |

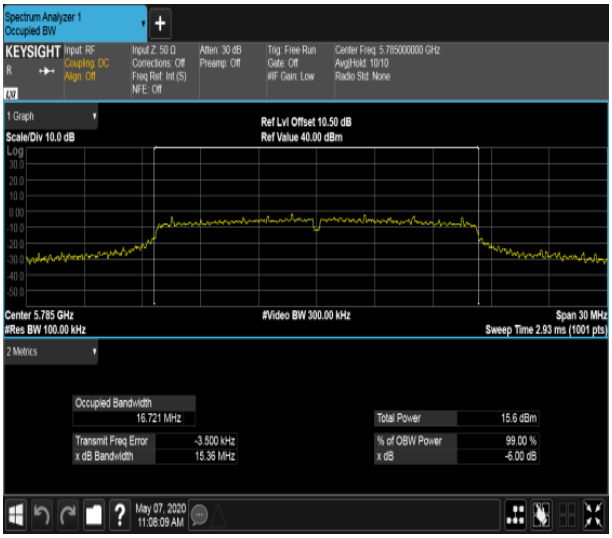
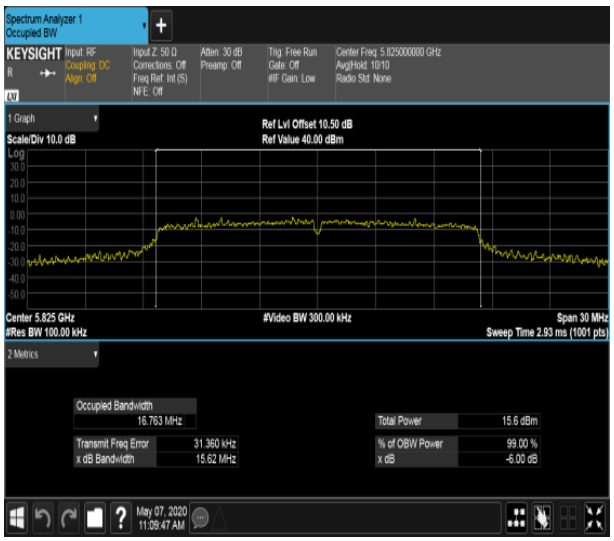
## Test Data (26dB BANDWIDTH)

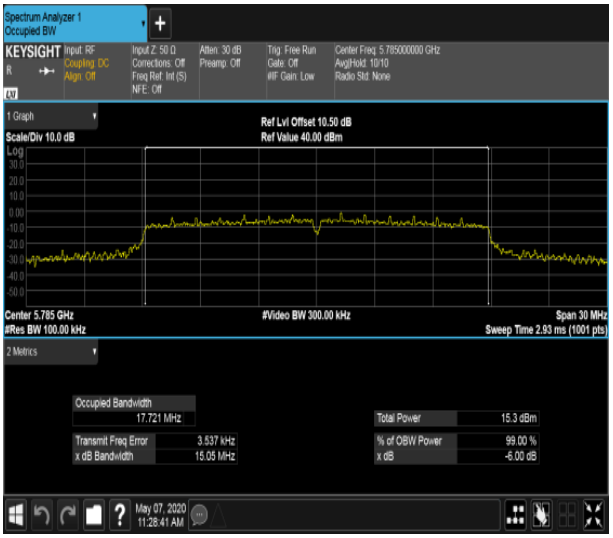
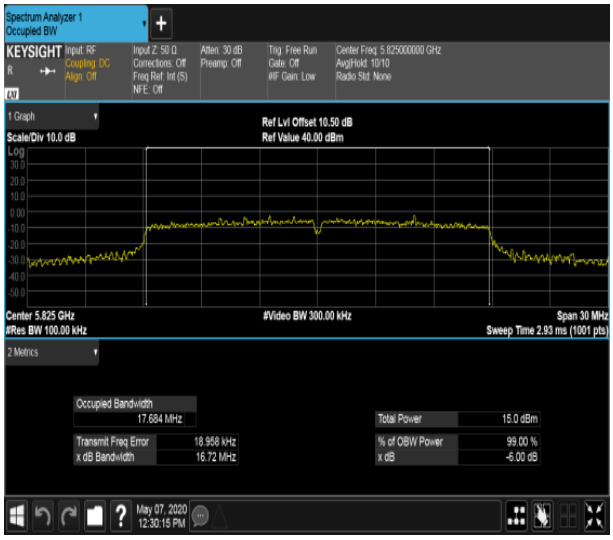
| UNII-2c IEEE 802.11a mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

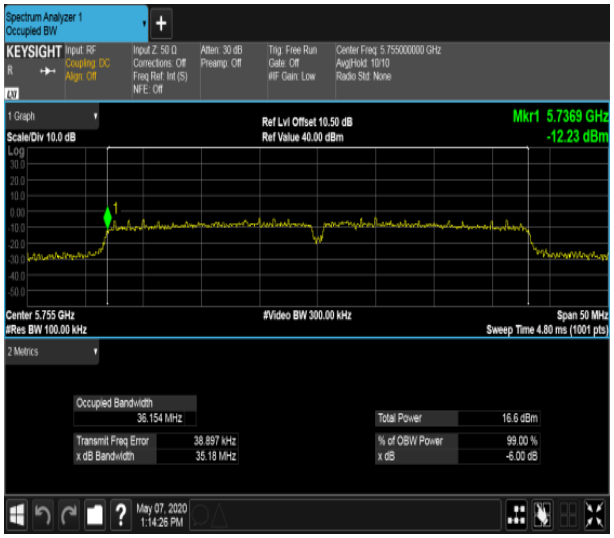
| UNII-2c IEEE 802.11n HT20 mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

| UNII-2c IEEE 802.11n HT40 mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

## Test Data (6dB BANDWIDTH)

| UNII-3 IEEE 802.11a mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

| UNII-3 IEEE 802.11n HT20 mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

| UNII-3 IEEE 802.11n HT40 mode- chain 0 | |
|---|---|
| **Low CH** | **High CH** |
|  |  |

# 4.3 OUTPUT POWER MEASUREMENT

## 4.3.1 Test Limit

According to §15.407 (a)(1), 15.407(a)(2) and 15.407(a)(3), and RSS-247 section 6.2.1.1, section 6.2.2.1, section 6.2.3.1 and section 6.2.4.1

**FCC:**

**UNII-1 :**

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW(24 dBm), whichever power is less. B is the 99% emission bandwidth in megahertz, provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

**UNII-2a and 2c:**

the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. and The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 Log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

**UNII-3:**

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

**IC:**

**UNII-1 :**

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 mW or 1.76 + 10 log10B, dBm, whichever is less. Devices shall implement transmitter power control (TPC) in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW.

For other devices, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10B, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

**UNII-2a and 2c:**

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 mW or 1.76 + 10 log10B, dBm, whichever is less. Devices shall implement TPC in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW.

Devices, other than devices installed in vehicles, shall comply with the following:

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band;

The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

**UNII-2c (5470-5600 MHz and 5650-5725 MHz)**

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

**UNII-3:**

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

| | |
|---|---|
| UNII-1 Limit | ☒ Antenna not exceed 6 dBi：24dBm<br>☐ Antenna with DG greater than 6 dBi：<br>[Limit = 24 – (DG – 6)] |
| UNII-2a/2c Limit | ☒ Antenna not exceed 6 dBi：24dBm<br>☐ Antenna with DG greater than 6 dBi：<br>[Limit = 24 – (DG – 6)] |
| UNII-3 Limit | ☒ Antenna not exceed 6 dBi：30dBm<br>☐ Antenna with DG greater than 6 dBi：<br>[Limit = 30 – (DG – 6)] |

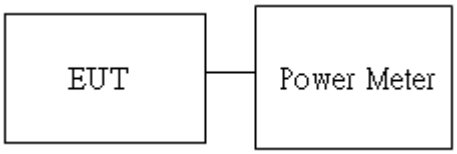
### 4.3.2 Test Procedure

Test method Refer as KDB 789033 D02, Section E.3.b for BW 20MHz and 40MHz, E.2.b for BW 80MHz.

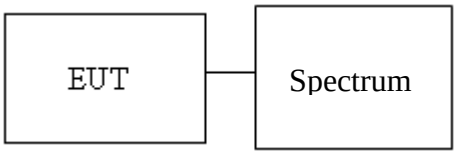
1. The EUT RF output connected to the power meter or spectrum by RF cable.
2. Setting maximum power transmit of EUT.
3. The path loss was compensated to the results for each measurement.
4. Measure and record the result of Average output power. in the test report.

### 4.3.3 Test Setup

For BW 20MHz and 40MHz




For BW 80MHz



### 4.3.4 Test Result

**Conducted output power：**

| UNII-1 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Config** | **CH** | **Freq. (MHz)** | **Power Set** | **AV Power (dBm)** | **EIRP AV Total Power (dBm)** | **AV Total Power (W)** | **EIRP AV Total Power (W)** | **DG (dBi)** | **Limit (dBm)** | **EIRP Limit (dBm)** |
| IEEE 802.11a Data rate: 6Mbps | 36 | 5180 | 17.0 | 16.15 | 16.84 | 0.0412 | 0.0483 | 0.69 | 24 | 23 |
| | 44 | 5220 | 17.0 | 16.16 | 16.85 | 0.0413 | 0.0484 | | | |
| | 48 | 5240 | 17.0 | **16.44** | 17.13 | 0.0441 | 0.0516 | | | |
| IEEE 802.11n HT20 Data rate: MCS0 | 36 | 5180 | 17.0 | **16.55** | 17.24 | 0.0451 | 0.0529 | | | |
| | 44 | 5220 | 17.0 | 16.20 | 16.89 | 0.0416 | 0.0488 | | | |
| | 48 | 5240 | 17.0 | 16.47 | 17.16 | 0.0443 | 0.0519 | | | |
| IEEE 802.11n HT40 Data rate: MCS0 | 38 | 5190 | 15.0 | 15.02 | 15.71 | 0.0318 | 0.0372 | | | |
| | 46 | 5230 | 17.0 | **16.50** | 17.19 | 0.0447 | 0.0524 | | | |

| UNII-2a | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Config** | **CH** | **Freq. (MHz)** | **Power Set** | **AV Power (dBm)** | **EIRP AV Total Power (dBm)** | **AV Total Power (W)** | **EIRP AV Total Power (W)** | **DG (dBi)** | **Limit (dBm)** | **EIRP Limit (dBm)** |
| IEEE 802.11a Data rate: 6Mbps | 52 | 5260 | 17 | **15.95** | 16.64 | 0.0394 | 0.0461 | 0.69 | 24 | 30 |
| | 56 | 5280 | 17 | 15.87 | 16.56 | 0.0386 | 0.0453 | | | |
| | 64 | 5320 | 17 | 15.76 | 16.45 | 0.0377 | 0.0442 | | | |
| IEEE 802.11n HT20 Data rate: MCS0 | 52 | 5260 | 17 | 16.02 | 16.71 | 0.0400 | 0.0468 | | | |
| | 56 | 5280 | 17 | **16.41** | 17.10 | 0.0437 | 0.0512 | | | |
| | 64 | 5320 | 17 | 15.90 | 16.59 | 0.0389 | 0.0456 | | | |
| IEEE 802.11n HT40 Data rate: MCS0 | 54 | 5270 | 17 | **15.90** | 16.59 | 0.0389 | 0.0456 | | | |
| | 62 | 5310 | 15 | 14.67 | 15.36 | 0.0293 | 0.0344 | | | |

| UNII-2c | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Config** | **CH** | **Freq. (MHz)** | **Power Set** | **AV Power (dBm)** | **EIRP AV Total Power (dBm)** | **AV Total Power (W)** | **EIRP AV Total Power (W)** | **DG (dBi)** | **Limit (dBm)** | **EIRP Limit (dBm)** |
| IEEE 802.11a Data rate: 6Mbps | 100 | 5500 | 17 | 15.94 | 16.63 | 0.0393 | 0.0460 | 0.69 | 24 | 30 |
| | 116 | 5580 | 17 | **15.99** | 16.68 | 0.0397 | 0.0466 | | | |
| | 140 | 5700 | 15.5 | 15.23 | 15.92 | 0.0333 | 0.0391 | | | |
| IEEE 802.11n HT20 Data rate: MCS0 | 100 | 5500 | 16 | 15.98 | 16.67 | 0.0396 | 0.0465 | | | |
| | 116 | 5580 | 17 | **16.53** | 17.22 | 0.0450 | 0.0527 | | | |
| | 140 | 5700 | 14 | 13.80 | 14.49 | 0.0240 | 0.0281 | | | |
| IEEE 802.11n HT40 Data rate: MCS0 | 102 | 5510 | 12 | 12.06 | 12.75 | 0.0161 | 0.0188 | | | |
| | 110 | 5550 | 17 | **16.47** | 17.16 | 0.0444 | 0.0520 | | | |
| | 134 | 5670 | 14 | 14.00 | 14.69 | 0.0251 | 0.0294 | | | |

| UNII-3 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Config** | **CH** | **Freq. (MHz)** | **Power Set** | **AV Power (dBm)** | **EIRP AV Total Power (dBm)** | **AV Total Power (W)** | **EIRP AV Total Power (W)** | **DG (dBi)** | **Limit (dBm)** |
| IEEE 802.11a Data rate: 6Mbps | 149 | 5745 | 15 | 13.29 | 13.98 | 0.0213 | 0.0250 | 0.69 | 30 |
| | 157 | 5785 | 15 | **13.33** | 14.02 | 0.0215 | 0.0252 | | |
| | 165 | 5825 | 15 | 13.29 | 13.98 | 0.0213 | 0.0250 | | |
| IEEE 802.11n HT20 Data rate: MCS0 | 149 | 5745 | 15 | 13.34 | 14.03 | 0.0216 | 0.0253 | | |
| | 157 | 5785 | 15 | **13.44** | 14.13 | 0.0221 | 0.0259 | | |
| | 165 | 5825 | 15 | 13.29 | 13.98 | 0.0213 | 0.0250 | | |
| IEEE 802.11n HT40 Data rate: MCS0 | 151 | 5755 | 15 | **13.29** | 13.98 | 0.0213 | 0.0250 | | |
| | 159 | 5795 | 15 | 13.21 | 13.90 | 0.0209 | 0.0245 | | |

# 4.4 POWER SPECTRAL DENSITY

## 4.4.1 Test Limit

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

According to RSS-247 section 6.2.1.1, section 6.2.2.1, section 6.2.3.1 and section 6.2.4.1

**UNII-1:**

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

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

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

**UNII-2a and 2c:**

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

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

**UNII-3:**

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

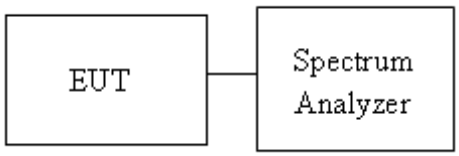
| | |
|---|---|
| UNII-1 Limit | ☒ Antenna not exceed 6 dBi：11 dBm<br>☐ Antenna with DG greater than 6 dBi：<br>[Limit = 11 – (DG – 6)] |
| UNII-2a Limit | ☒ Antenna not exceed 6 dBi：11 dBm<br>☐ Antenna with DG greater than 6 dBi：<br>[Limit = 11 – (DG – 6)] |
| UNII-2c Limit | ☒ Antenna not exceed 6 dBi：11 dBm<br>☐ Antenna with DG greater than 6 dBi：<br>[Limit = 11 – (DG – 6)] |
| UNII-3 Limit | ☒ Antenna not exceed 6 dBi：30 dBm<br>☐ Antenna with DG greater than 6 dBi：<br>[Limit = 30 – (DG – 6)] |

### 4.4.2 Test Procedure

Test method Refer as KDB 789033 D02

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

### 4.4.3 Test Setup



### 4.4.4 Test Result

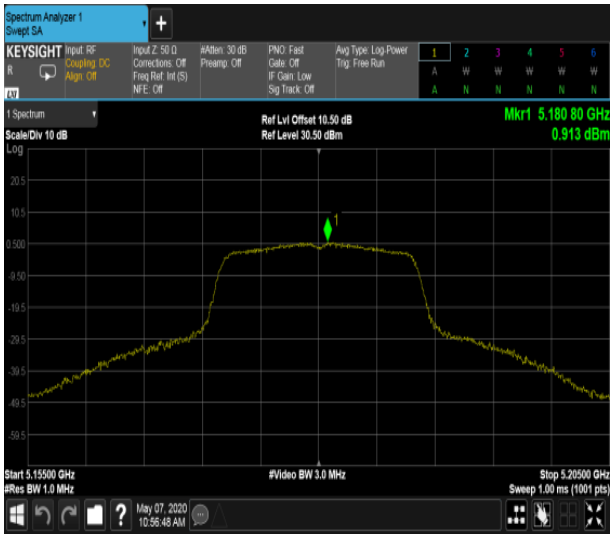
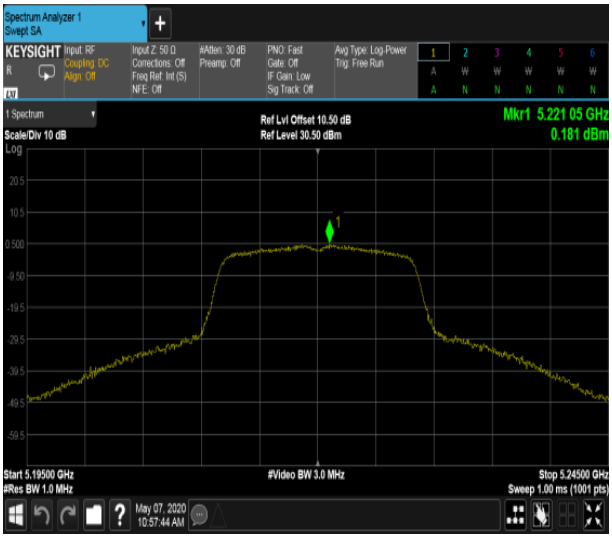
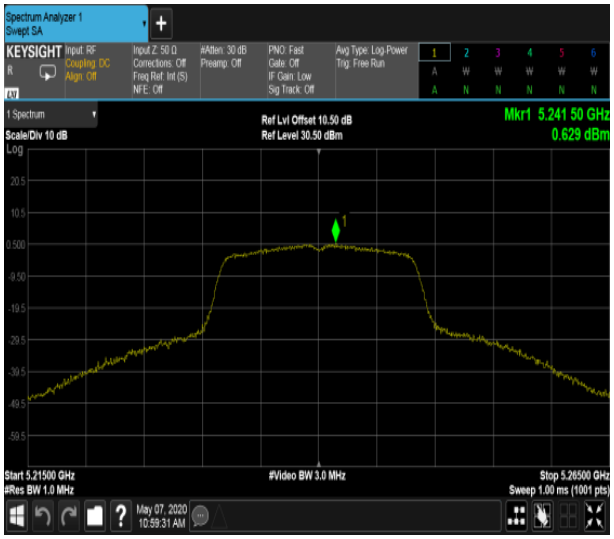
| UNII-1 5150-5250 MHz | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Test mode: IEEE 802.11a mode** | | | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 PPSD (dBm)** | **Chain 1 PPSD (dBm)** | **Total PPSD (dBm)** | **EIRP Total PPSD (dBm)** | **FCC Limit (dBm)** | **IC Limit (dBm)** |
| Low | 5180 | 0.913 | - | 0.913 | 1.603 | 11 | 10 |
| Mid | 5220 | 0.181 | - | 0.181 | 0.871 | | |
| High | 5240 | 0.629 | - | 0.629 | 1.319 | | |
| **Test mode: IEEE 802.11n HT20 mode** | | | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 PPSD (dBm)** | **Chain 1 PPSD (dBm)** | **Total PPSD (dBm)** | **EIRP Total PPSD (dBm)** | **FCC Limit (dBm)** | **IC Limit (dBm)** |
| Low | 5180 | 0.715 | - | 0.715 | 1.405 | 11 | 10 |
| Mid | 5220 | -0.016 | - | -0.016 | 0.674 | | |
| High | 5240 | 0.017 | - | 0.017 | 0.707 | | |
| **Test mode: IEEE 802.11n HT40 mode** | | | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 PPSD (dBm)** | **Chain 1 PPSD (dBm)** | **Total PPSD (dBm)** | **EIRP Total PPSD (dBm)** | **FCC Limit (dBm)** | **IC Limit (dBm)** |
| Low | 5190 | -2.27 | - | -2.27 | -1.58 | 11 | 10 |
| High | 5230 | -3.037 | - | -3.037 | -2.347 | | |

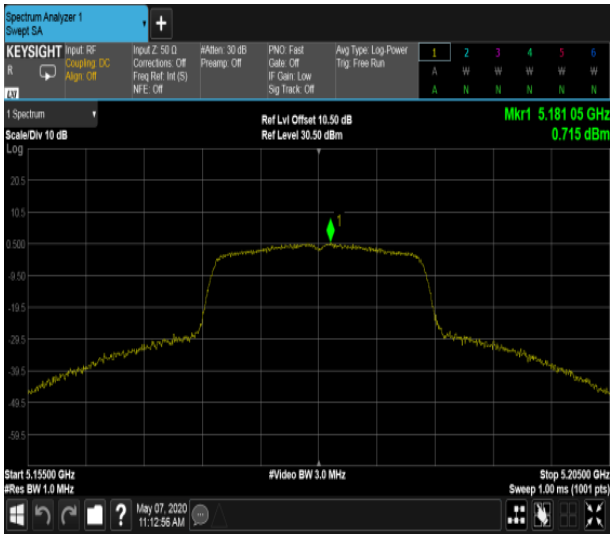
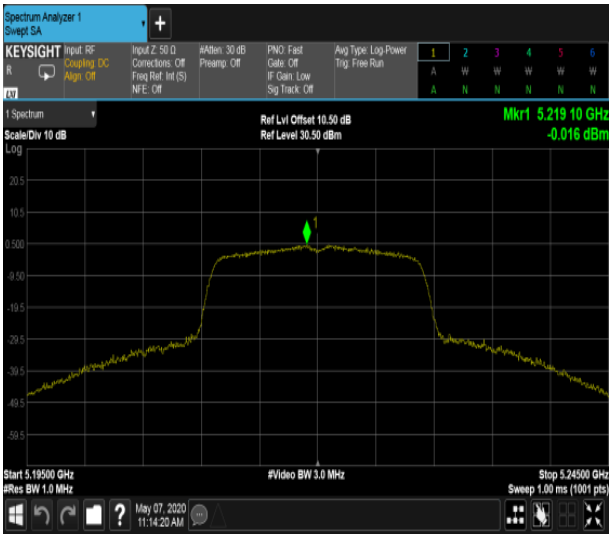
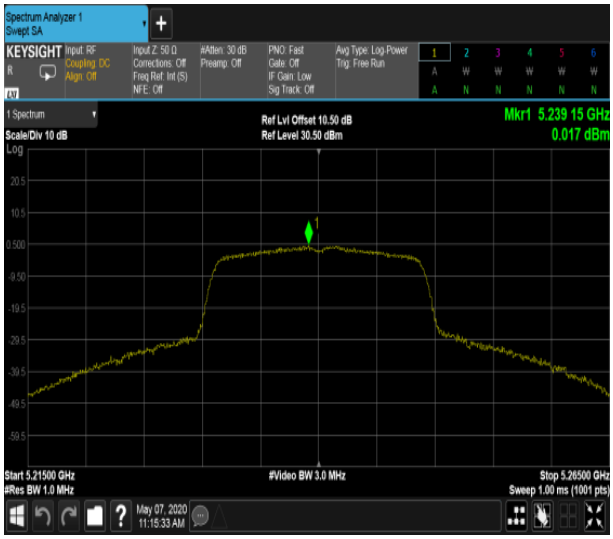
| UNII-2a 5250-5350 MHz | | | | | |
|---|---|---|---|---|---|
| **Test mode: IEEE 802.11a mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 PPSD (dBm)** | **Chain 1 PPSD (dBm)** | **Total PPSD (dBm)** | **Limit (dBm)** |
| Low | 5260 | 0.99 | - | 0.99 | 11 |
| Mid | 5280 | 1.263 | - | 1.263 | |
| High | 5320 | -0.332 | - | -0.332 | |
| **Test mode: IEEE 802.11n HT20 mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 PPSD (dBm)** | **Chain 1 PPSD (dBm)** | **Total PPSD (dBm)** | **Limit (dBm)** |
| Low | 5260 | 0.474 | - | 0.474 | 11 |
| Mid | 5280 | 0.705 | - | 0.705 | |
| High | 5320 | -0.177 | - | -0.177 | |
| **Test mode: IEEE 802.11n HT40 mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 PPSD (dBm)** | **Chain 1 PPSD (dBm)** | **Total PPSD (dBm)** | **Limit (dBm)** |
| Low | 5270 | -3.661 | - | -3.661 | 11 |
| High | 5310 | -3.431 | - | -3.431 | |

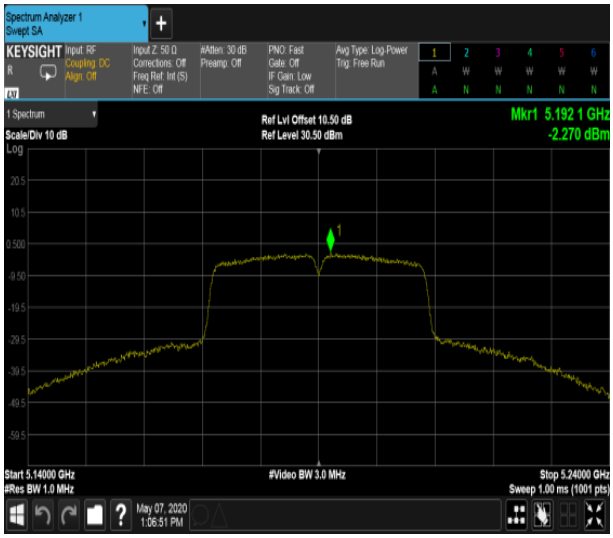
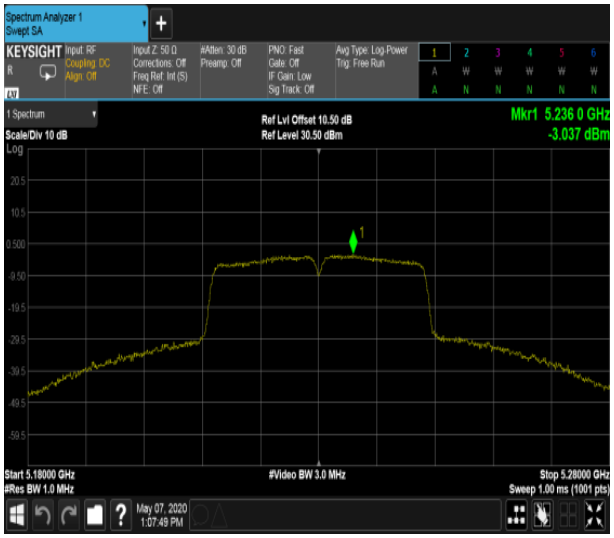
| UNII-2c 5470-5725 MHz | | | | | |
|---|---|---|---|---|---|
| **Test mode: IEEE 802.11a mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 PPSD (dBm)** | **Chain 1 PPSD (dBm)** | **Total PPSD (dBm)** | **Limit (dBm)** |
| Low | 5500 | 0.362 | - | 0.362 | 11 |
| Mid | 5580 | 0.249 | - | 0.249 | |
| High | 5700 | -0.029 | - | -0.029 | |
| **Test mode: IEEE 802.11n HT20 mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 PPSD (dBm)** | **Chain 1 PPSD (dBm)** | **Total PPSD (dBm)** | **Limit (dBm)** |
| Low | 5500 | -0.313 | - | -1.488 | 11 |
| Mid | 5580 | -0.074 | - | -1.752 | |
| High | 5700 | 0.05 | - | -2.074 | |
| **Test mode: IEEE 802.11n HT40 mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 PPSD (dBm)** | **Chain 1 PPSD (dBm)** | **Total PPSD (dBm)** | **Limit (dBm)** |
| Low | 5510 | -3.639 | - | -3.639 | 11 |
| Mid | 5550 | -2.813 | - | -2.813 | |
| High | 5670 | -3.698 | - | -3.698 | |

| UNII-3 5725-5825 MHz | | | | | |
|---|---|---|---|---|---|
| **Test mode: IEEE 802.11a mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 PPSD (dBm)** | **Chain 1 PPSD (dBm)** | **Total PPSD (dBm)** | **Limit (dBm)** |
| Low | 5745 | -2.553 | - | -2.553 | 30 |
| Mid | 5785 | -3.179 | - | -3.179 | |
| High | 5825 | -2.217 | - | -2.217 | |
| **Test mode: IEEE 802.11n HT20 mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 PPSD (dBm)** | **Chain 1 PPSD (dBm)** | **Total PPSD (dBm)** | **Limit (dBm)** |
| Low | 5745 | -2.953 | - | -2.953 | 30 |
| Mid | 5785 | -3.039 | - | -3.039 | |
| High | 5825 | -3.131 | - | -3.131 | |
| **Test mode: IEEE 802.11n HT40 mode** | | | | | |
| **Channel** | **Frequency (MHz)** | **Chain 0 PPSD (dBm)** | **Chain 1 PPSD (dBm)** | **Total PPSD (dBm)** | **Limit (dBm)** |
| Low | 5755 | -6.071 | - | -6.071 | 30 |
| High | 5795 | -6.713 | - | -6.713 | |

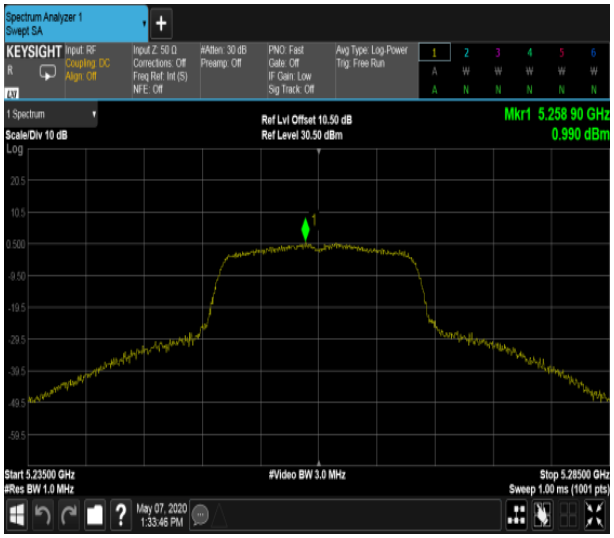
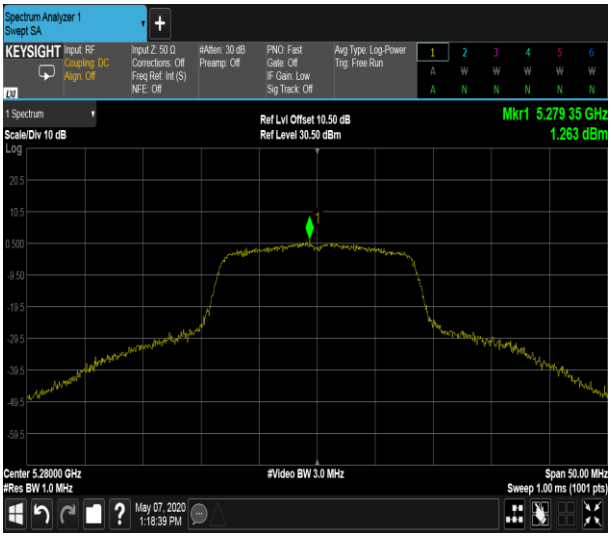
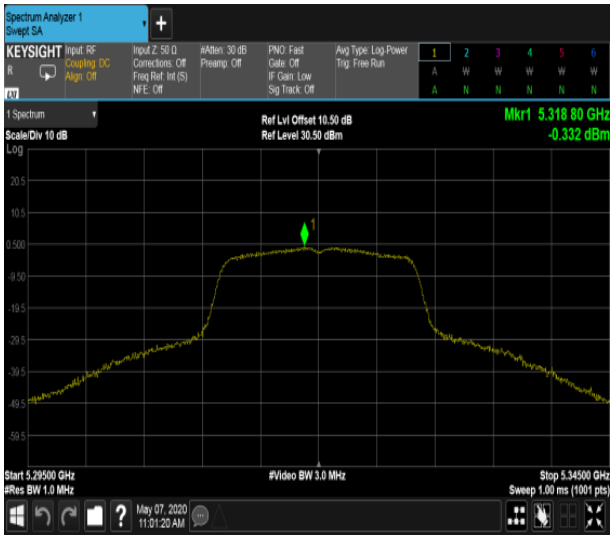
## Test Data

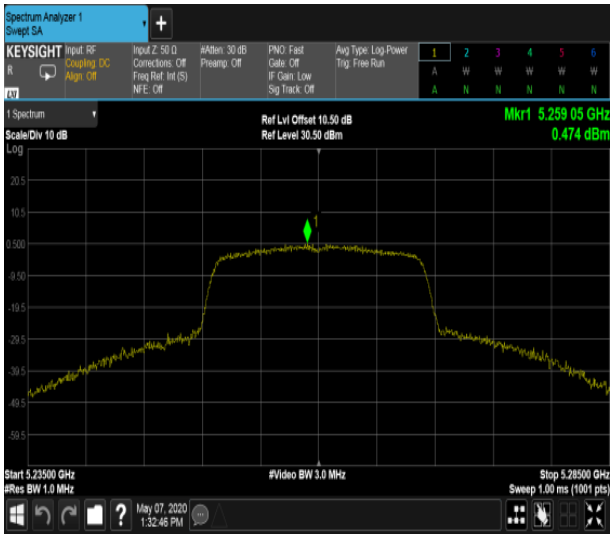
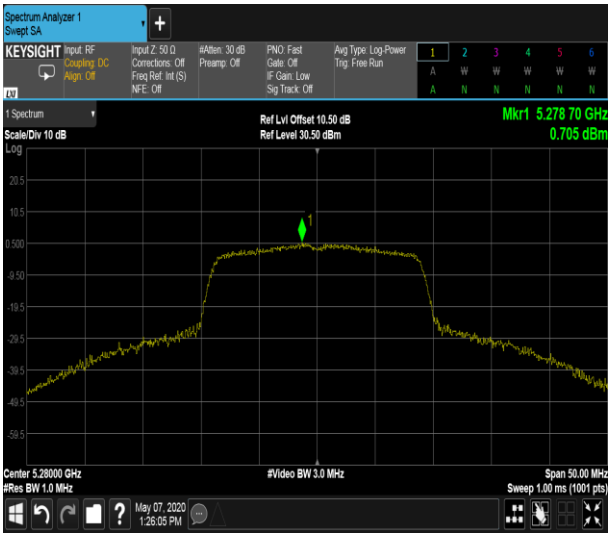
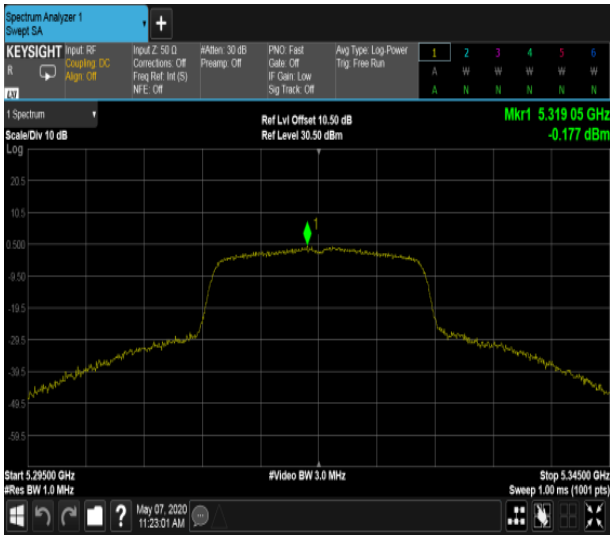
| UNII-1 IEEE 802.11a mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

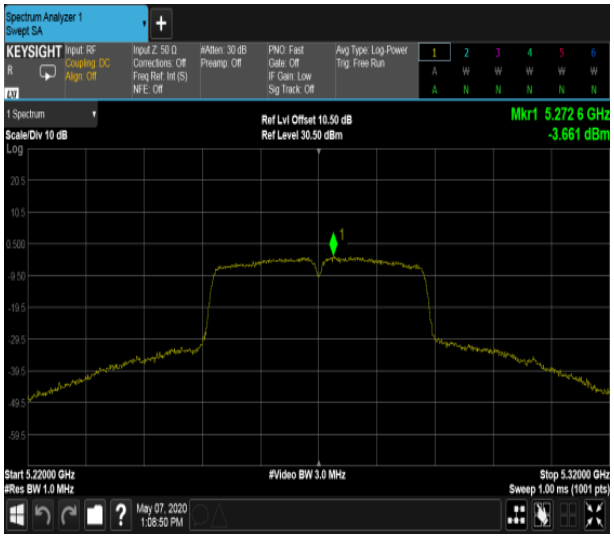
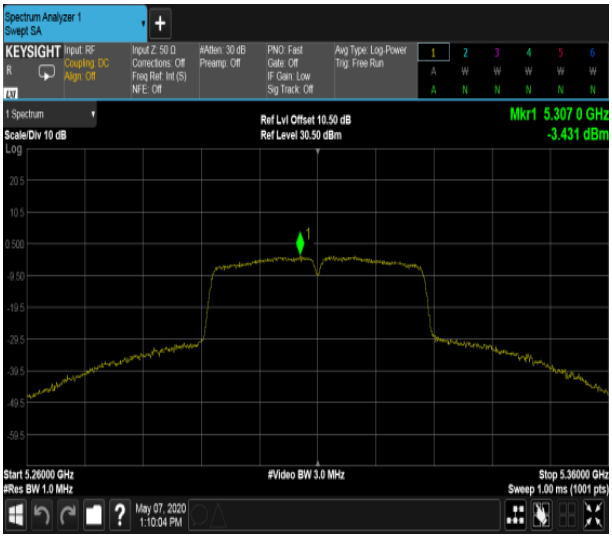
| UNII-1 IEEE 802.11n HT20 mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

| UNII-1 IEEE 802.11n HT40 mode- chain 0 | |
|---|---|
| **Low CH** | **High CH** |
|  |  |

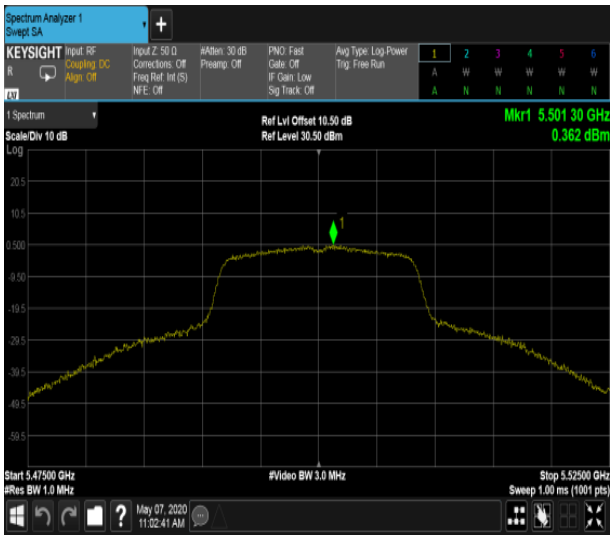
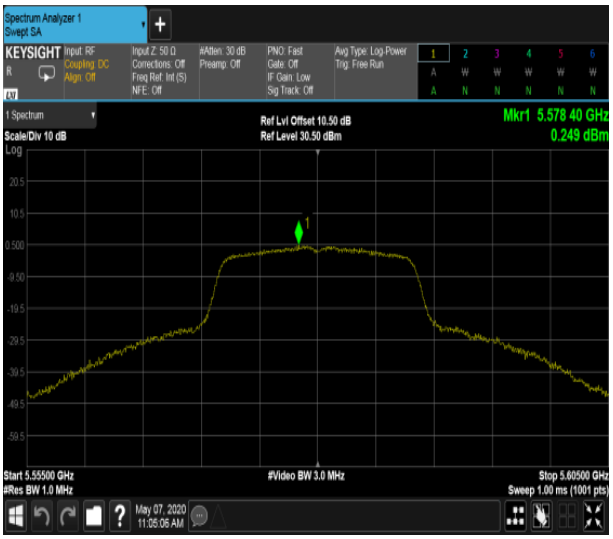
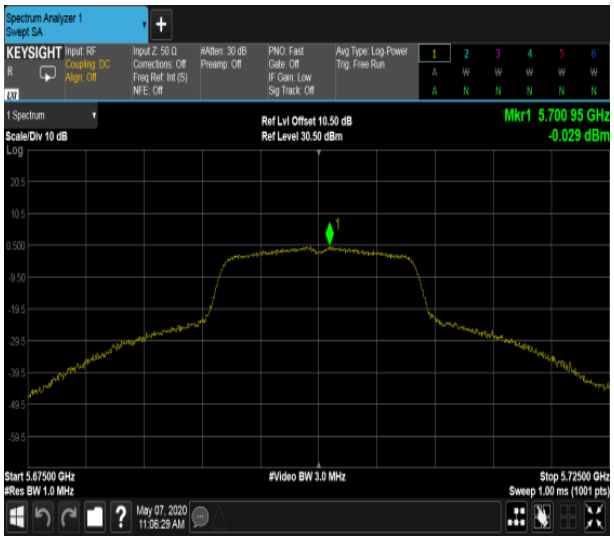
## Test Data

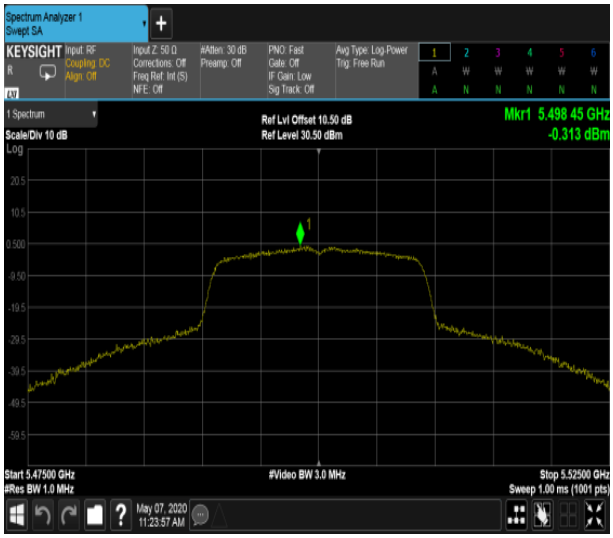
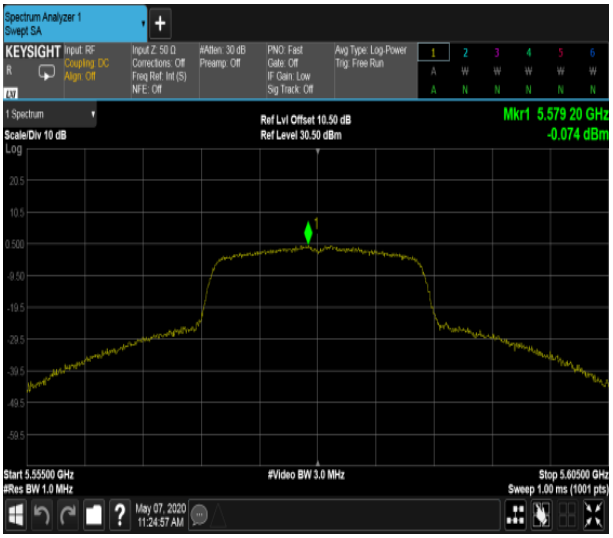
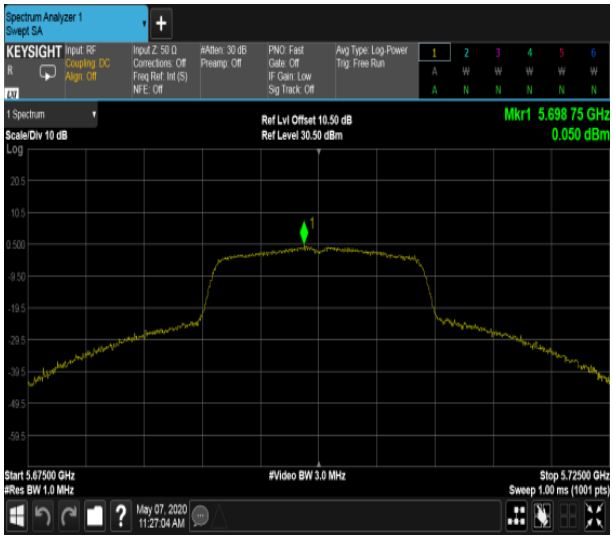
| UNII-2a IEEE 802.11a mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

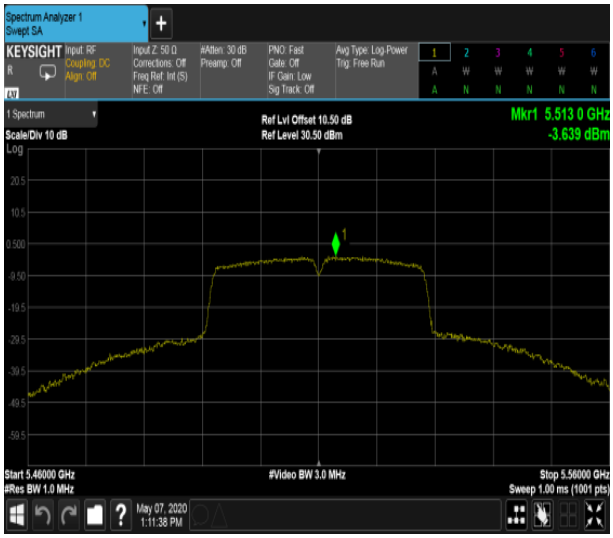
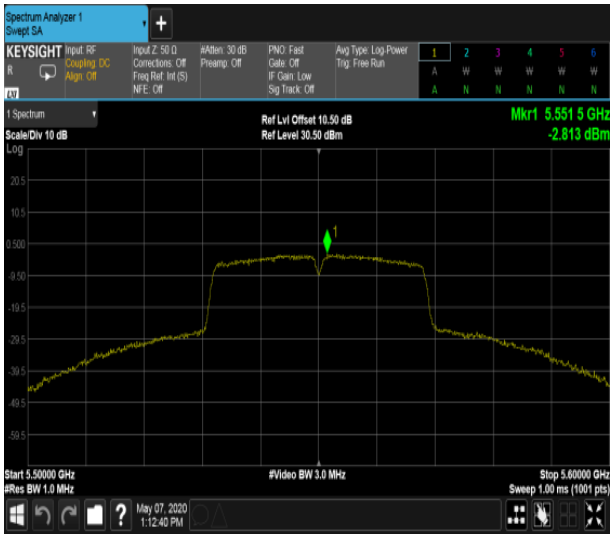
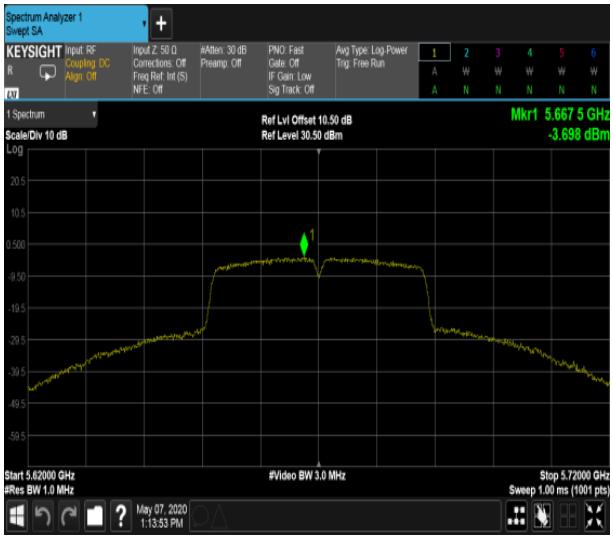
| UNII-2a IEEE 802.11n HT20 mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

| UNII-2a IEEE 802.11n HT40 mode- chain 0 | |
|---|---|
| **Low CH** | **High CH** |
|  |  |

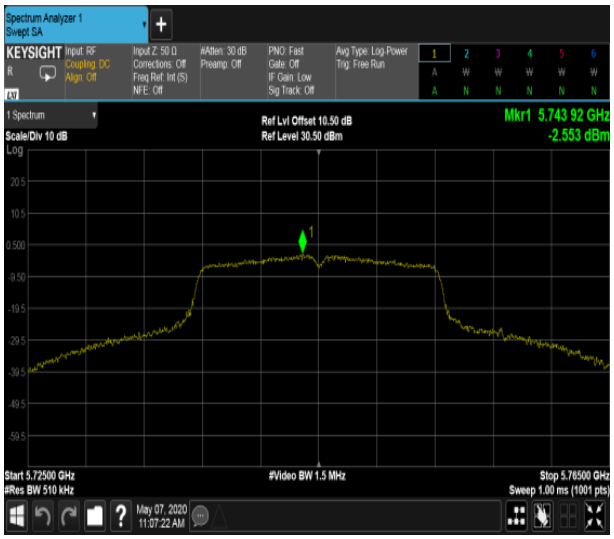
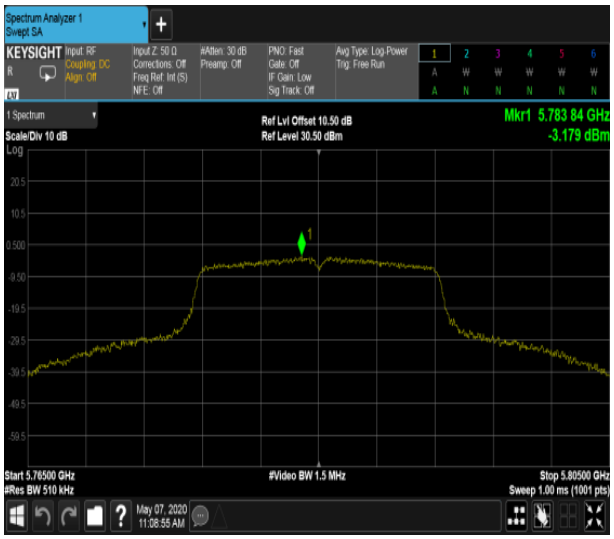
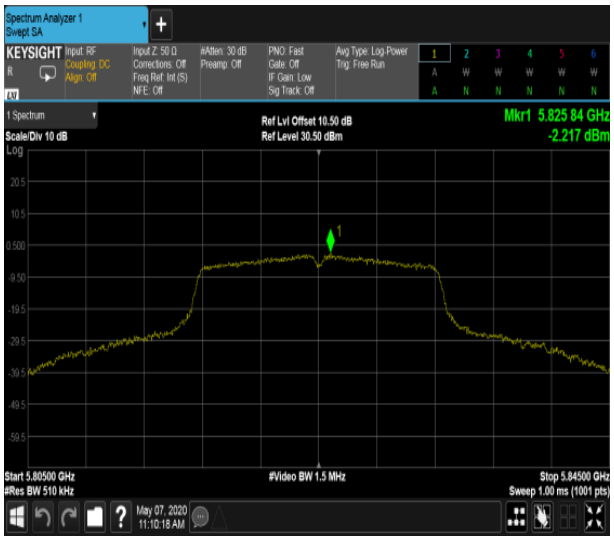
## Test Data

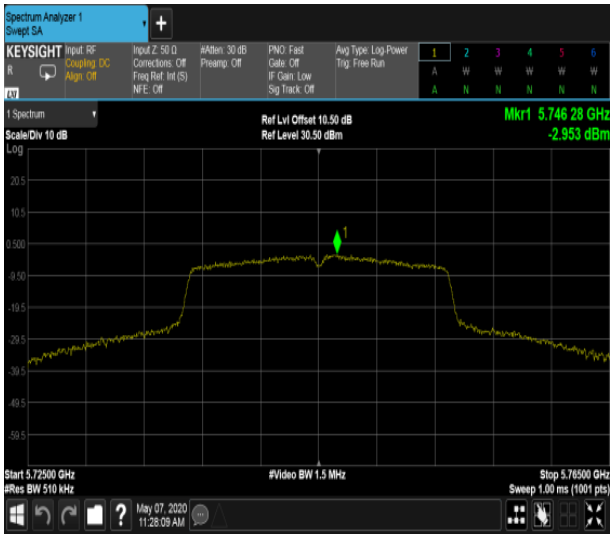
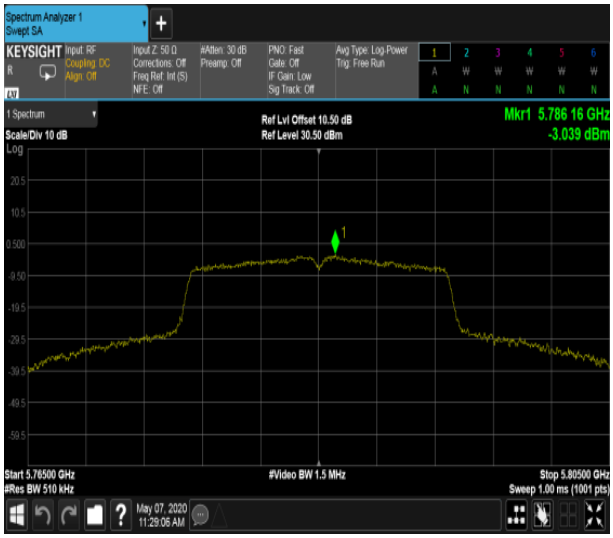
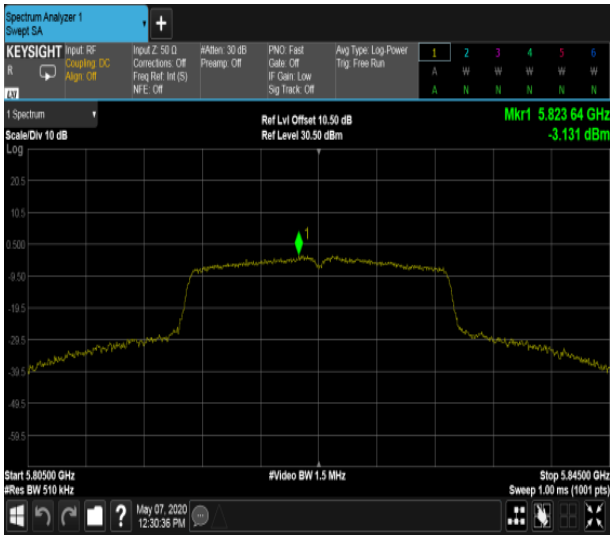
| UNII-2c IEEE 802.11a mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

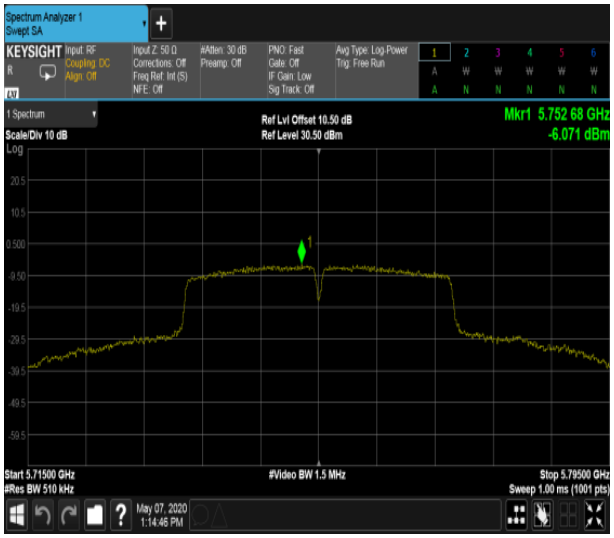
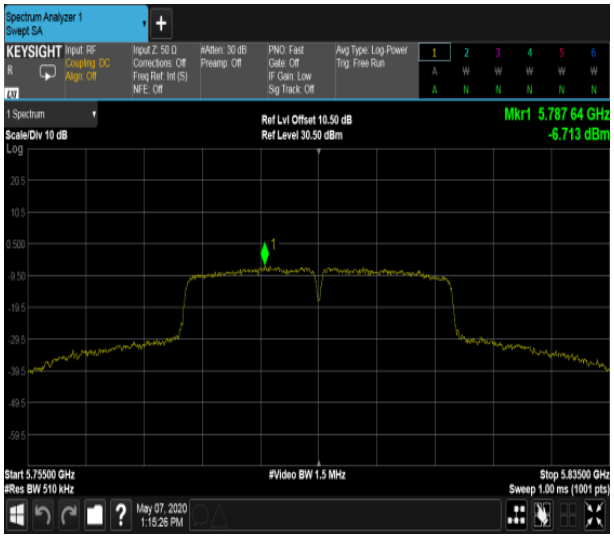
| UNII-2c IEEE 802.11n HT20 mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

| UNII-2c IEEE 802.11n HT40 mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

## Test Data

| UNII-3 IEEE 802.11a mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

| UNII-3 IEEE 802.11n HT20 mode- chain 0 | |
|---|---|
| **Low CH** | **Mid CH** |
|  |  |
| **High CH** | |
|  | |

| UNII-3 IEEE 802.11n HT40 mode- chain 0 | |
|---|---|
| **Low CH** | **High CH** |
|  |  |

# 4.5 RADIATION BANDEDGE AND SPURIOUS EMISSION

## 4.5.1 Test Limit

According to §15.407, §15.209 and §15.205,
According to RSS-247 section 6.2.1.2 and section 6.2.4.2

**Below 30 MHz**

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

**Above 30 MHz**

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

**RSS-Gen Table 3 and Table 5 – General Field Strength Limits for Transmitters and Receivers at Frequencies Above 30 MHz** (Note)

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

***Note:*** Measurements for compliance with the limits in table 3 may be performed at distances other than 3 metres, in accordance with Section 6.6.

**RSS-Gen Table 6: General Field Strength Limits for Transmitters at Frequencies Below 30 MHz (Transmit)**

| Frequency | Magnetic field strength (H-Field) (μA/m) | Measurement Distance (m) |
|---|---|---|
| 9-490 kHz Note | 6.37/F (F in kHz) | 300 |
| 490-1,705 kHz | 63.7/F (F in kHz) | 30 |
| 1.705-30 MHz | 0.08 | 30 |

***Note:*** The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector..

**UNII-1 :**

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

**UNII-2a and 2c :**

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

**UNII-3:**

For the band 5725-5850 MHz, emissions at frequencies from the band edges to 10 MHz above or below the band edges shall not exceed -17 dBm/MHz e.i.r.p.
For emissions at frequencies more than 10 MHz above or below the band edges, the emissions power shall not exceed -27 dBm/MHz

## 4.5.2 Test Procedure

Test method Refer as KDB 789033 D02.

1. The EUT is placed on a turntable, Above 1 GHz is 1.5m and below 1 GHz is 0.8m above ground plane. The EUT Configured un accordance with ANSI C63.10: 2013, and the EUT set in a continuous mode.

2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. And EUT is set 3m away from the receiving antenna, which is scanned from 1m to 4m above the ground plane to find out the highest emissions. Measurement are made polarized in both the vertical and the horizontal positions with antenna.

3. Span shall wide enough to full capture the emission measured. The SA from 9kHz to 26.5GHz set to the low, Mid and High channels with the EUT transmit.

4. No emission found between lowest internal used/generated frequency to 30MHz (9KHz~30MHz)

5. The SA setting following：

(1) Below 1G：RBW = 100kHz, VBW ≥ 3*RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.

(2) Above 1G：

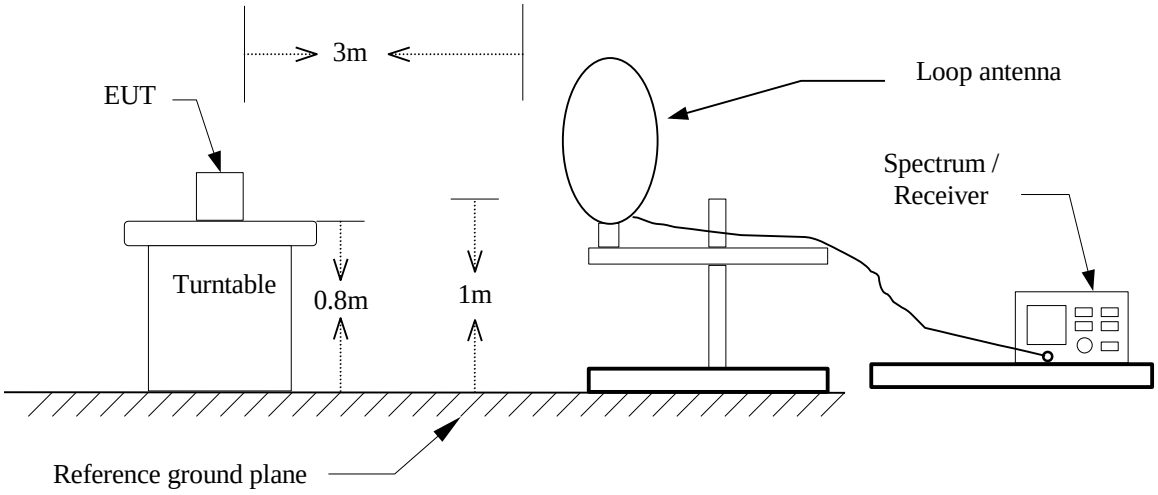
(2.1) For Peak measurement：RBW = 1MHz, VBW ≥ 3 RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.

(2.2) For Average measurement：RBW = 1MHz, VBW

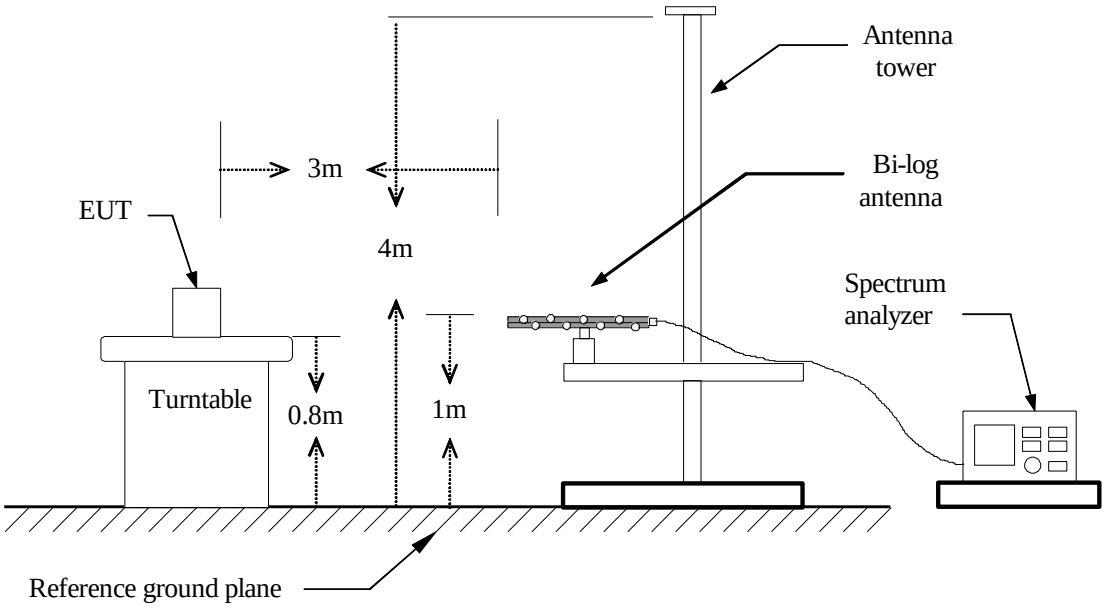
- If Duty Cycle ≥ 98%, VBW=10Hz.
- If Duty Cycle < 98%, VBW=1/T.

## 4.5.3 Test Setup

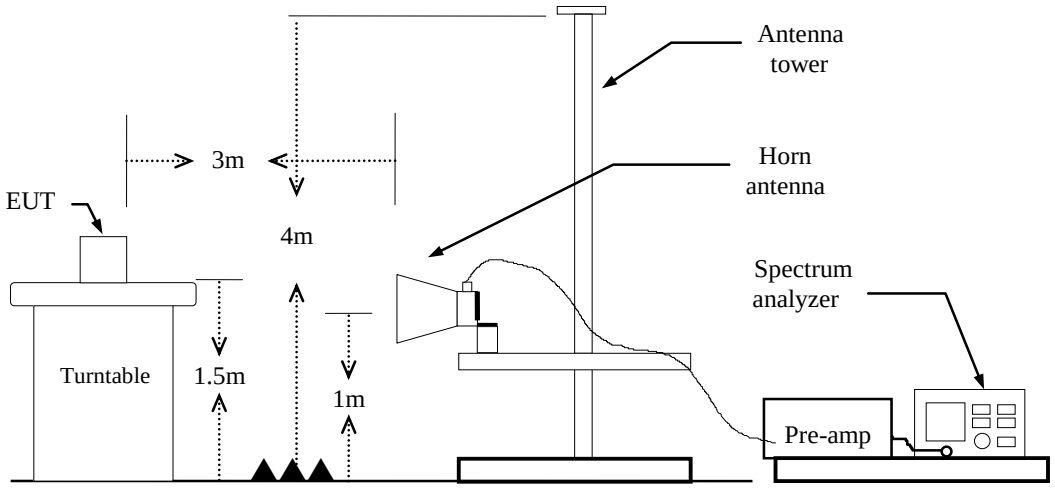
**9kHz ~ 30MHz**




**30MHz ~ 1GHz**



**Above 1 GHz**

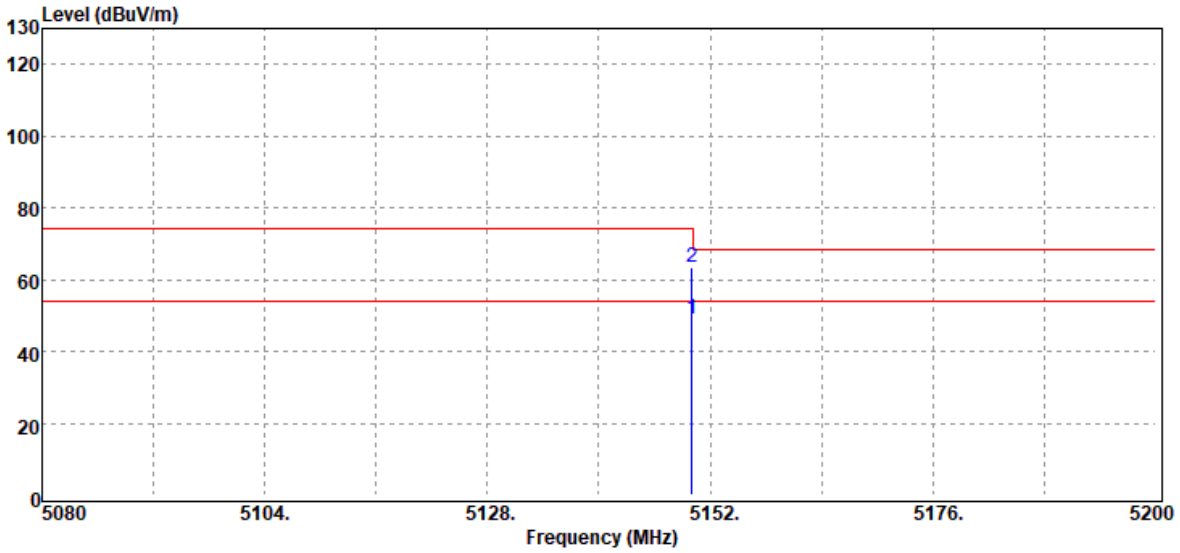


## 4.5.4 Test Result

## Band Edge Test Data

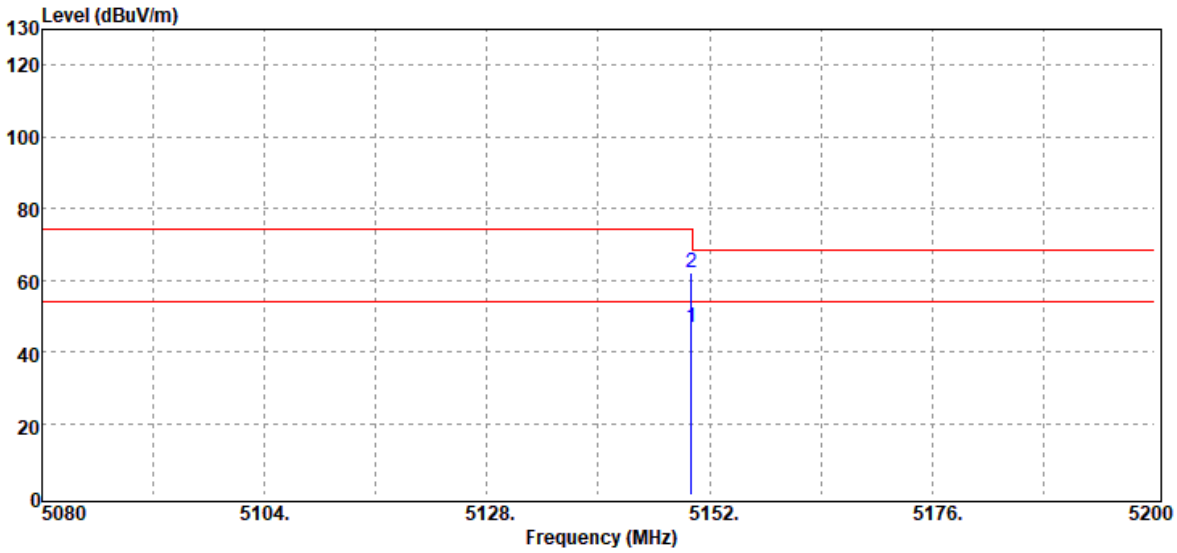
### Test Data for UNII-1

| Test Mode | IEEE 802.11a / 5180MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |



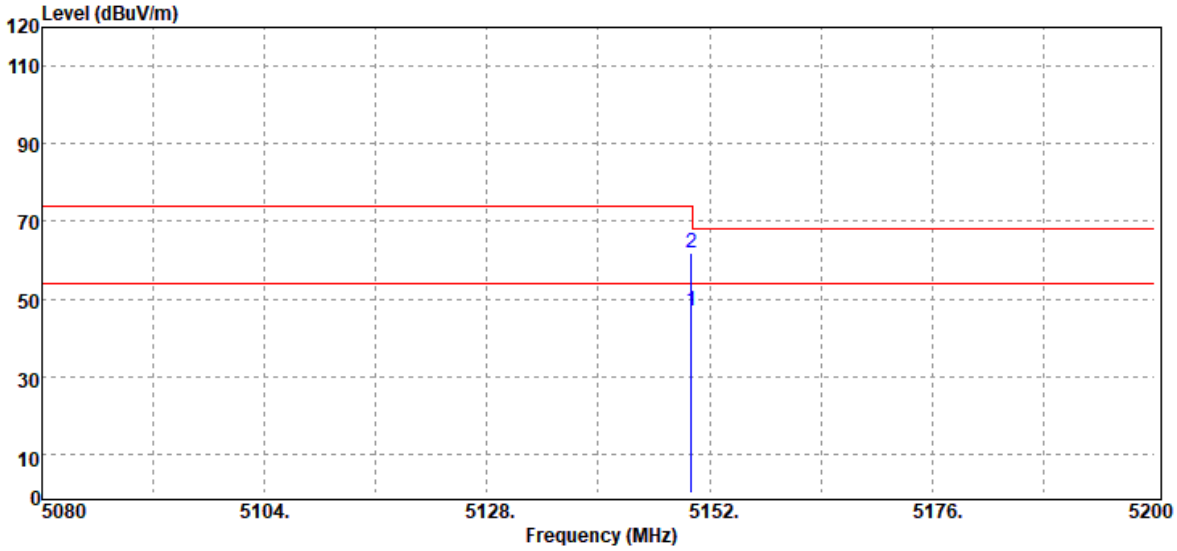

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5150.00 | Average | 43.39 | 5.58 | 48.97 | 54.00 | -5.03 |
| 5150.00 | Peak | 57.69 | 5.58 | 63.27 | 74.00 | -10.73 |

| Test Mode | IEEE 802.11a / 5180MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak / Average | | |



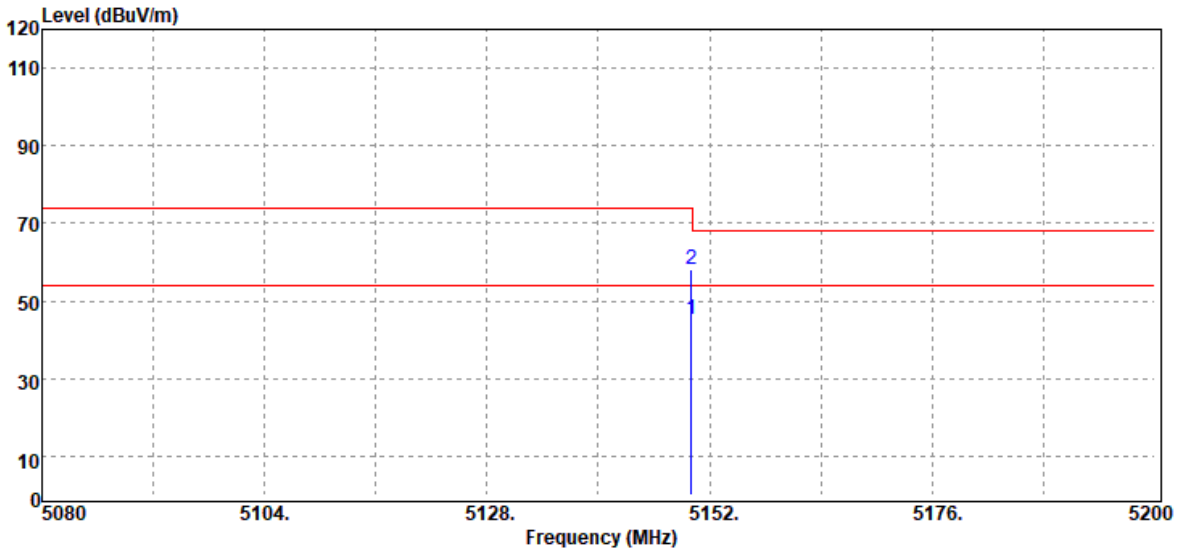

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5150.00 | Average | 41.41 | 5.58 | 46.99 | 54.00 | -7.01 |
| 5150.00 | Peak | 56.45 | 5.58 | 62.03 | 74.00 | -11.97 |

| Test Mode | IEEE 802.11n 20 MHz / 5180MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |



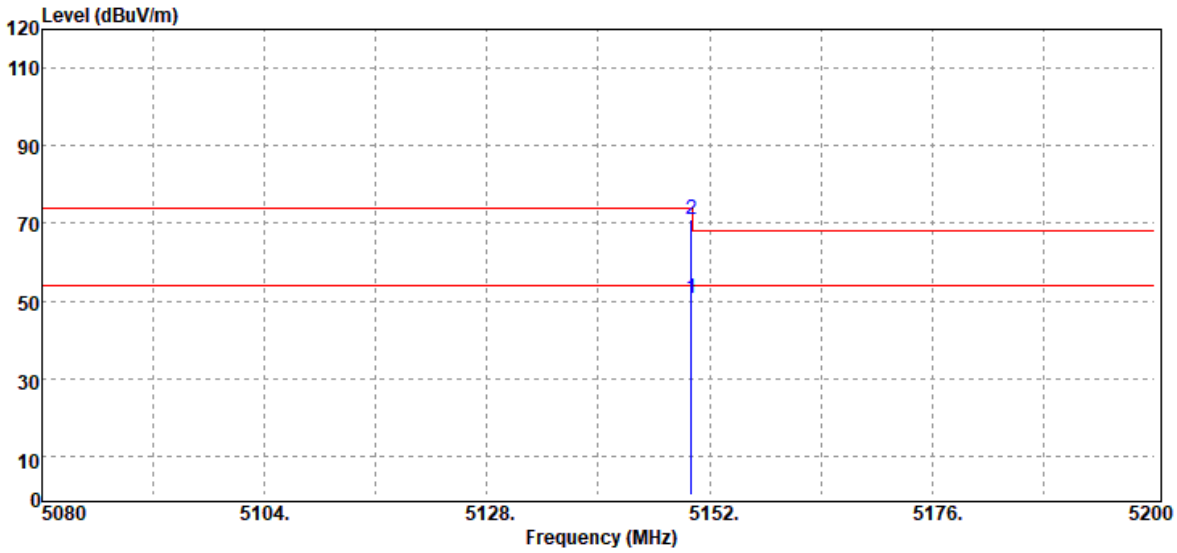

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5150.00 | Average | 41.51 | 5.58 | 47.09 | 54.00 | -6.91 |
| 5150.00 | Peak | 56.32 | 5.58 | 61.90 | 74.00 | -12.10 |

| Test Mode | IEEE 802.11n 20 MHz / 5180MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |



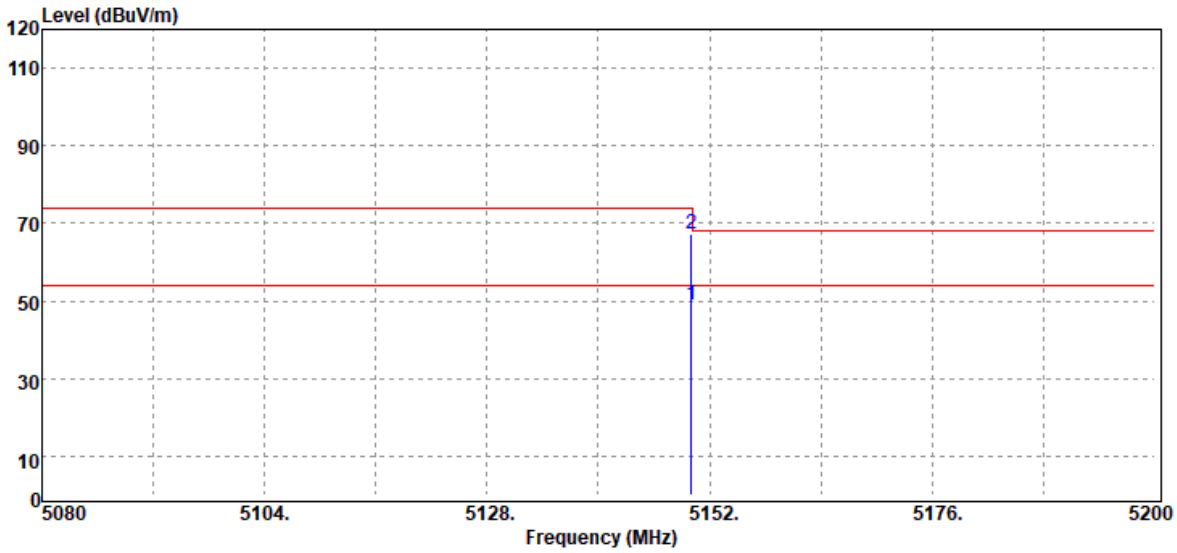

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5150.00 | Average | 39.58 | 5.58 | 45.16 | 54.00 | -8.84 |
| 5150.00 | Peak | 52.38 | 5.58 | 57.96 | 74.00 | -16.04 |

| Test Mode | IEEE 802.11n 40 MHz / 5190MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |




| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5150.00 | Average | 45.00 | 5.58 | 50.58 | 54.00 | -3.42 |
| 5150.00 | Peak | 65.33 | 5.58 | 70.91 | 74.00 | -3.09 |

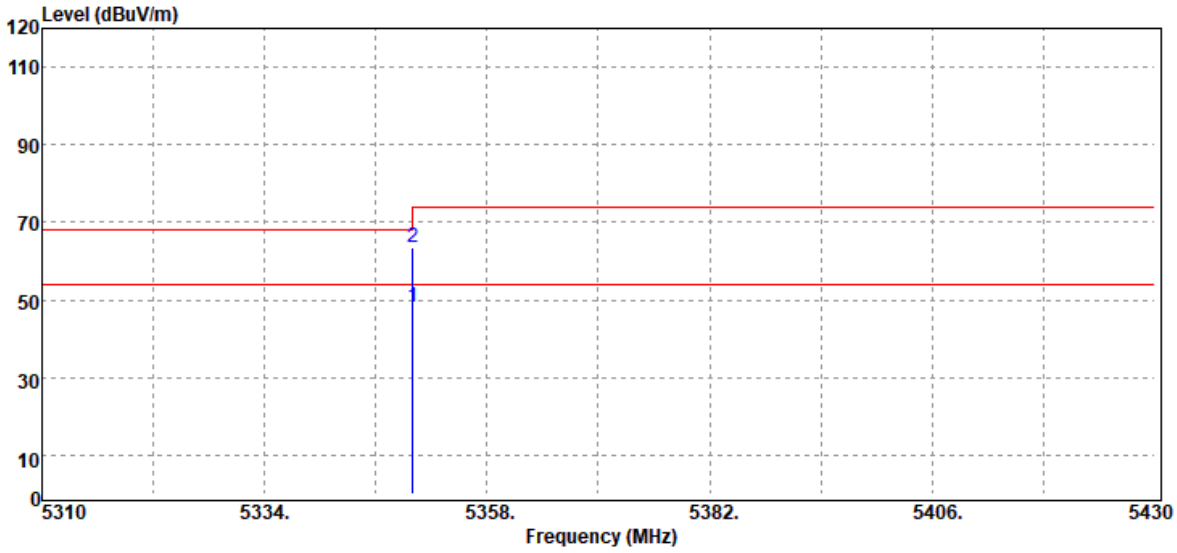
| Test Mode | IEEE 802.11n 40 MHz / 5230MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |




| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5150.00 | Average | 43.38 | 5.58 | 48.96 | 54.00 | -5.04 |
| 5150.00 | Peak | 61.74 | 5.58 | 67.32 | 74.00 | -6.68 |

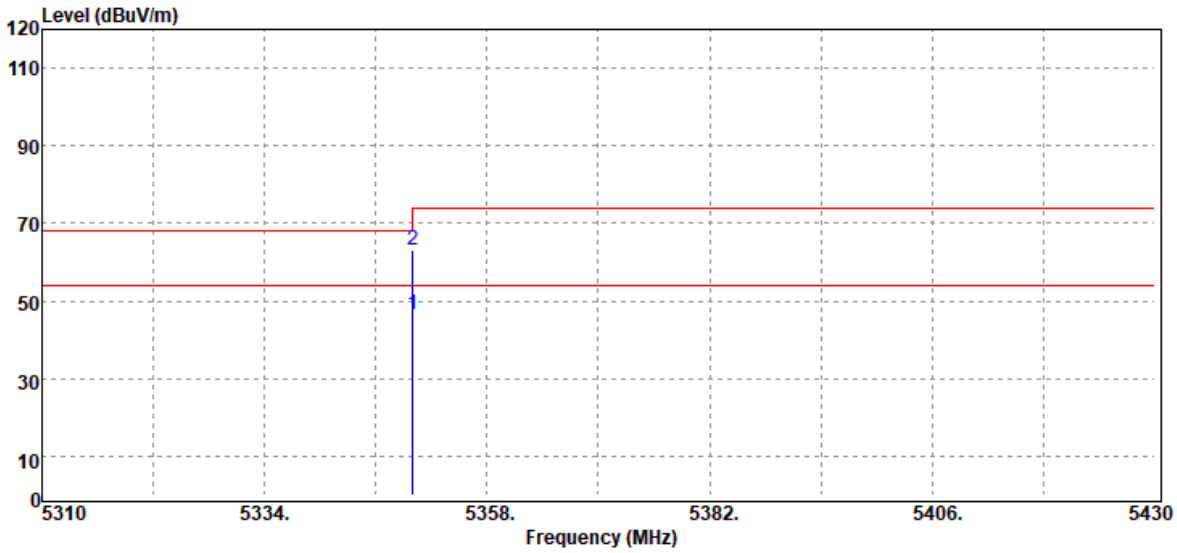
## Test Data for UNII-2a

| Test Mode | IEEE 802.11a / 5320 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |



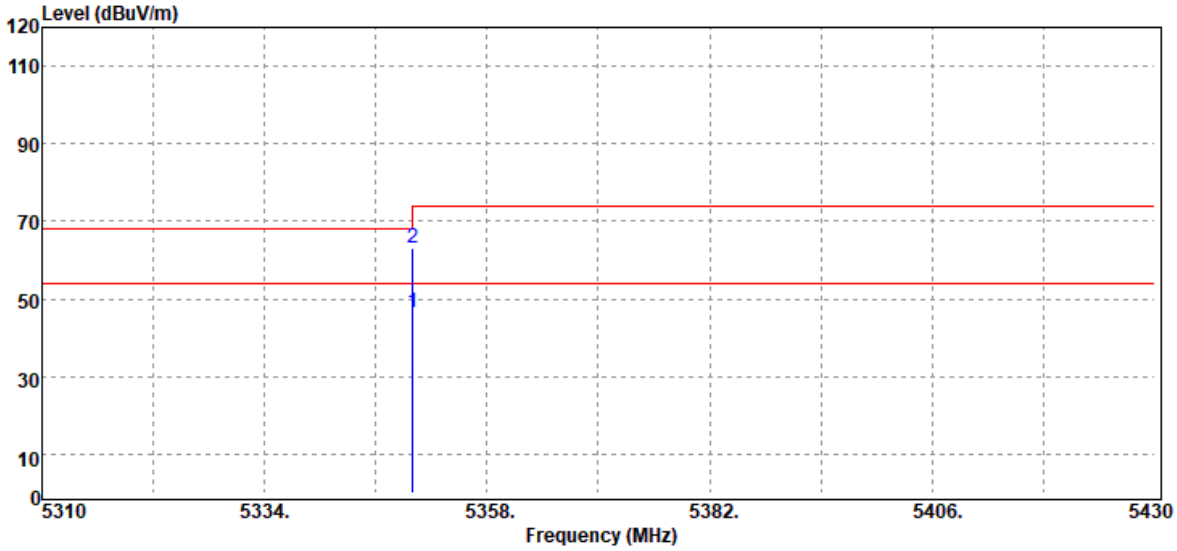

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5350.00 | Average | 42.29 | 5.82 | 48.11 | 54.00 | -5.89 |
| 5350.00 | Peak | 57.76 | 5.82 | 63.58 | 74.00 | -10.42 |

| Test Mode | IEEE 802.11a / 5320 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |



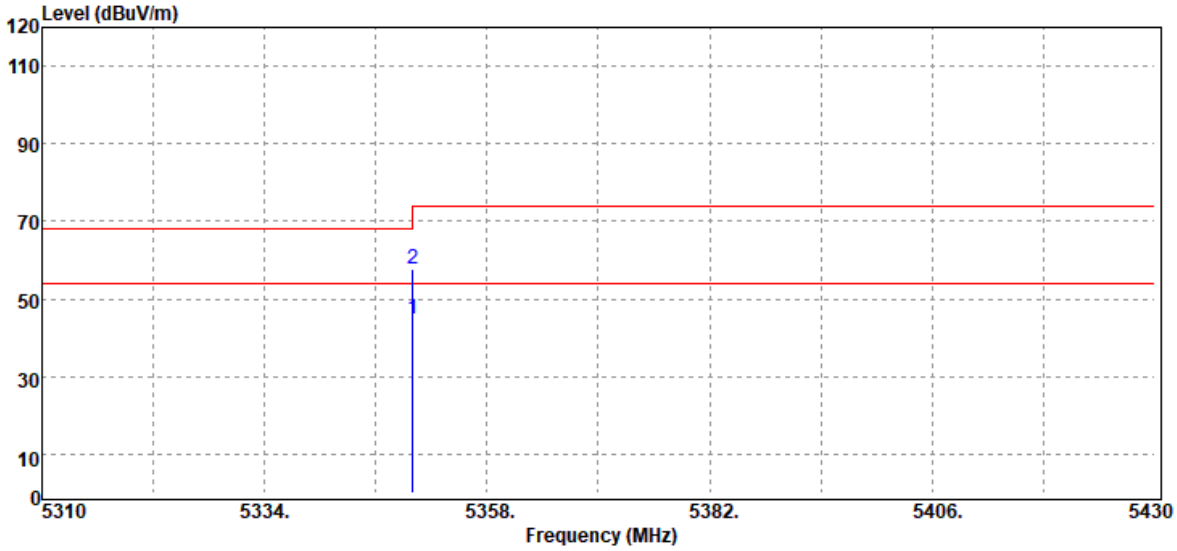

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5350.00 | Average | 40.81 | 5.82 | 46.63 | 54.00 | -7.37 |
| 5350.00 | Peak | 57.20 | 5.82 | 63.02 | 74.00 | -10.98 |

| Test Mode | IEEE 802.11n 20 MHz / 5320MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |



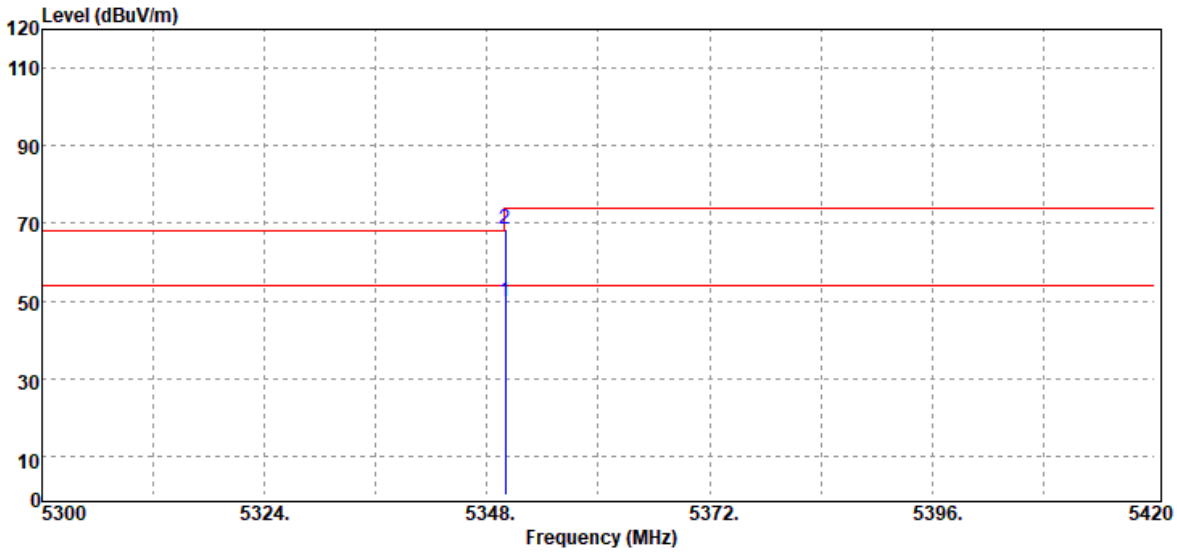

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5350.00 | Average | 40.75 | 5.82 | 46.57 | 54.00 | -7.43 |
| 5350.00 | Peak | 57.24 | 5.82 | 63.06 | 74.00 | -10.94 |

| Test Mode | IEEE 802.11n 20 MHz / 5320MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |



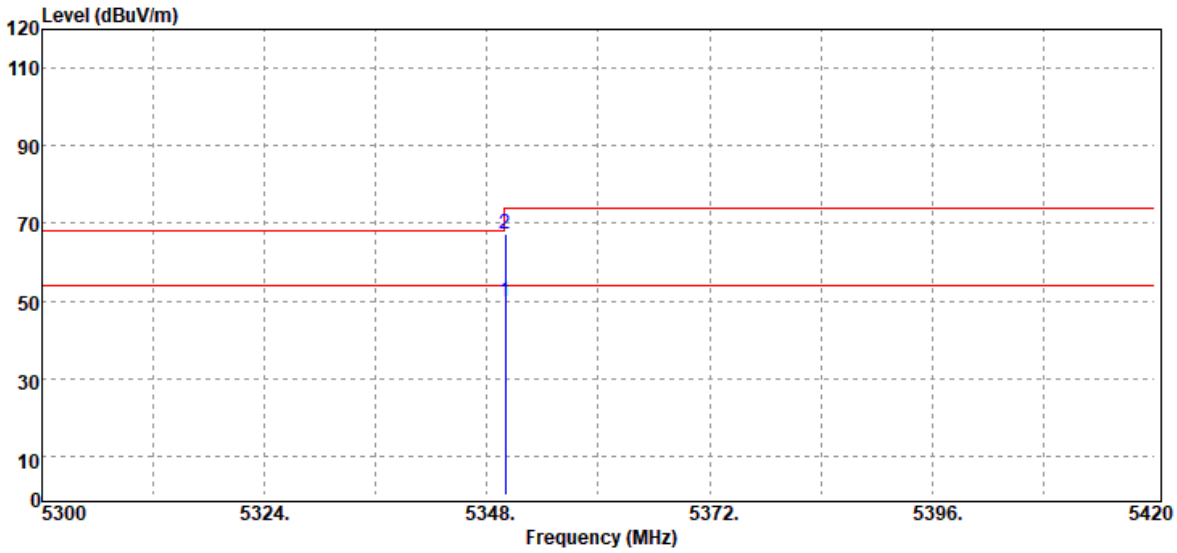

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5350.00 | Average | 39.16 | 5.82 | 44.98 | 54.00 | -9.02 |
| 5350.00 | Peak | 51.72 | 5.82 | 57.54 | 74.00 | -16.46 |

| Test Mode | IEEE 802.11n 40 MHz / 5310MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |




| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5350.00 | Average | 44.04 | 5.82 | 49.86 | 54.00 | -4.14 |
| 5350.00 | Peak | 62.81 | 5.82 | 68.63 | 74.00 | -5.37 |

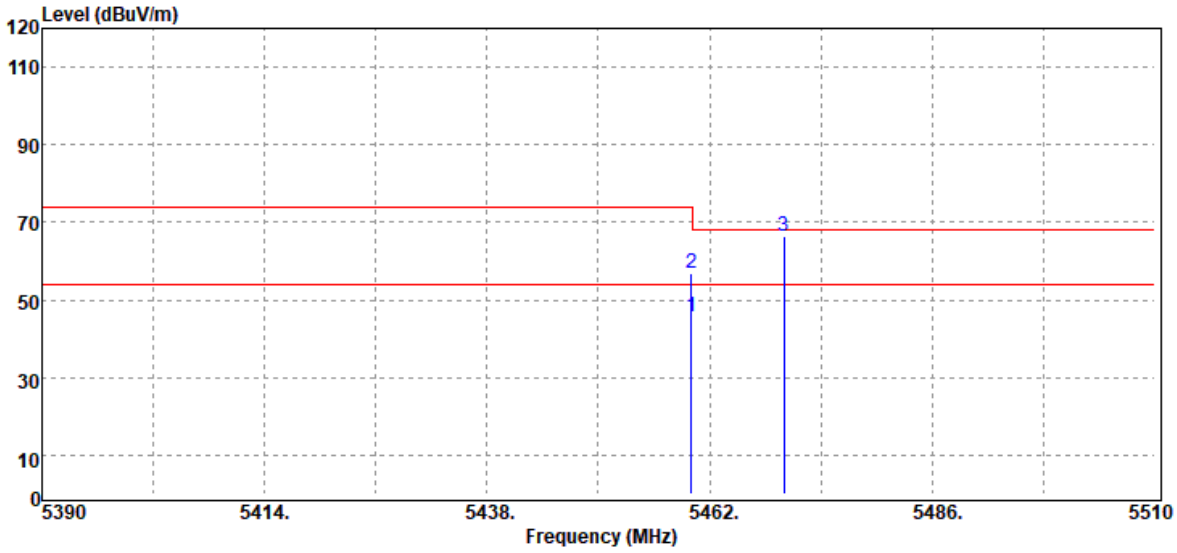
| Test Mode | IEEE 802.11n 40 MHz / 5310MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |




| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5350.00 | Average | 44.12 | 5.82 | 49.94 | 54.00 | -4.06 |
| 5350.00 | Peak | 61.24 | 5.82 | 67.06 | 74.00 | -6.94 |

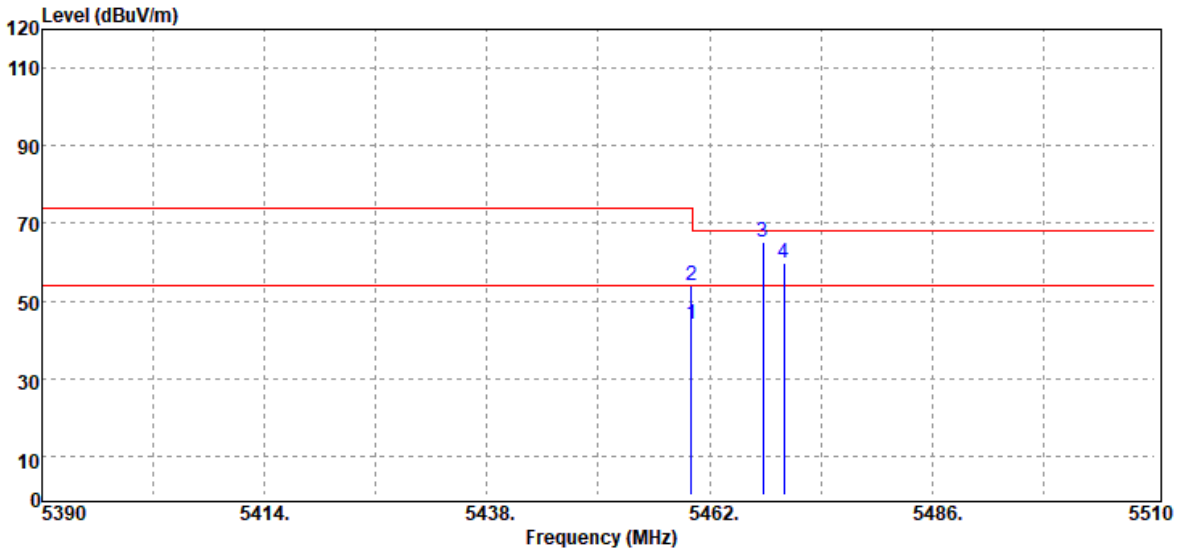
## Test Data for UNII-2c

| Test Mode | IEEE 802.11a / 5500MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |



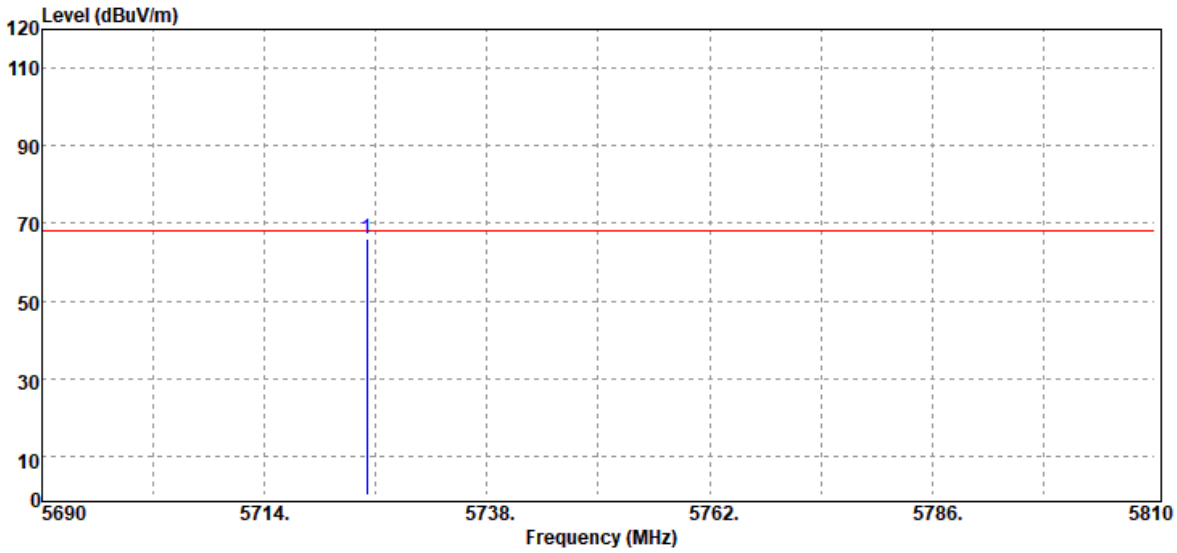

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5460.00 | Average | 39.66 | 6.11 | 45.77 | 54.00 | -8.23 |
| 5460.00 | Peak | 50.68 | 6.11 | 56.79 | 74.00 | -17.21 |
| 5470.00 | Peak | 60.20 | 6.14 | 66.34 | 68.20 | -1.86 |

| Test Mode | IEEE 802.11a / 5500MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |



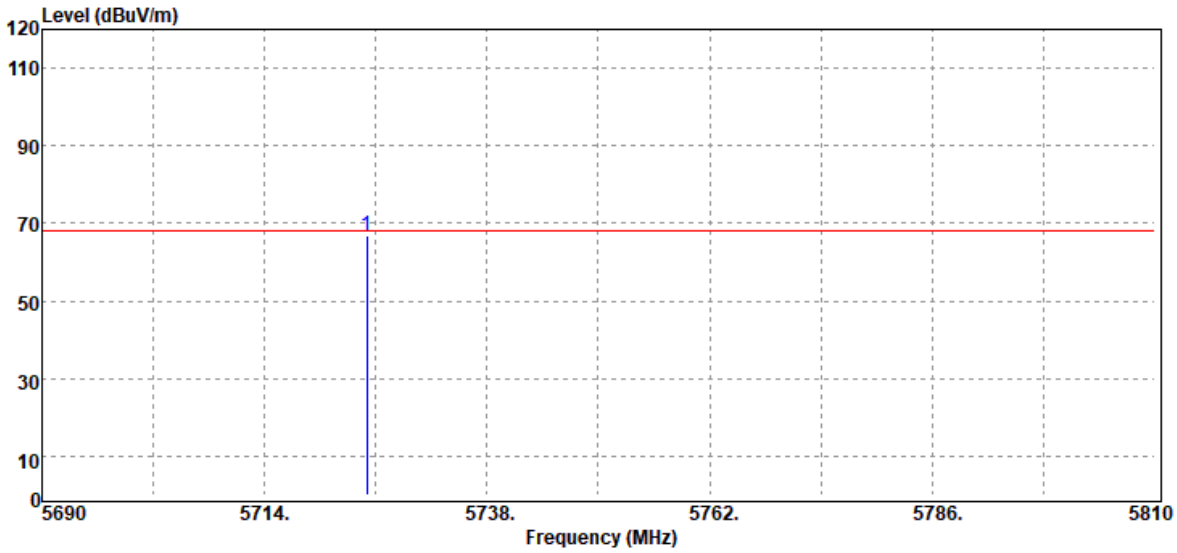

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5460.00 | Average | 37.99 | 6.11 | 44.10 | 54.00 | -9.90 |
| 5460.00 | Peak | 47.81 | 6.11 | 53.92 | 74.00 | -20.08 |
| 5467.76 | Peak | 59.18 | 6.14 | 65.32 | 68.20 | -2.88 |
| 5470.00 | Peak | 53.47 | 6.14 | 59.61 | 68.20 | -8.59 |

| Test Mode | IEEE 802.11a / 5700 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |



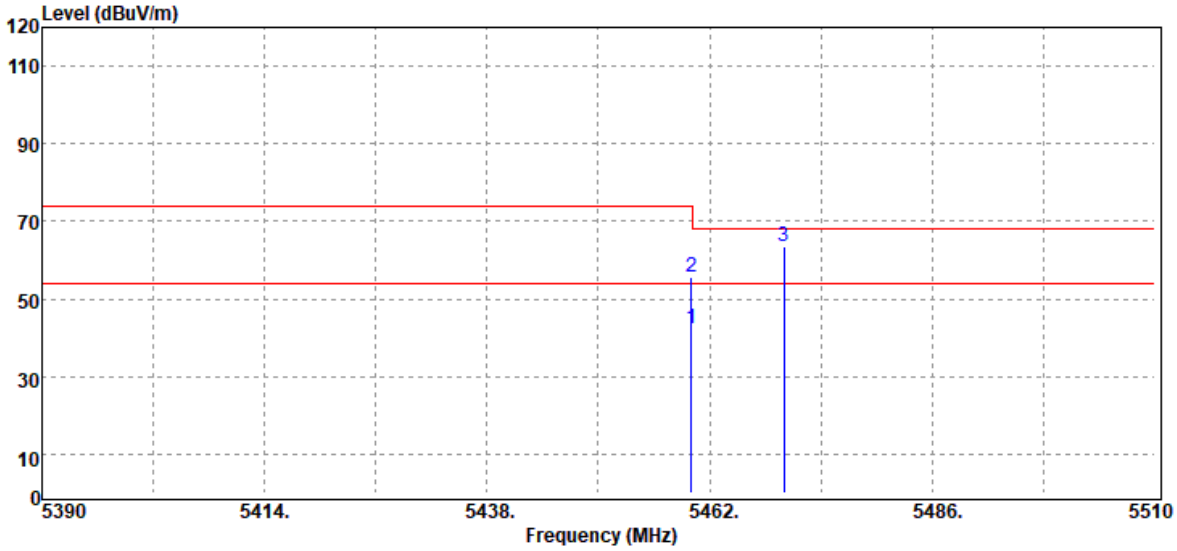

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5725.00 | Peak | 59.24 | 6.98 | 66.22 | 68.20 | -1.98 |

| Test Mode | IEEE 802.11a / 5700 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |



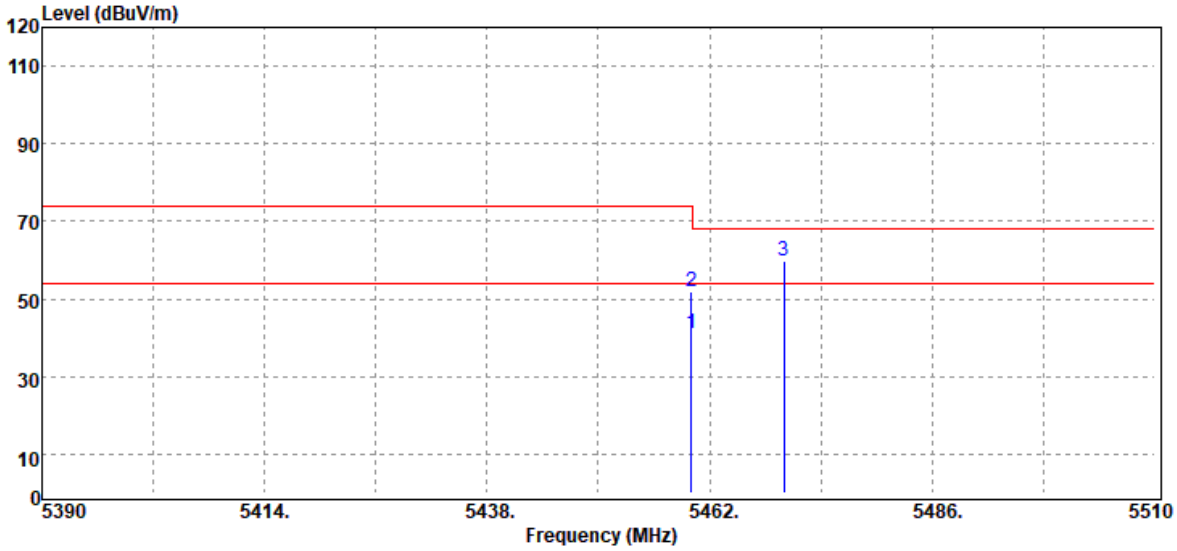

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5725.00 | Peak | 59.86 | 6.98 | 66.84 | 68.20 | -1.36 |

| Test Mode | IEEE 802.11n 20 MHz / 5500MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |



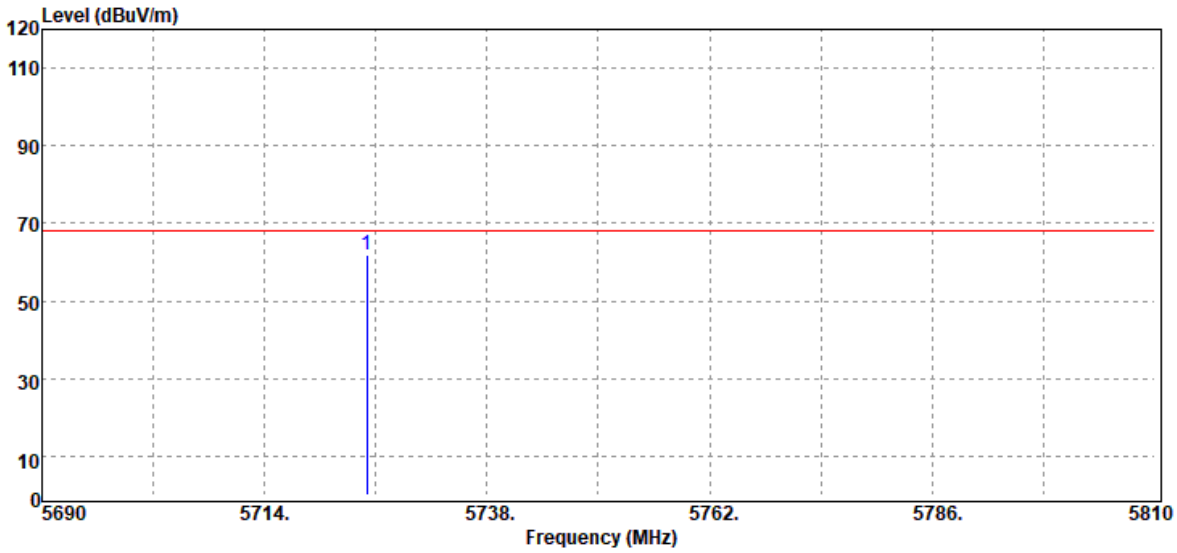

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5460.00 | Average | 36.45 | 6.11 | 42.56 | 54.00 | -11.44 |
| 5460.00 | Peak | 49.59 | 6.11 | 55.70 | 74.00 | -18.30 |
| 5470.00 | Peak | 57.38 | 6.14 | 63.52 | 68.20 | -4.68 |

| Test Mode | IEEE 802.11n 20 MHz / 5500MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |



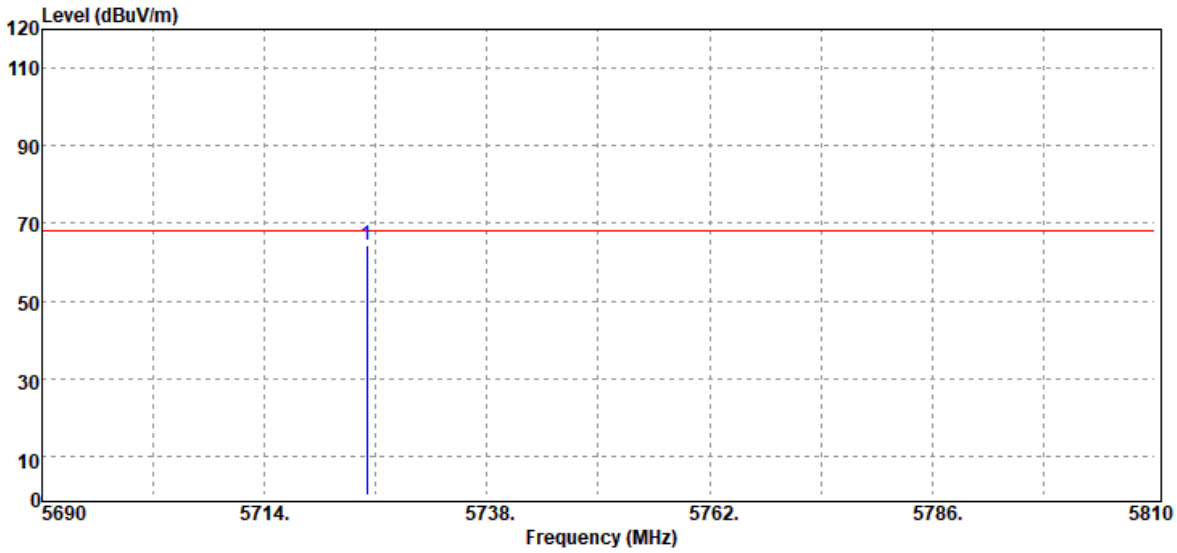

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5460.00 | Average | 35.17 | 6.11 | 41.28 | 54.00 | -12.72 |
| 5460.00 | Peak | 45.96 | 6.11 | 52.07 | 74.00 | -21.93 |
| 5470.00 | Peak | 53.55 | 6.14 | 59.69 | 68.20 | -8.51 |

| Test Mode | IEEE 802.11n 20 MHz / 5700 MHz | Temperature | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |



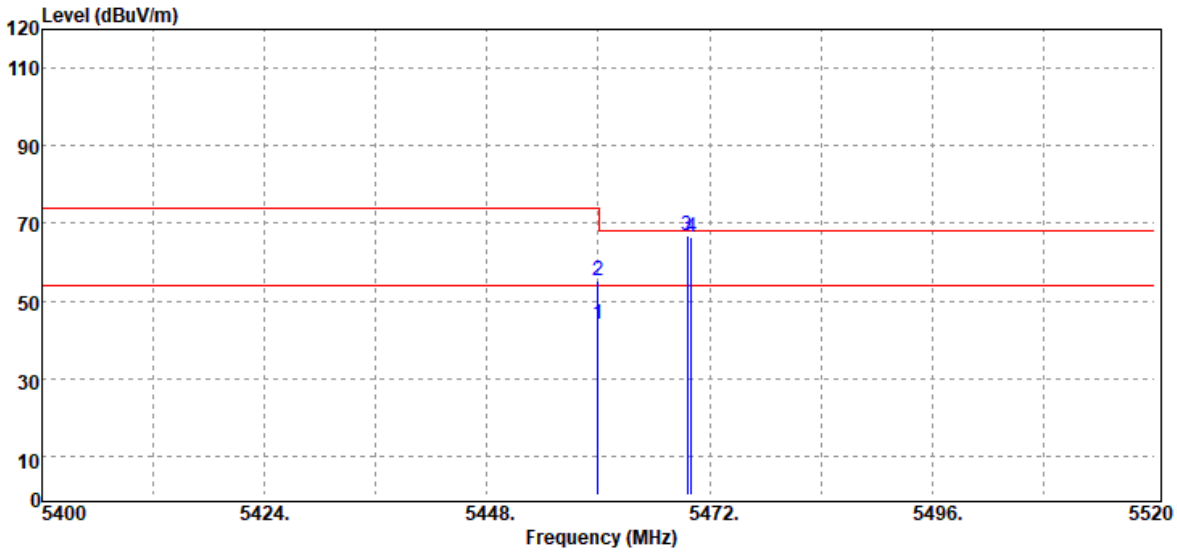

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5725.00 | Peak | 54.76 | 6.98 | 61.74 | 68.20 | -6.46 |

| Test Mode | IEEE 802.11n 20 MHz / 5700 MHz | Temperature | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |



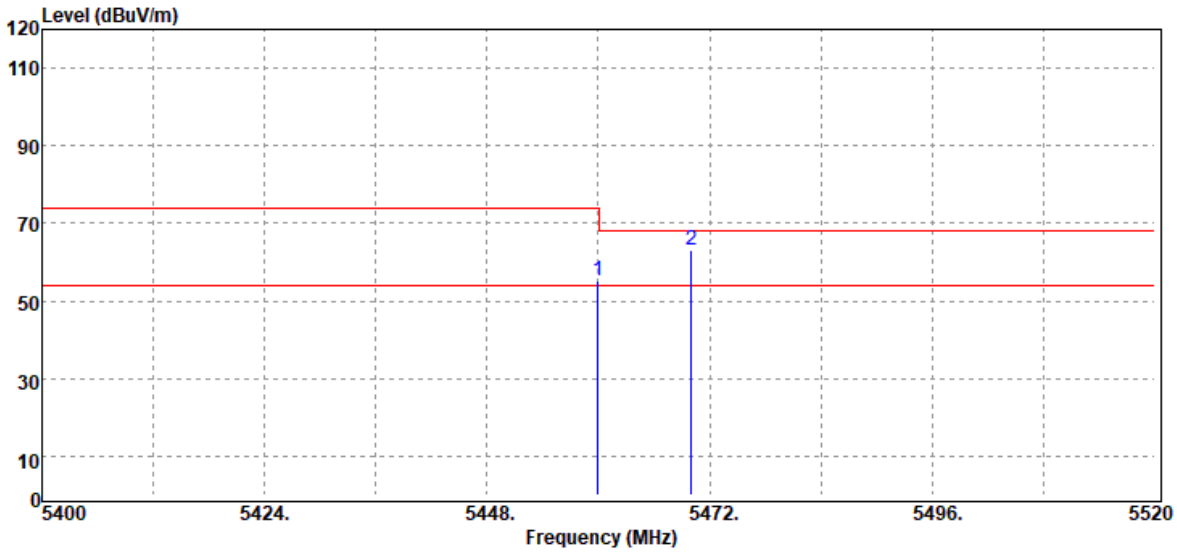

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5725.00 | Peak | 57.51 | 6.98 | 64.49 | 68.20 | -3.71 |

| Test Mode | IEEE 802.11n 40 MHz / 5510 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |



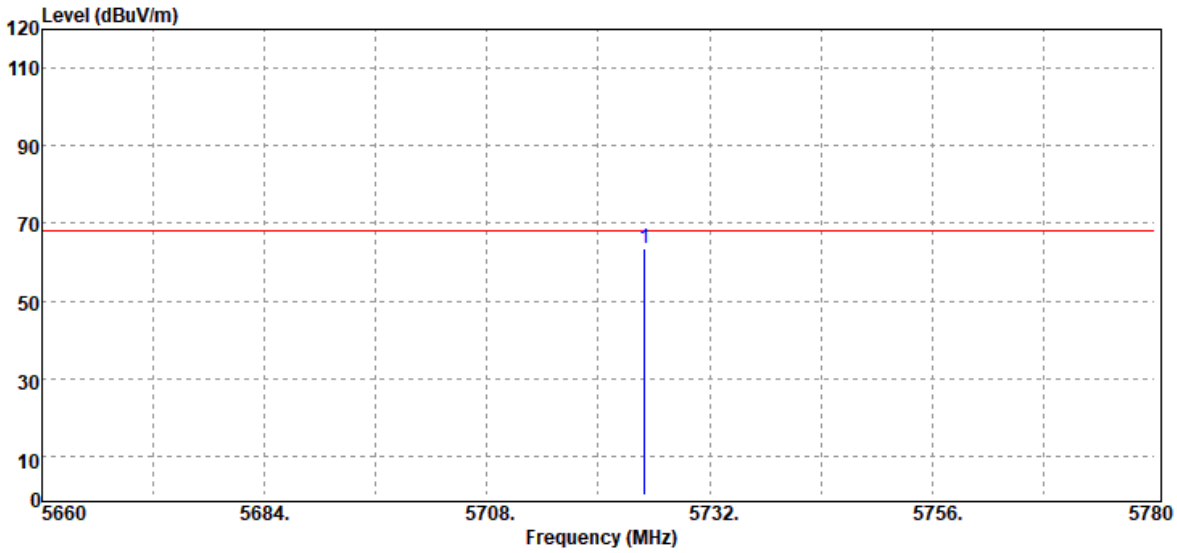

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5460.00 | Average | 37.92 | 6.11 | 44.03 | 54.00 | -9.97 |
| 5460.00 | Peak | 49.06 | 6.11 | 55.17 | 74.00 | -18.83 |
| 5469.60 | Peak | 60.76 | 6.14 | 66.90 | 68.20 | -1.30 |
| 5470.00 | Peak | 60.14 | 6.14 | 66.28 | 68.20 | -1.92 |

| Test Mode | IEEE 802.11n 40 MHz / 5510 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak and Average | | |



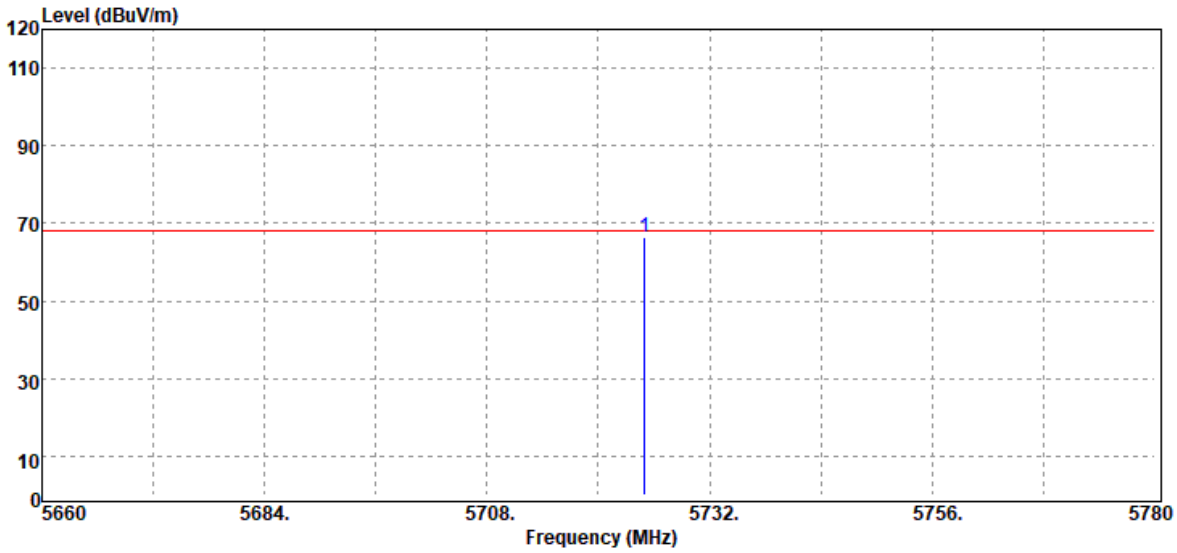

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5460.00 | Peak | 49.10 | 6.11 | 55.21 | 74.00 | -18.79 |
| 5470.00 | Peak | 56.86 | 6.14 | 63.00 | 68.20 | -5.20 |

| Test Mode | IEEE 802.11n 40 MHz / 5670 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5725.00 | Peak | 56.68 | 6.98 | 63.66 | 68.20 | -4.54 |

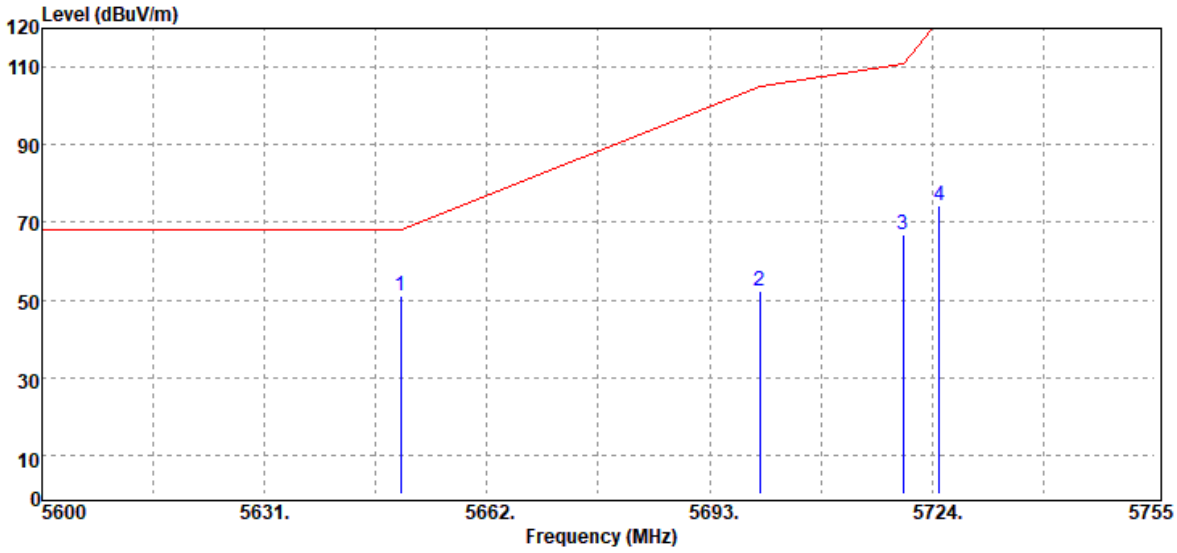
| Test Mode | IEEE 802.11n 40 MHz / 5670 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5725.00 | Peak | 59.41 | 6.98 | 66.39 | 68.20 | -1.81 |

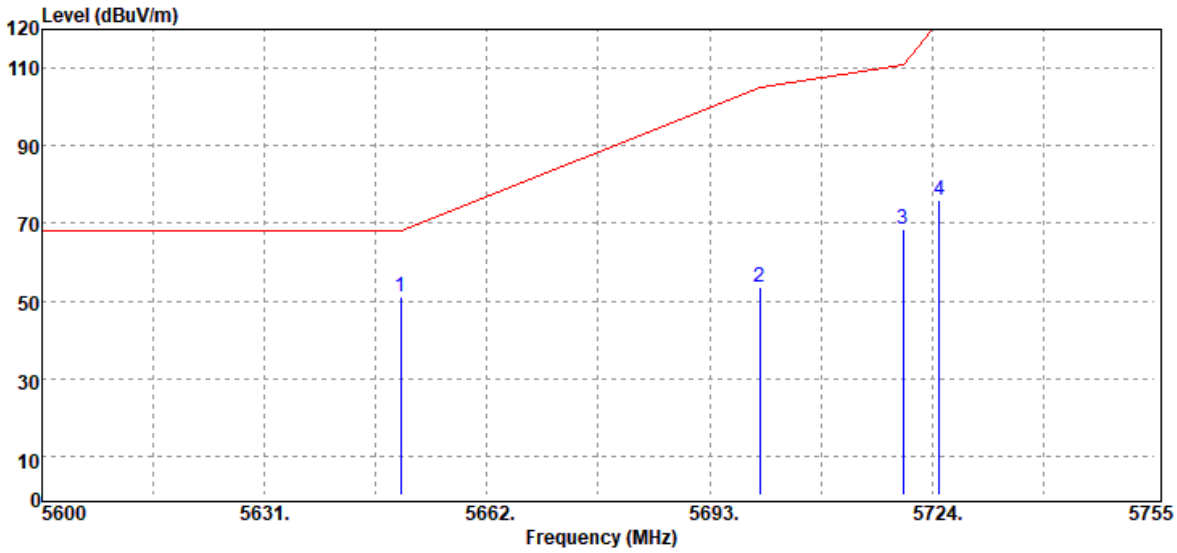
## Test Data for UNII-3

| Test Mode | IEEE 802.11a / 5745 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 13, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |



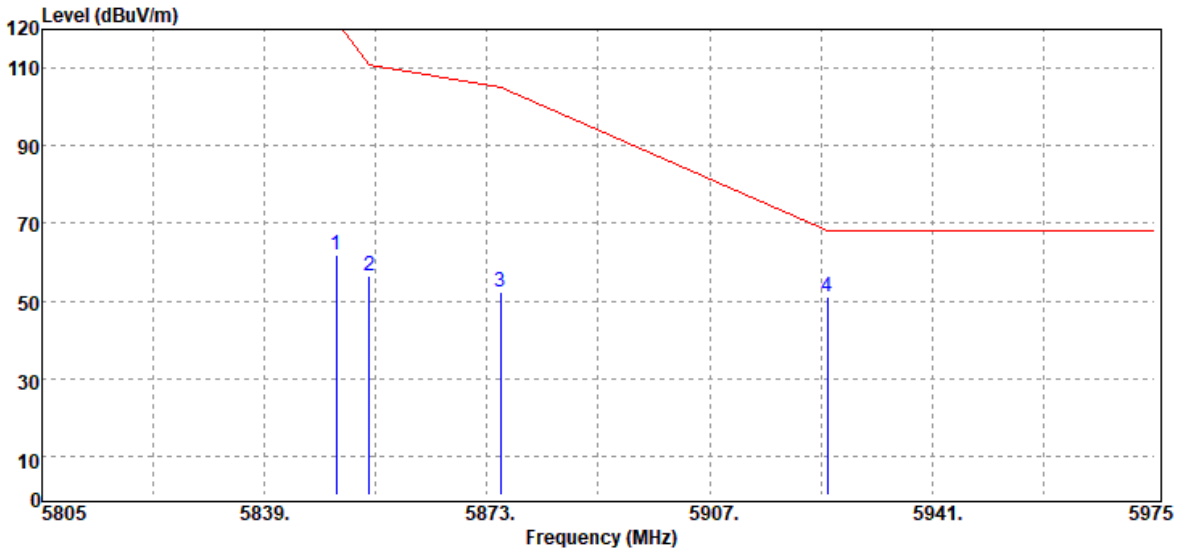

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5650.00 | Peak | 44.47 | 6.61 | 51.08 | 68.20 | -17.12 |
| 5700.00 | Peak | 45.39 | 6.92 | 52.31 | 105.20 | -52.89 |
| 5720.00 | Peak | 59.72 | 6.97 | 66.69 | 110.80 | -44.11 |
| 5725.00 | Peak | 67.34 | 6.98 | 74.32 | 122.20 | -47.88 |

| Test Mode | IEEE 802.11a / 5745 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 13, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |



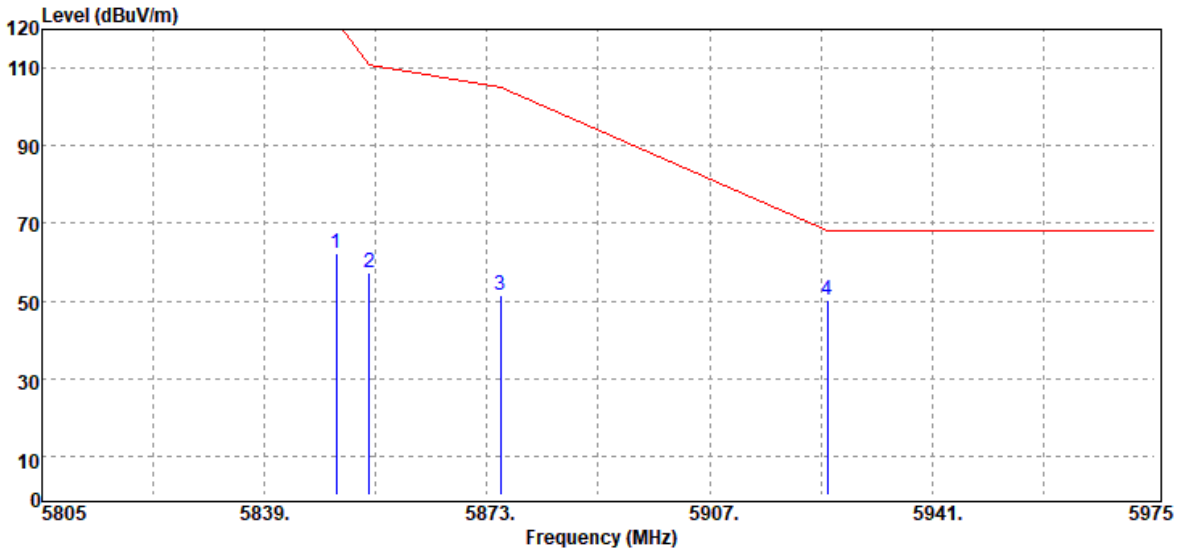

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5650.00 | Peak | 44.43 | 6.61 | 51.04 | 68.20 | -17.16 |
| 5700.00 | Peak | 46.69 | 6.92 | 53.61 | 105.20 | -51.59 |
| 5720.00 | Peak | 61.59 | 6.97 | 68.56 | 110.80 | -42.24 |
| 5725.00 | Peak | 68.82 | 6.98 | 75.80 | 122.20 | -46.40 |

| Test Mode | IEEE 802.11a / 5825 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 13, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |



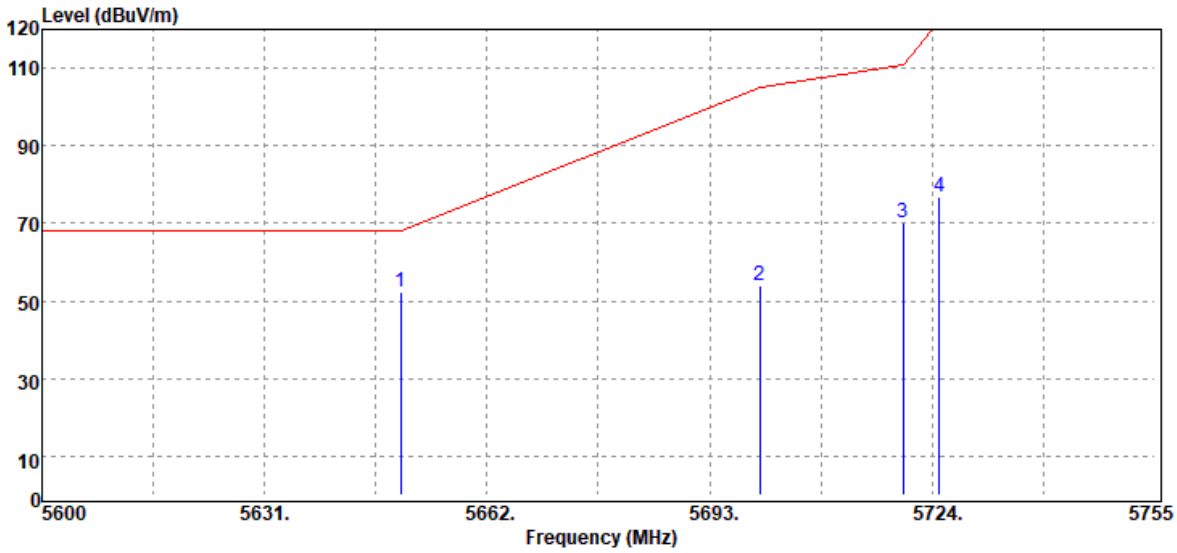

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5850.00 | Peak | 54.67 | 7.11 | 61.78 | 122.20 | -60.42 |
| 5855.00 | Peak | 49.44 | 7.11 | 56.55 | 110.80 | -54.25 |
| 5875.00 | Peak | 45.37 | 7.10 | 52.47 | 105.20 | -52.73 |
| 5925.00 | Peak | 43.88 | 7.12 | 51.00 | 68.20 | -17.20 |

| Test Mode | IEEE 802.11a / 5825 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 13, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |



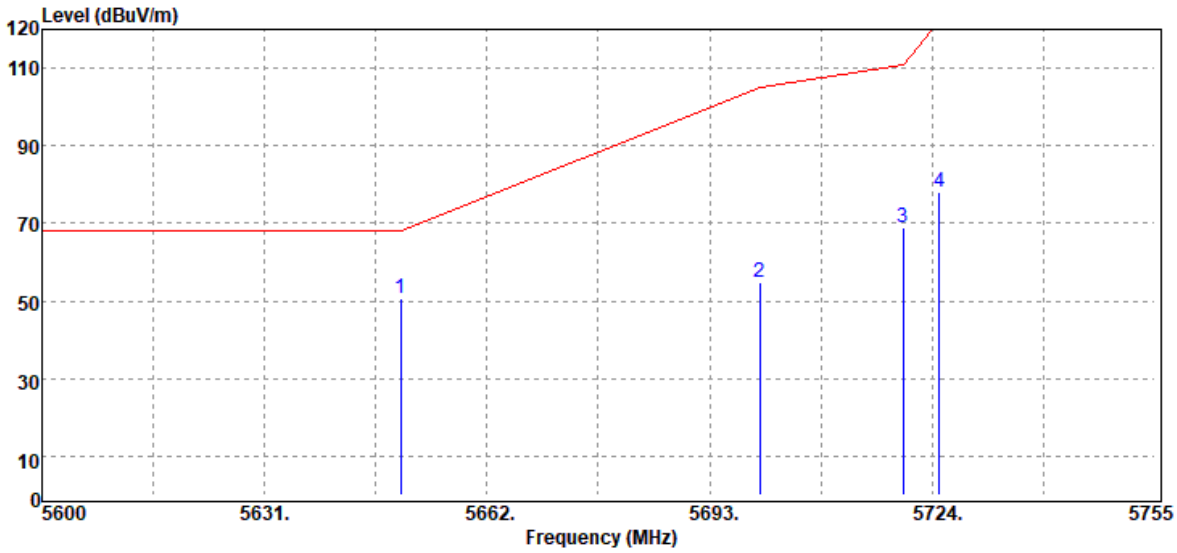

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5850.00 | Peak | 55.17 | 7.11 | 62.28 | 122.20 | -59.92 |
| 5855.00 | Peak | 50.37 | 7.11 | 57.48 | 110.80 | -53.32 |
| 5875.00 | Peak | 44.54 | 7.10 | 51.64 | 105.20 | -53.56 |
| 5925.00 | Peak | 43.22 | 7.12 | 50.34 | 68.20 | -17.86 |

| Test Mode | IEEE 802.11n 20 MHz / 5745 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |



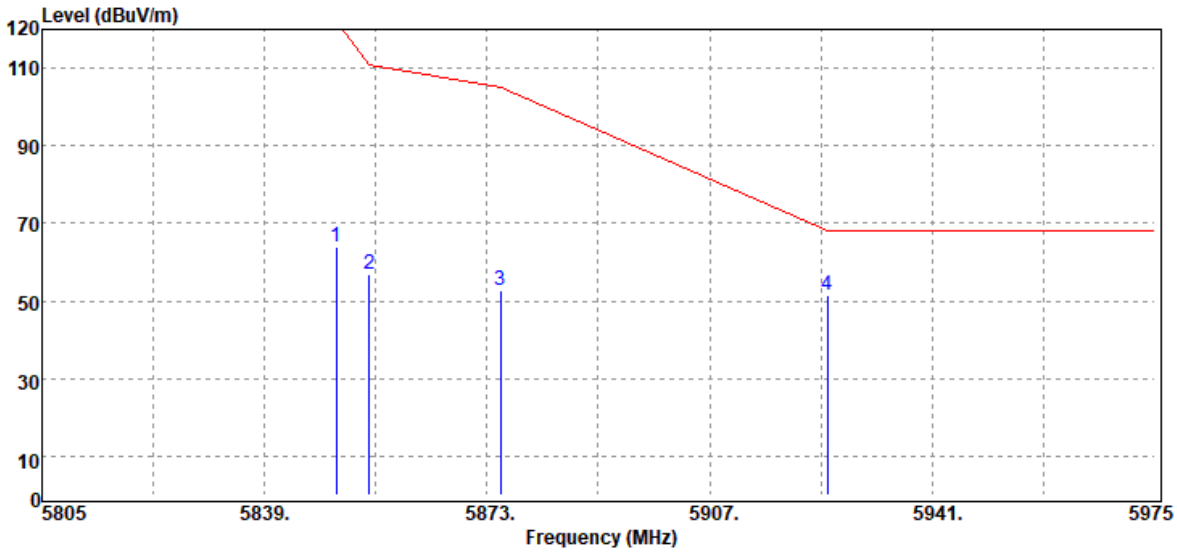

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5650.00 | Peak | 45.54 | 6.61 | 52.15 | 68.20 | -16.05 |
| 5700.00 | Peak | 47.04 | 6.92 | 53.96 | 105.20 | -51.24 |
| 5720.00 | Peak | 63.32 | 6.97 | 70.29 | 110.80 | -40.51 |
| 5725.00 | Peak | 69.74 | 6.98 | 76.72 | 122.20 | -45.48 |

| Test Mode | IEEE 802.11n 20 MHz / 5745 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |



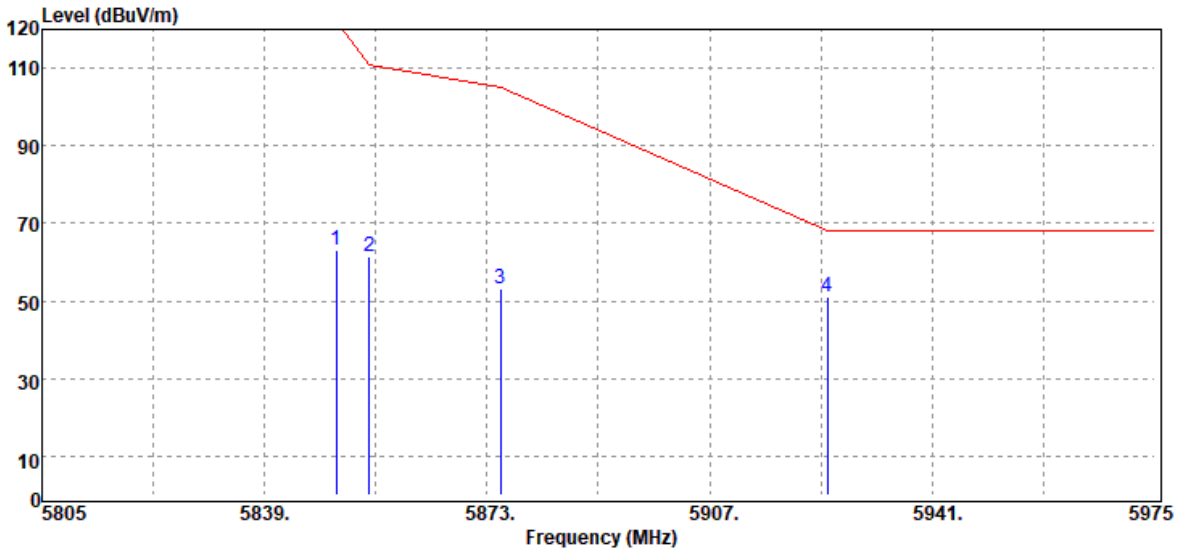

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5650.00 | Peak | 44.24 | 6.61 | 50.85 | 68.20 | -17.35 |
| 5700.00 | Peak | 47.83 | 6.92 | 54.75 | 105.20 | -50.45 |
| 5720.00 | Peak | 61.98 | 6.97 | 68.95 | 110.80 | -41.85 |
| 5725.00 | Peak | 71.19 | 6.98 | 78.17 | 122.20 | -44.03 |

| Test Mode | IEEE 802.11n 20 MHz / 5825 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |



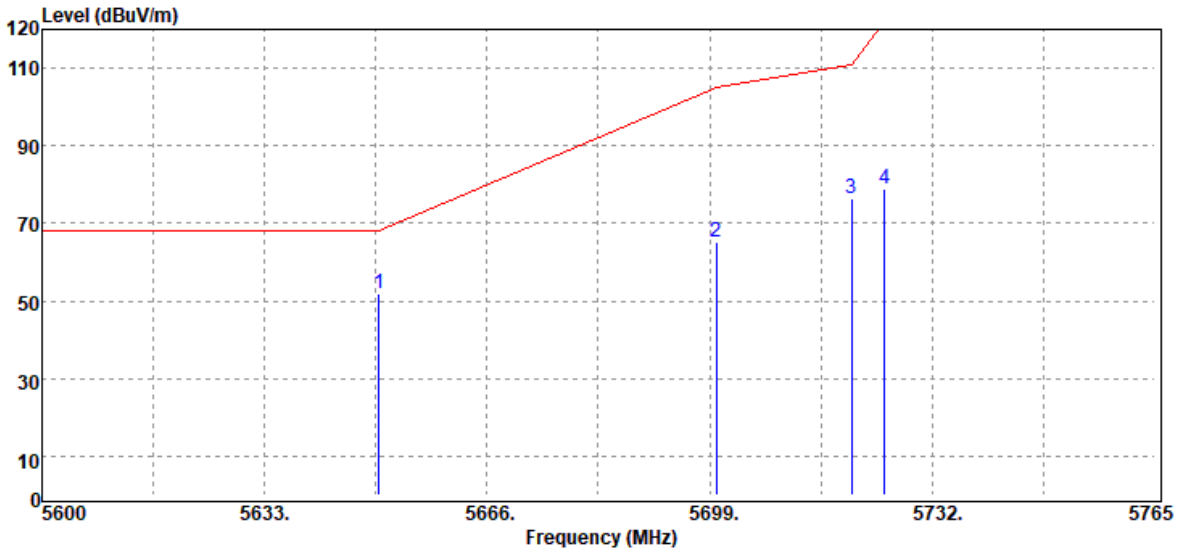

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5850.00 | Peak | 56.87 | 7.11 | 63.98 | 122.20 | -58.22 |
| 5855.00 | Peak | 49.95 | 7.11 | 57.06 | 110.80 | -53.74 |
| 5875.00 | Peak | 45.56 | 7.10 | 52.66 | 105.20 | -52.54 |
| 5925.00 | Peak | 44.27 | 7.12 | 51.39 | 68.20 | -16.81 |

| Test Mode | IEEE 802.11n 20 MHz / 5825 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 11, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |



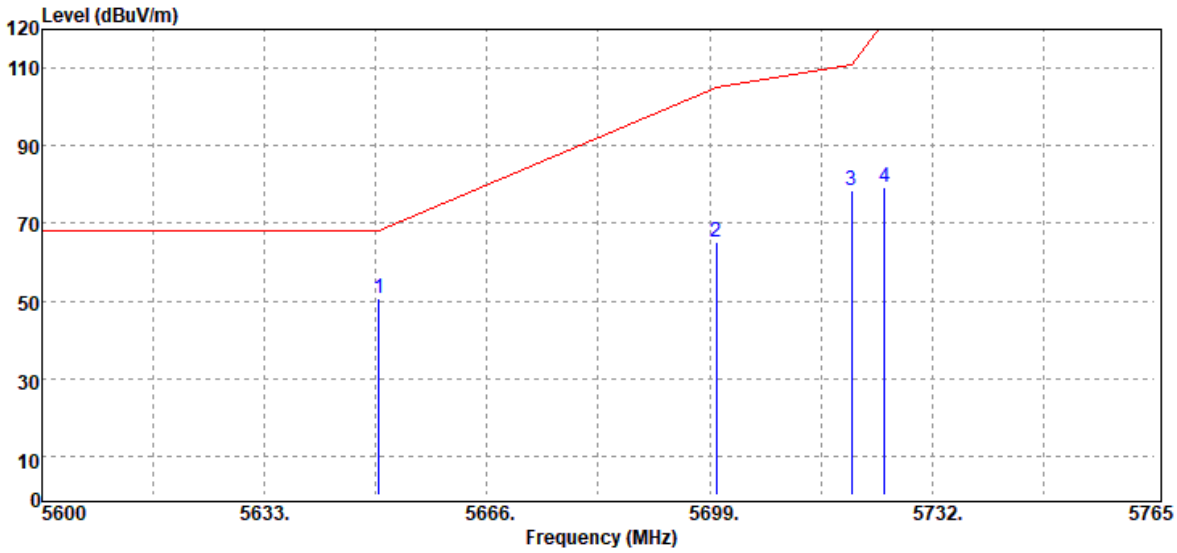

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5850.00 | Peak | 56.13 | 7.11 | 63.24 | 122.20 | -58.96 |
| 5855.00 | Peak | 54.27 | 7.11 | 61.38 | 110.80 | -49.42 |
| 5875.00 | Peak | 45.93 | 7.10 | 53.03 | 105.20 | -52.17 |
| 5925.00 | Peak | 44.16 | 7.12 | 51.28 | 68.20 | -16.92 |

| Test Mode | IEEE 802.11n 40 MHz/ 5755 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |



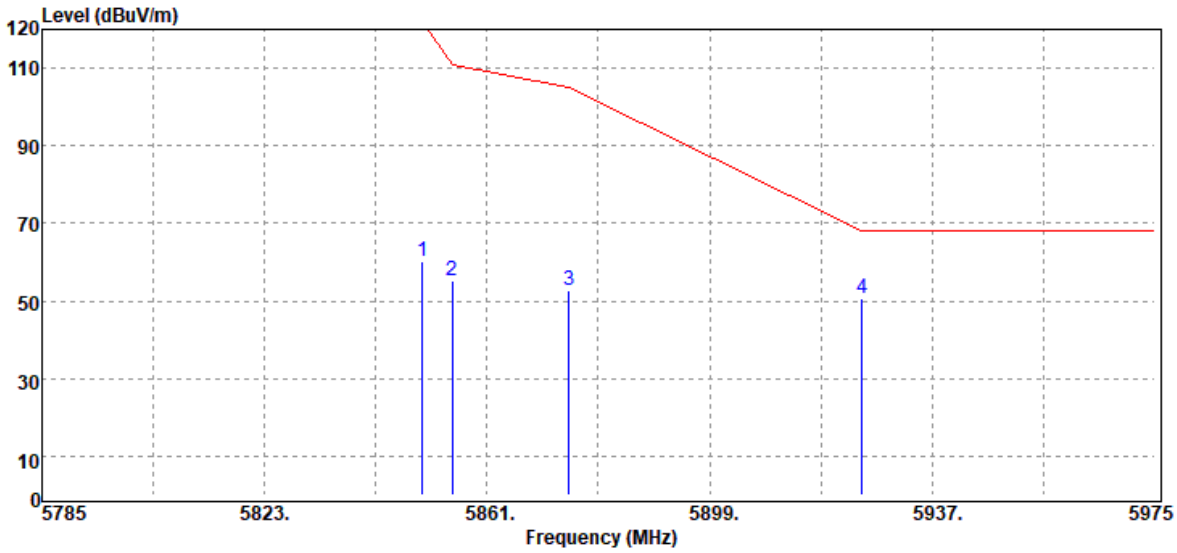

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5650.00 | Peak | 45.13 | 6.61 | 51.74 | 68.20 | -16.46 |
| 5700.00 | Peak | 58.12 | 6.92 | 65.04 | 105.20 | -40.16 |
| 5720.00 | Peak | 69.56 | 6.97 | 76.53 | 110.80 | -34.27 |
| 5725.00 | Peak | 71.83 | 6.98 | 78.81 | 122.20 | -43.39 |

| Test Mode | IEEE 802.11n 40 MHz/ 5755 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |



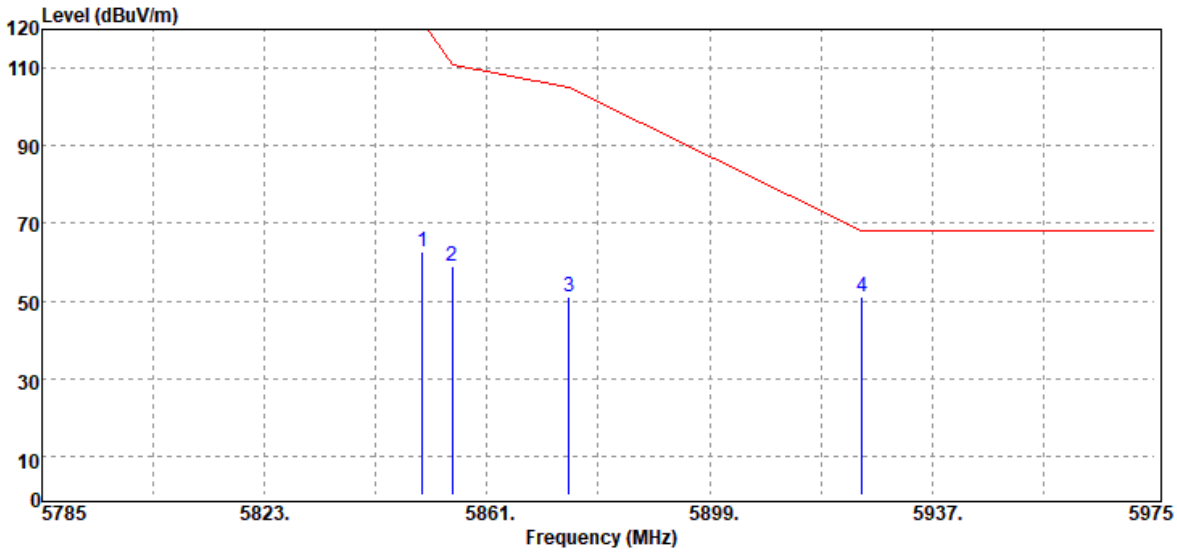

| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5650.00 | Peak | 43.85 | 6.61 | 50.46 | 68.20 | -17.74 |
| 5700.00 | Peak | 58.10 | 6.92 | 65.02 | 105.20 | -40.18 |
| 5720.00 | Peak | 71.46 | 6.97 | 78.43 | 110.80 | -32.37 |
| 5725.00 | Peak | 72.26 | 6.98 | 79.24 | 122.20 | -42.96 |

| Test Mode | IEEE 802.11n 40 MHz/ 5795 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5850.00 | Peak | 53.19 | 7.11 | 60.30 | 122.20 | -61.90 |
| 5855.00 | Peak | 48.24 | 7.11 | 55.35 | 110.80 | -55.45 |
| 5875.00 | Peak | 45.61 | 7.10 | 52.71 | 105.20 | -52.49 |
| 5925.00 | Peak | 43.58 | 7.12 | 50.70 | 68.20 | -17.50 |

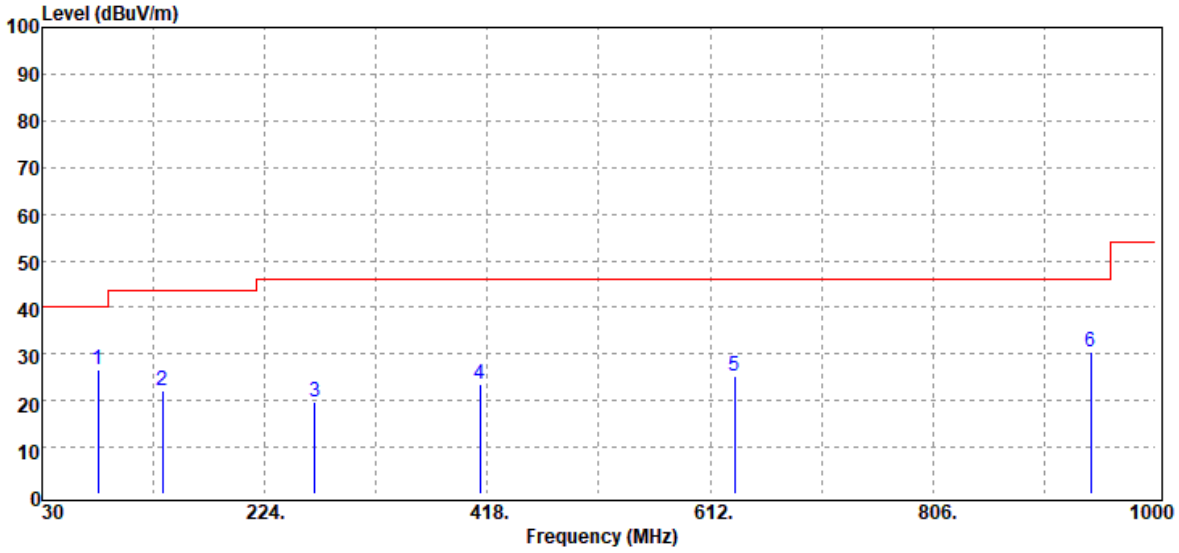
| Test Mode | IEEE 802.11n 40 MHz/ 5795 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Band Edge | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Frequency (MHz) | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 5850.00 | Peak | 55.59 | 7.11 | 62.70 | 122.20 | -59.50 |
| 5855.00 | Peak | 52.02 | 7.11 | 59.13 | 110.80 | -51.67 |
| 5875.00 | Peak | 44.13 | 7.10 | 51.23 | 105.20 | -53.97 |
| 5925.00 | Peak | 43.76 | 7.12 | 50.88 | 68.20 | -17.32 |

## Below 1G Test Data

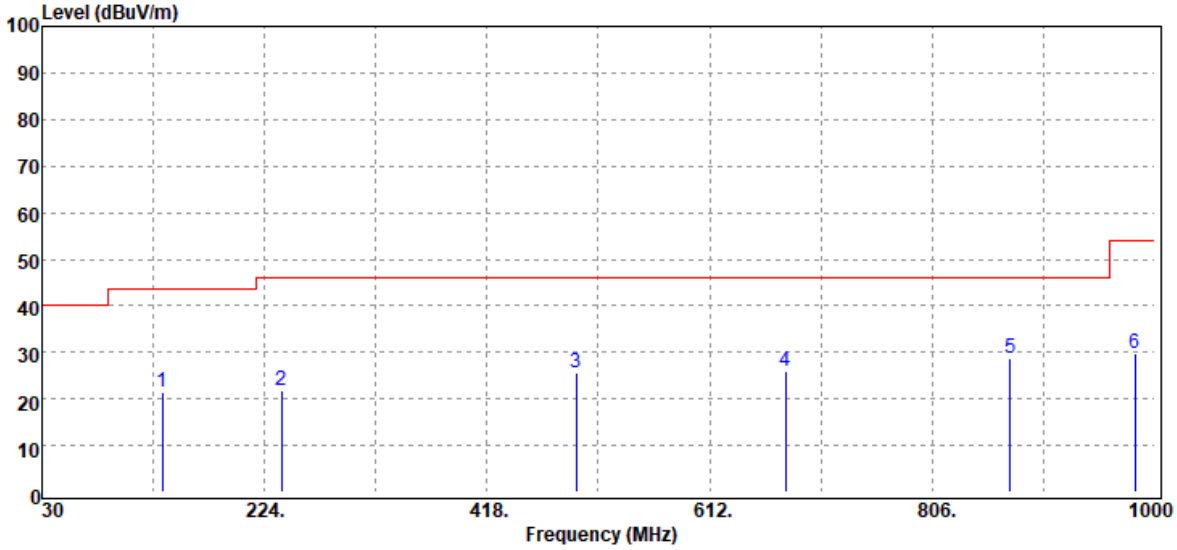
| Test Mode | Mode 1 | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | 30MHz-1GHz | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 78.50 | Peak | 41.98 | -15.33 | 26.65 | 40.00 | -13.35 |
| 134.76 | Peak | 31.46 | -9.44 | 22.02 | 43.50 | -21.48 |
| 267.65 | Peak | 28.89 | -9.01 | 19.88 | 46.00 | -26.12 |
| 411.21 | Peak | 28.79 | -5.36 | 23.43 | 46.00 | -22.57 |
| 633.34 | Peak | 25.93 | -0.59 | 25.34 | 46.00 | -20.66 |
| 943.74 | Peak | 26.42 | 3.99 | 30.41 | 46.00 | -15.59 |

***Note**: 1. No emission found between lowest internal used/generated frequency to 30MHz(9KHz~30MHz)*
*2. For below 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit.*

| Test Mode | Mode 1 | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | 30MHz-1GHz | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |



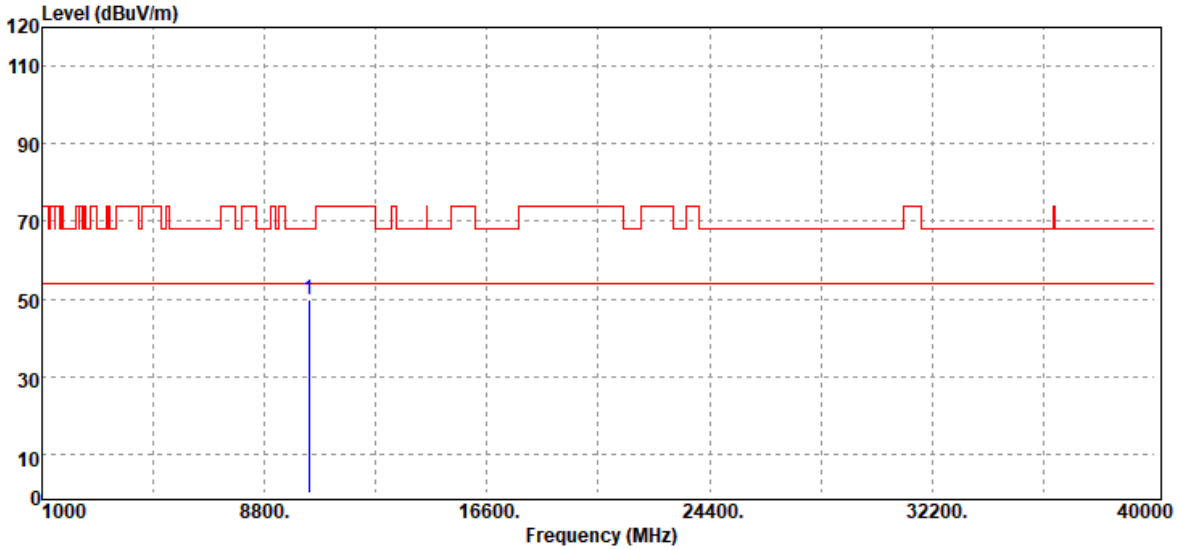

| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 134.76 | Peak | 30.75 | -9.44 | 21.31 | 43.50 | -22.19 |
| 238.55 | Peak | 32.38 | -10.65 | 21.73 | 46.00 | -24.27 |
| 495.60 | Peak | 28.98 | -3.20 | 25.78 | 46.00 | -20.22 |
| 677.96 | Peak | 26.50 | -0.43 | 26.07 | 46.00 | -19.93 |
| 873.90 | Peak | 25.82 | 2.89 | 28.71 | 46.00 | -17.29 |
| 982.54 | Peak | 25.03 | 4.60 | 29.63 | 54.00 | -24.37 |

***Note**: 1. No emission found between lowest internal used/generated frequency to 30MHz(9KHz~30MHz)*
*2. For below 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit.*

**Above 1G**

**Test Data for UNII-1**

| Test Mode | IEEE 802.11a / 5180MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

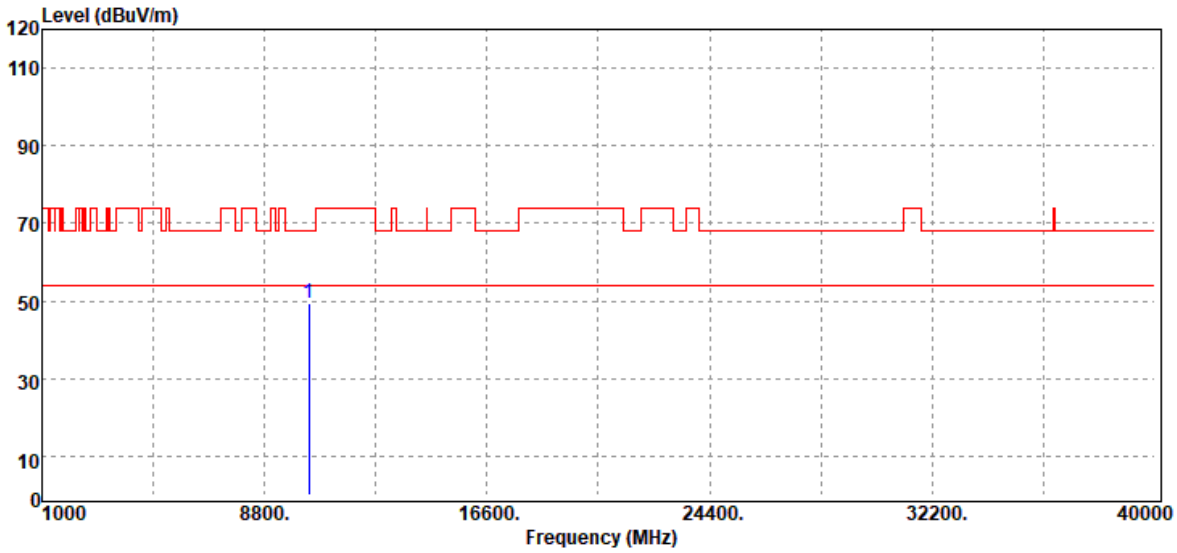



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10360.00 | Peak | 34.62 | 15.04 | 49.66 | 68.20 | -18.54 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5180MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

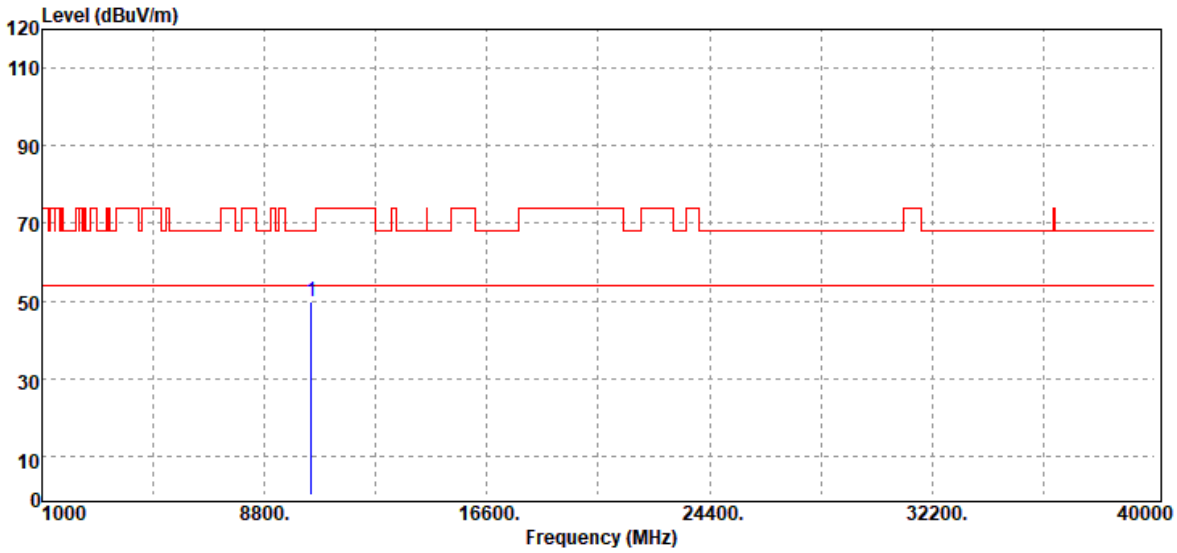



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10360.00 | Peak | 34.53 | 15.04 | 49.57 | 68.20 | -18.63 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5220 MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonics | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

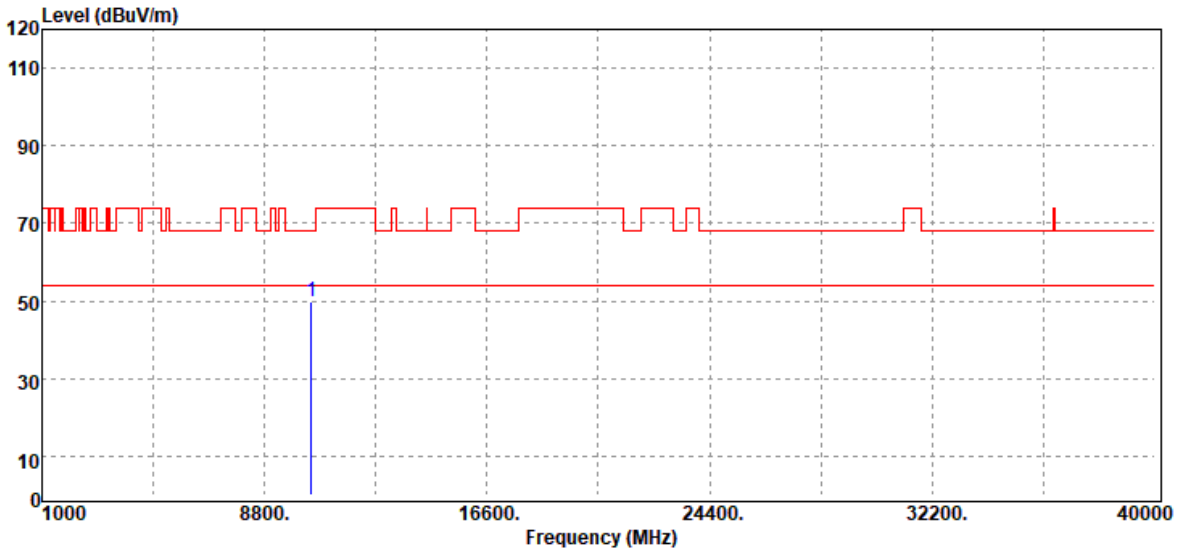



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10440.00 | Peak | 34.59 | 15.11 | 49.70 | 68.20 | -18.50 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5220 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

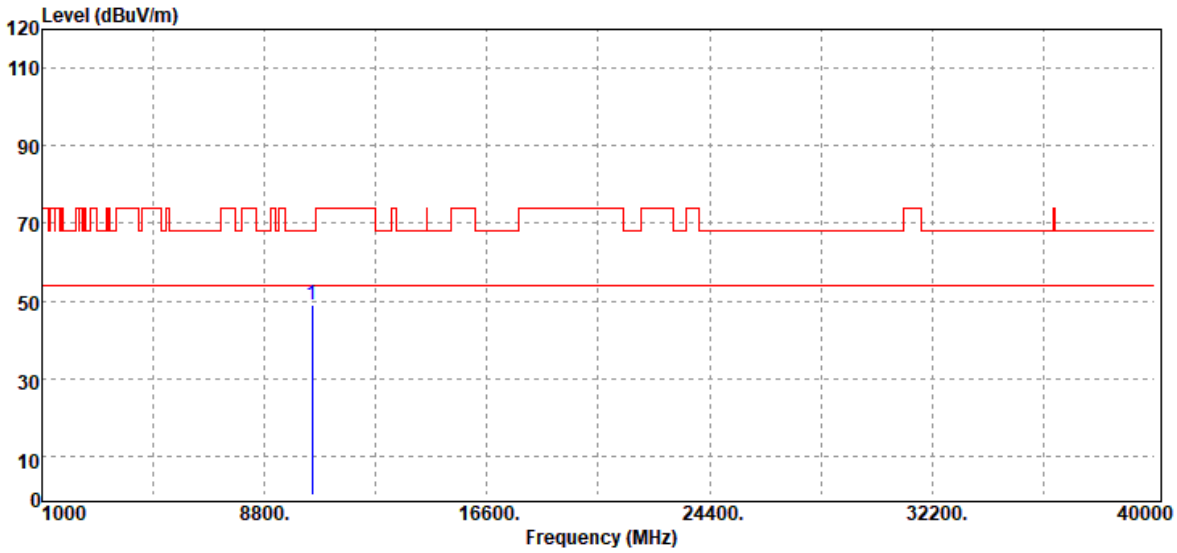



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10440.00 | Peak | 34.84 | 15.11 | 49.95 | 68.20 | -18.25 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5240MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

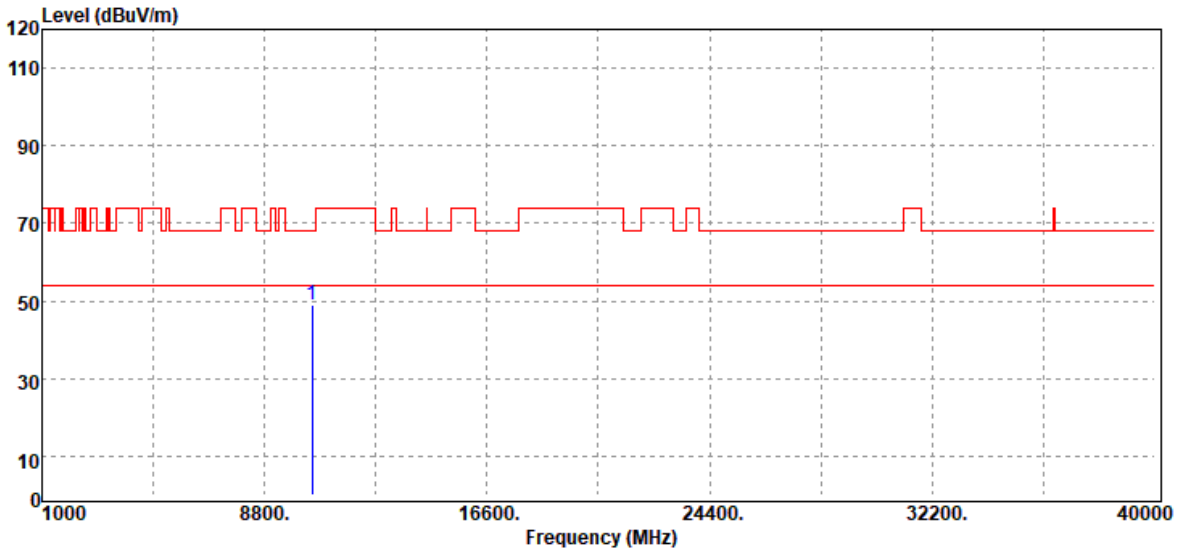



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10480.00 | Peak | 33.70 | 15.09 | 48.79 | 68.20 | -19.41 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5240MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

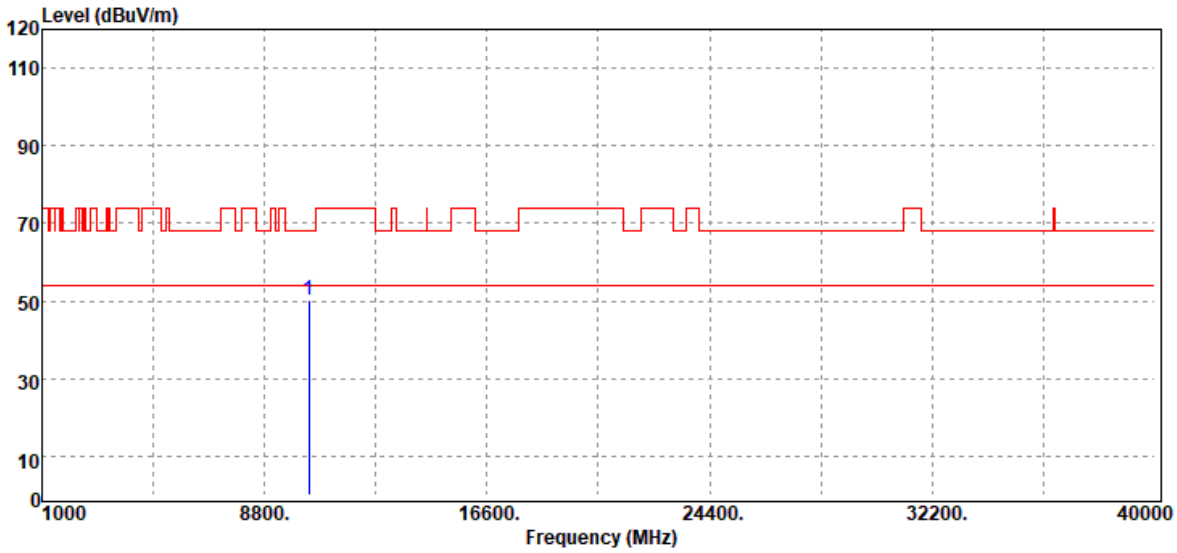



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10480.00 | Peak | 34.02 | 15.09 | 49.11 | 68.20 | -19.09 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5180MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

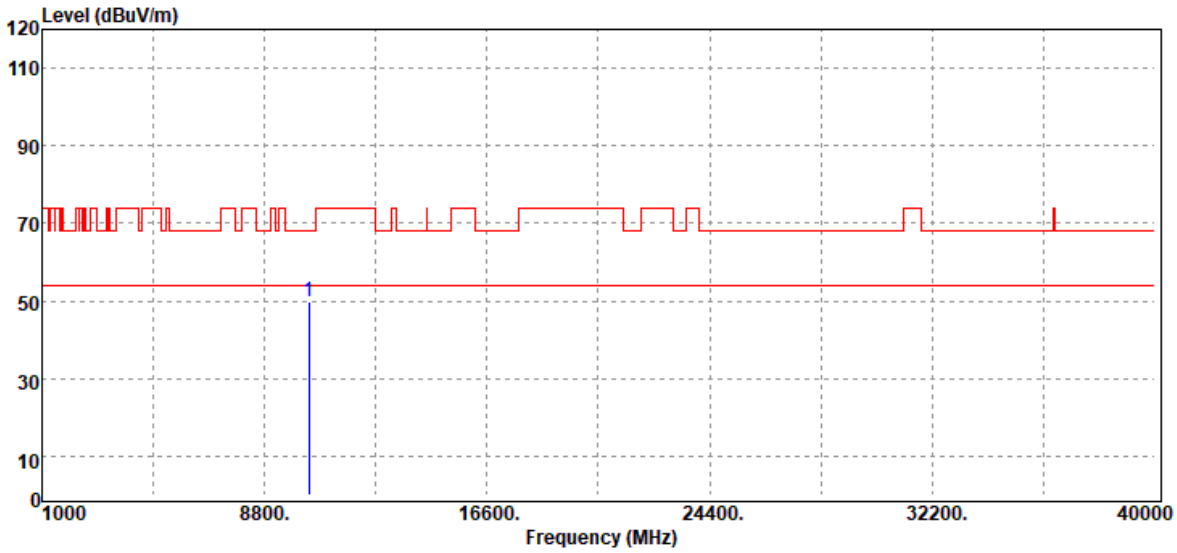



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10360.00 | Peak | 35.06 | 15.04 | 50.10 | 68.20 | -18.10 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz/ 5180MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10360.00 | Peak | 34.79 | 15.04 | 49.83 | 68.20 | -18.37 |
| N/A | | | | | | |
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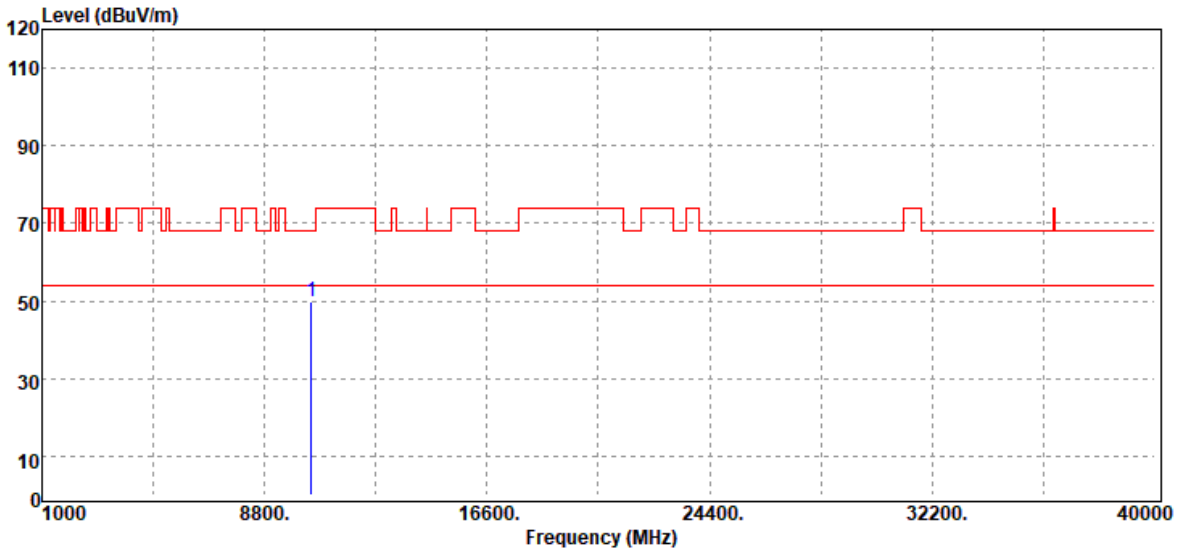
***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5220MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10440.00 | Peak | 34.65 | 15.11 | 49.76 | 68.20 | -18.44 |
| N/A | | | | | | |
| | | | | | | |
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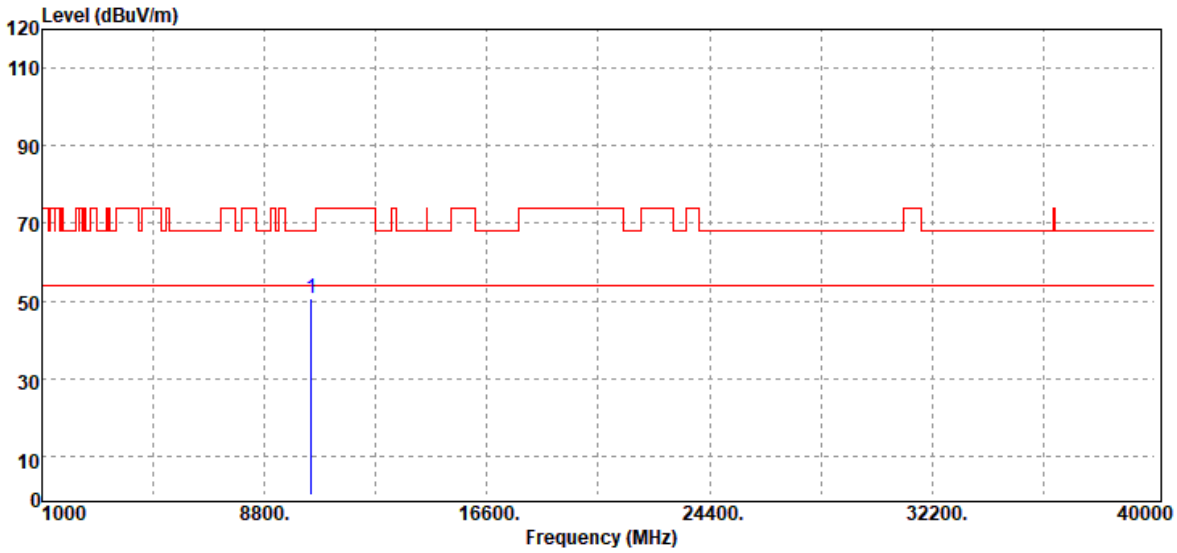
***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5220MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10440.00 | Peak | 35.48 | 15.11 | 50.59 | 68.20 | -17.61 |
| N/A | | | | | | |
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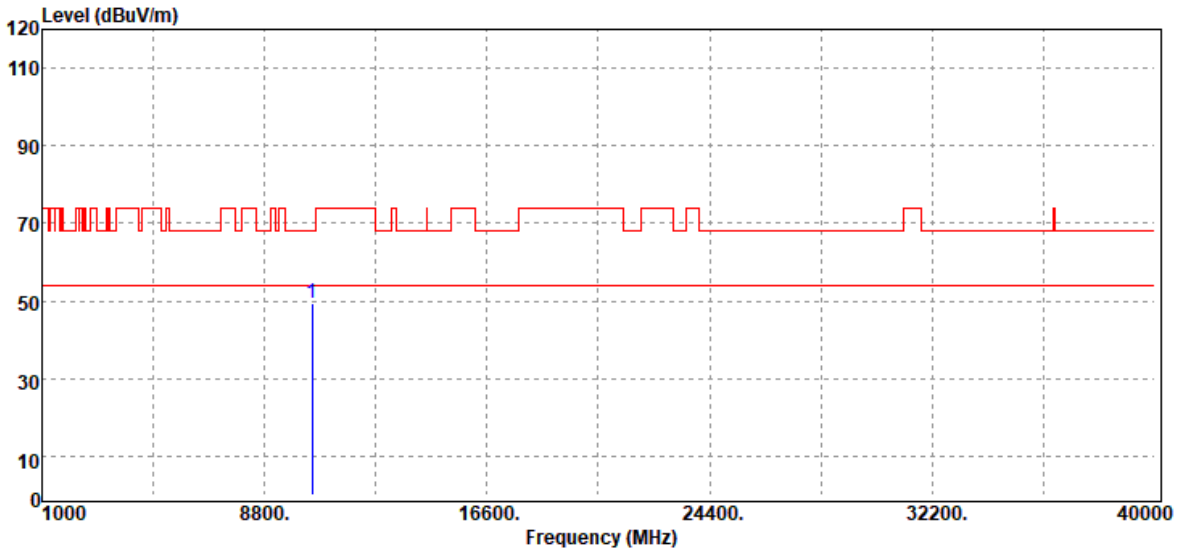
***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5240MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10480.00 | Peak | 34.42 | 15.09 | 49.51 | 68.20 | -18.69 |
| N/A | | | | | | |
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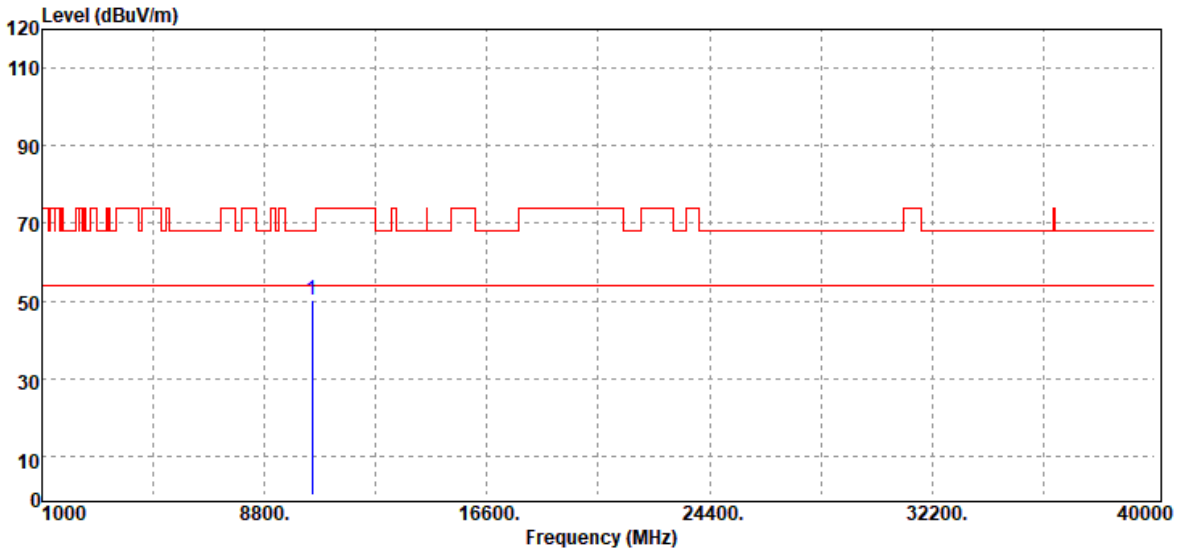
***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5240MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10480.00 | Peak | 35.30 | 15.09 | 50.39 | 68.20 | -17.81 |
| N/A | | | | | | |
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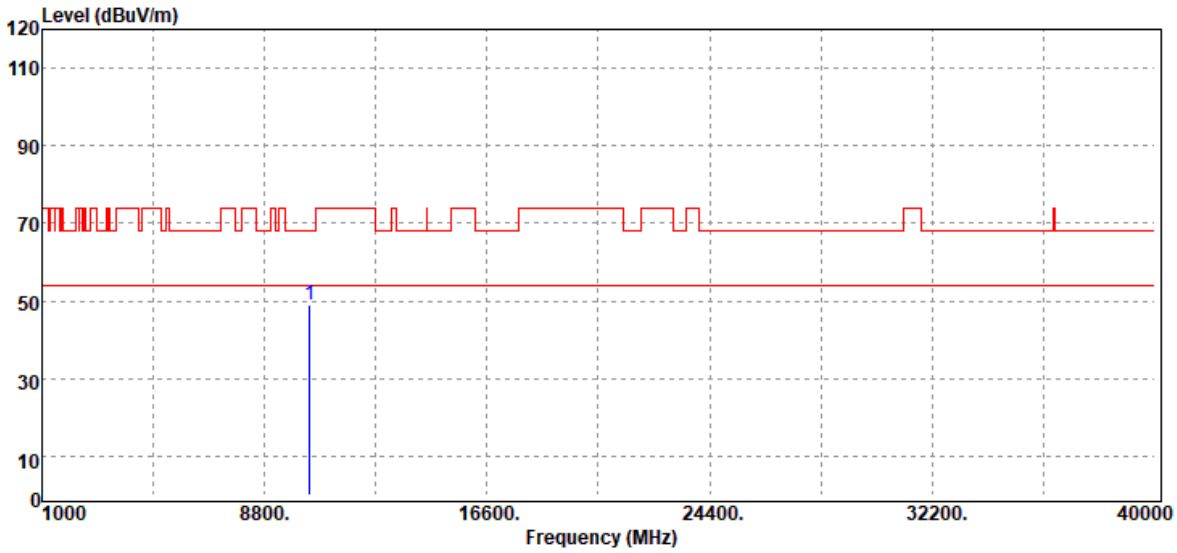
***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5190MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10380.00 | Peak | 33.87 | 14.99 | 48.86 | 68.20 | -19.34 |
| N/A | | | | | | |
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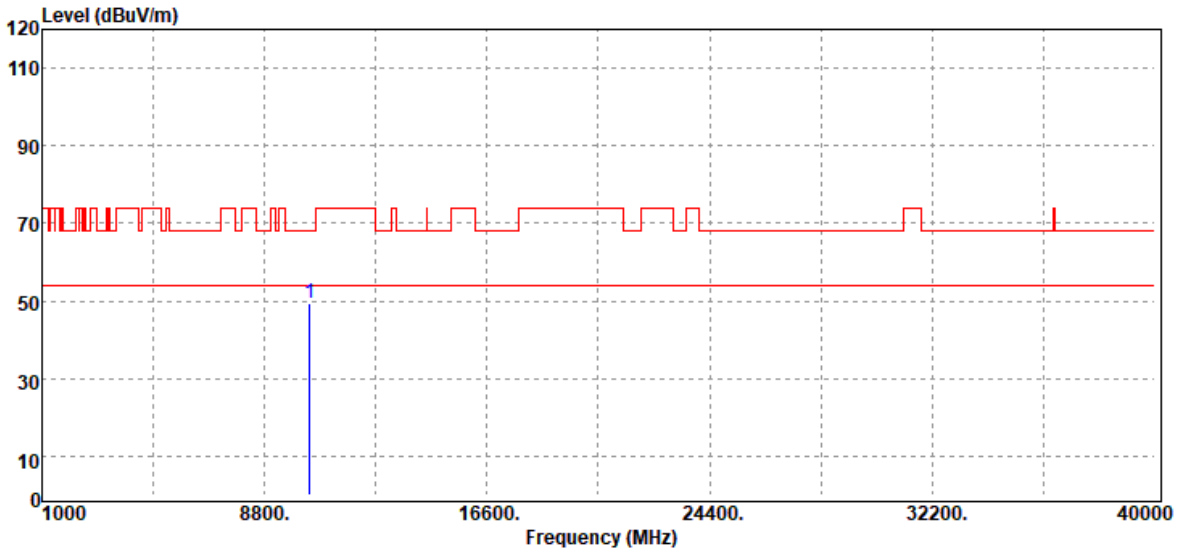
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5190MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

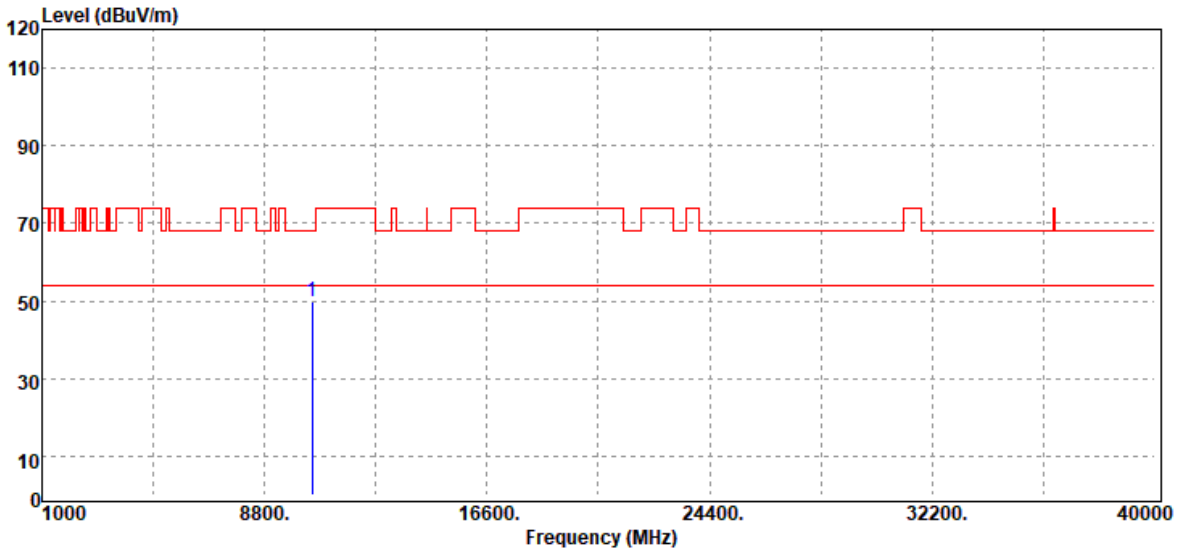



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10380.00 | Peak | 34.26 | 14.99 | 49.25 | 68.20 | -18.95 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5230MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

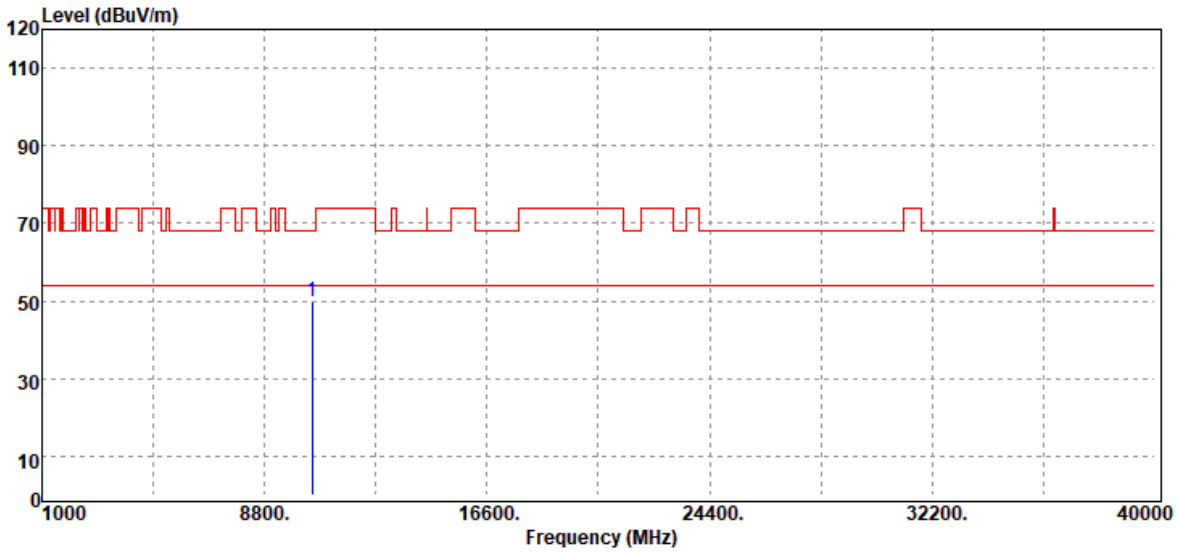



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10460.00 | Peak | 34.75 | 15.13 | 49.88 | 68.20 | -18.32 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5230MHZ | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |



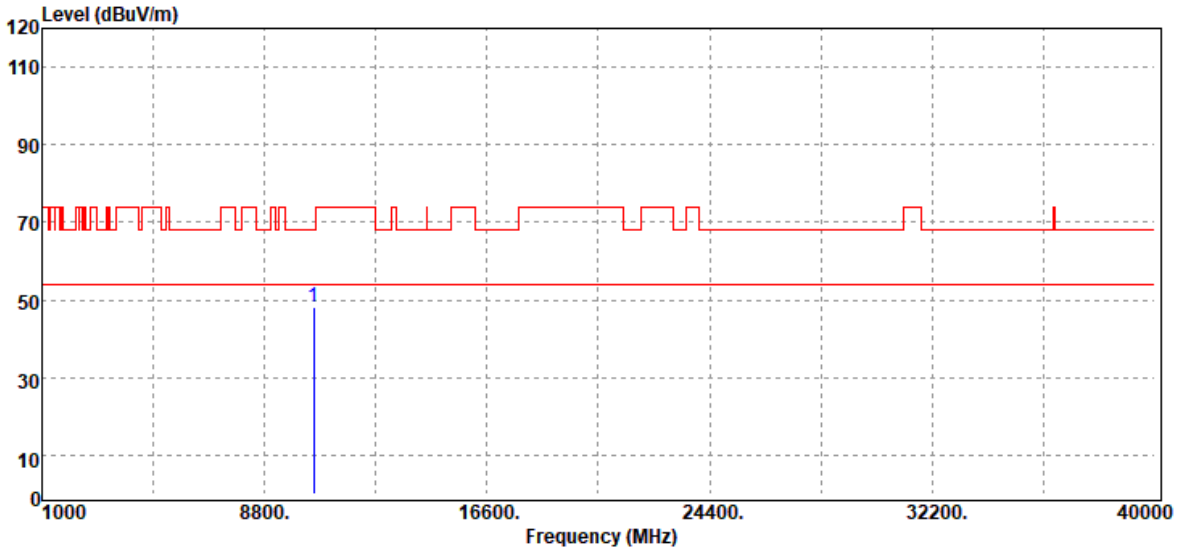

| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10460.00 | Peak | 34.71 | 15.13 | 49.84 | 68.20 | -18.36 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

## Test Data for UNII-2a

| Test Mode | IEEE 802.11a / 5260 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

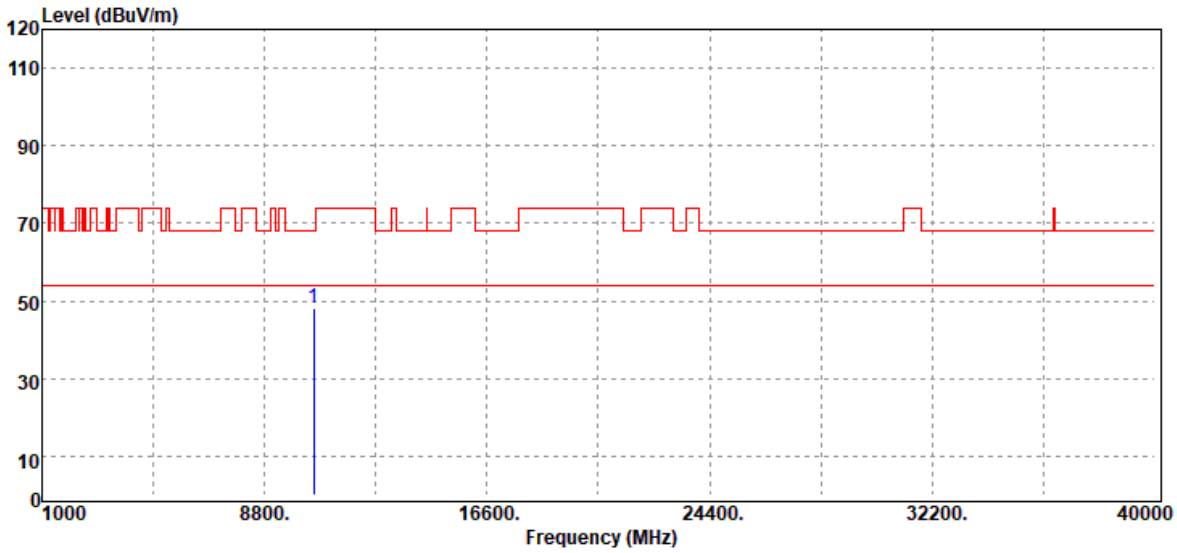



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10520.00 | Peak | 33.20 | 15.05 | 48.25 | 68.20 | -19.95 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5260 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

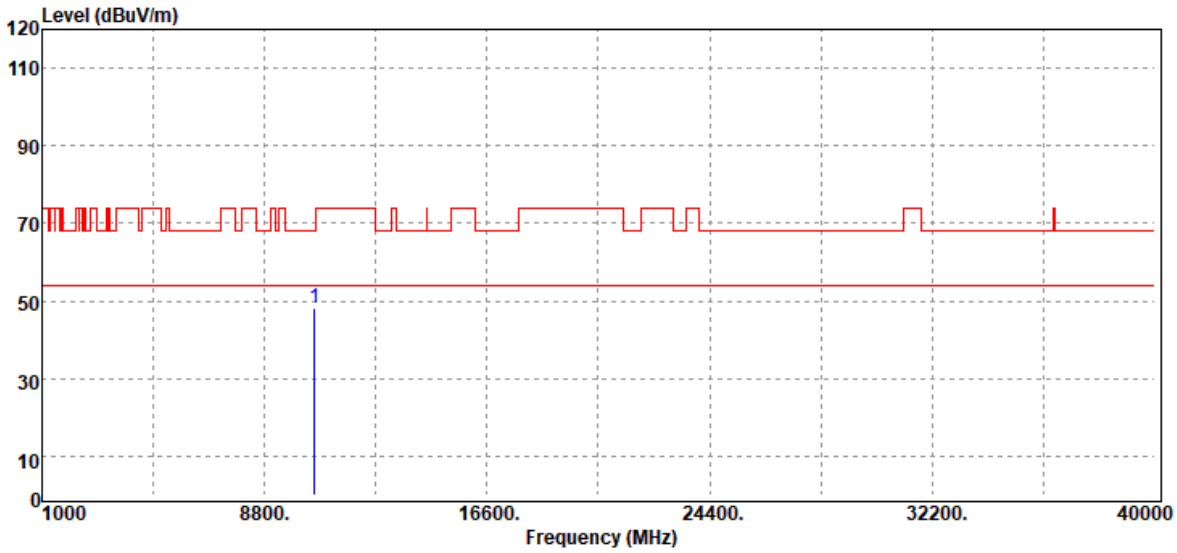



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10520.00 | Peak | 33.00 | 15.05 | 48.05 | 68.20 | -20.15 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5280 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

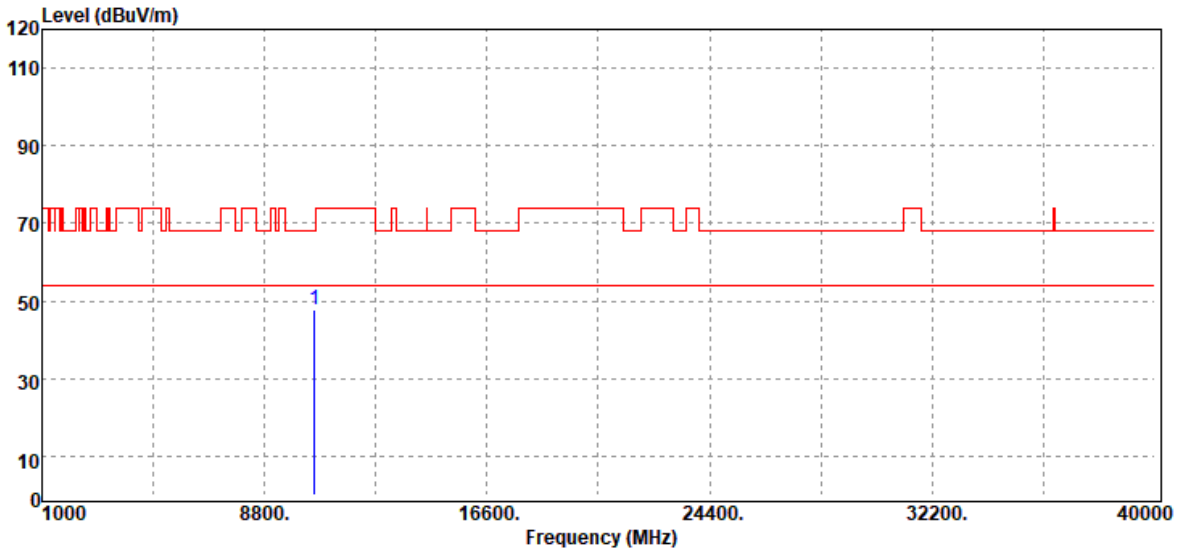



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10560.00 | Peak | 33.17 | 15.05 | 48.22 | 68.20 | -19.98 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5280 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

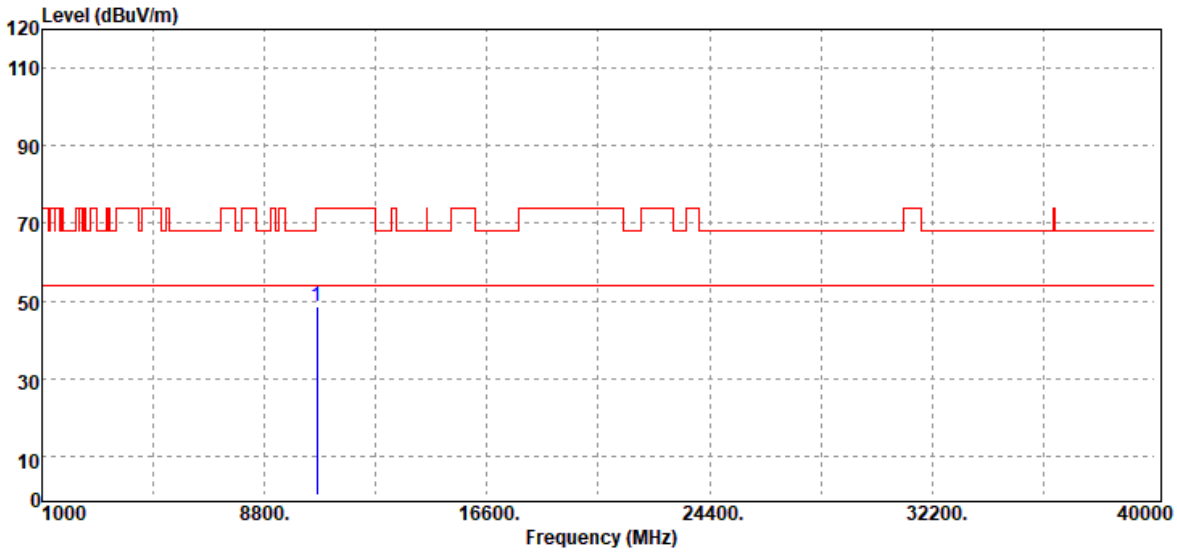



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10560.00 | Peak | 32.67 | 15.05 | 47.72 | 68.20 | -20.48 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5320 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

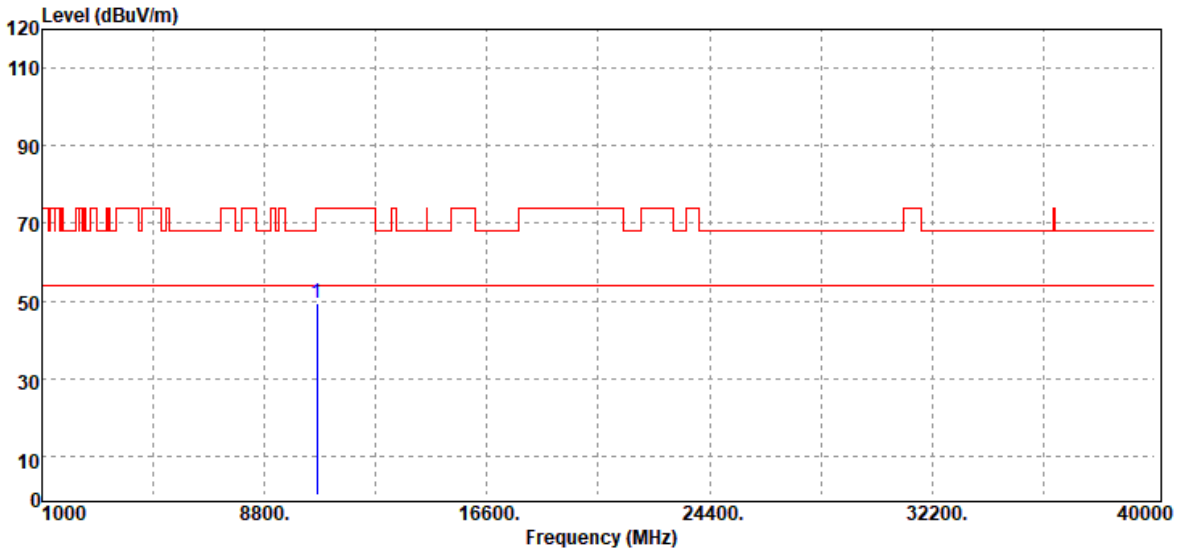



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10640.00 | Peak | 33.03 | 15.51 | 48.54 | 74.00 | -25.46 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5320 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

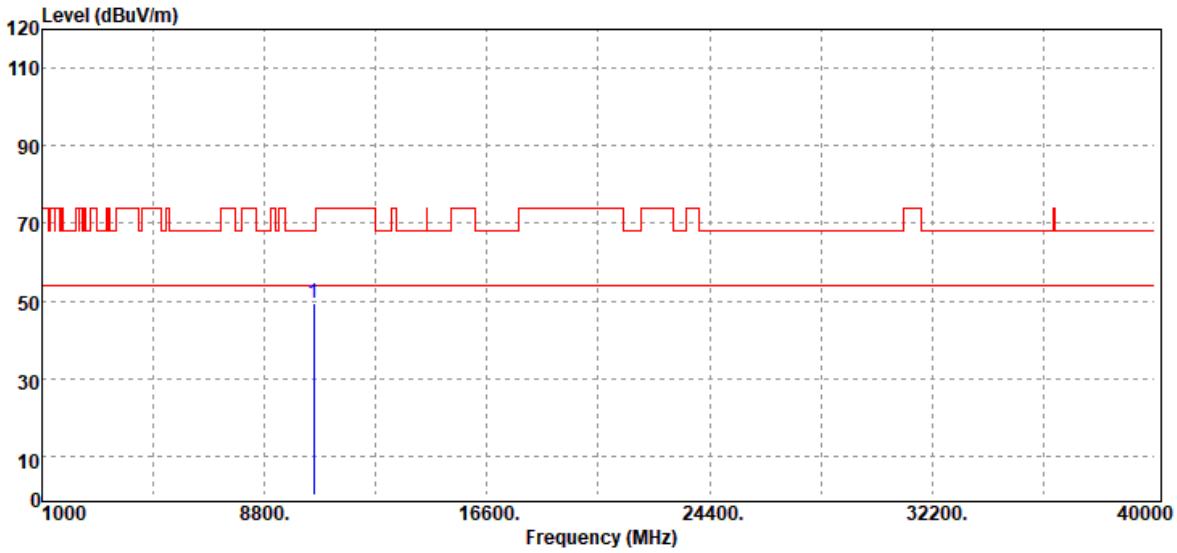



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10640.00 | Peak | 33.71 | 15.51 | 49.22 | 74.00 | -24.78 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5260 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

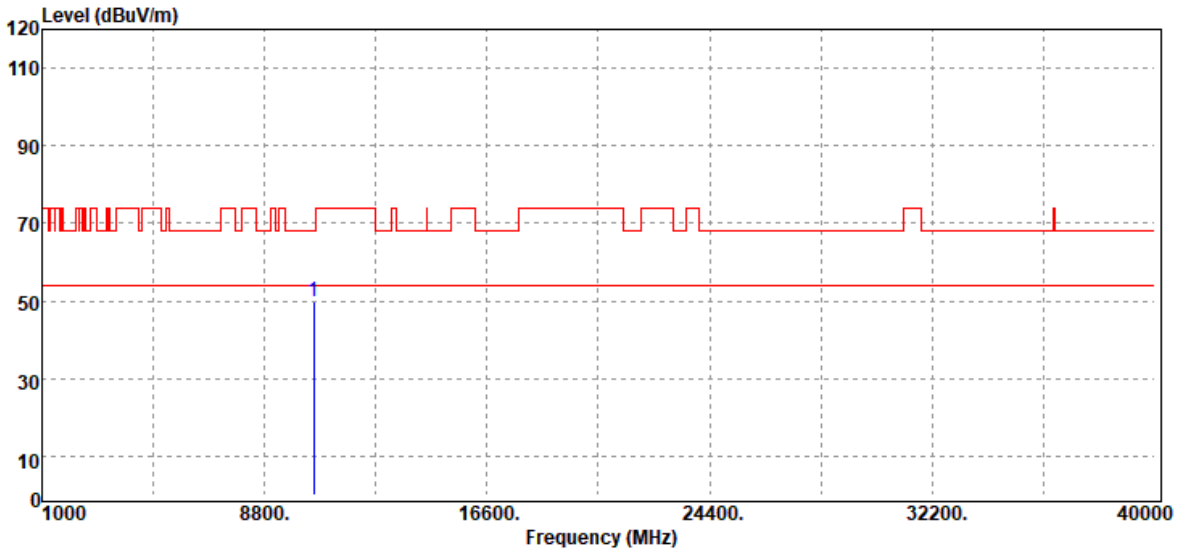



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10520.00 | Peak | 34.28 | 15.05 | 49.33 | 68.20 | -18.87 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5260 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

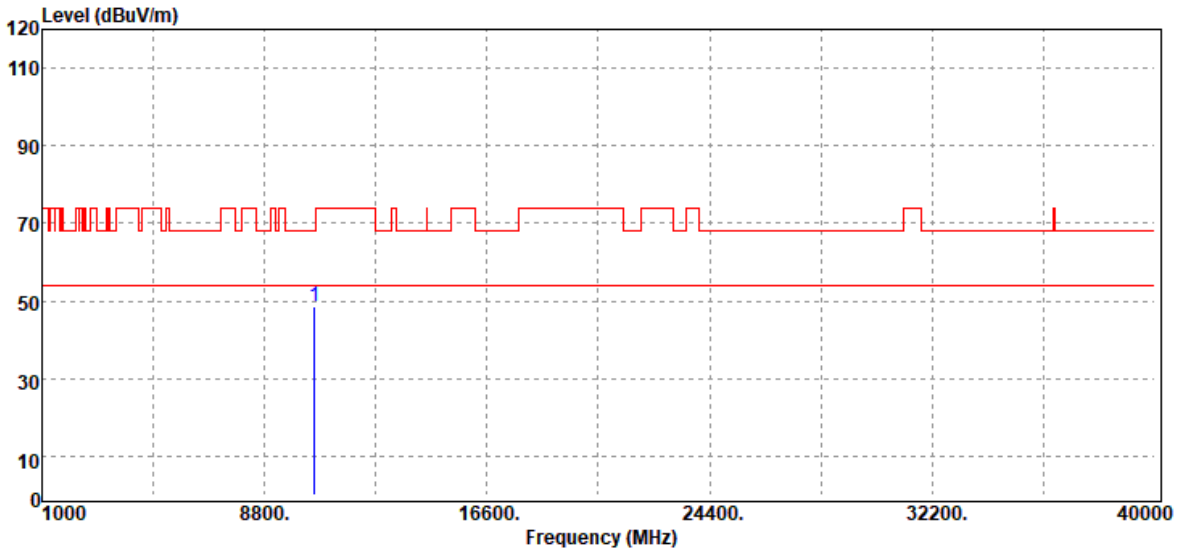



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10520.00 | Peak | 34.60 | 15.05 | 49.65 | 68.20 | -18.55 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5280 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

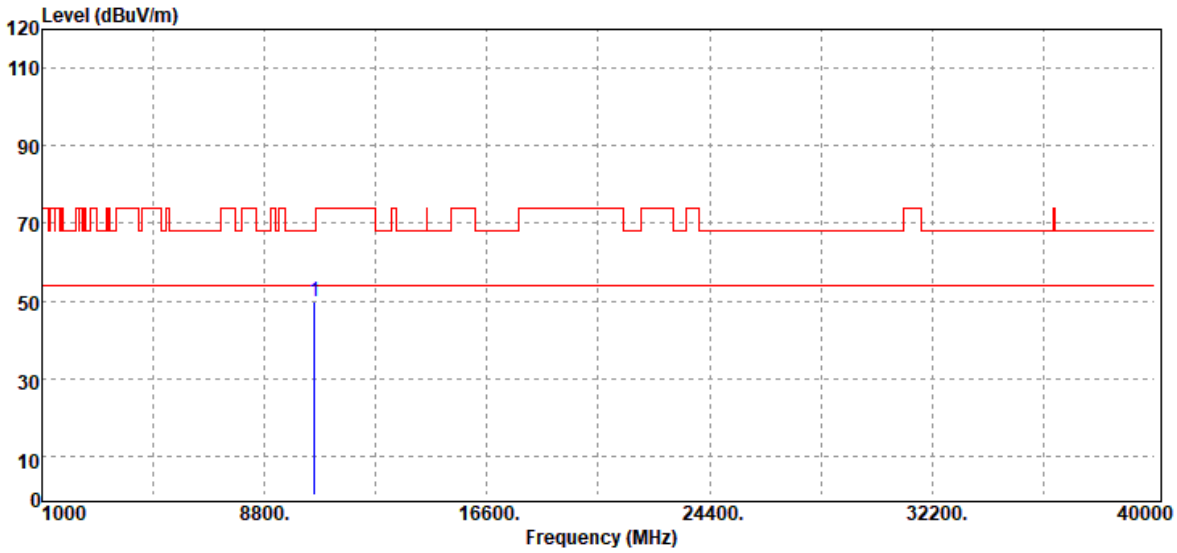



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10560.00 | Peak | 33.68 | 15.05 | 48.73 | 68.20 | -19.47 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5280 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

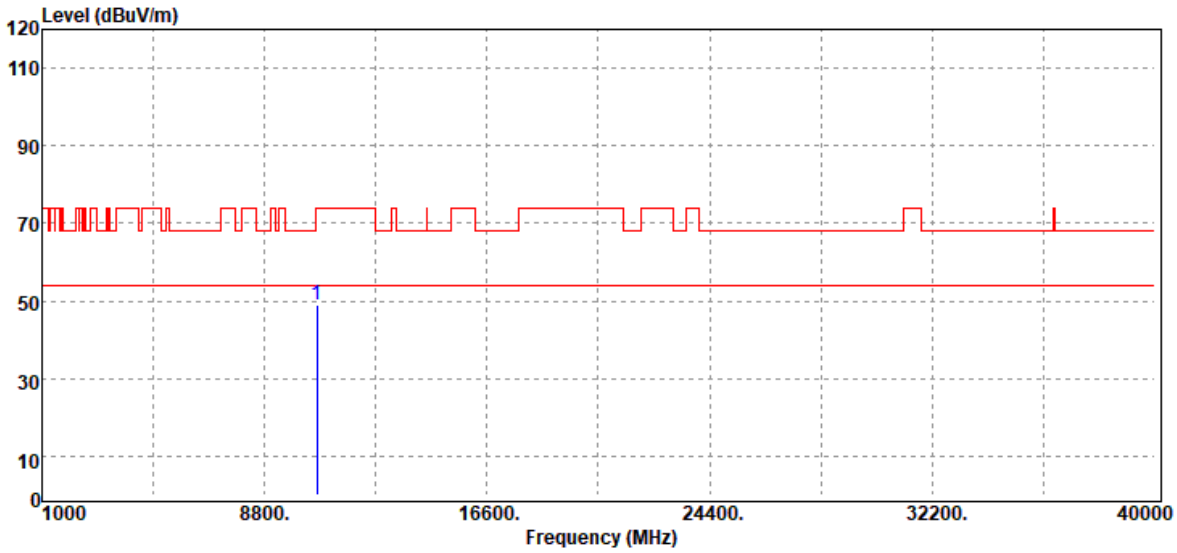



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10560.00 | Peak | 34.77 | 15.05 | 49.82 | 68.20 | -18.38 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5320 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

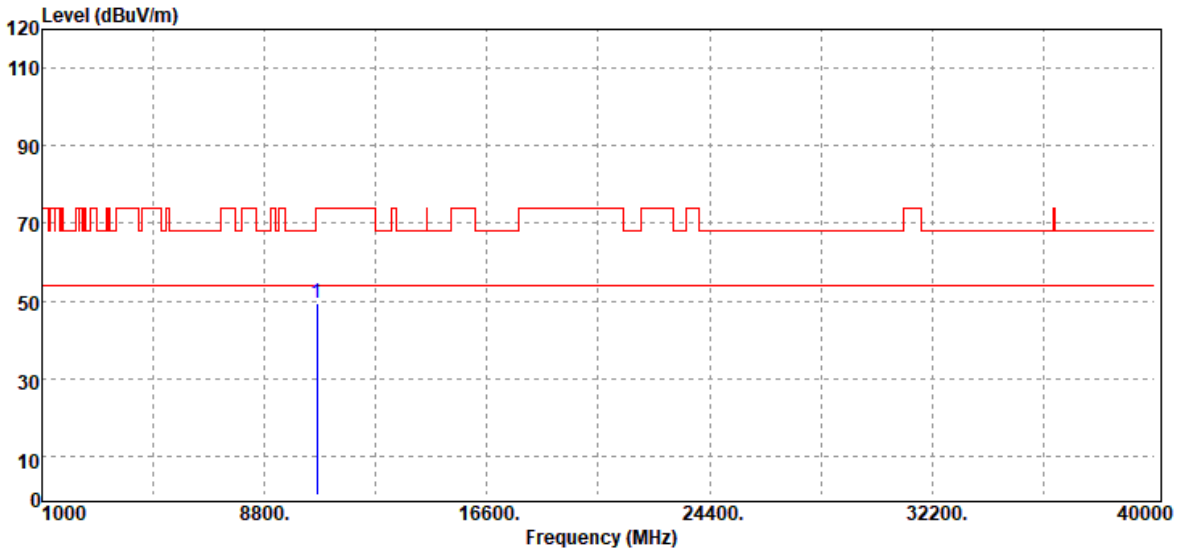



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10640.00 | Peak | 33.34 | 15.51 | 48.85 | 74.00 | -25.15 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5320 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10640.00 | Peak | 34.07 | 15.51 | 49.58 | 74.00 | -24.42 |
| N/A | | | | | | |
| | | | | | | |
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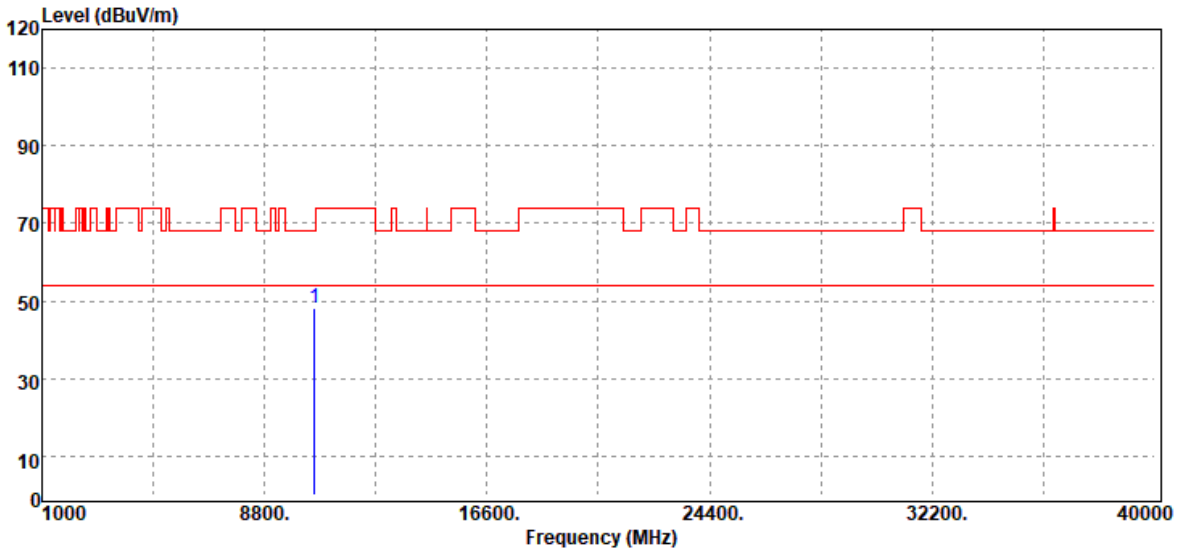
***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5270 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

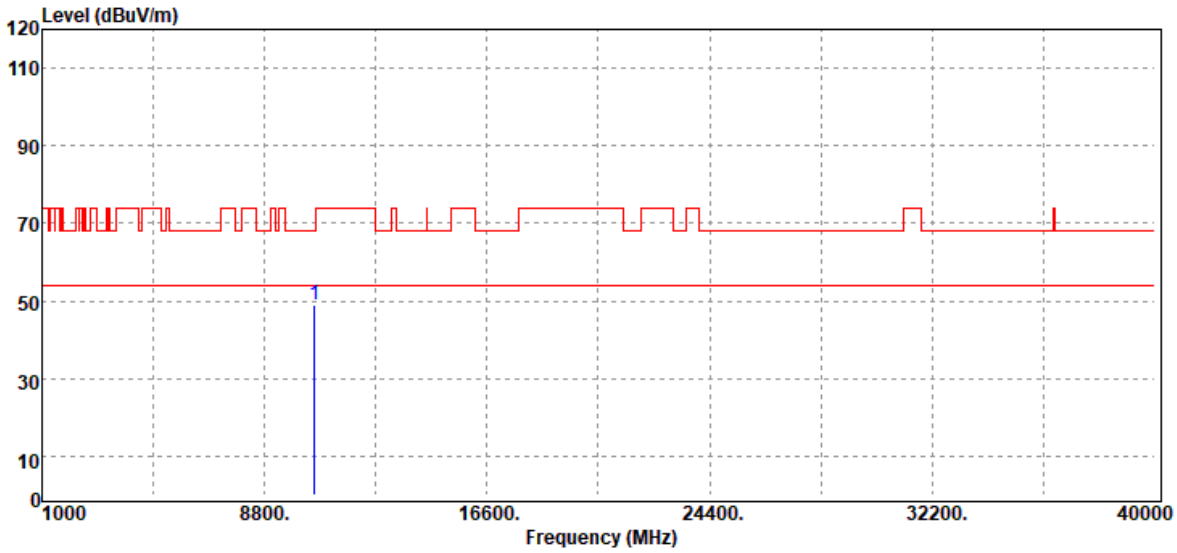



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10540.00 | Peak | 33.29 | 15.05 | 48.34 | 68.20 | -19.86 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5270 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

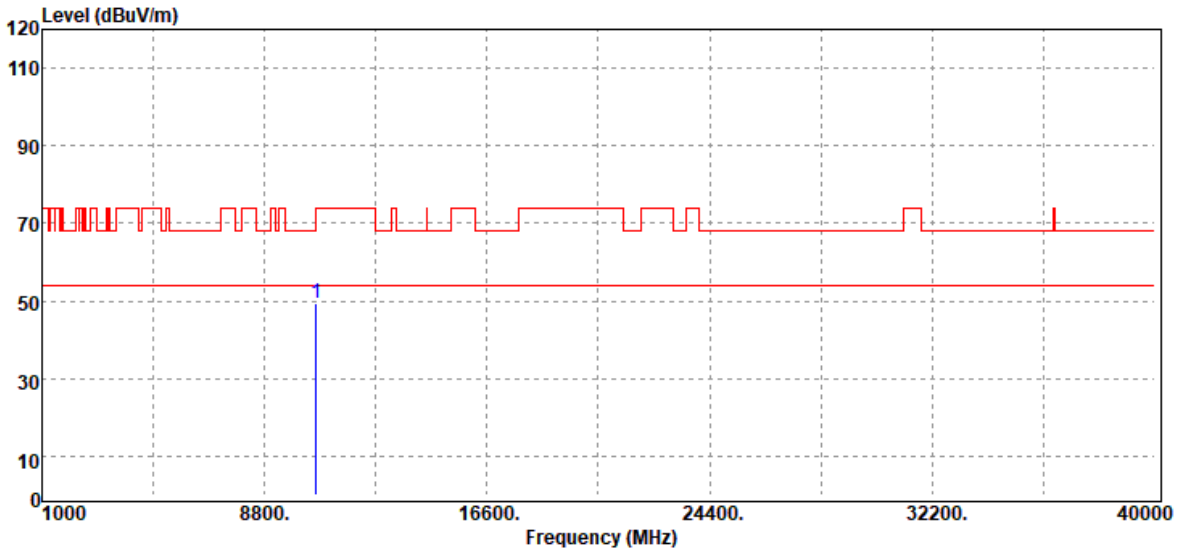



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10540.00 | Peak | 33.83 | 15.05 | 48.88 | 68.20 | -19.32 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5310 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

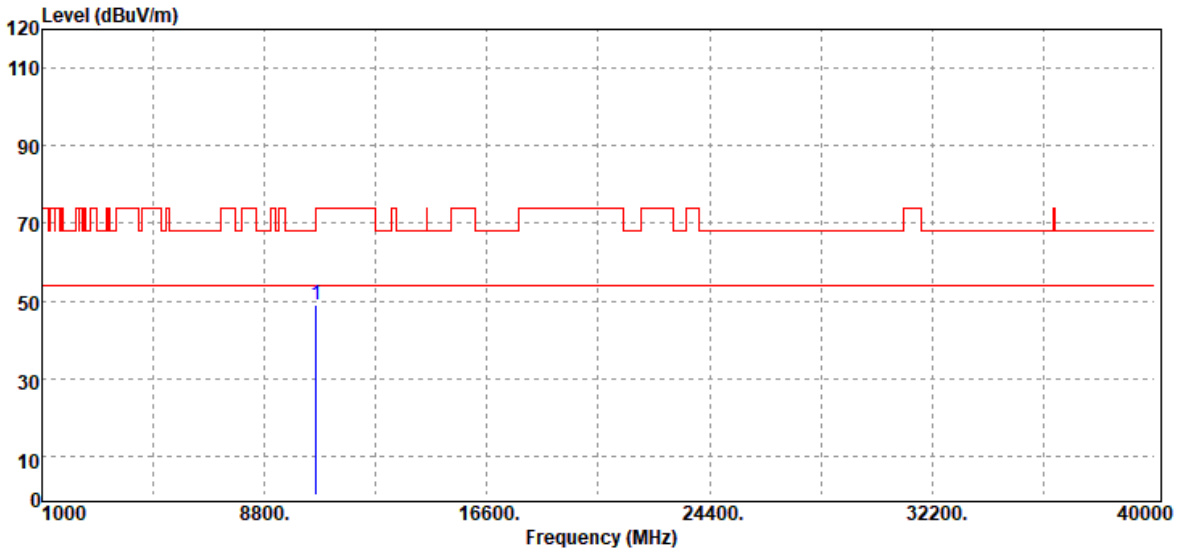



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10620.00 | Peak | 33.97 | 15.28 | 49.25 | 74.00 | -24.75 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5310 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |



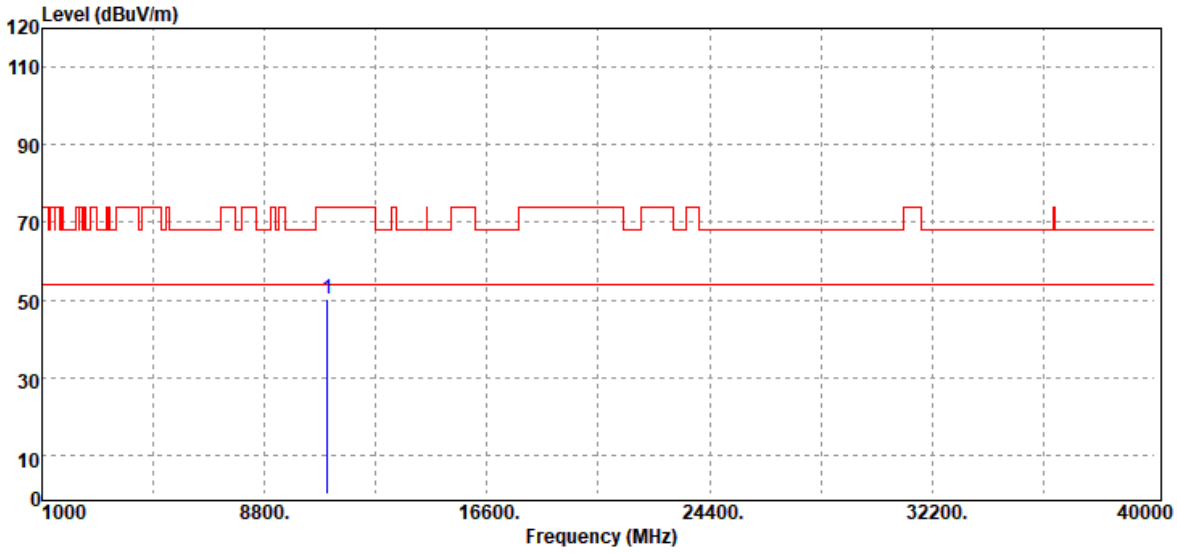

| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 10620.00 | Peak | 33.68 | 15.28 | 48.96 | 74.00 | -25.04 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

## Test Data for UNII-2c

| Test Mode | IEEE 802.11a / 5500 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

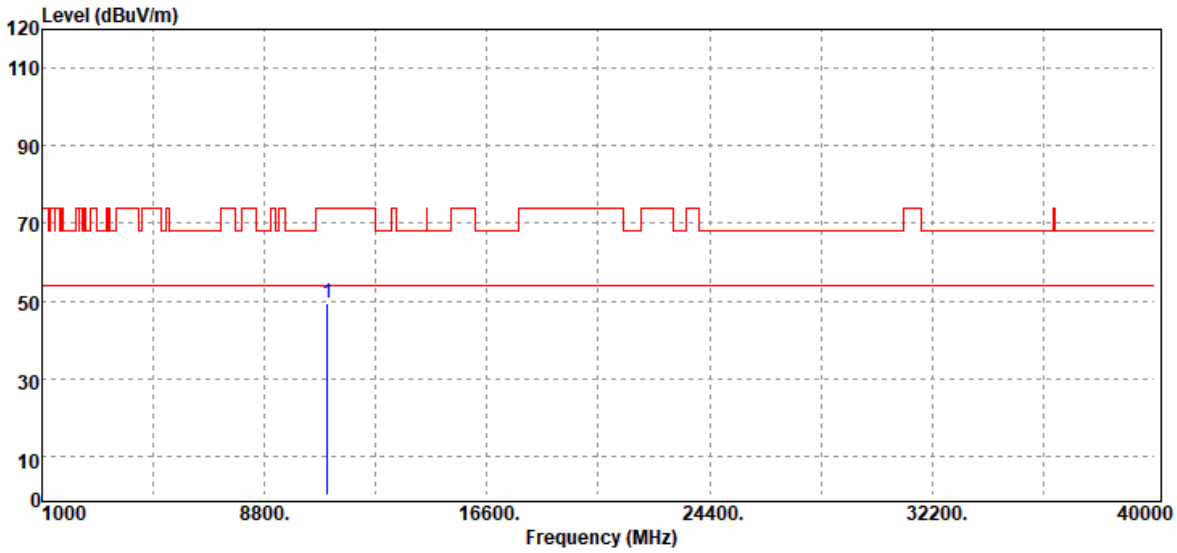



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11000.00 | Peak | 34.18 | 16.02 | 50.20 | 74.00 | -23.80 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5500 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

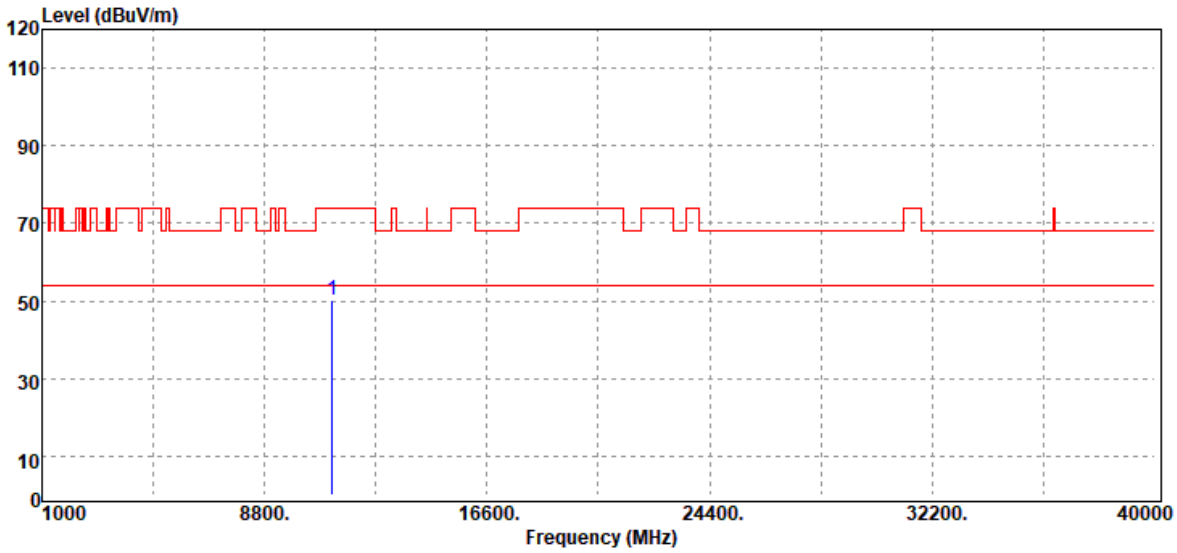



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11000.00 | Peak | 33.48 | 16.02 | 49.50 | 74.00 | -24.50 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5580 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

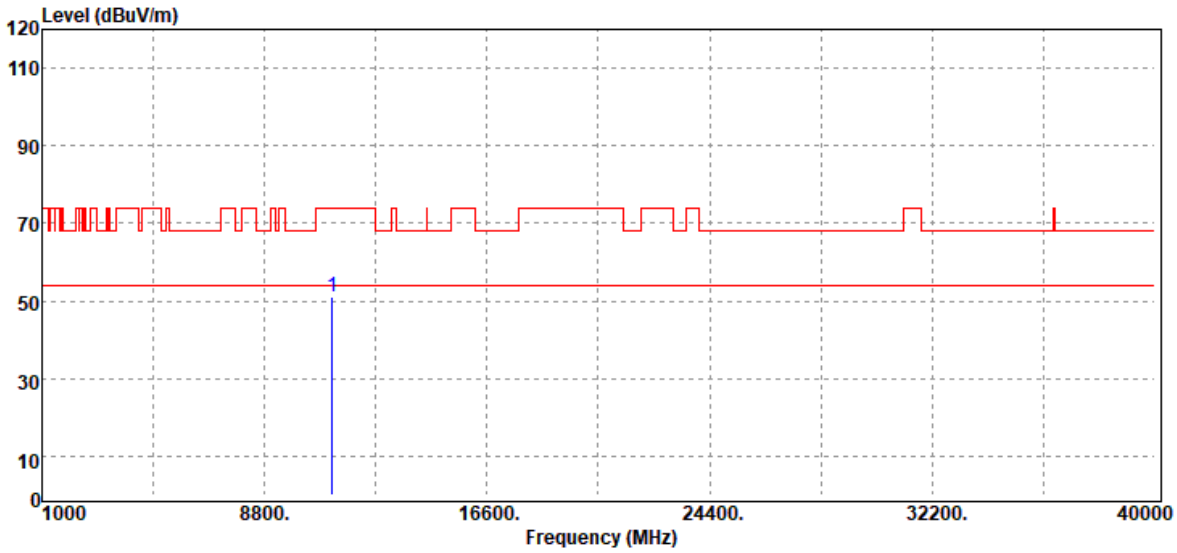



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11160.00 | Peak | 33.61 | 16.70 | 50.31 | 74.00 | -23.69 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5580 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

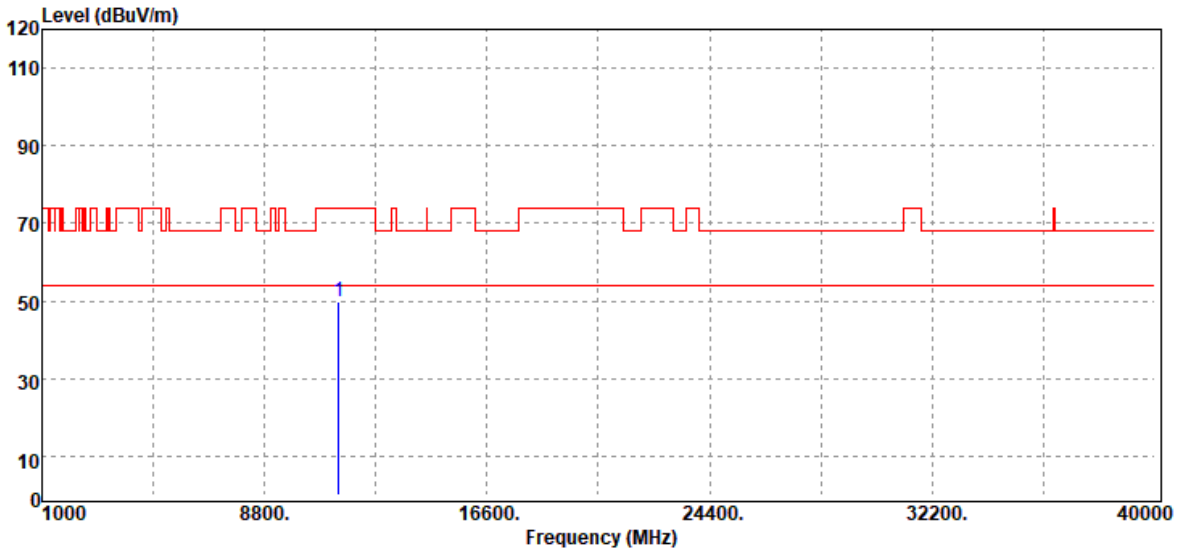



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11160.00 | Peak | 34.30 | 16.70 | 51.00 | 74.00 | -23.00 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5700 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

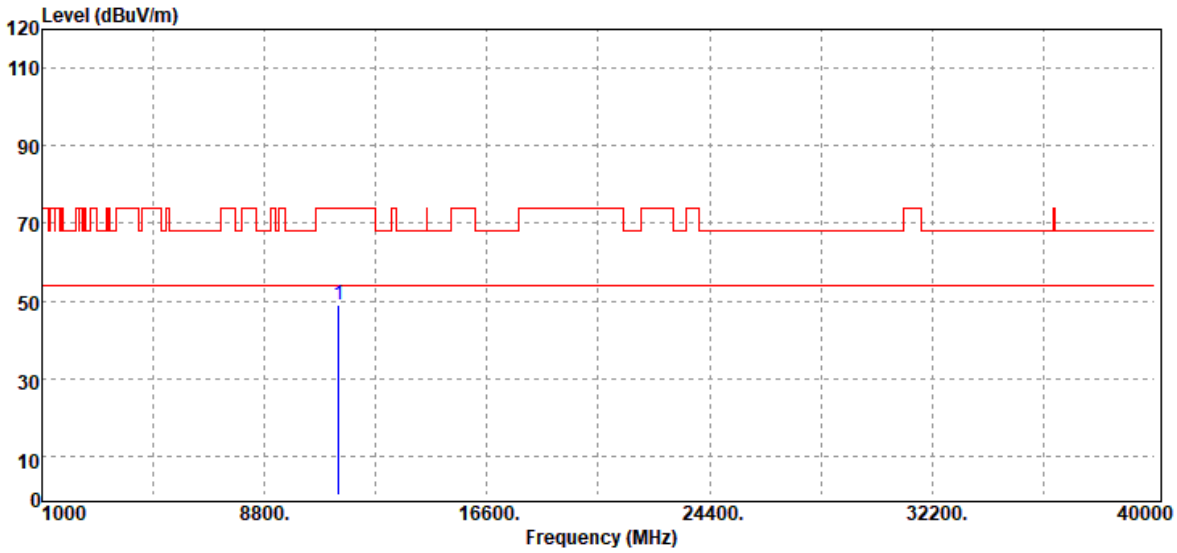



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11400.00 | Peak | 33.59 | 16.18 | 49.77 | 74.00 | -24.23 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5700 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

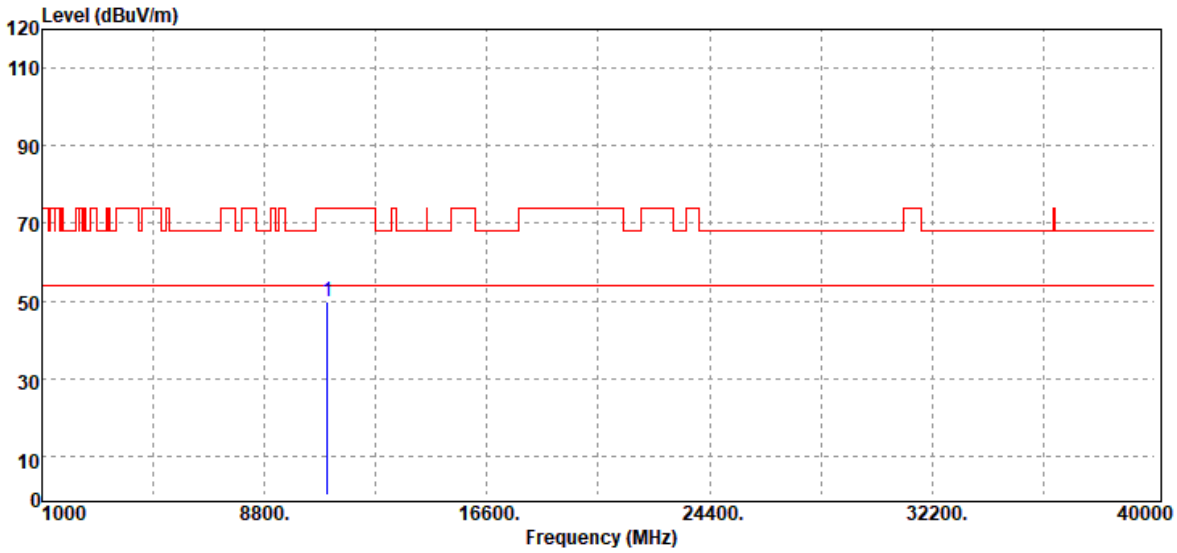



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11400.00 | Peak | 32.78 | 16.18 | 48.96 | 74.00 | -25.04 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5500 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

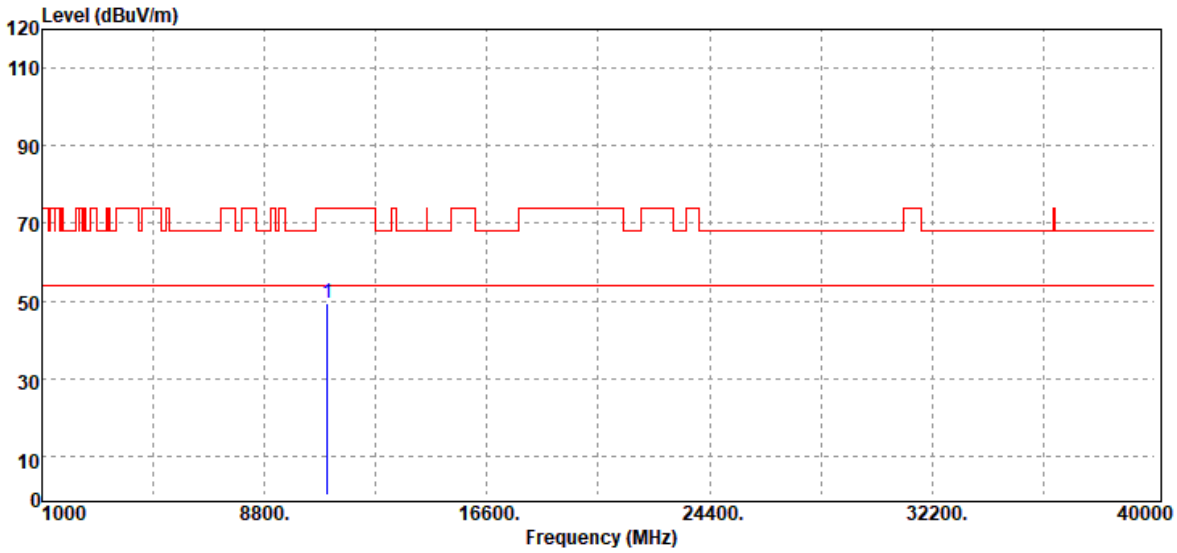



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11000.00 | Peak | 33.85 | 16.02 | 49.87 | 74.00 | -24.13 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5500 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

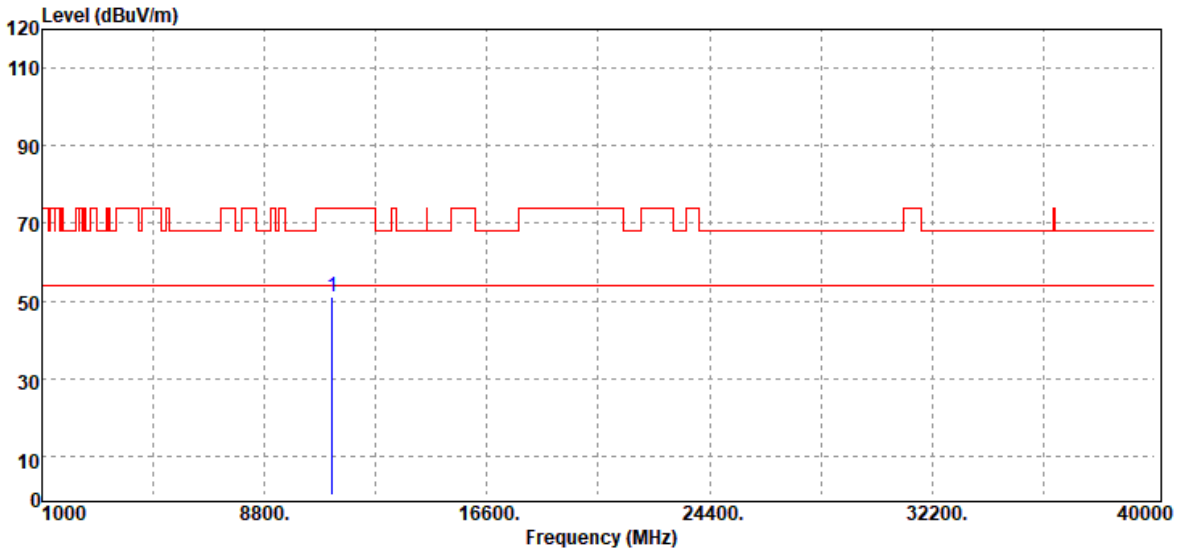



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11000.00 | Peak | 33.37 | 16.02 | 49.39 | 74.00 | -24.61 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5580 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

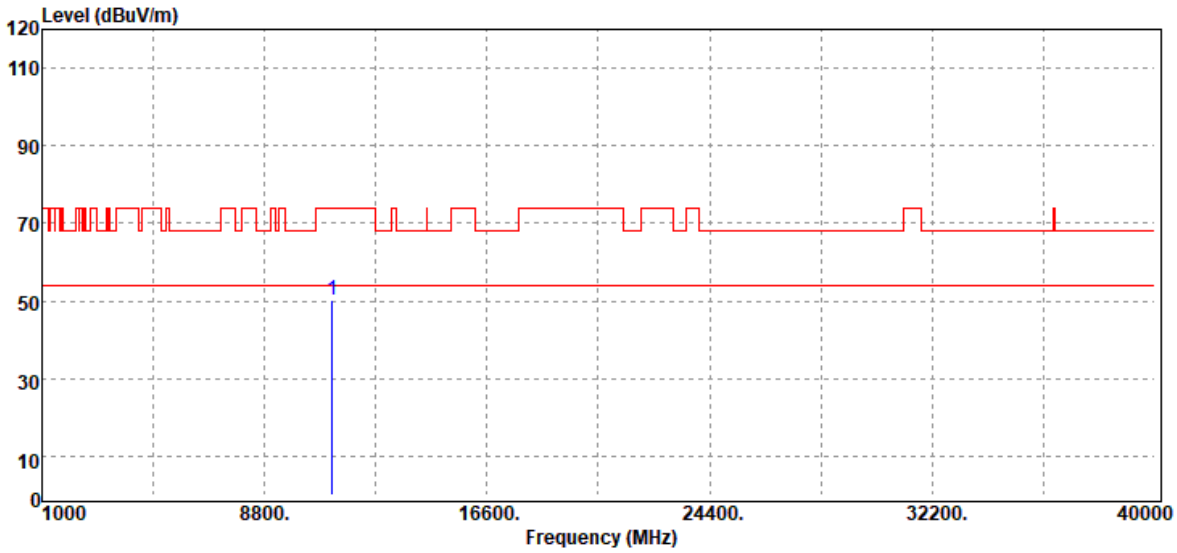



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11160.00 | Peak | 34.43 | 16.70 | 51.13 | 74.00 | -22.87 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5580 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

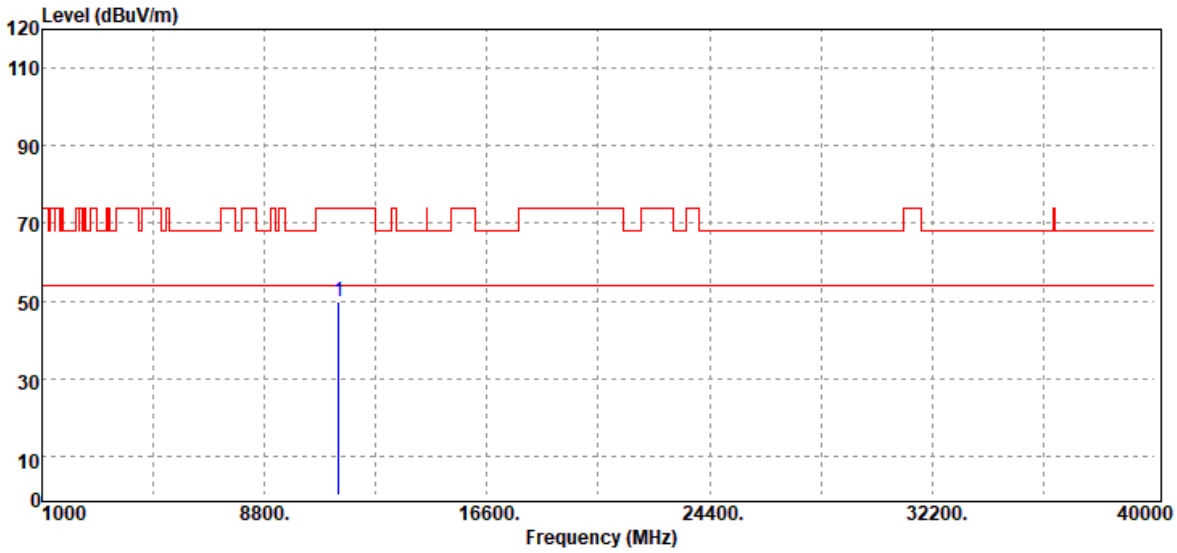



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11160.00 | Peak | 33.53 | 16.70 | 50.23 | 74.00 | -23.77 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5700 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

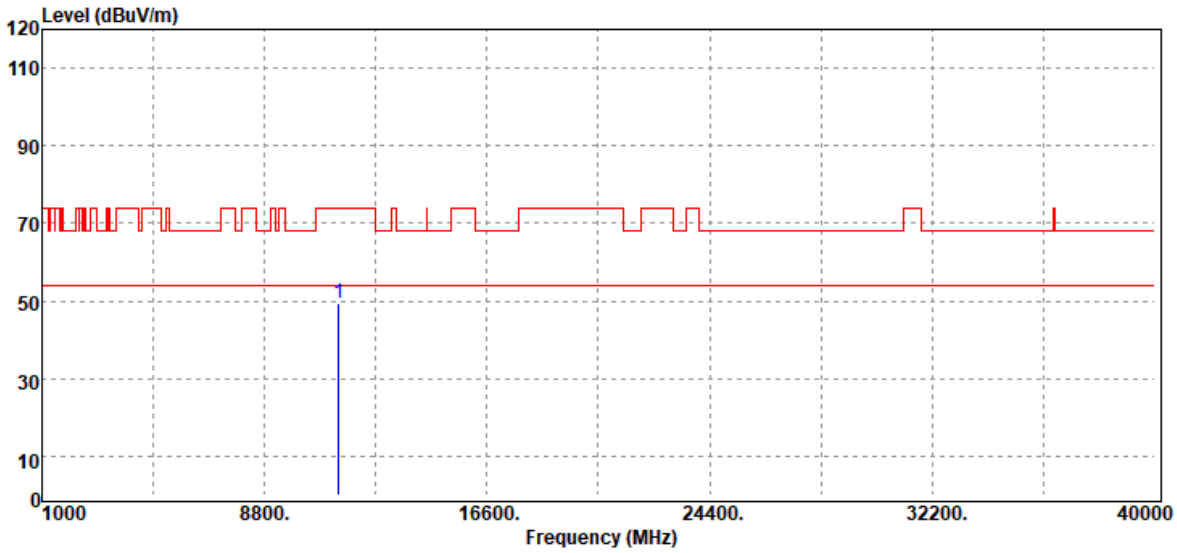



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11400.00 | Peak | 33.49 | 16.18 | 49.67 | 74.00 | -24.33 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5700 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

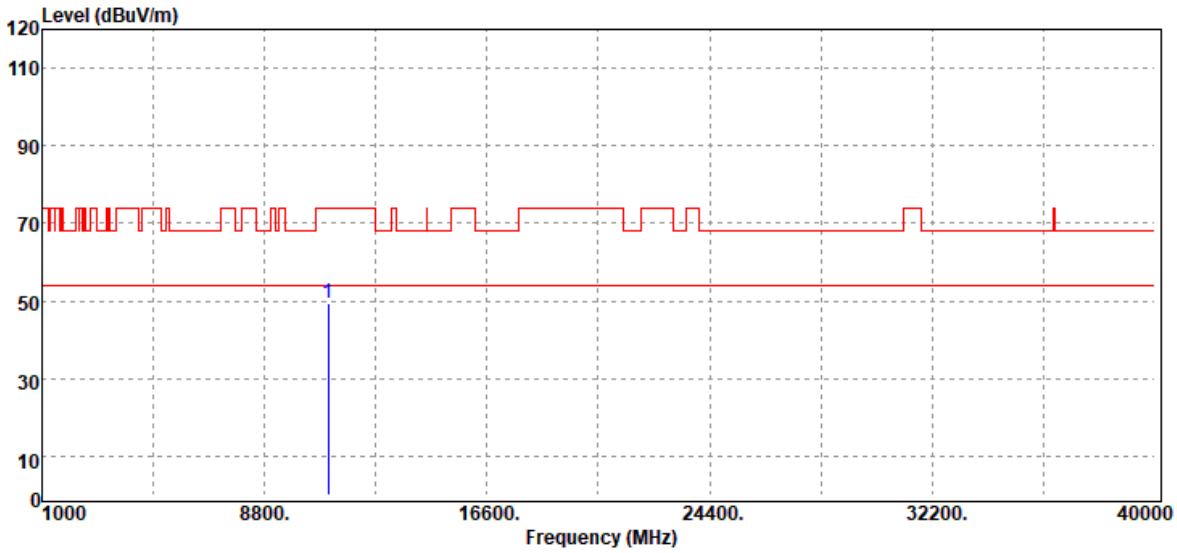



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11400.00 | Peak | 33.39 | 16.18 | 49.57 | 74.00 | -24.43 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5510 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

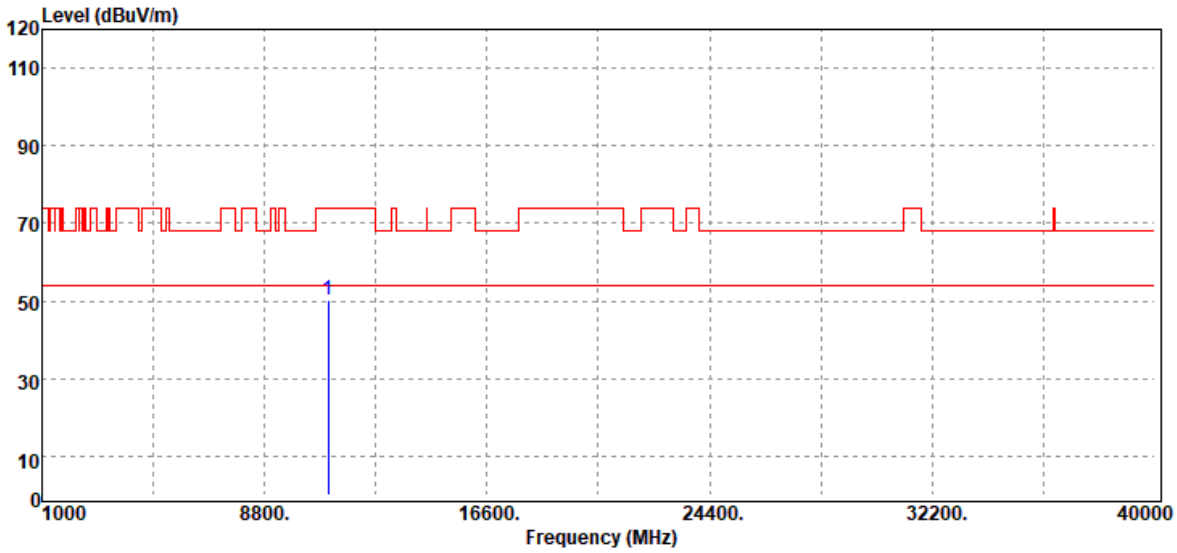



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11020.00 | Peak | 33.39 | 16.18 | 49.57 | 74.00 | -24.43 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5510 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

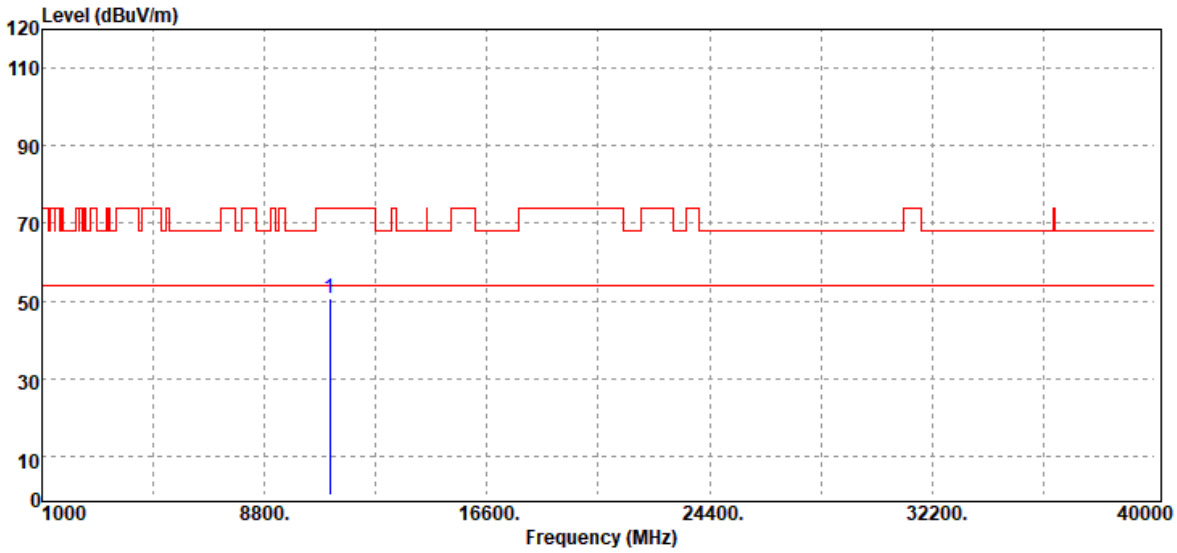



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11020.00 | Peak | 34.04 | 16.18 | 50.22 | 74.00 | -23.78 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5550 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11100.00 | Peak | 33.92 | 16.55 | 50.47 | 74.00 | -23.53 |
| N/A | | | | | | |
| | | | | | | |
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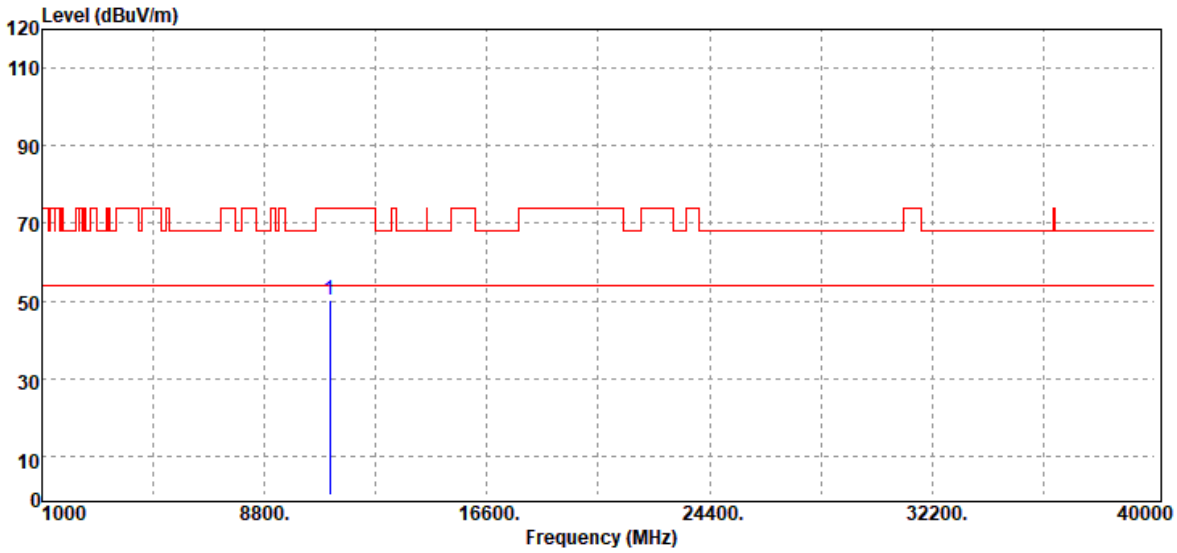
***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5550 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11100.00 | Peak | 33.67 | 16.55 | 50.22 | 74.00 | -23.78 |
| N/A | | | | | | |
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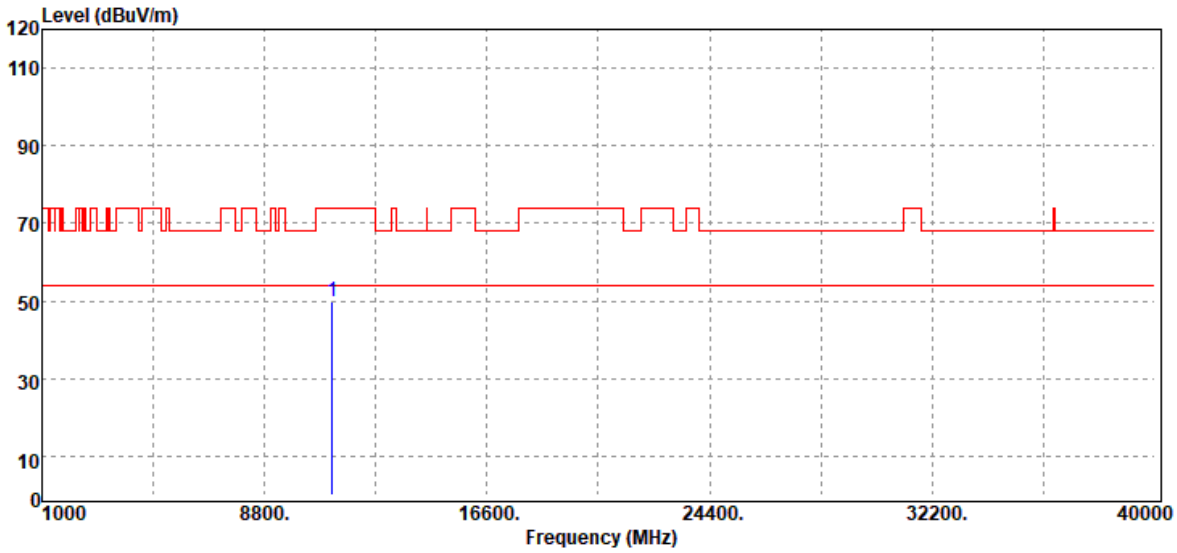
***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5590 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11180.00 | Peak | 33.28 | 16.53 | 49.81 | 74.00 | -24.19 |
| N/A | | | | | | |
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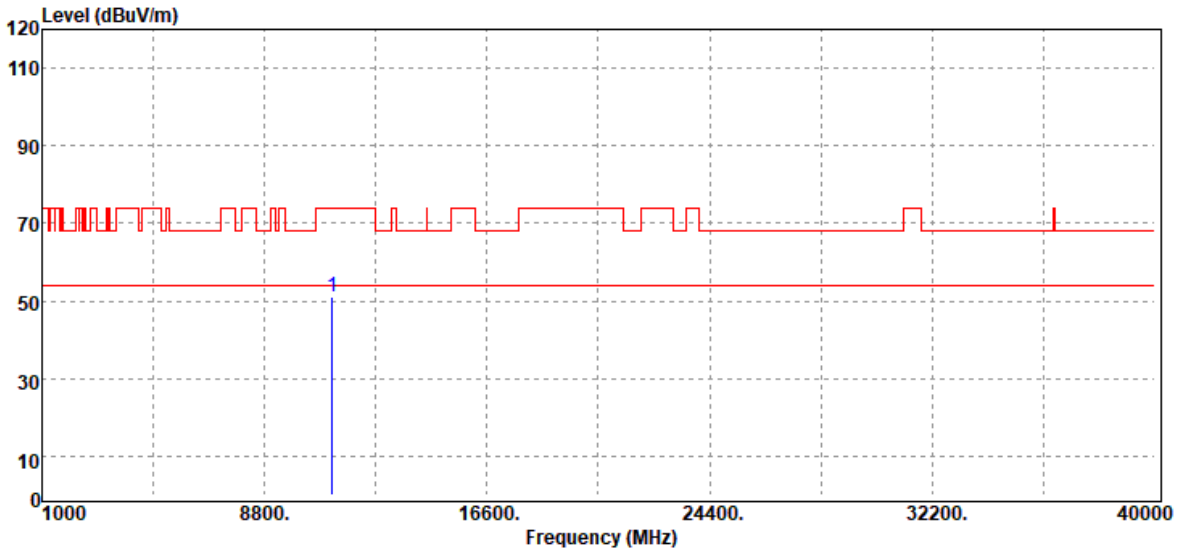
***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5590 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11180.00 | Peak | 34.44 | 16.53 | 50.97 | 74.00 | -23.03 |
| N/A | | | | | | |
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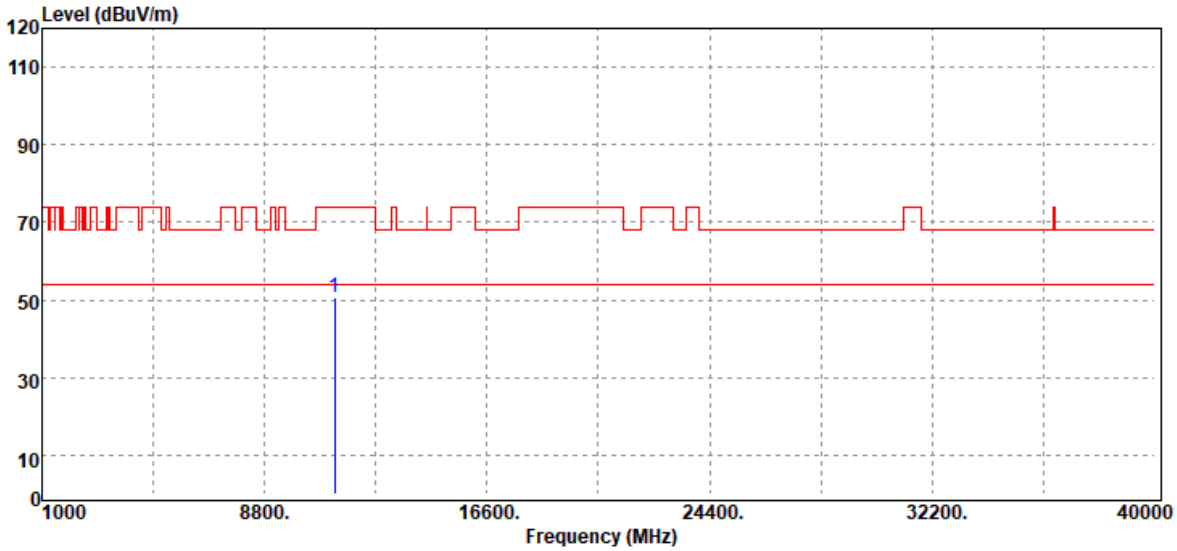
***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5630 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

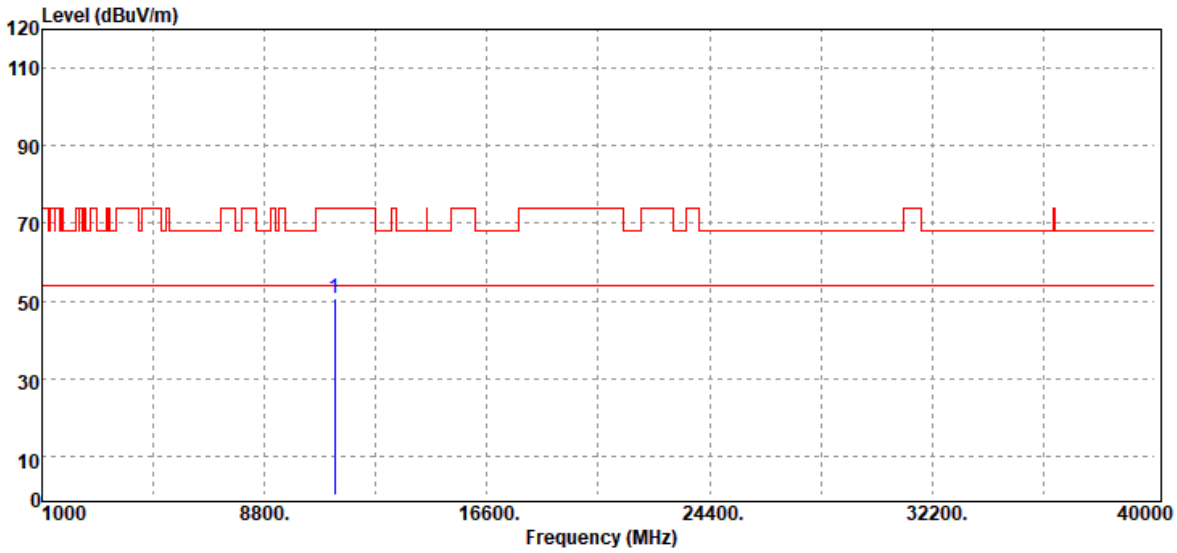



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11260.00 | Peak | 33.93 | 16.58 | 50.51 | 74.00 | -23.49 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5630 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

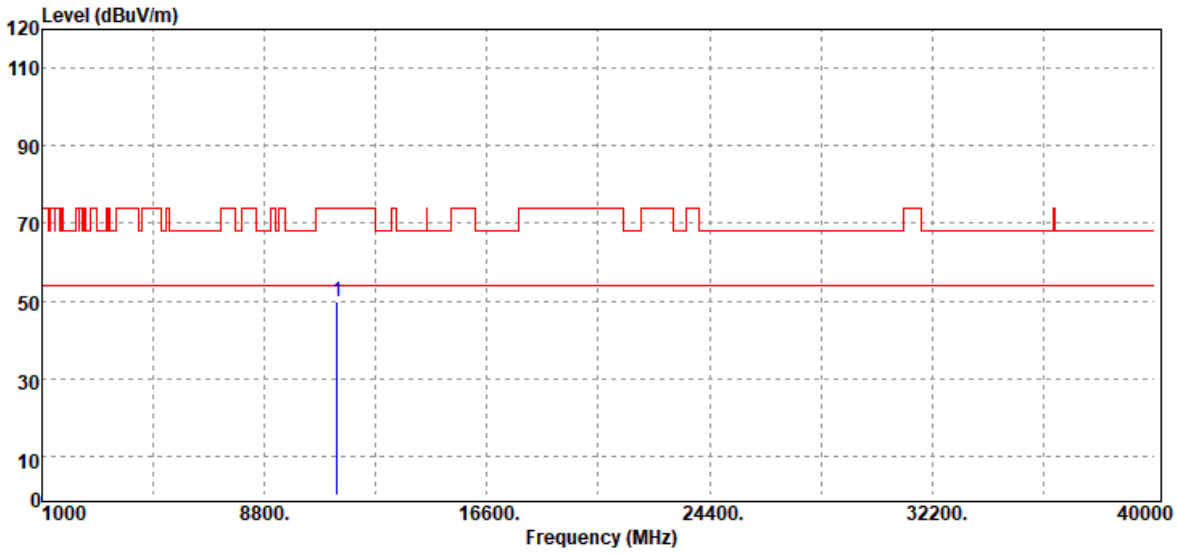



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11260.00 | Peak | 34.03 | 16.58 | 50.61 | 74.00 | -23.39 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5670 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

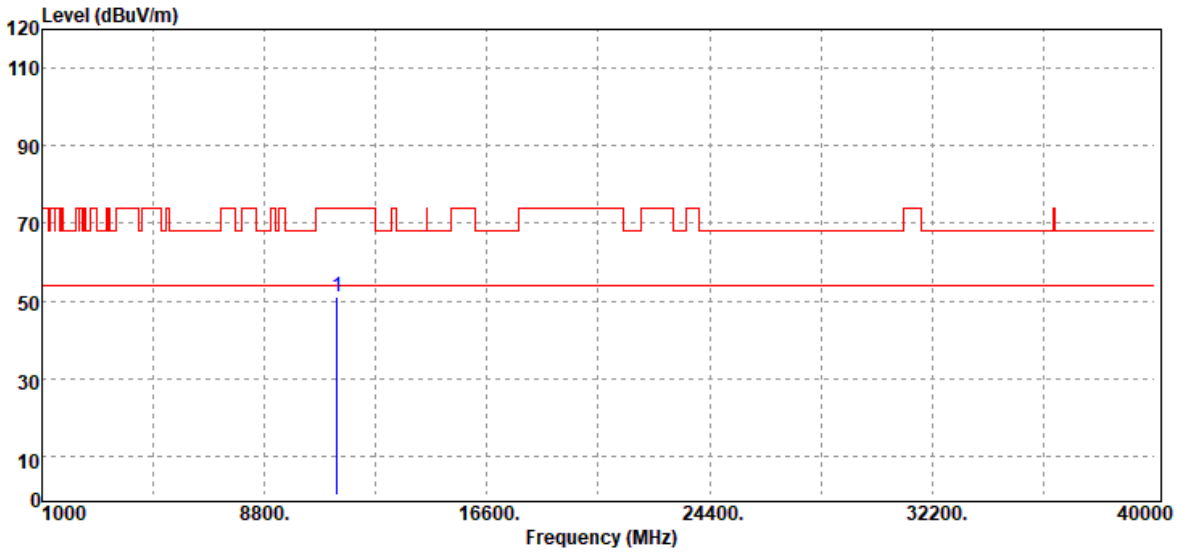



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11340.00 | Peak | 33.56 | 16.43 | 49.99 | 74.00 | -24.01 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz / 5670 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |



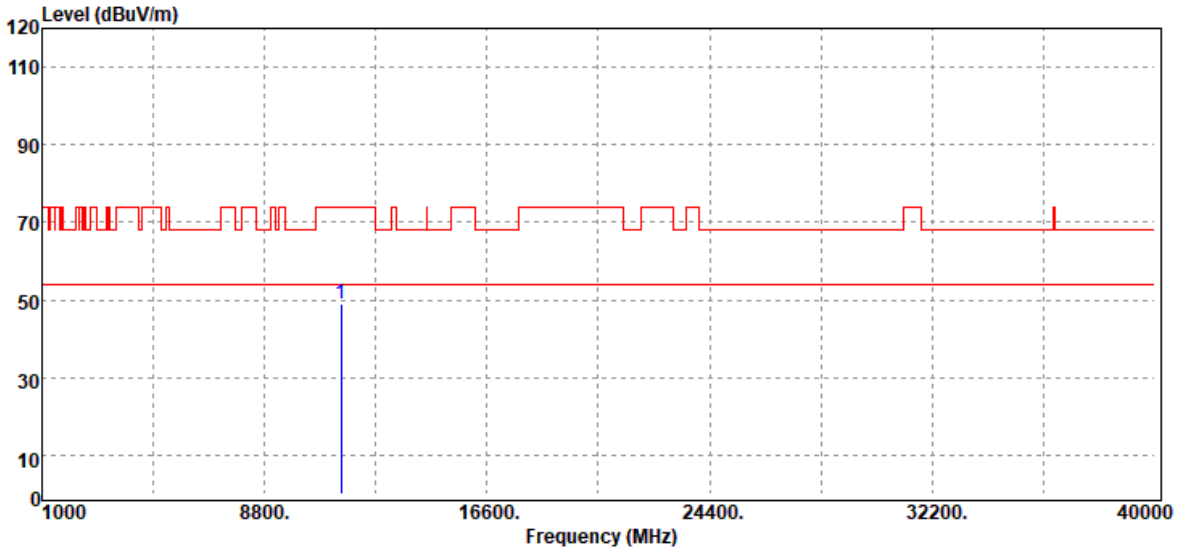

| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11340.00 | Peak | 34.61 | 16.43 | 51.04 | 74.00 | -22.96 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

## Test Data for UNII-3

| Test Mode | IEEE 802.11a / 5745 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

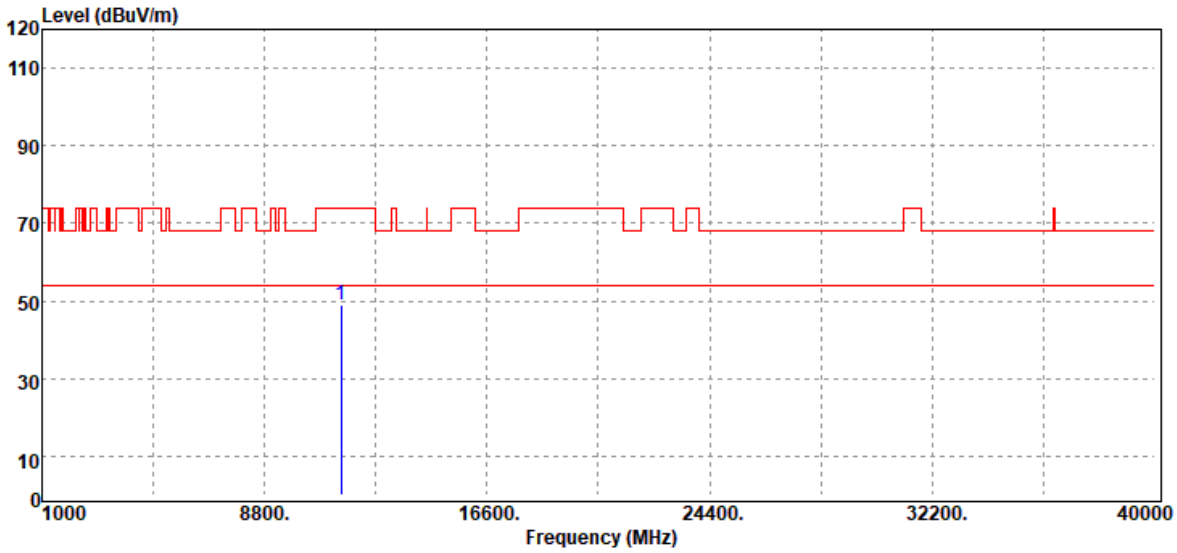



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11490.00 | Peak | 33.08 | 16.01 | 49.09 | 74.00 | -24.91 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5745 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

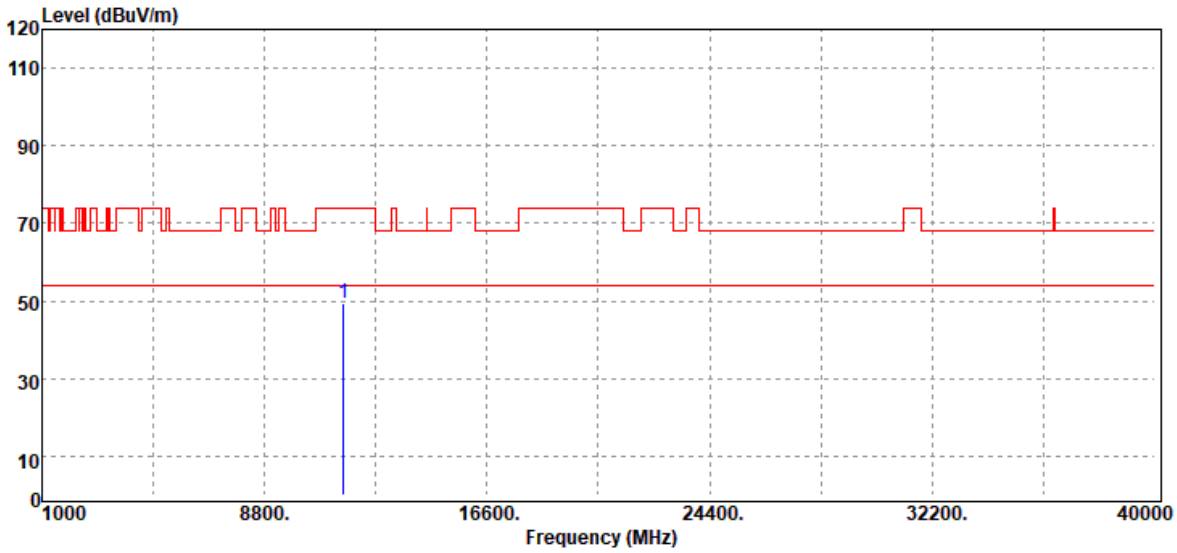



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11490.00 | Peak | 32.96 | 16.01 | 48.97 | 74.00 | -25.03 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5785 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

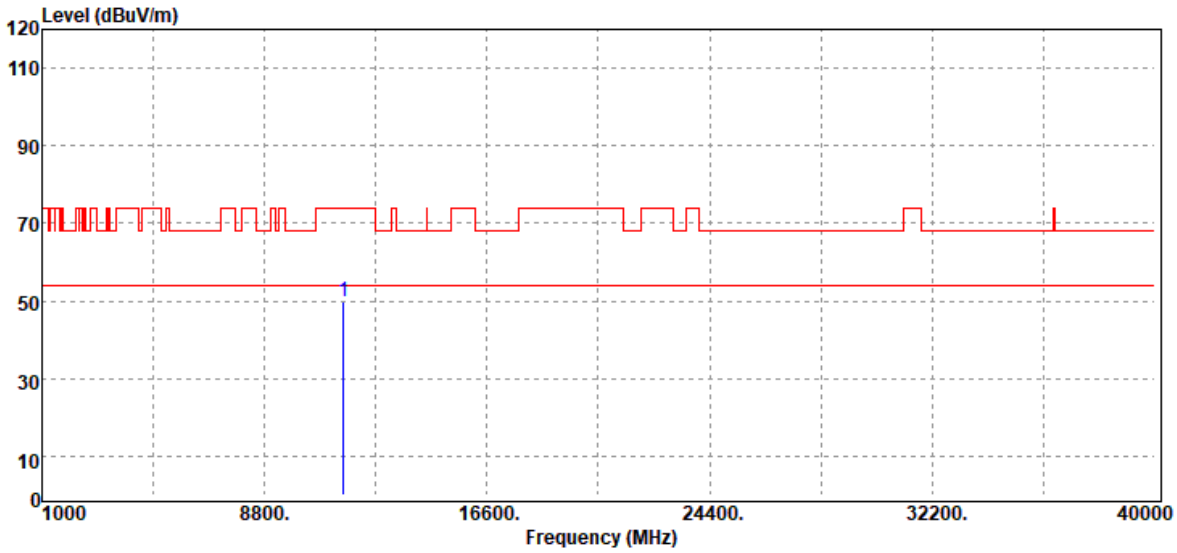



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11570.00 | Peak | 33.30 | 16.08 | 49.38 | 74.00 | -24.62 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5785 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11570.00 | Peak | 33.63 | 16.08 | 49.71 | 74.00 | -24.29 |
| N/A | | | | | | |
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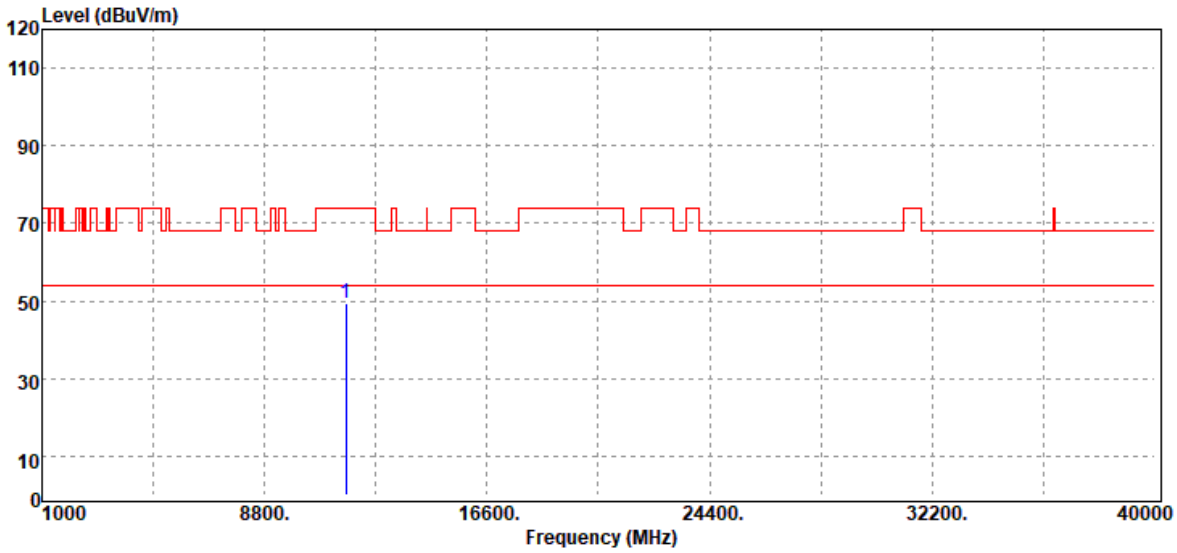
***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5825 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

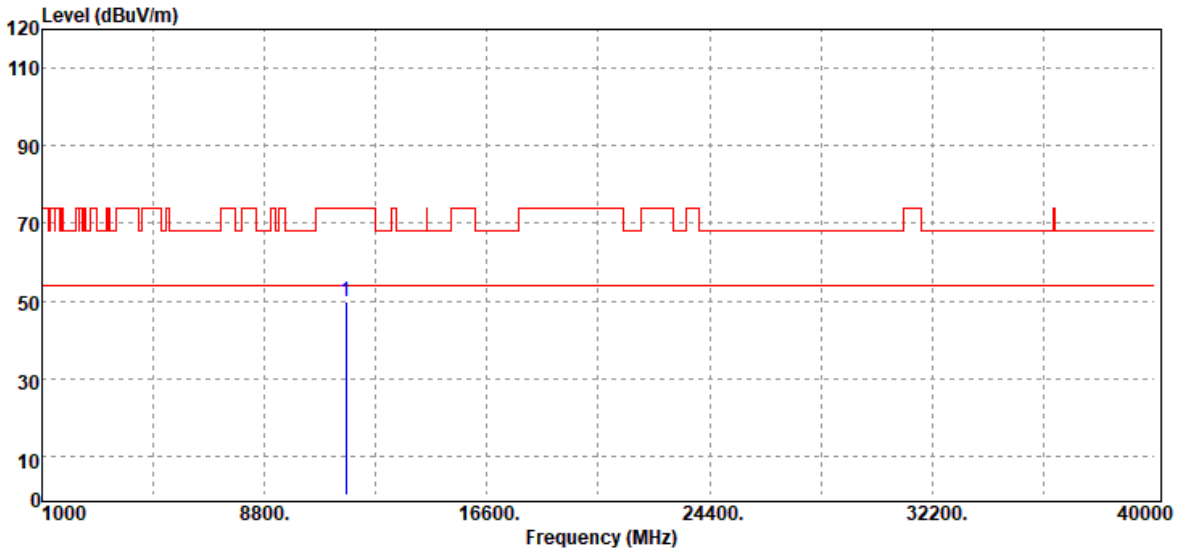



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11650.00 | Peak | 33.55 | 16.06 | 49.61 | 74.00 | -24.39 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11a / 5825 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

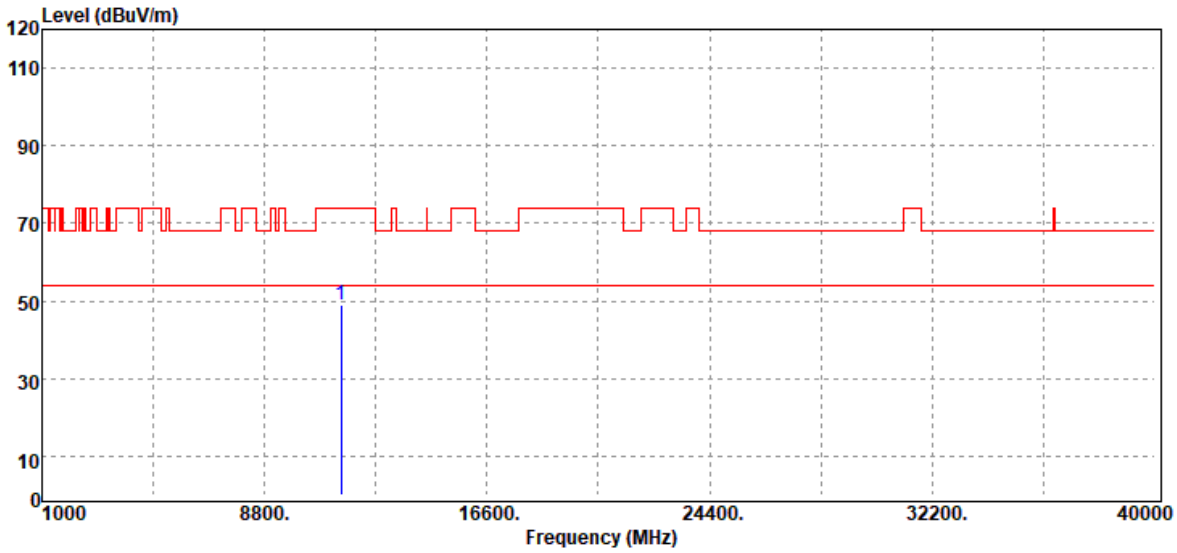



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11650.00 | Peak | 33.72 | 16.06 | 49.78 | 74.00 | -24.22 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5745 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

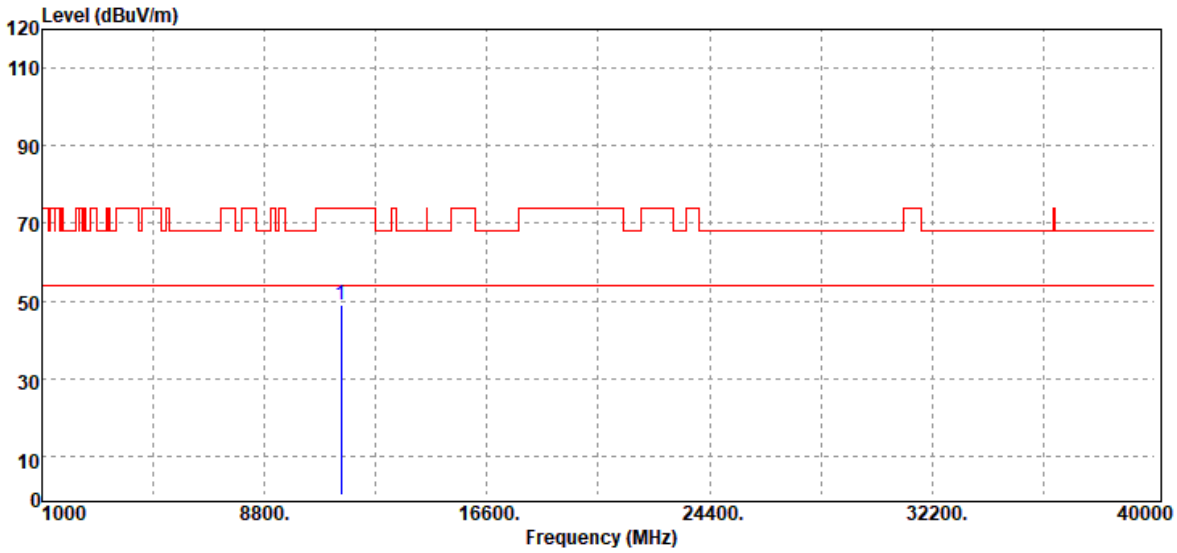



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11490.00 | Peak | 33.12 | 16.01 | 49.13 | 74.00 | -24.87 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz / 5745 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

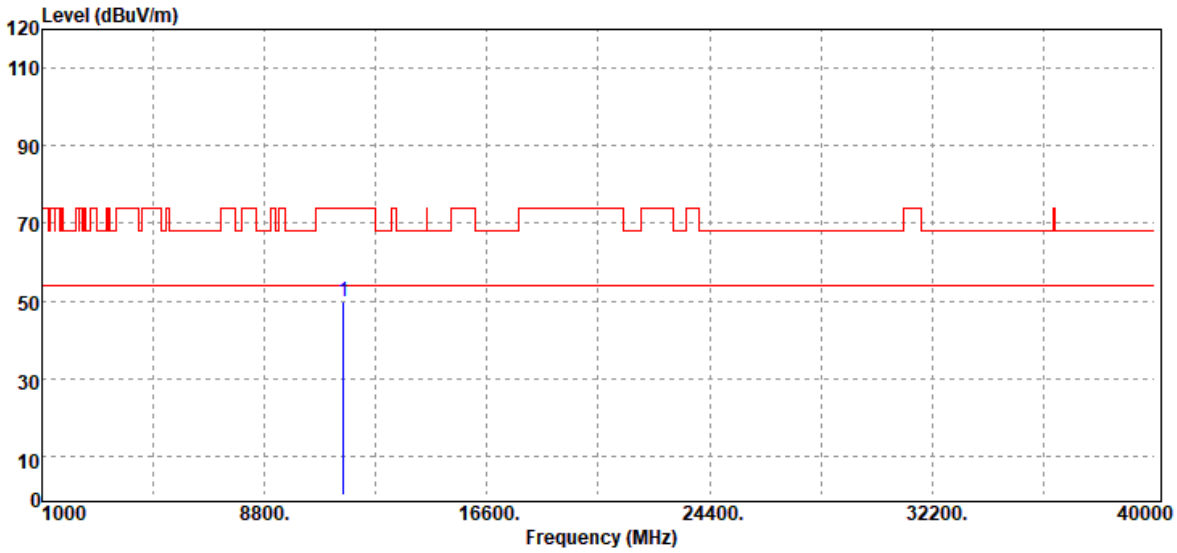



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11490.00 | Peak | 33.04 | 16.01 | 49.05 | 74.00 | -24.95 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz/ 5785 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

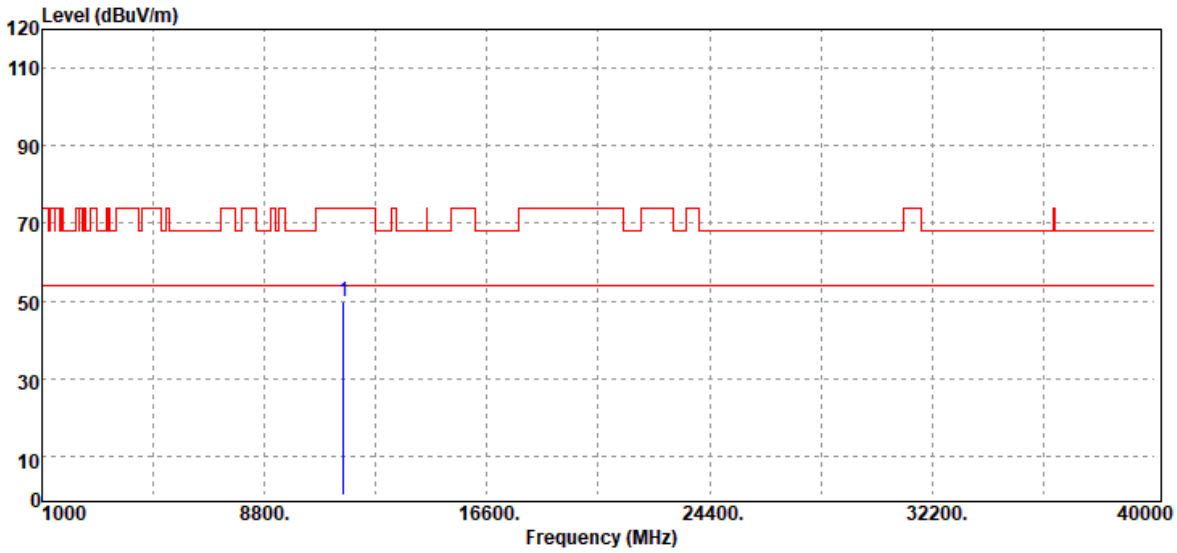



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11570.00 | Peak | 33.69 | 16.08 | 49.77 | 74.00 | -24.23 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz/ 5785 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

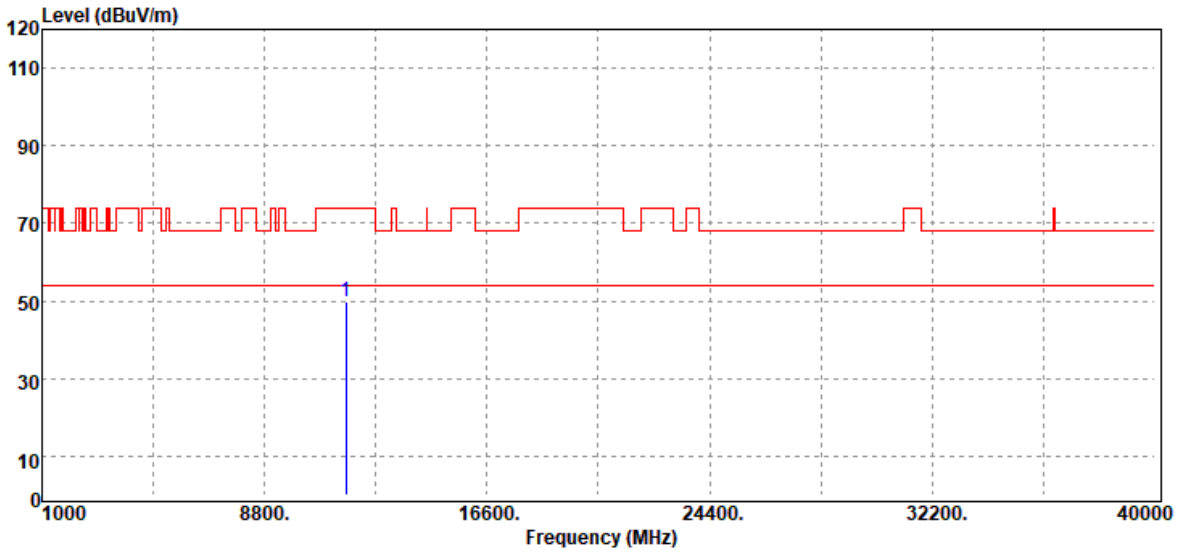



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11570.00 | Peak | 33.62 | 16.08 | 49.70 | 74.00 | -24.30 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz/ 5825 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

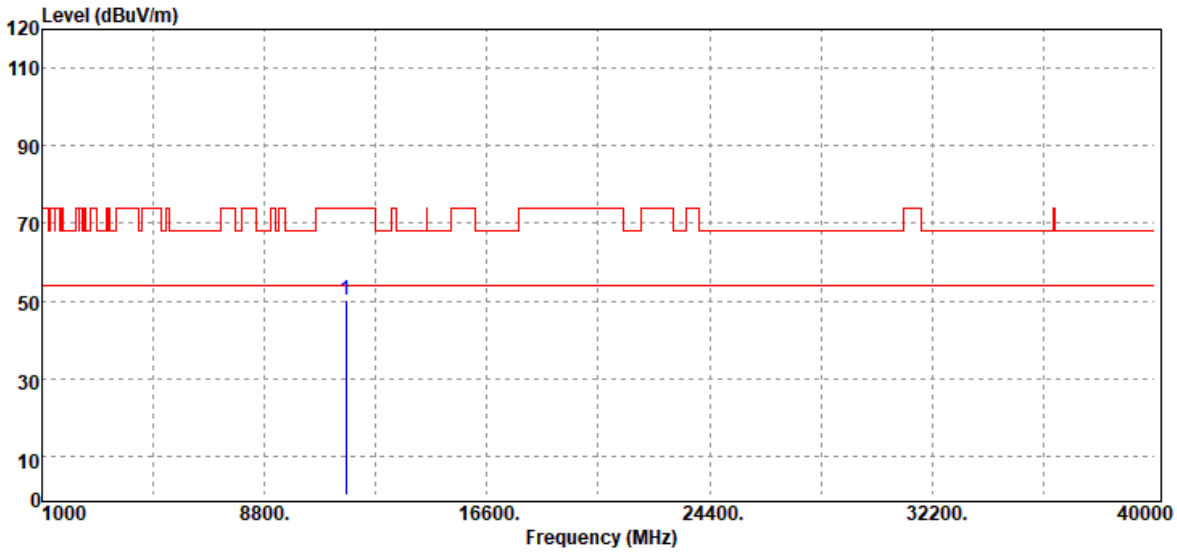



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11650.00 | Peak | 33.92 | 16.06 | 49.98 | 74.00 | -24.02 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 20 MHz/ 5825 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

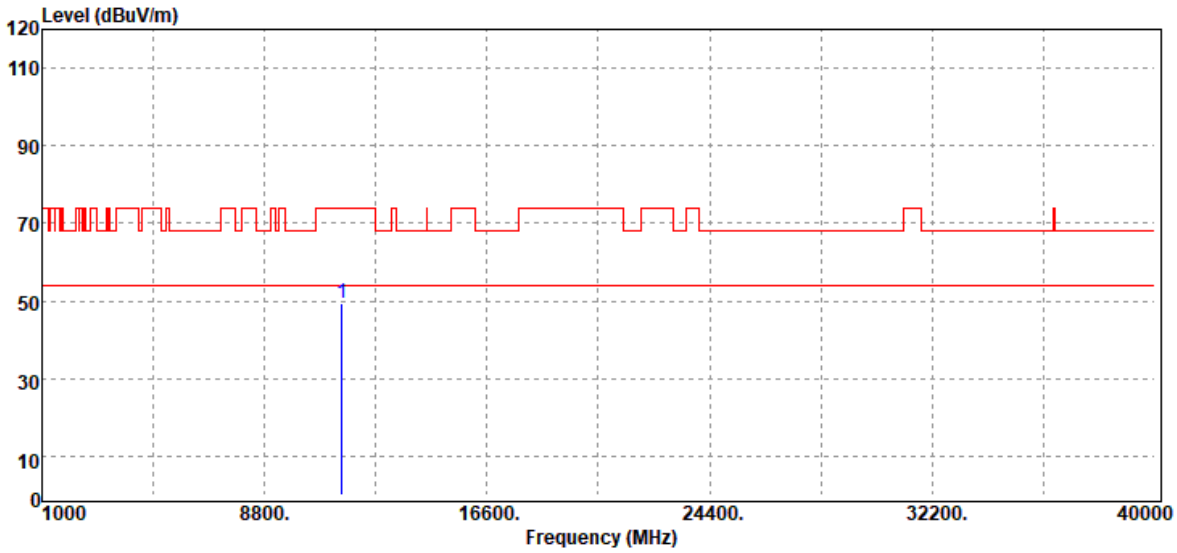



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11650.00 | Peak | 34.38 | 16.06 | 50.44 | 74.00 | -23.56 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz/ 5755 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

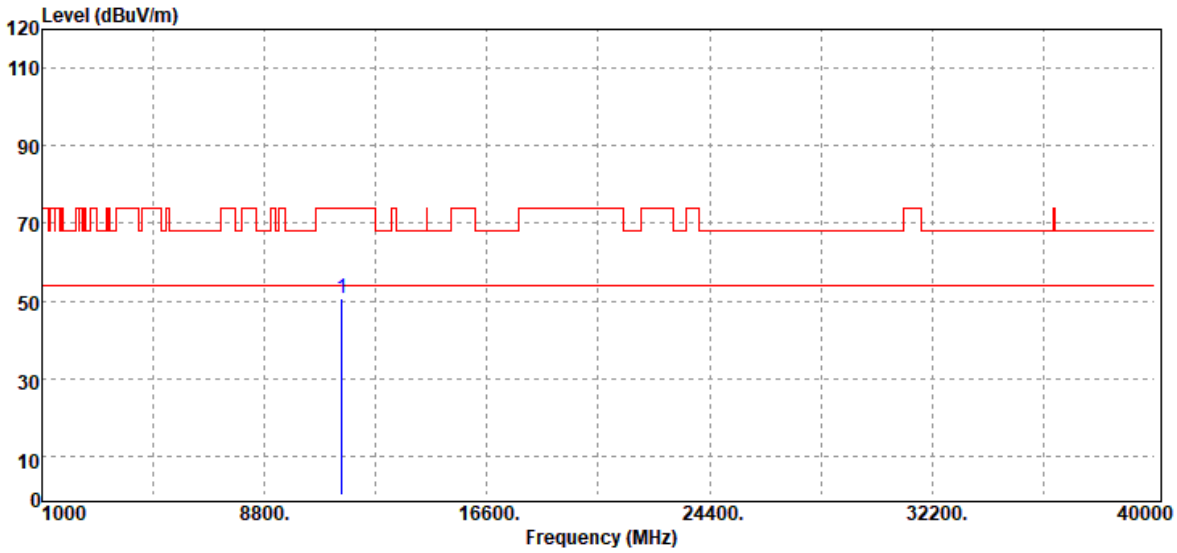



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11510.00 | Peak | 33.59 | 16.01 | 49.60 | 74.00 | -24.40 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz/ 5755 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |

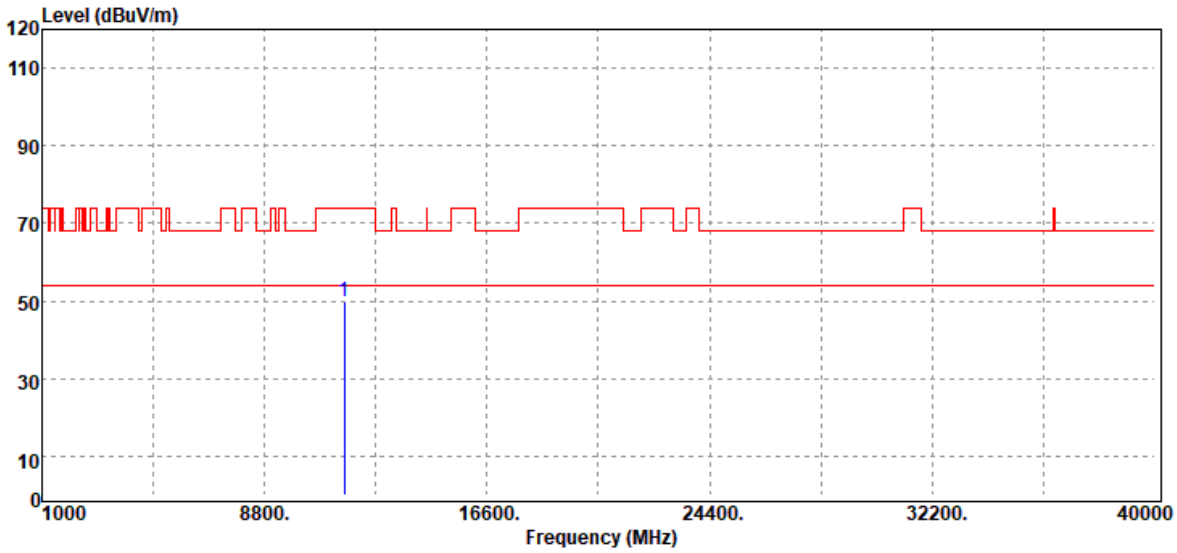



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11510.00 | Peak | 34.47 | 16.01 | 50.48 | 74.00 | -23.52 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz/ 5795 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Vertical | Test Engineer | Jerry Chang |
| Detector | Peak | | |

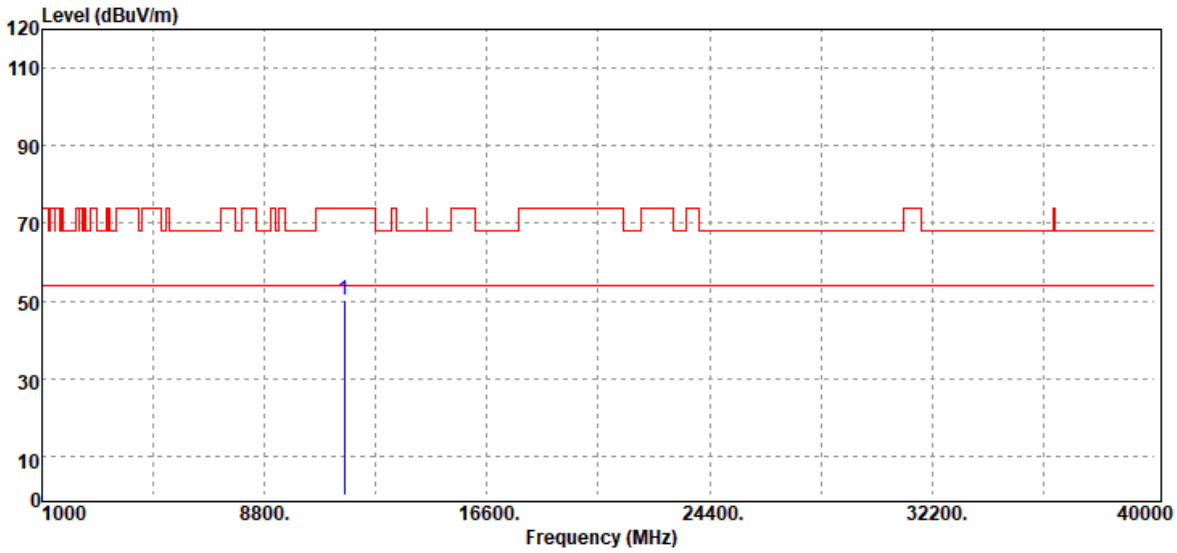



| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11590.00 | Peak | 33.68 | 16.02 | 49.70 | 74.00 | -24.30 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

| Test Mode | IEEE 802.11n 40 MHz/ 5795 MHz | Temp/Hum | 23.5(℃)/ 43%RH |
|---|---|---|---|
| Test Item | Harmonic | Test Date | May 12, 2020 |
| Polarize | Horizontal | Test Engineer | Jerry Chang |
| Detector | Peak | | |




| Freq. MHz | Detector Mode PK/QP/AV | Spectrum Reading Level dBµV | Factor dB | Actual FS dBµV/m | Limit @3m dBµV/m | Margin dB |
|---|---|---|---|---|---|---|
| 11590.00 | Peak | 34.43 | 16.02 | 50.45 | 74.00 | -23.55 |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

***Remark:***

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit*

# 4.6 FREQUENCY STABILITY

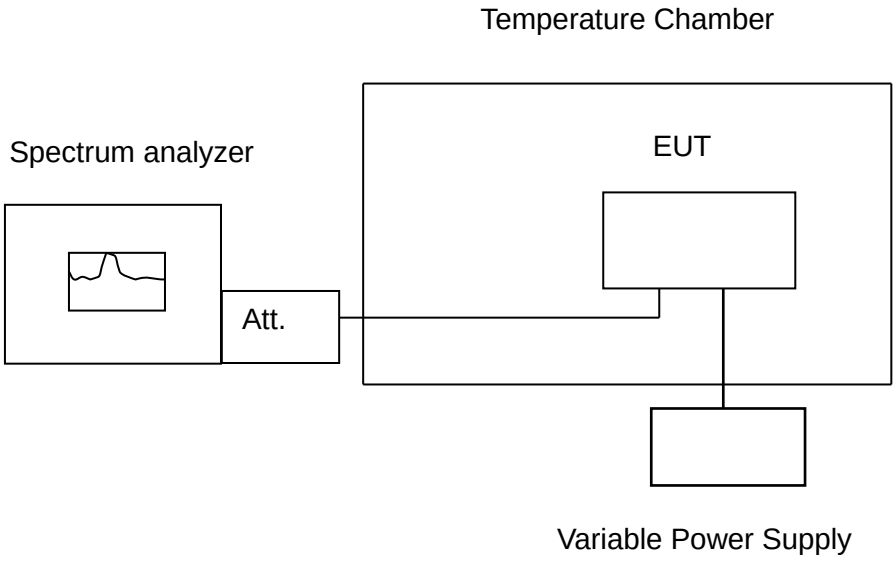
## 4.6.1 Test Limit

According to RSS-Gen(6.11) manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the operational description.

## 4.6.2 Test Procedure

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to 0°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +40°C reached.

## 4.6.3 Test Setup



## 4.6.4 Test Result

| Temp. (°C) | Voltage (V) | Measured Frequency | 5180 | | (MHz) | Limit | | | | Result |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Time (min) | | | | 20ppm | | | | |
| Operating Frequency: | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | |
| 40 | 12 | 5180.02779 | 5180.02779 | 5180.02996 | 5180.02996 | 5.3649 | 5.3649 | 5.7838 | 5.7838 | Pass |
| 30 | 12 | 5180.02648 | 5180.02779 | 5180.02996 | 5180.02996 | 5.1120 | 5.3649 | 5.7838 | 5.7838 | Pass |
| 20 | 12 | 5180.01910 | 5180.01910 | 5180.01301 | 5180.02431 | 3.6873 | 3.6873 | 2.5116 | 4.6931 | Pass |
| 10 | 12 | 5180.02431 | 5180.02431 | 5180.01910 | 5180.02431 | 4.6931 | 4.6931 | 3.6873 | 4.6931 | Pass |
| 0 | 12 | 5180.03517 | 5180.03603 | 5180.03690 | 5180.03734 | 6.7896 | 6.9556 | 7.1236 | 7.2085 | Pass |
| Temp. (°C) | Voltage (V) | Measured Frequency | 5180 | | (MHz) | Limit | | | | Result |
| | | Time (min) | | | | 20ppm | | | | |
| Operating Frequency: | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | |
| 25 | 10.8 | 5180.01910 | 5180.01910 | 5180.01301 | 5180.02431 | 3.6873 | 3.6873 | 2.5116 | 4.6931 | Pass |
| 25 | 12 | 5180.02431 | 5180.01910 | 5180.01910 | 5180.01301 | 4.6931 | 3.6873 | 3.6873 | 2.5116 | Pass |
| 25 | 13.2 | 5180.02431 | 5180.02431 | 5180.02779 | 5180.02431 | 4.6931 | 4.6931 | 5.3649 | 4.6931 | Pass |

| Temp. (°C) | Voltage (V) | Measured Frequency | 5260 | | (MHz) | Limit | | | | Result |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Time (min) | | | | 20ppm | | | | |
| Operating Frequency: | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | |
| 40 | 12 | 5260.00564 | 5260.00564 | 5260.00521 | 5260.00564 | 1.0722 | 1.0722 | 0.9905 | 1.0722 | Pass |
| 30 | 12 | 5260.00521 | 5260.00521 | 5260.00521 | 5260.00521 | 0.9905 | 0.9905 | 0.9905 | 0.9905 | Pass |
| 20 | 12 | 5260.01606 | 5260.01606 | 5260.01606 | 5260.01606 | 3.0532 | 3.0532 | 3.0532 | 3.0532 | Pass |
| 10 | 12 | 5260.02214 | 5260.02084 | 5260.02041 | 5260.01997 | 4.2091 | 3.9620 | 3.8802 | 3.7966 | Pass |
| 0 | 12 | 5260.02301 | 5260.02301 | 5260.02301 | 5260.02301 | 4.3745 | 4.3745 | 4.3745 | 4.3745 | Pass |
| Temp. (°C) | Voltage (V) | Measured Frequency | 5260 | | (MHz) | Limit | | | | Result |
| | | Time (min) | | | | 20ppm | | | | |
| Operating Frequency: | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | |
| 25 | 10.8 | 5260.01433 | 5260.01433 | 5260.01476 | 5260.01476 | 2.7243 | 2.7243 | 2.8061 | 2.8061 | Pass |
| 25 | 12 | 5260.01606 | 5260.01606 | 5260.01606 | 5260.01563 | 3.0532 | 3.0532 | 3.0532 | 2.9715 | Pass |
| 25 | 13.2 | 5260.01563 | 5260.01520 | 5260.01476 | 5260.01476 | 2.9715 | 2.8897 | 2.8061 | 2.8061 | Pass |

| Temp. (ºC) | Voltage (V) | Measured Frequency | 5500 | | (MHz) | Limit | | | | Result |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Time (min) | | | | 20ppm | | | | |
| Operating Frequency: | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | |
| 40 | 12 | 5499.99653 | 5499.99696 | 5499.99740 | 5499.99783 | -0.6309 | -0.5527 | -0.4727 | -0.3945 | Pass |
| 30 | 12 | 5499.99479 | 5499.99479 | 5499.99479 | 5499.99522 | -0.9473 | -0.9473 | -0.9473 | -0.8691 | Pass |
| 20 | 12 | 5500.00087 | 5500.00000 | 5499.99957 | 5499.99987 | 0.1582 | 0.0000 | -0.0782 | -0.0236 | Pass |
| 10 | 12 | 5500.00129 | 5500.00608 | 5500.00478 | 5500.00347 | 0.2345 | 1.1055 | 0.8691 | 0.6309 | Pass |
| 0 | 12 | 5500.00825 | 5500.00781 | 5500.00695 | 5500.00608 | 1.5000 | 1.4200 | 1.2636 | 1.1055 | Pass |
| Temp. (ºC) | Voltage (V) | Measured Frequency | 5500 | | (MHz) | Limit | | | | Result |
| | | Time (min) | | | | 20ppm | | | | |
| Operating Frequency: | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | |
| 25 | 10.8 | 5500.00087 | 5500.00087 | 5499.99957 | 5499.99987 | 0.1582 | 0.1582 | -0.0782 | -0.0236 | Pass |
| 25 | 12 | 5499.99957 | 5499.99957 | 5500.00087 | 5499.99957 | -0.0782 | -0.0782 | 0.1582 | -0.0782 | Pass |
| 25 | 13.2 | 5499.99987 | 5499.99987 | 5499.99987 | 5499.99957 | -0.0236 | -0.0236 | -0.0236 | -0.0782 | Pass |

| Temp. (ºC) | Voltage (V) | Measured Frequency | 5745 | | (MHz) | Limit | | | | Result |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Time (min) | | | | 20ppm | | | | |
| Operating Frequency: | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | |
| 40 | 12 | 5744.99653 | 5744.99783 | 5744.99870 | 5745.00043 | -0.6040 | -0.3777 | -0.2263 | 0.0748 | Pass |
| 30 | 12 | 5744.99522 | 5744.99566 | 5744.99566 | 5744.99609 | -0.8320 | -0.7554 | -0.7554 | -0.6806 | Pass |
| 20 | 12 | 5744.99783 | 5744.99740 | 5744.99696 | 5744.99696 | -0.3777 | -0.4526 | -0.5292 | -0.5292 | Pass |
| 10 | 12 | 5745.00478 | 5745.00478 | 5745.00434 | 5745.00391 | 0.8320 | 0.8320 | 0.7554 | 0.6806 | Pass |
| 0 | 12 | 5745.01172 | 5745.00825 | 5745.00695 | 5745.00651 | 2.0400 | 1.4360 | 1.2097 | 1.1332 | Pass |
| Temp. (ºC) | Voltage (V) | Measured Frequency | 5745 | | (MHz) | Limit | | | | Result |
| | | Time (min) | | | | 20ppm | | | | |
| Operating Frequency: | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | |
| 25 | 10.8 | 5744.99653 | 5744.99653 | 5744.99609 | 5744.99609 | -0.6040 | -0.6040 | -0.6806 | -0.6806 | Pass |
| 25 | 12 | 5744.99609 | 5744.99609 | 5744.99609 | 5744.99566 | -0.6806 | -0.6806 | -0.6806 | -0.7554 | Pass |
| 25 | 13.2 | 5744.99522 | 5744.99522 | 5744.99522 | 5744.99609 | -0.8320 | -0.8320 | -0.8320 | -0.6806 | Pass |

**- End of Test Report -**