



FCC TEST REPORT

**Test report
On Behalf of
IDEA ELECTRONICS INC
For
Pico Projector
Model No.: P100B, P100C, P100D, P100E, P100F
FCC ID: 2AIZY19MP-01**

Prepared for : IDEA ELECTRONICS INC
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Date of Test: Jun. 27, 2019 ~ Jul. 04, 2019

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Report Number: HK1907041549-4E



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1. Test Result Summary

1.1. TEST PROCEDURES AND RESULTS

| Requirement | CFR 47 Section | Result |
|--|----------------|--------|
| Antenna requirement | §15.203 | PASS |
| AC Power Line Conducted Emission | §15.207 | PASS |
| Maximum Conducted Output Power | §15.407(a) | PASS |
| 6dB Emission Bandwidth | §15.407(e) | PASS |
| 26dB Emission Bandwidth & 99% Occupied Bandwidth | §15.407(a) | PASS |
| Power Spectral Density | §15.407(a) | PASS |
| Band edge | §15.407(b) | PASS |
| Radiated Emission | §15.407(b) | PASS |
| Frequency Stability | §15.407(g) | PASS |

Note:

1. PASS: Test item meets the requirement.
2. Fail: Test item does not meet the requirement.
3. N/A: Test case does not apply to the test object.
4. The test result judgment is decided by the limit of test standard.

1.2. TEST FACILITY

Test Firm : Shenzhen HUAKE Testing Technology Co., Ltd.

Address : 1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation Park, Fuhai Street, Bao'an District, Shenzhen City, China

Designation : CN1229
Number



1.3. Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

| No. | Item | MU |
|-----|-------------------------------|-------------------------|
| 1 | Conducted Emission | $\pm 2.56\text{dB}$ |
| 2 | RF power, conducted | $\pm 0.12\text{dB}$ |
| 3 | Spurious emissions, conducted | $\pm 0.11\text{dB}$ |
| 4 | All emissions, radiated(<1G) | $\pm 3.92\text{dB}$ |
| 5 | All emissions, radiated(>1G) | $\pm 4.28\text{dB}$ |
| 6 | Temperature | $\pm 0.1^\circ\text{C}$ |
| 7 | Humidity | $\pm 1.0\%$ |



2. EUT Description

2.1. GENERAL DESCRIPTION OF EUT

| | |
|------------------------|---|
| Equipment | Pico Projector |
| Model Name | P100B |
| Serial Model | P100C, P100D, P100E, P100F |
| Trade Mark | IDeaPLAY, Atomicx |
| Model Difference | All model's the function, software and electric circuit are the same, only with color, model named and trade mark different. So test sample model: P100B. |
| Operation Frequency: | IEEE 802.11a/n/ac(HT20): 5.180GHz-5.240GHz, 5745MHz-5825MHz IEEE 802.11n/ac(HT40): 5.190GHz-5.230GHz, 5755MHz-5795MHz IEEE 802.11ac(HT80): 5.210GHz, 5775MHz |
| Modulation Technology: | IEEE 802.11a/n/ac |
| Modulation Type | CCK/OFDM/DBPSK/DAPSK |
| Antenna Type | Internal Antenna |
| Antenna Gain | Antenna 1:1dBi Antenna 2:1dBi MIMO: 4.01dBi |
| Power Source | DC 5A from micro USB or DC 3.7V From Battery |
| Power Supply: | DC 5A from micro USB or DC 3.7V From Battery |
| Note: | The EUT incorporates a MIMO function. Physically, it provides two completed transmitters and receivers(2T2R), two transmit signals are completely correlated, then, Direction gain= $G_{ANT}+10*\log(2)$ dBi. |



2.2. Operation Frequency each of channel

| 802.11a/802.11n(HT20) 802.11ac(HT20) | | 802.11n(HT40)/ 802.11ac(HT40) | | 802.11ac(HT80) | |
|---|-----------|----------------------------------|-----------|----------------|-----------|
| Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 36 | 5180 | 38 | 5190 | 42 | 5210 |
| 40 | 5200 | 46 | 5230 | | |
| 44 | 5220 | | | | |
| 48 | 5240 | | | | |

| 802.11a/802.11n(HT20) 802.11ac(HT20) | | 802.11n(HT40)/ 802.11ac(HT40) | | 802.11ac(HT80) | |
|---|-----------|----------------------------------|-----------|----------------|-----------|
| Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 149 | 5745 | 151 | 5755 | 155 | 5775 |
| 153 | 5765 | 159 | 5795 | | |
| 157 | 5785 | | | | |
| 161 | 5805 | | | | |
| 165 | 5825 | | | | |

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

2.3. Operation of EUT during testing

For 802.11a/n (HT20)/ac(HT20)

| Band 1 (5150 - 5250 MHz) | | |
|--------------------------|---------|-----------------|
| Channel Number | Channel | Frequency (MHz) |
| 36 | Low | 5180 |
| 40 | Mid | 5200 |
| 48 | High | 5240 |

| Band 3 (5725 - 5850 MHz) | | |
|--------------------------|---------|-----------------|
| Channel Number | Channel | Frequency (MHz) |
| 149 | Low | 5745 |
| 157 | Mid | 5785 |
| 165 | High | 5825 |



For 802.11n (HT40)/ ac(HT40)

| Band 1 (5150 - 5250 MHz) | | |
|--------------------------|---------|-----------------|
| Channel Number | Channel | Frequency (MHz) |
| 38 | Low | 5190 |
| 46 | High | 5230 |

| Band 3 (5725 - 5850 MHz) | | |
|--------------------------|---------|-----------------|
| Channel Number | Channel | Frequency (MHz) |
| 151 | Low | 5755 |
| 159 | High | 5795 |

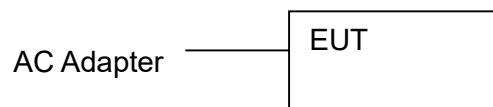
For 802.11ac(HT80)

| Band 1 (5150 - 5250 MHz) | |
|--------------------------|-----------------|
| Channel Number | Frequency (MHz) |
| 42 | 5210 |

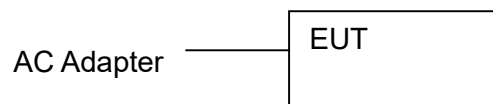
| Band 3 (5725 - 5850 MHz) | |
|--------------------------|-----------------|
| Channel Number | Frequency (MHz) |
| 155 | 5775 |

2.4. DESCRIPTION OF TEST SETUP

Operation of EUT during conducted testing and Radiation testing:



Operation of EUT during Above1GHz Radiation testing:





- Display information
N/A

- Adapter information
Model: JHD-AP013U-050240BB-A
Input: AC10-240V, 50-60Hz, 0.35A
Output: 5VDC, 2.4A



3. Genera Information

3.1. Test environment and mode

| Operating Environment: | |
|---|---|
| Temperature: | 25.0 °C |
| Humidity: | 56 % RH |
| Atmospheric Pressure: | 1010 mbar |
| Test Mode: | |
| Engineering mode: | Keep the EUT in continuous transmitting by select channel and modulations (The value of duty cycle is 100%) |
| <p>The sample was placed 0.8m/1.5m for blow/above 1GHz above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.</p> | |

| <p>We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:</p> | |
|---|--|
| Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case. | |
| Mode | Data rate |
| 802.11a | 6 Mbps |
| 802.11n(HT20) | MCS0 |
| 802.11n(HT40) | MCS0 |
| 802.11ac(HT20)/ac(HT40)/ac(HT80) | MCS0 |
| Final Test Mode: | |
| Operation mode: | Keep the EUT in continuous transmitting with modulations |



3.2. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| Equipment | Model No. | Serial No. | FCC ID | Trade Name |
|-----------|-----------|------------|--------|------------|
| / | / | / | / | / |

Note:

- 1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.*
- 2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.*
- 3. For conducted measurements (Output Power, Emission Bandwidth, Power Spectral Density, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.*



4. Test Results and Measurement Data

4.1. Conducted Emission

4.1.1. Test Specification

| Test Requirement: | FCC Part15 C Section 15.207 | | | | | | | | | | | | | | |
|--------------------------|---|-----------------------|--------------|--|------------|---------|----------|-----------|-----------|-------|----|----|------|----|----|
| Test Method: | ANSI C63.10:2013 | | | | | | | | | | | | | | |
| Frequency Range: | 150 kHz to 30 MHz | | | | | | | | | | | | | | |
| Receiver setup: | RBW=9 kHz, VBW=30 kHz, Sweep time=auto | | | | | | | | | | | | | | |
| Limits: | <table border="1"> <thead> <tr> <th rowspan="2">Frequency range (MHz)</th> <th colspan="2">Limit (dBuV)</th> </tr> <tr> <th>Quasi-peak</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>0.15-0.5</td> <td>66 to 56*</td> <td>56 to 46*</td> </tr> <tr> <td>0.5-5</td> <td>56</td> <td>46</td> </tr> <tr> <td>5-30</td> <td>60</td> <td>50</td> </tr> </tbody> </table> | Frequency range (MHz) | Limit (dBuV) | | Quasi-peak | Average | 0.15-0.5 | 66 to 56* | 56 to 46* | 0.5-5 | 56 | 46 | 5-30 | 60 | 50 |
| Frequency range (MHz) | Limit (dBuV) | | | | | | | | | | | | | | |
| | Quasi-peak | Average | | | | | | | | | | | | | |
| 0.15-0.5 | 66 to 56* | 56 to 46* | | | | | | | | | | | | | |
| 0.5-5 | 56 | 46 | | | | | | | | | | | | | |
| 5-30 | 60 | 50 | | | | | | | | | | | | | |
| Test Setup: | <p style="text-align: center;">Reference Plane</p> <p>40cm 80cm</p> <p>E.U.T AC power LISN Filter AC power</p> <p>EMI Receiver</p> <p>Test table/Insulation plane</p> <p><i>Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</i></p> | | | | | | | | | | | | | | |
| Test Mode: | Tx Mode | | | | | | | | | | | | | | |
| Test Procedure: | <ol style="list-style-type: none"> 1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement. | | | | | | | | | | | | | | |
| Test Result: | PASS | | | | | | | | | | | | | | |



4.1.2. Test Instruments

| Conducted Emission Shielding Room Test Site (843) | | | | |
|---|--------------|--------------------|---------------|-----------------|
| Equipment | Manufacturer | Model | Serial Number | Calibration Due |
| Receiver | R&S | ESCI 7 | HKE-010 | Dec. 27, 2019 |
| LISN | R&S | ENV216 | HKE-002 | Dec. 27, 2019 |
| Coax cable (9KHz-30MHz) | Times | 381806-002 | N/A | Dec. 27, 2019 |
| Conducted test software | Tonscend | TS+ Rev 2.5.0.0 | HKE-081 | N/A |

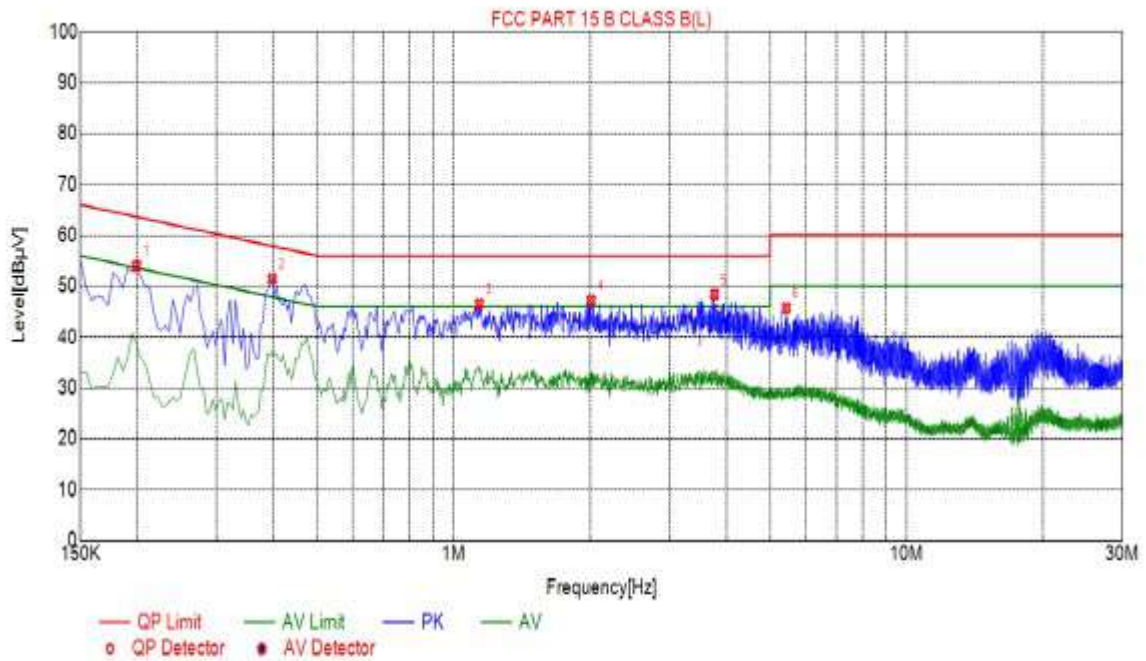
Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).



4.1.3. Test data

All the test modes completed for test. only the worst result of AC120V/60Hz(802.11a at 5180MHz) was reported as below:

Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz)

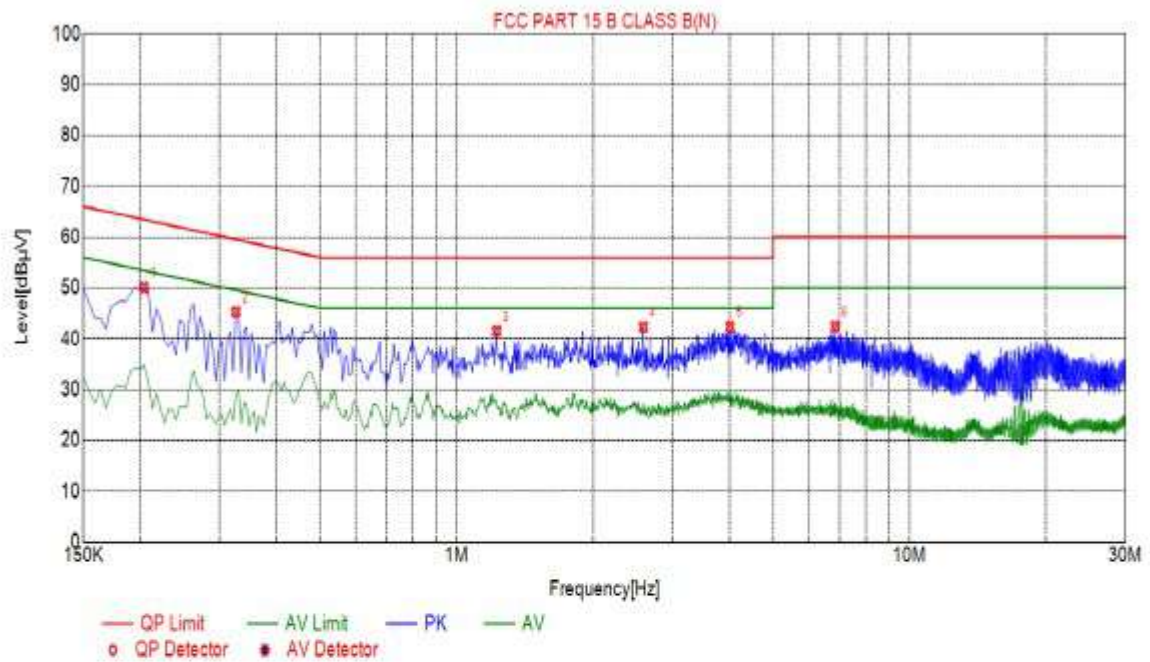


| Suspected List | | | | | | |
|----------------|-------------|--------------|-------------|--------------|-------------|----------|
| NO. | Freq. [MHz] | Level [dBµV] | Factor [dB] | Limit [dBµV] | Margin [dB] | Detector |
| 1 | 0.1995 | 54.01 | 10.03 | 63.63 | 9.62 | PK |
| 2 | 0.3975 | 51.43 | 10.04 | 57.91 | 6.48 | PK |
| 3 | 1.1400 | 46.50 | 10.09 | 56.00 | 9.50 | PK |
| 4 | 2.0130 | 47.21 | 10.15 | 56.00 | 8.79 | PK |
| 5 | 3.7680 | 48.37 | 10.25 | 56.00 | 7.63 | PK |
| 6 | 5.4265 | 45.74 | 10.26 | 60.00 | 14.26 | PK |

Remark: Factor = Cable lose + LISN factor; Margin = Limit – Level



Conducted Emission on Neutral Terminal of the power line (150 kHz to 30MHz)



| Suspected List | | | | | | |
|----------------|-------------|--------------|-------------|--------------|-------------|----------|
| NO. | Freq. [MHz] | Level [dBµV] | Factor [dB] | Limit [dBµV] | Margin [dB] | Detector |
| 1 | 0.2040 | 50.06 | 10.04 | 63.45 | 13.39 | PK |
| 2 | 0.3255 | 45.25 | 10.05 | 59.57 | 14.32 | PK |
| 3 | 1.2255 | 41.51 | 10.09 | 56.00 | 14.49 | PK |
| 4 | 2.5845 | 42.32 | 10.20 | 56.00 | 13.68 | PK |
| 5 | 4.0155 | 42.36 | 10.25 | 56.00 | 13.64 | PK |
| 6 | 6.8505 | 42.40 | 10.20 | 60.00 | 17.60 | PK |

Remark: Factor = Cable lose + LISN factor; Margin = Limit – Level



4.2. Maximum Conducted Output Power

4.2.1. Test Specification

| Test Requirement: | FCC Part15 E Section 15.407(a) | | | | | | |
|--------------------------|---|----------------------|-------|-----------|--------------------------|-----------|-----|
| Test Method: | KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section E KDB662911 D01 Multiple Transmitter Output v02r01 | | | | | | |
| Limit: | <table border="1"> <thead> <tr> <th>Frequency Band (MHz)</th> <th>Limit</th> </tr> </thead> <tbody> <tr> <td>5150-5250</td> <td>250mW for client devices</td> </tr> <tr> <td>5725-5850</td> <td>1 W</td> </tr> </tbody> </table> | Frequency Band (MHz) | Limit | 5150-5250 | 250mW for client devices | 5725-5850 | 1 W |
| Frequency Band (MHz) | Limit | | | | | | |
| 5150-5250 | 250mW for client devices | | | | | | |
| 5725-5850 | 1 W | | | | | | |
| Test Setup: | <p>The diagram illustrates the test setup. On the left is a green rectangular device labeled 'Power meter'. A cable connects it to a small white square labeled 'Attenuator'. Another cable connects the attenuator to a yellow rectangular device labeled 'EUT' (Equipment Under Test).</p> | | | | | | |
| Test Mode: | Transmitting mode with modulation | | | | | | |
| Test Procedure: | <ol style="list-style-type: none"> 1. The testing follows the Measurement Procedure of KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section E, 3, a 2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement. 3. Set to the maximum power setting and enable the EUT transmit continuously. 5. Measure the conducted output power and record the results in the test report. | | | | | | |
| Test Result: | PASS | | | | | | |
| Remark: | <p>Conducted output power= measurement power +10log(1/x) X is duty cycle=1, so 10log(1/1)=0 Conducted output power= measurement power</p> | | | | | | |



4.2.2. Test Instruments

| RF Test Room | | | | |
|---------------------------|--------------|----------|---------------|-----------------|
| Equipment | Manufacturer | Model | Serial Number | Calibration Due |
| Spectrum analyzer | Agilent | N9020A | HKE-048 | Dec. 27, 2019 |
| Power meter | Agilent | E4419B | HKE-085 | Dec. 27, 2019 |
| Power Sensor | Agilent | E9300A | HKE-086 | Dec. 27, 2019 |
| RF cable | Times | 1-40G | HKE-034 | Dec. 27, 2019 |
| RF automatic control unit | Tonscend | JS0806-2 | HKE-060 | Dec. 27, 2019 |

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).



4.2.3. Test Data

| Configuration Band I (5150 - 5250 MHz) | | | | | | |
|---|--------------|--------------------------------------|----------------|------|-----------------|--------|
| Mode | Test channel | Maximum Conducted Output Power (dBm) | | | FCC Limit (dBm) | Result |
| | | Antenna port 1 | Antenna port 2 | MIMO | | |
| 11a | CH36 | 8.77 | 8.52 | / | 23.97 | PASS |
| 11a | CH40 | 8.24 | 8.54 | / | 23.97 | PASS |
| 11a | CH48 | 10.32 | 8.09 | / | 23.97 | PASS |
| 11n(HT20) | CH36 | 5.33 | 5.11 | 8.23 | 23.97 | PASS |
| 11n(HT20) | CH40 | 5.21 | 5.21 | 8.22 | 23.97 | PASS |
| 11n(HT20) | CH48 | 5.38 | 5.33 | 8.37 | 23.97 | PASS |
| 11n(HT40) | CH38 | 4.89 | 4.86 | 7.89 | 23.97 | PASS |
| 11n(HT40) | CH46 | 4.85 | 4.82 | 7.85 | 23.97 | PASS |
| 11ac(HT20) | CH36 | 4.45 | 4.41 | 7.44 | 23.97 | PASS |
| 11ac(HT20) | CH40 | 3.12 | 3.22 | 6.18 | 23.97 | PASS |
| 11ac(HT20) | CH48 | 3.05 | 3.14 | 6.11 | 23.97 | PASS |
| 11ac(HT40) | CH38 | 3.34 | 3.06 | 6.21 | 23.97 | PASS |
| 11ac(HT40) | CH46 | 3.27 | 3.25 | 6.27 | 23.97 | PASS |
| 11ac(HT80) | CH42 | 3.05 | 3.02 | 6.05 | 23.97 | PASS |

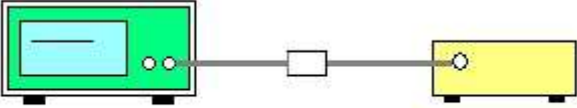


| Configuration Band 3 (5725 - 5850 MHz) | | | | | | |
|---|--------------|--------------------------------------|----------------|------|-----------------|--------|
| Mode | Test channel | Maximum Conducted Output Power (dBm) | | | FCC Limit (dBm) | Result |
| | | Antenna port 1 | Antenna port 2 | MIMO | | |
| 11a | CH149 | 8.12 | 8.04 | / | 30 | PASS |
| 11a | CH157 | 8.35 | 8.26 | / | 30 | PASS |
| 11a | CH165 | 8.45 | 8.33 | / | 30 | PASS |
| 11n(HT20) | CH149 | 5.14 | 5.13 | 8.15 | 30 | PASS |
| 11n(HT20) | CH157 | 5.07 | 5.06 | 8.08 | 30 | PASS |
| 11n(HT20) | CH165 | 5.11 | 5.22 | 8.18 | 30 | PASS |
| 11n(HT40) | CH151 | 4.34 | 4.43 | 7.40 | 30 | PASS |
| 11n(HT40) | CH159 | 4.26 | 4.66 | 7.47 | 30 | PASS |
| 11ac(HT20) | CH149 | 4.34 | 4.25 | 7.31 | 30 | PASS |
| 11ac(HT20) | CH157 | 3.01 | 3.07 | 6.05 | 30 | PASS |
| 11ac(HT20) | CH165 | 3.12 | 3.11 | 6.13 | 30 | PASS |
| 11ac(HT40) | CH151 | 3.06 | 3.03 | 6.06 | 30 | PASS |
| 11ac(HT40) | CH159 | 3.25 | 3.13 | 6.20 | 30 | PASS |
| 11ac(HT80) | CH155 | 3.06 | 3.04 | 6.06 | 30 | PASS |



4.3. 6dB Emission Bandwidth

4.3.1. Test Specification

| | |
|--------------------------|---|
| Test Requirement: | FCC CFR47 Part 15 Section 15.407(e) |
| Test Method: | KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Section C |
| Limit: | >500kHz |
| Test Setup: |  <p style="text-align: center;">Spectrum Analyzer EUT</p> |
| Test Mode: | Transmitting mode with modulation |
| Test Procedure: | <ol style="list-style-type: none"> 1. KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section C 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6dB bandwidth must be greater than 500 kHz. 4. Measure and record the results in the test report. |
| Test Result: | PASS |

4.3.2. Test Instruments

| RF Test Room | | | | |
|---------------------------|--------------|----------|---------------|-----------------|
| Equipment | Manufacturer | Model | Serial Number | Calibration Due |
| Spectrum analyzer | Agilent | N9020A | HKE-048 | Dec. 27, 2019 |
| RF cable | Times | 1-40G | HKE-034 | Dec. 27, 2019 |
| RF automatic control unit | Tonscend | JS0806-2 | HKE-060 | Dec. 27, 2019 |

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

4.3.3. Test data

**ANT 1**

| Band 3 (5725 - 5850 MHz) | | | | | |
|----------------------------------|--------------|-----------------|----------------------|-------------|--------|
| Mode | Test channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Limit (MHz) | Result |
| 11a | CH149 | 5745 | 16.51 | 0.5 | PASS |
| 11a | CH157 | 5785 | 16.52 | 0.5 | PASS |
| 11a | CH165 | 5825 | 16.52 | 0.5 | PASS |
| 11n(HT20) | CH149 | 5745 | 17.69 | 0.5 | PASS |
| 11n(HT20) | CH157 | 5785 | 17.65 | 0.5 | PASS |
| 11n(HT20) | CH165 | 5825 | 17.67 | 0.5 | PASS |
| 11n(HT40) | CH151 | 5755 | 36.44 | 0.5 | PASS |
| 11n(HT40) | CH159 | 5795 | 36.41 | 0.5 | PASS |
| 11ac(HT20) | CH149 | 5745 | 17.65 | 0.5 | PASS |
| 11ac(HT20) | CH157 | 5785 | 17.66 | 0.5 | PASS |
| 11ac(HT20) | CH165 | 5825 | 17.67 | 0.5 | PASS |
| 11ac(HT40) | CH151 | 5755 | 36.41 | 0.5 | PASS |
| 11ac(HT40) | CH159 | 5795 | 36.43 | 0.5 | PASS |
| 11ac(HT80) | CH155 | 5775 | 75.32 | 0.5 | PASS |

Test plots as follows:

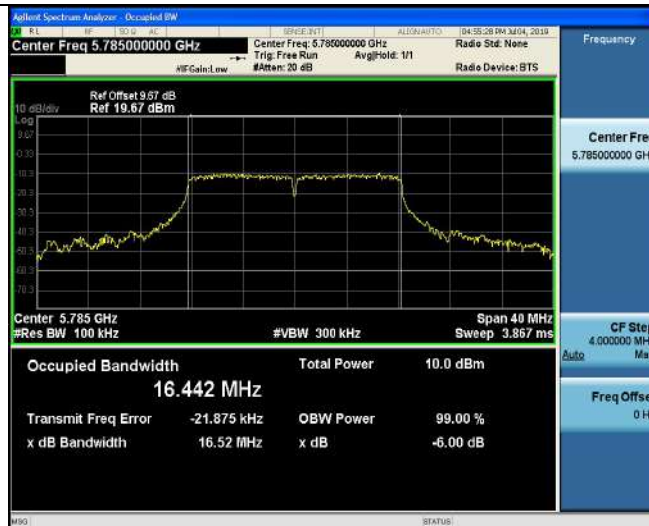


Band 3 (5725 – 5850 MHz)

802.11a



Low



Mid



High



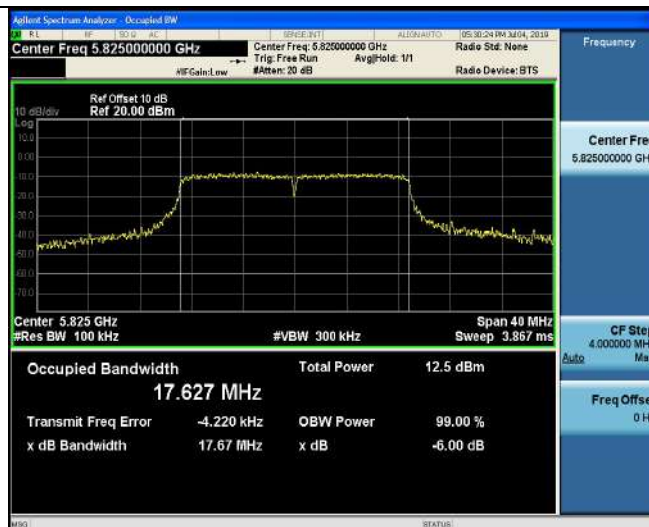
802.11n(HT20)



Low



Mid



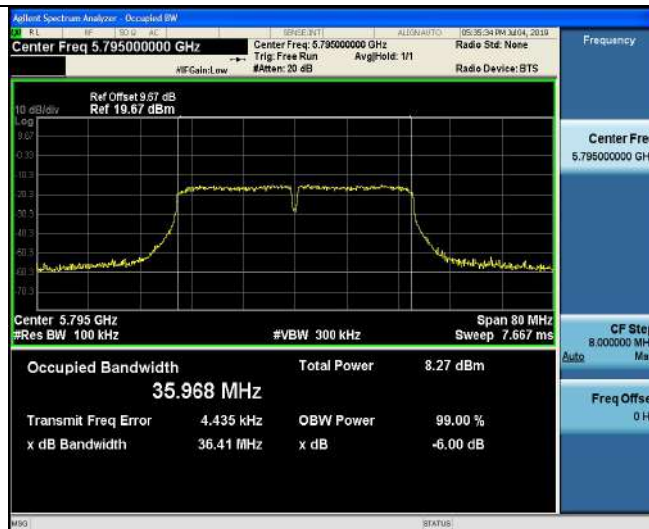
High



802.11n(HT40)



Low



High

802.11ac(HT20)



Low

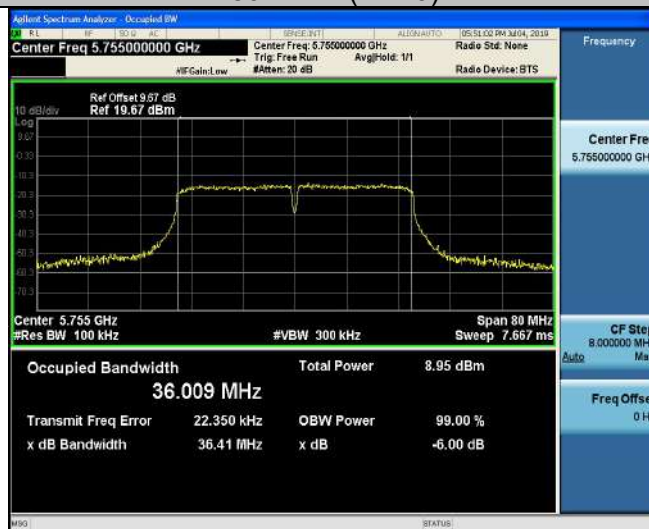


Mid



High

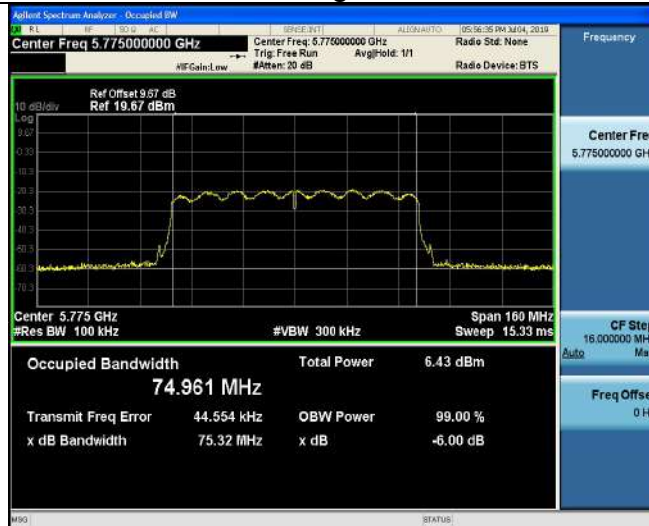
802.11ac(HT40)



Low



High



802.11ac(HT80)

**ANT 2**

| Band 3 (5725 - 5850 MHz) | | | | | |
|----------------------------------|--------------|-----------------|----------------------|-------------|--------|
| Mode | Test channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Limit (MHz) | Result |
| 11a | CH149 | 5745 | 16.54 | 0.5 | PASS |
| 11a | CH157 | 5785 | 16.54 | 0.5 | PASS |
| 11a | CH165 | 5825 | 16.51 | 0.5 | PASS |
| 11n(HT20) | CH149 | 5745 | 17.67 | 0.5 | PASS |
| 11n(HT20) | CH157 | 5785 | 17.66 | 0.5 | PASS |
| 11n(HT20) | CH165 | 5825 | 17.70 | 0.5 | PASS |
| 11n(HT40) | CH151 | 5755 | 36.43 | 0.5 | PASS |
| 11n(HT40) | CH159 | 5795 | 36.47 | 0.5 | PASS |
| 11ac(HT20) | CH149 | 5745 | 17.71 | 0.5 | PASS |
| 11ac(HT20) | CH157 | 5785 | 17.68 | 0.5 | PASS |
| 11ac(HT20) | CH165 | 5825 | 17.65 | 0.5 | PASS |
| 11ac(HT40) | CH151 | 5755 | 36.44 | 0.5 | PASS |
| 11ac(HT40) | CH159 | 5795 | 36.46 | 0.5 | PASS |
| 11ac(HT80) | CH155 | 5755 | 75.29 | 0.5 | PASS |

Test plots as follows:

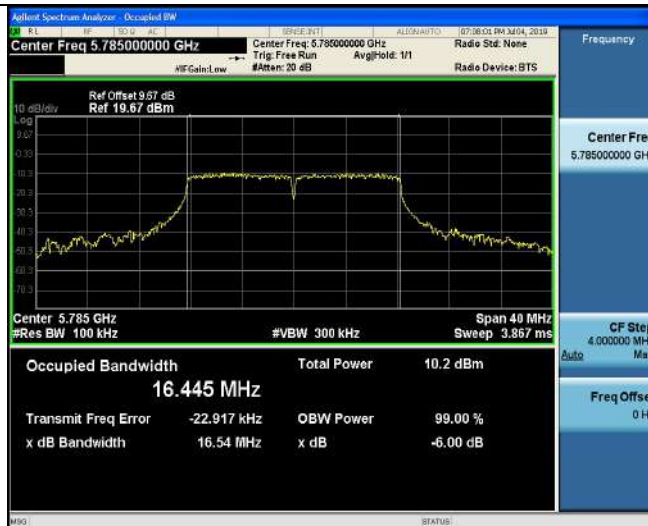


Band 3 (5725 – 5850 MHz)

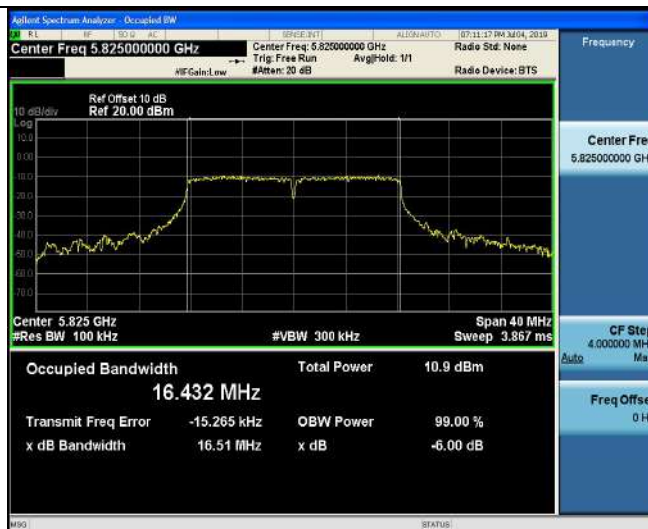
802.11a



Low



Mid



High



802.11n(HT20)



Low



Mid



High



802.11n(HT40)



Low



High

802.11ac(HT20)



Low



Mid

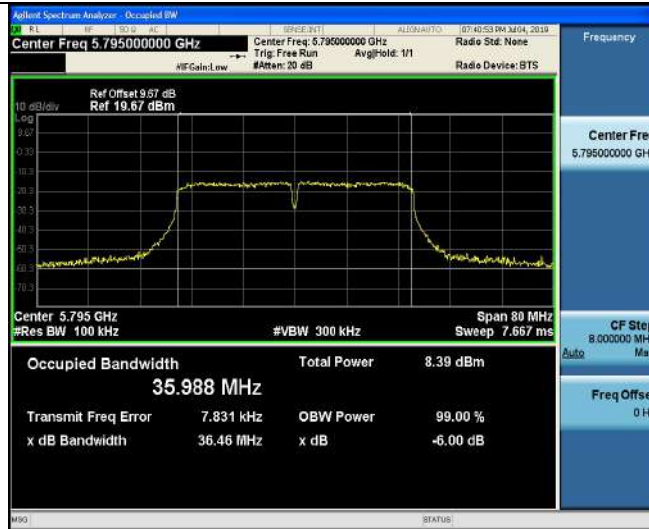


High

802.11ac(HT40)

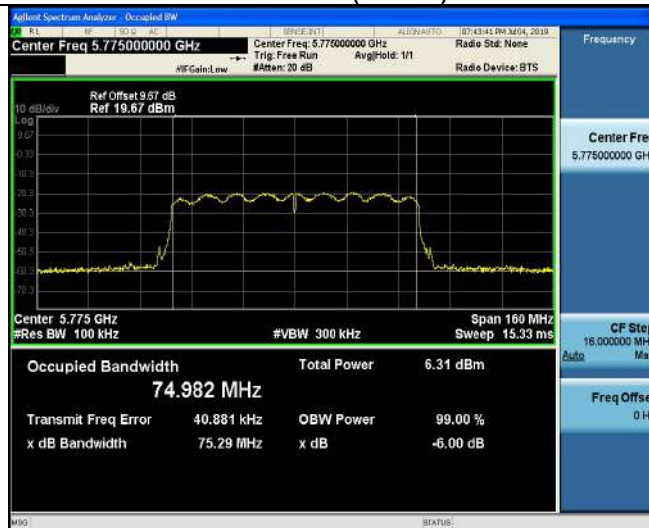


Low



High

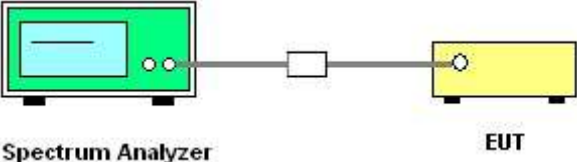
802.11ac(HT80)





4.4. 26dB Bandwidth and 99% Occupied Bandwidth

4.4.1. Test Specification

| | |
|--------------------------|---|
| Test Requirement: | 47 CFR Part 15C Section 15.407 |
| Test Method: | KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section C |
| Limit: | No restriction limits |
| Test Setup: |  <p style="text-align: center;">Spectrum Analyzer EUT</p> |
| Test Mode: | Transmitting mode with modulation |
| Test Procedure: | <ol style="list-style-type: none"> 1. KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section C 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Make the measurement with the spectrum analyzer's resolution bandwidth $RBW = 1\% EBW$, $VBW \geq 3RBW$, In order to make an accurate measurement. 4. Measure and record the results in the test report. |
| Test Result: | PASS |

4.4.2. Test Instruments

| RF Test Room | | | | |
|---------------------------|--------------|----------|---------------|-----------------|
| Equipment | Manufacturer | Model | Serial Number | Calibration Due |
| Spectrum analyzer | Agilent | N9020A | HKE-048 | Dec. 27, 2019 |
| RF cable | Times | 1-40G | HKE-034 | Dec. 27, 2019 |
| RF automatic control unit | Tonscend | JS0806-2 | HKE-060 | Dec. 27, 2019 |

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).



4.4.3. Test data

Band I
ANT 1

| Mode | Test channel | Frequency (MHz) | 26 dB Bandwidth (MHz) | Verdict |
|------------|--------------|-----------------|-----------------------|---------|
| 11a | CH36 | 5180 | 20.19 | PASS |
| 11a | CH40 | 5200 | 20.19 | PASS |
| 11a | CH48 | 5240 | 20.09 | PASS |
| 11n(HT20) | CH36 | 5180 | 20.97 | PASS |
| 11n(HT20) | CH40 | 5200 | 21.04 | PASS |
| 11n(HT20) | CH48 | 5240 | 20.95 | PASS |
| 11n(HT40) | CH38 | 5190 | 41.55 | PASS |
| 11n(HT40) | CH46 | 5230 | 41.40 | PASS |
| 11ac(HT20) | CH36 | 5180 | 20.82 | PASS |
| 11ac(HT20) | CH40 | 5200 | 20.98 | PASS |
| 11ac(HT20) | CH48 | 5240 | 20.86 | PASS |
| 11ac(HT40) | CH38 | 5190 | 41.60 | PASS |
| 11ac(HT40) | CH46 | 5230 | 41.65 | PASS |
| 11ac(HT80) | CH42 | 5210 | 81.64 | PASS |

Test plots as follows:



Band I (5150 – 5250 MHz)



Low



Mid





Mid



High



802.11n(HT40)



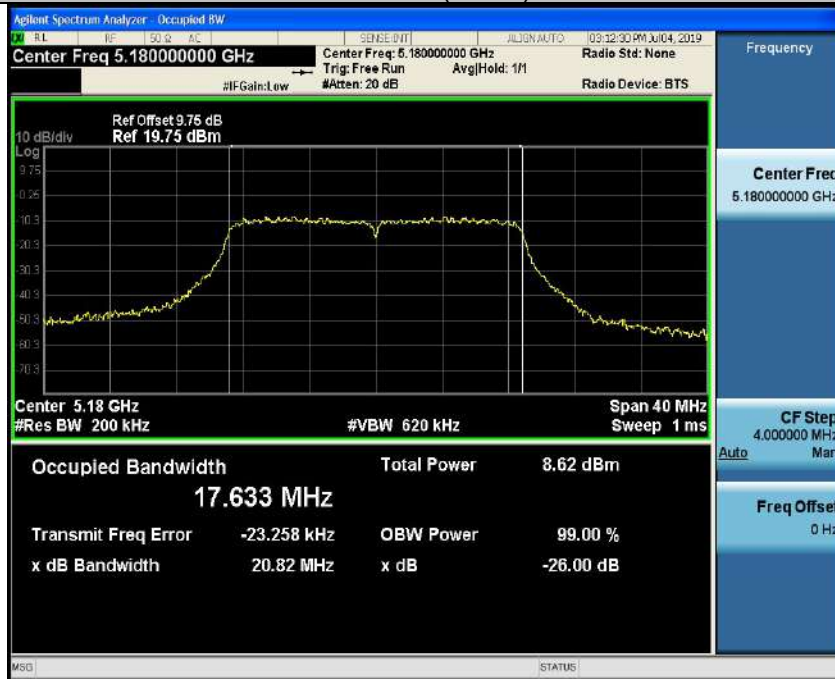
Low



High



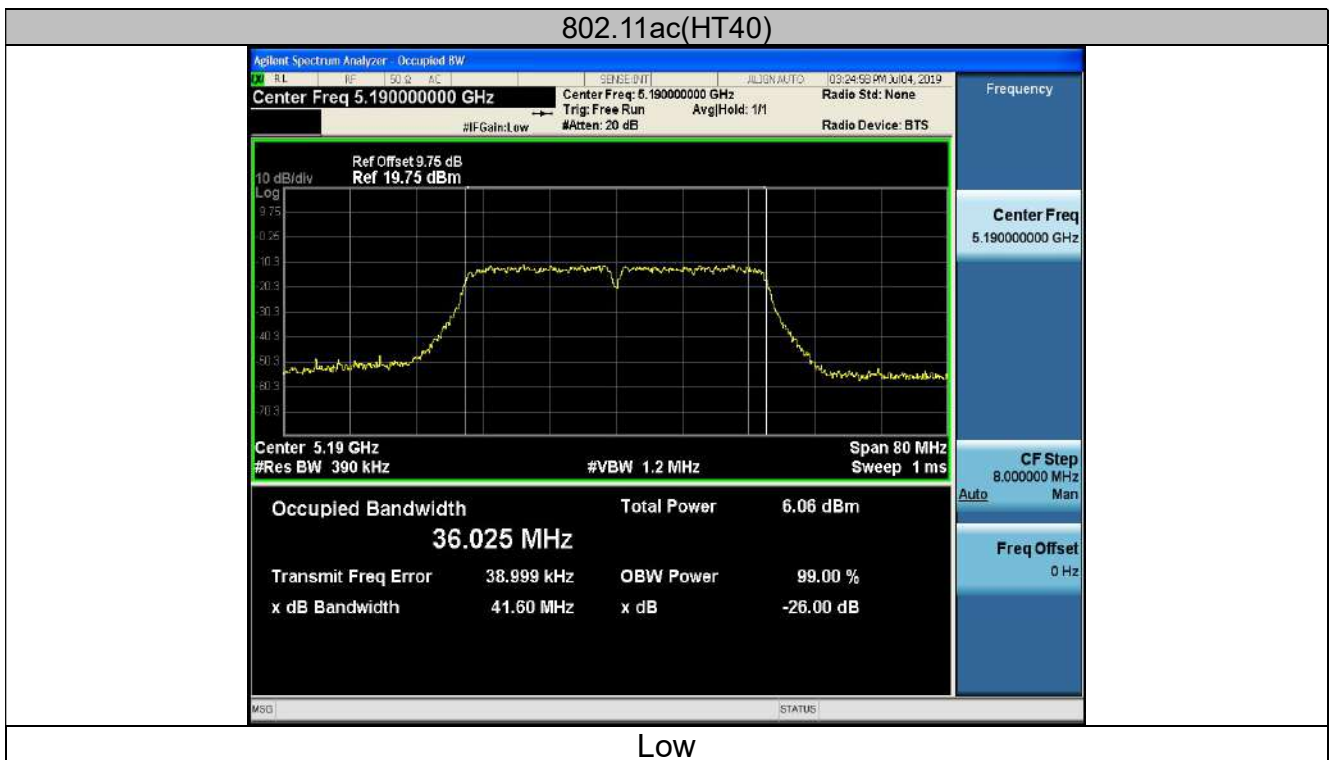
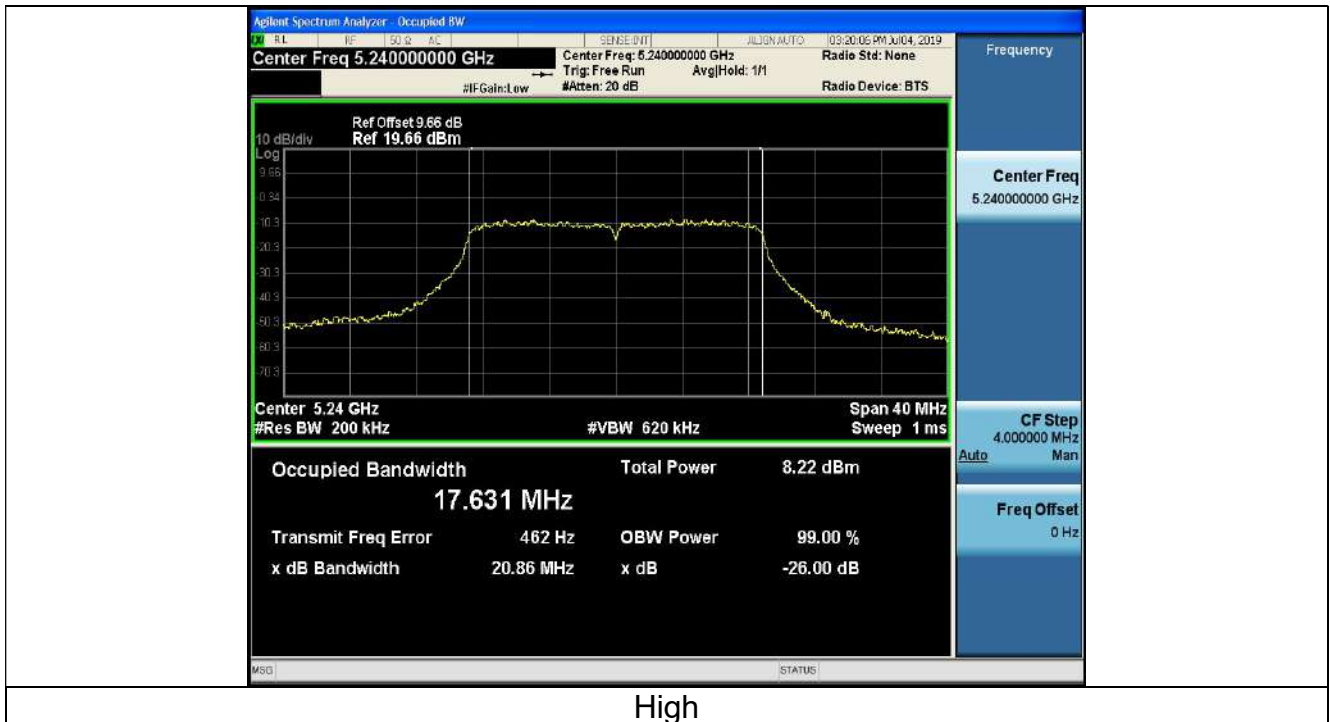
802.11ac(HT20)



Low

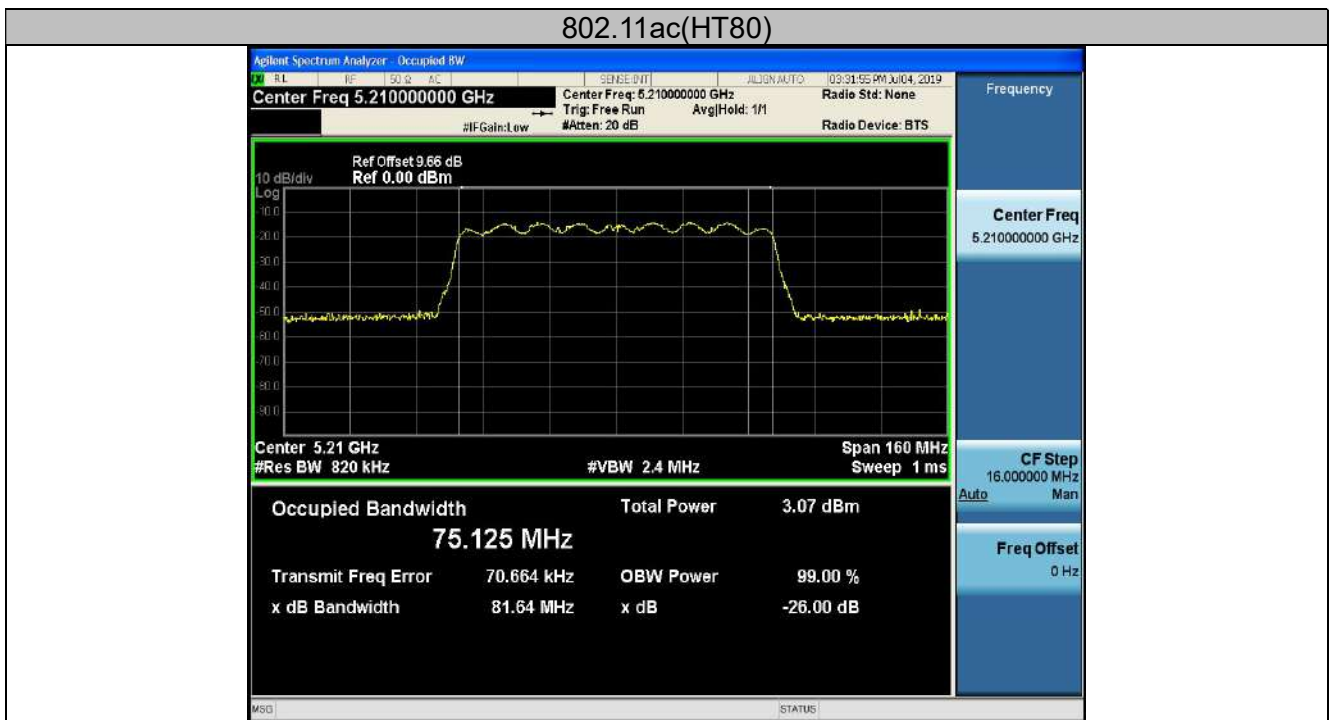


Mid





High



**ANT 2**

| Mode | Test channel | Frequency (MHz) | 26 dB Bandwidth (MHz) | Verdict |
|------------|--------------|-----------------|-----------------------|---------|
| 11a | CH36 | 5180 | 19.94 | PASS |
| 11a | CH40 | 5200 | 20.05 | PASS |
| 11a | CH48 | 5240 | 19.94 | PASS |
| 11n(HT20) | CH36 | 5180 | 20.94 | PASS |
| 11n(HT20) | CH40 | 5200 | 20.97 | PASS |
| 11n(HT20) | CH48 | 5240 | 20.87 | PASS |
| 11n(HT40) | CH38 | 5190 | 41.02 | PASS |
| 11n(HT40) | CH46 | 5230 | 41.34 | PASS |
| 11ac(HT20) | CH36 | 5180 | 20.97 | PASS |
| 11ac(HT20) | CH40 | 5200 | 20.88 | PASS |
| 11ac(HT20) | CH48 | 5240 | 20.87 | PASS |
| 11ac(HT40) | CH38 | 5190 | 41.52 | PASS |
| 11ac(HT40) | CH46 | 5230 | 41.57 | PASS |
| 11ac(HT80) | CH42 | 5210 | 81.41 | PASS |

Test plots as follows:



Band I (5150 – 5250 MHz)

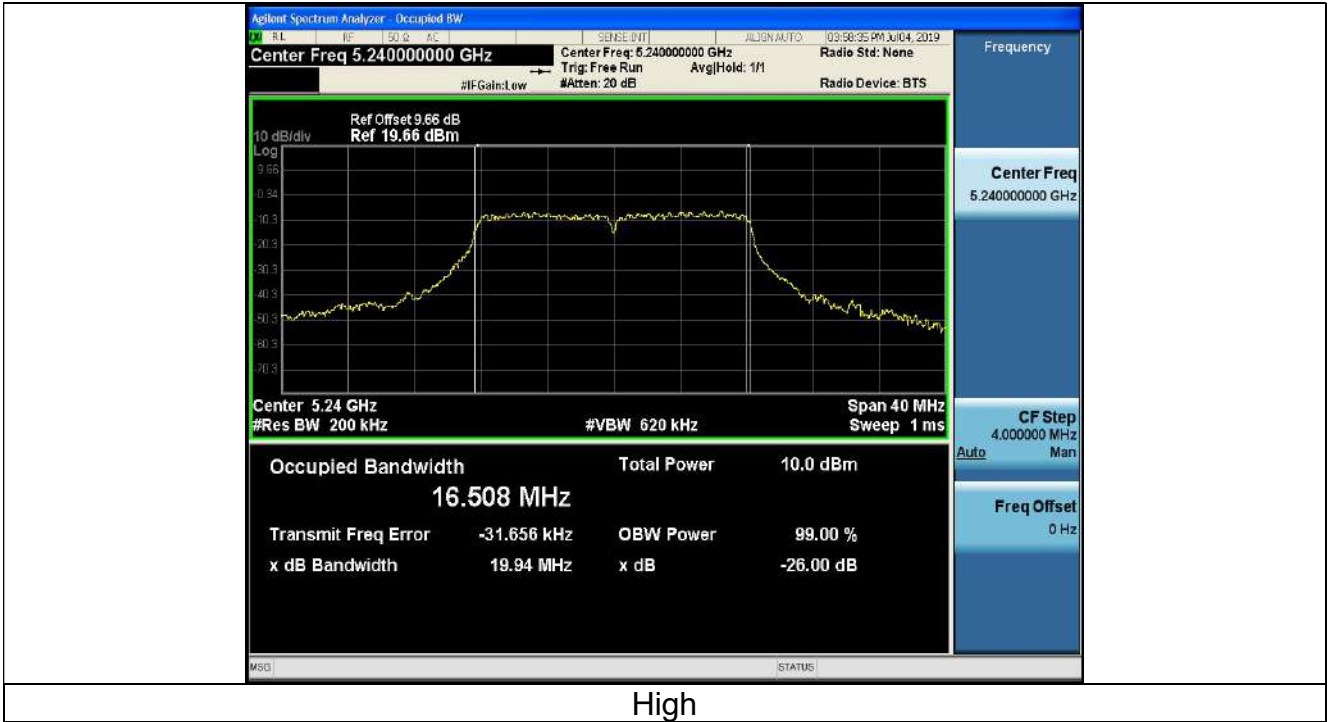
802.11a

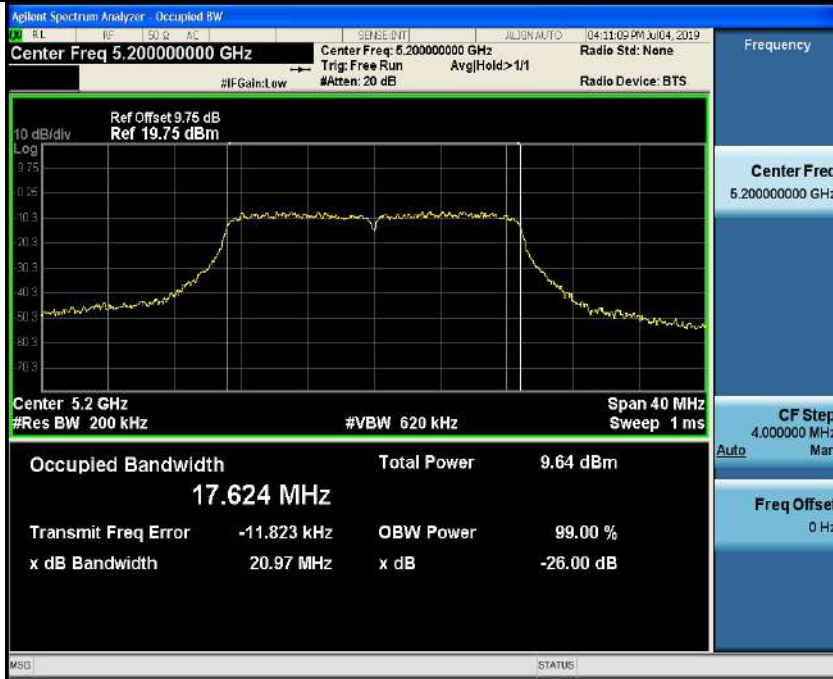


Low

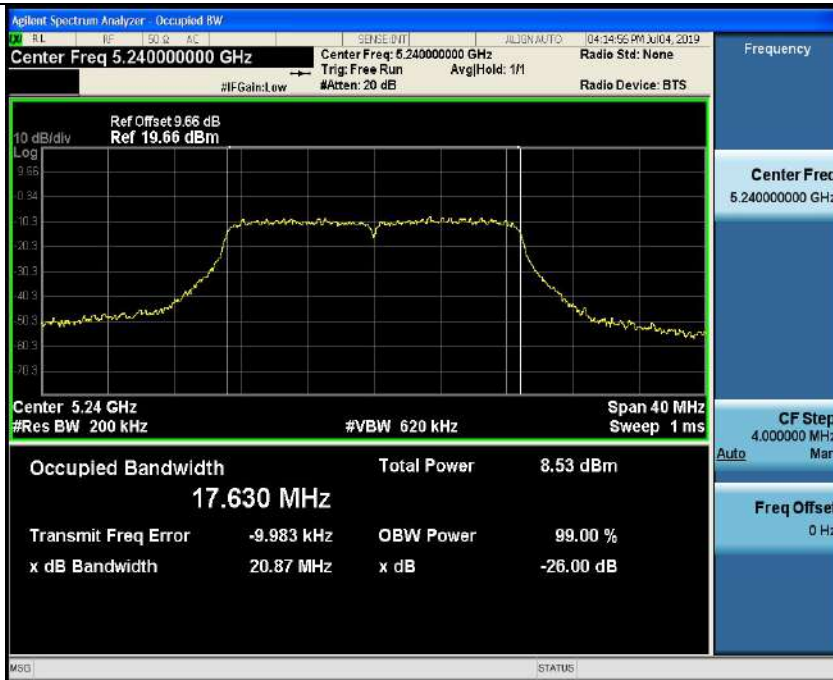


Mid





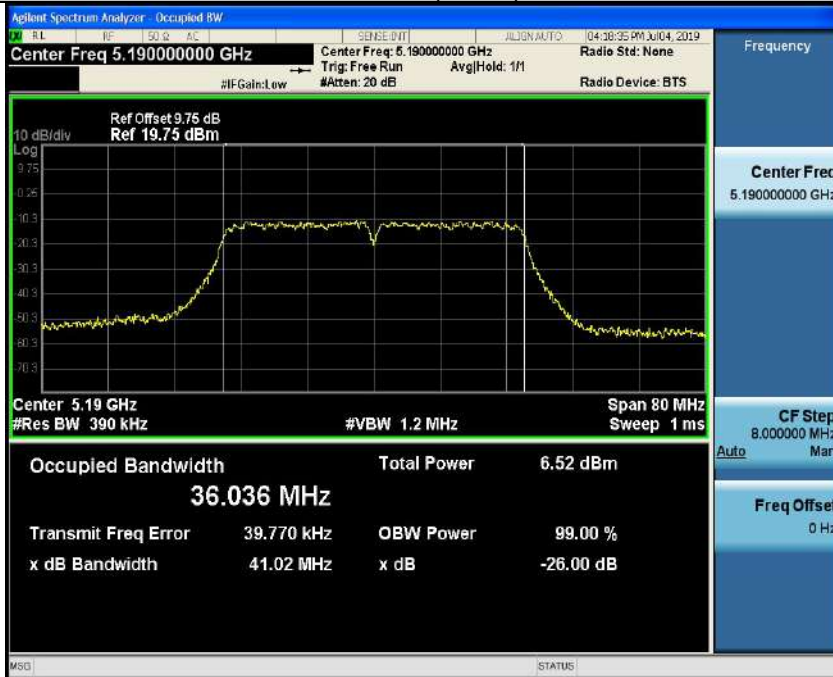
Mid



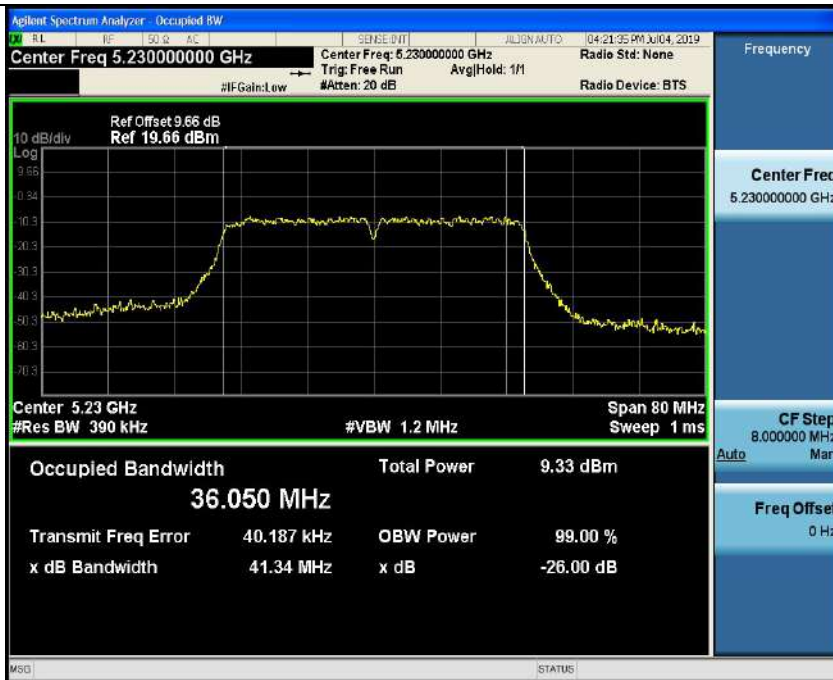
High



802.11n(HT40)



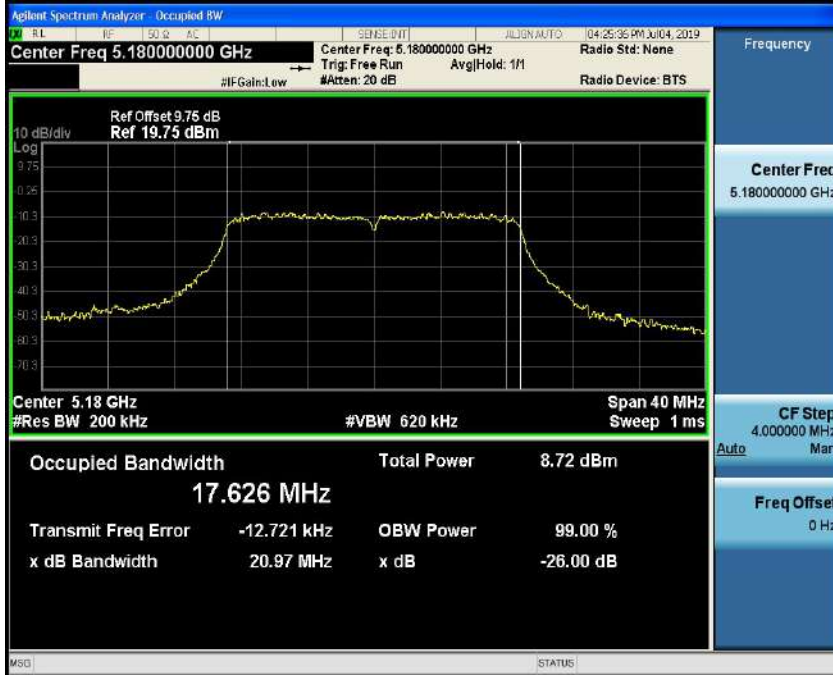
Low



High



802.11ac(HT20)



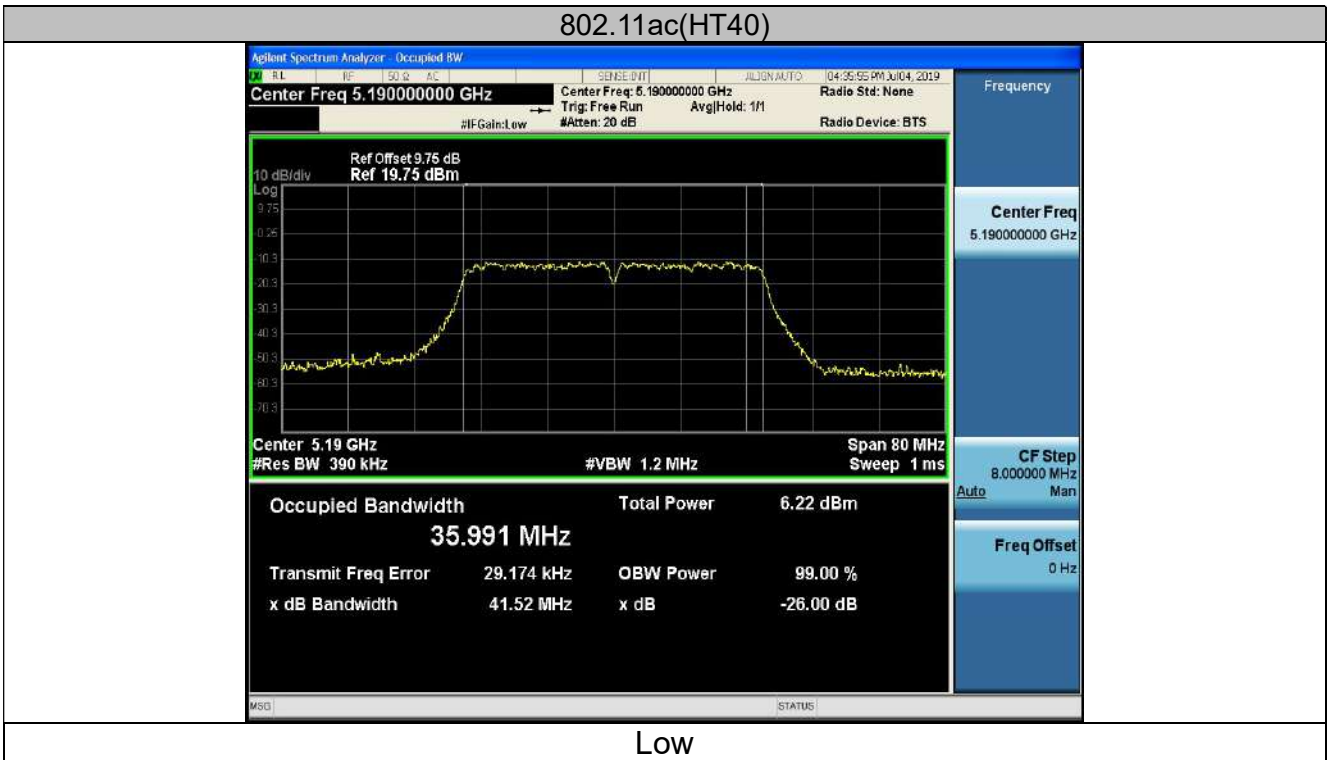
Low



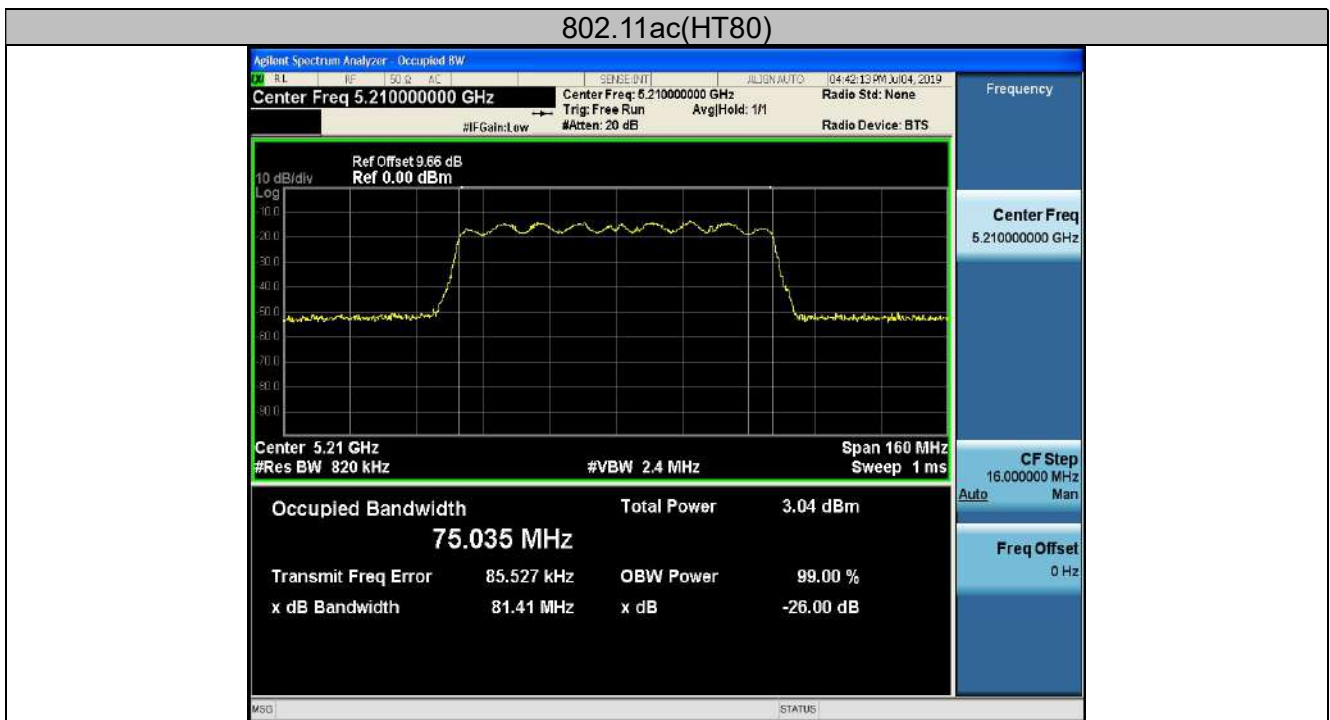
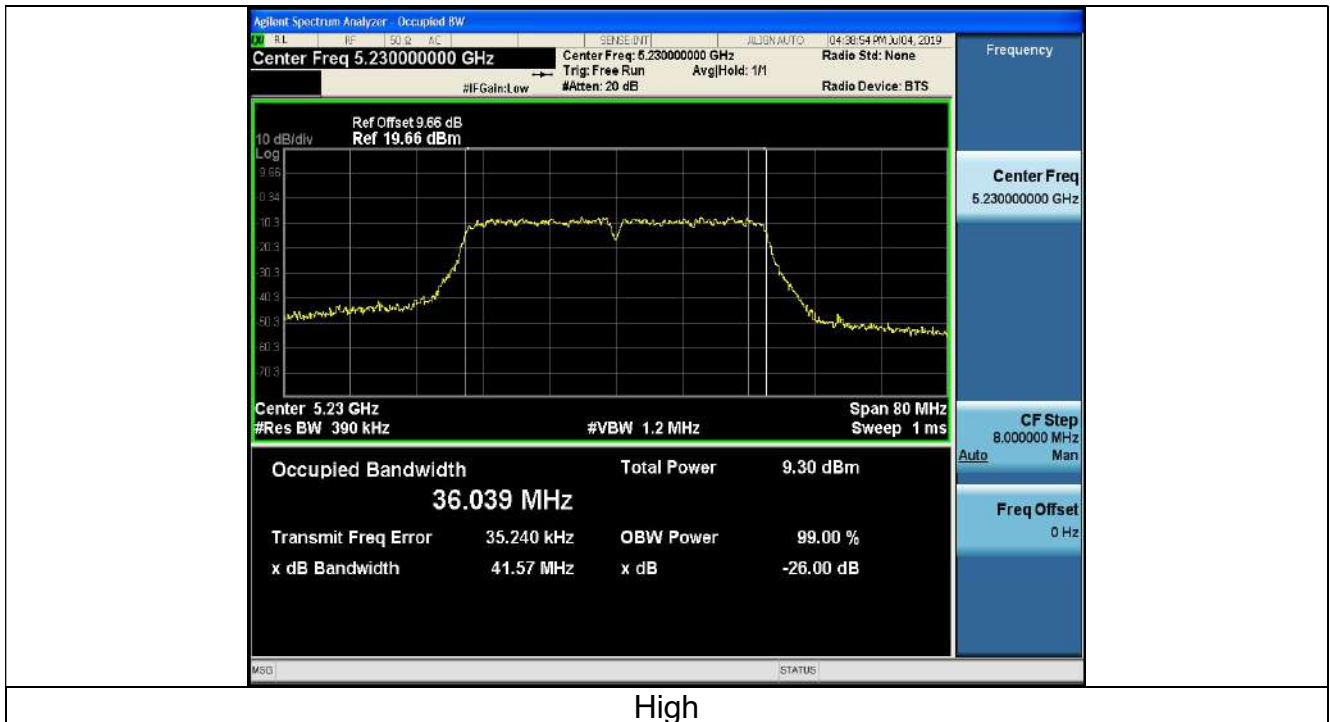
Mid



High



Low





4.5.3. Test data

ANT 1

| Configuration Band I (5150 - 5250 MHz) | | | | | | |
|---|--------------|-----------------|------------------------|------------------------|-----------------|--------|
| Mode | Test channel | Level [dBm/MHz] | 10log(1/x) Factor [dB] | Power Spectral Density | Limit (dBm/MHz) | Result |
| 11a | CH36 | -2.13 | 0 | -2.13 | 11 | PASS |
| 11a | CH40 | -2.48 | 0 | -2.48 | 11 | PASS |
| 11a | CH48 | -2.23 | 0 | -2.23 | 11 | PASS |
| 11n(HT20) | CH36 | -2.89 | 0 | -2.89 | 11 | PASS |
| 11n(HT20) | CH40 | -2.45 | 0 | -2.45 | 11 | PASS |
| 11n(HT20) | CH48 | -3.57 | 0 | -3.57 | 11 | PASS |
| 11n(HT40) | CH38 | -9.34 | 0 | -9.34 | 11 | PASS |
| 11n(HT40) | CH46 | -5.88 | 0 | -5.88 | 11 | PASS |
| 11ac(HT20) | CH36 | -3.69 | 0 | -3.69 | 11 | PASS |
| 11ac(HT20) | CH40 | -2.66 | 0 | -2.66 | 11 | PASS |
| 11ac(HT20) | CH48 | -4.11 | 0 | -4.11 | 11 | PASS |
| 11ac(HT40) | CH38 | -9.62 | 0 | -9.62 | 11 | PASS |
| 11ac(HT40) | CH46 | -6.36 | 0 | -6.36 | 11 | PASS |
| 11ac(HT80) | CH42 | -14.83 | 0 | -14.83 | 11 | PASS |



Test plots as follows:

Band I (5150 – 5250 MHz)



Low



Mid

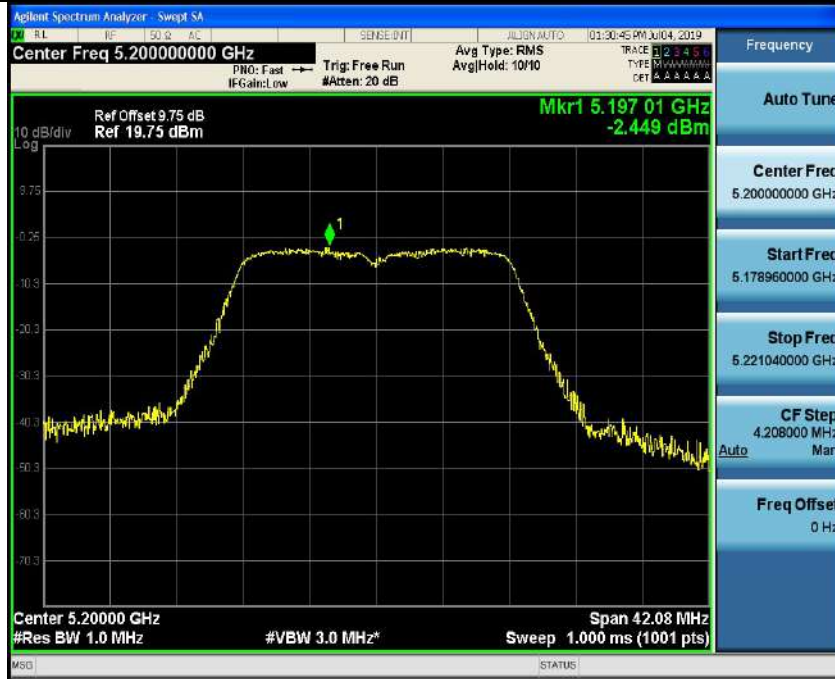


High

802.11n(HT20)



Low



Mid



High



802.11n(HT40)



Low



High



802.11ac(HT20)



Low



Mid



High

802.11ac(HT40)



Low



High

802.11ac(HT80)



Low



ANT 2

| Configuration Band I (5150 - 5250 MHz) | | | | | | |
|---|--------------|-----------------|------------------------|------------------------|-----------------|--------|
| Mode | Test channel | Level [dBm/MHz] | 10log(1/x) Factor [dB] | Power Spectral Density | Limit (dBm/MHz) | Result |
| 11a | CH36 | -2.60 | 0 | -2.60 | 11 | PASS |
| 11a | CH40 | -2.73 | 0 | -2.73 | 11 | PASS |
| 11a | CH48 | -2.22 | 0 | -2.22 | 11 | PASS |
| 11n(HT20) | CH36 | -3.46 | 0 | -3.46 | 11 | PASS |
| 11n(HT20) | CH40 | -2.76 | 0 | -2.76 | 11 | PASS |
| 11n(HT20) | CH48 | -3.67 | 0 | -3.67 | 11 | PASS |
| 11n(HT40) | CH38 | -9.24 | 0 | -9.24 | 11 | PASS |
| 11n(HT40) | CH46 | -6.39 | 0 | -6.39 | 11 | PASS |
| 11ac(HT20) | CH36 | -3.52 | 0 | -3.52 | 11 | PASS |
| 11ac(HT20) | CH40 | -2.53 | 0 | -2.53 | 11 | PASS |
| 11ac(HT20) | CH48 | -3.86 | 0 | -3.86 | 11 | PASS |
| 11ac(HT40) | CH38 | -9.07 | 0 | -9.07 | 11 | PASS |
| 11ac(HT40) | CH46 | -6.26 | 0 | -6.26 | 11 | PASS |
| 11ac(HT80) | CH42 | -14.83 | 0 | -14.83 | 11 | PASS |



Test plots as follows:

Band I (5150 – 5250 MHz)

802.11a



Low



Mid



High

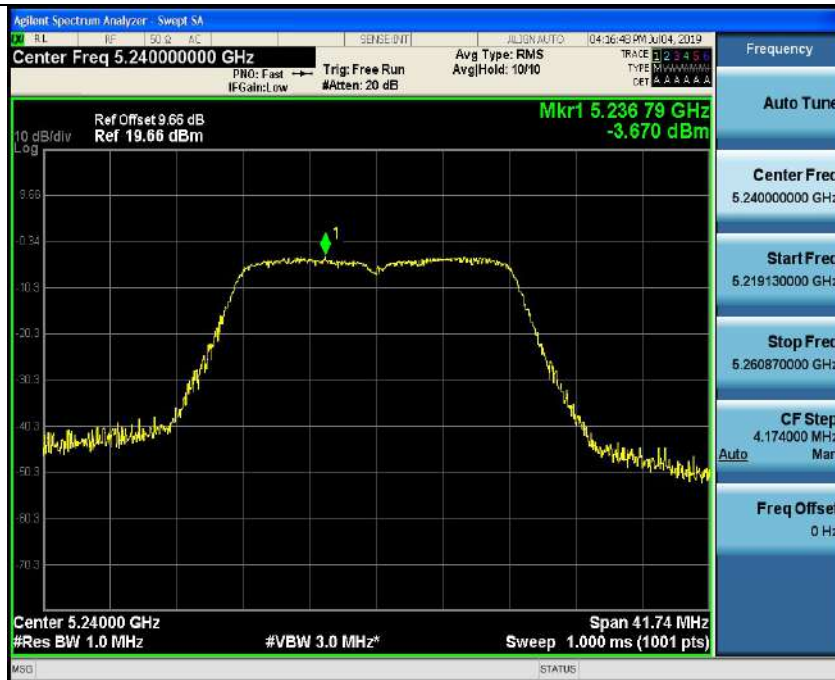
802.11n(HT20)



Low



Mid



High



802.11n(HT40)



Low



High



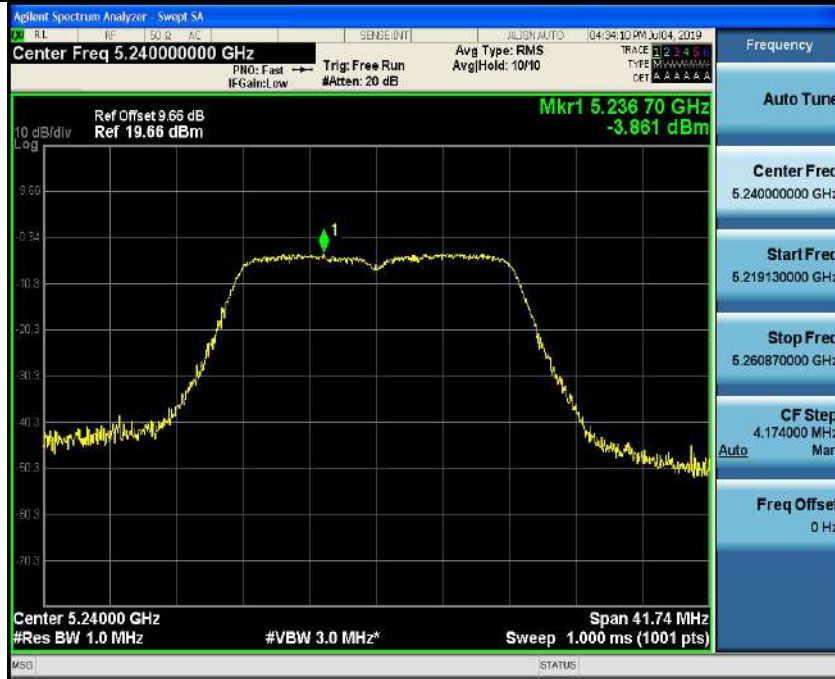
802.11ac(HT20)



Low



Mid



High

802.11ac(HT40)



Low



High

802.11ac(HT80)



Low



**For MIMO Antenna port 1+Antenna port 2
Configuration Band 1 (5150 - 5250 MHz)**

| Mode | Test channel | Power Density (dBm) | Limit (dBm) | Result |
|------------|--------------|---------------------|-------------|-------------|
| 11a | CH36 | / | 30 | / |
| 11a | CH40 | / | 30 | / |
| 11a | CH48 | / | 30 | / |
| 11n(HT20) | CH36 | -0.16 | 30 | PASS |
| 11n(HT20) | CH40 | 0.41 | 30 | PASS |
| 11n(HT20) | CH48 | -0.61 | 30 | PASS |
| 11n(HT40) | CH38 | -6.28 | 30 | PASS |
| 11n(HT40) | CH46 | -3.12 | 30 | PASS |
| 11ac(HT20) | CH36 | -0.59 | 30 | PASS |
| 11ac(HT20) | CH40 | 0.42 | 30 | PASS |
| 11ac(HT20) | CH48 | -0.97 | 30 | PASS |
| 11ac(HT40) | CH38 | -6.33 | 30 | PASS |
| 11ac(HT40) | CH46 | -3.30 | 30 | PASS |
| 11ac(HT80) | CH42 | -11.82 | 30 | PASS |

Note: 1 According to KDB 662911D01 v02r01, Result power = $10\log(10^{(\text{ant1}/10)}+10^{(\text{ant2}/10)})$.
2 Result unit: W, The end result is converted to units of dBm.

Note: This product supports antenna 1 and antenna 2 launch, but only support 802.11 n/ac for MIMO mode, not support 802.11 a for MIMO mode.



ANT 1

| Configuration Band 3 (5725 - 5850 MHz) | | | | | | |
|--|--------------|--------------------|-----------------------|------------------------|--------------------|--------|
| Mode | Test channel | Level [dBm/500kHz] | 10log(1/x) Factor[dB] | Power Spectral Density | Limit (dBm/500kHz) | Result |
| 11a | CH149 | -6.58 | 0 | -6.58 | 30 | PASS |
| 11a | CH157 | -5.64 | 0 | -5.64 | 30 | PASS |
| 11a | CH165 | -4.69 | 0 | -4.69 | 30 | PASS |
| 11n(HT20) | CH149 | -4.75 | 0 | -4.75 | 30 | PASS |
| 11n(HT20) | CH157 | -3.83 | 0 | -3.83 | 30 | PASS |
| 11n(HT20) | CH165 | -0.76 | 0 | -0.76 | 30 | PASS |
| 11n(HT40) | CH151 | -9.03 | 0 | -9.03 | 30 | PASS |
| 11n(HT40) | CH159 | -9.03 | 0 | -9.03 | 30 | PASS |
| 11ac(HT20) | CH149 | -2.84 | 0 | -2.84 | 30 | PASS |
| 11ac(HT20) | CH157 | -1.52 | 0 | -1.52 | 30 | PASS |
| 11ac(HT20) | CH165 | -0.67 | 0 | -0.67 | 30 | PASS |
| 11ac(HT40) | CH151 | -8.53 | 0 | -8.53 | 30 | PASS |
| 11ac(HT40) | CH159 | -8.55 | 0 | -8.55 | 30 | PASS |
| 11ac(HT80) | CH155 | -13.20 | 0 | -13.20 | 30 | PASS |

Test plots as follows:



Band 3 (5725 – 5850 MHz)

802.11a



Low



Mid



High



802.11n(HT20)



Low



Mid



High



802.11n(HT40)



Low



High

802.11ac(HT20)



Low



Mid



High

802.11ac(HT40)



Low



High
802.11ac(HT80)





ANT 2

| Configuration Band 3 (5725 - 5850 MHz) | | | | | | |
|---|--------------|--------------------|-----------------------|------------------------|--------------------|--------|
| Mode | Test channel | Level [dBm/500kHz] | 10log(1/x) Factor[dB] | Power Spectral Density | Limit (dBm/500kHz) | Result |
| 11a | CH149 | -4.74 | 0 | -4.74 | 30 | PASS |
| 11a | CH157 | -3.70 | 0 | -3.70 | 30 | PASS |
| 11a | CH165 | -3.09 | 0 | -3.09 | 30 | PASS |
| 11n(HT20) | CH149 | -2.86 | 0 | -2.86 | 30 | PASS |
| 11n(HT20) | CH157 | -1.45 | 0 | -1.45 | 30 | PASS |
| 11n(HT20) | CH165 | -0.90 | 0 | -0.90 | 30 | PASS |
| 11n(HT40) | CH151 | -8.51 | 0 | -8.51 | 30 | PASS |
| 11n(HT40) | CH159 | -8.71 | 0 | -8.71 | 30 | PASS |
| 11ac(HT20) | CH149 | -2.14 | 0 | -2.14 | 30 | PASS |
| 11ac(HT20) | CH157 | -1.93 | 0 | -1.93 | 30 | PASS |
| 11ac(HT20) | CH165 | -1.04 | 0 | -1.04 | 30 | PASS |
| 11ac(HT40) | CH151 | -8.68 | 0 | -8.68 | 30 | PASS |
| 11ac(HT40) | CH159 | -5.94 | 0 | -5.94 | 30 | PASS |
| 11ac(HT80) | CH155 | -12.75 | 0 | -12.75 | 30 | PASS |

Test plots as follows:



Band 3 (5725 – 5850 MHz)

802.11a



Low



Mid



High

802.11n(HT20)



802.11n(HT40)



Low



High

802.11ac(HT20)



Low



Mid



High

802.11ac(HT40)



Low



High
802.11ac(T80)





**For MIMO antenna port 1+antenna port 2
Configuration Band 3 (5725 - 5850 MHz)**

| Mode | Test channel | Power Density (dBm) | Limit (dBm) | Result |
|------------|--------------|---------------------|-------------|--------|
| 11a | CH149 | / | 30 | / |
| 11a | CH157 | / | 30 | / |
| 11a | CH165 | / | 30 | / |
| 11n(HT20) | CH149 | -0.690 | 30 | PASS |
| 11n(HT20) | CH157 | 0.530 | 30 | PASS |
| 11n(HT20) | CH165 | 2.180 | 30 | PASS |
| 11n(HT40) | CH151 | -5.750 | 30 | PASS |
| 11n(HT40) | CH159 | -5.860 | 30 | PASS |
| 11ac(HT20) | CH149 | 0.530 | 30 | PASS |
| 11ac(HT20) | CH157 | 1.290 | 30 | PASS |
| 11ac(HT20) | CH165 | 2.160 | 30 | PASS |
| 11ac(HT40) | CH151 | -5.590 | 30 | PASS |
| 11ac(HT40) | CH159 | -4.041 | 30 | PASS |
| 11ac(HT80) | CH155 | -9.960 | 30 | PASS |

Note: 1 According to KDB 662911 D01 v02r01, Result power = $10\log(10^{(ant1/10)}+10^{(ant2/10)})$.
2 Result unit: W, The end result is converted to units of dBm.

Note: This product supports antenna 1 and antenna 2 launch, but only support 802.11 n/ac for MIMO mode, not support 802.11 a for MIMO mode.



4.6. Band edge

4.6.1. Test Specification

| | |
|--------------------------|---|
| Test Requirement: | FCC CFR47 Part 15E Section 15.407 |
| Test Method: | ANSI C63.10 2013 |
| Limit: | <p>For band I&II&III: $E[\text{dB}\mu\text{V}/\text{m}] = \text{EIRP}[\text{dBm}] + 95.2 = 68.2 \text{ dB}\mu\text{V}/\text{m}$, for $\text{EIRP}(\text{dBm}) = -27 \text{ dBm}$</p> <p>For transmitters operating in the 5.725-5.85 GHz band:</p> <p>All emissions shall be limited to a level of $-27 \text{ dBm}/\text{MHz}$ at 75 MHz or more above or below the band edge increasing linearly to $10 \text{ dBm}/\text{MHz}$ at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of $15.6 \text{ dBm}/\text{MHz}$ at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of $27 \text{ dBm}/\text{MHz}$ at the band edge.</p> <p>For band 3(5715-5725MHz&5850-5860MHz): $E[\text{dB}\mu\text{V}/\text{m}] = \text{EIRP}[\text{dBm}] + 95.2 = 78.2 \text{ dB}\mu\text{V}/\text{m}$, for $\text{EIRP}(\text{dBm}) = -27 \text{ dBm}$;</p> <p>For band 3(other un-restricted band): $E[\text{dB}\mu\text{V}/\text{m}] = \text{EIRP}[\text{dBm}] + 95.2 = 68.2 \text{ dB}\mu\text{V}/\text{m}$, for $\text{EIRP}(\text{dBm}) = -27 \text{ dBm}$</p> |
| Test Setup: | <p>The diagram illustrates the test setup within an anechoic chamber. An Equipment Under Test (EUT) is placed on a rotating table that is 1.5 meters high. The table is positioned 3 meters away from a horn antenna mounted on an antenna tower. A ground reference plane is located at the base of the chamber. The test receiver system includes a Test Receiver, a Frequency Converter, and a Controller, all connected to the antenna tower.</p> |
| Test Mode: | Transmitting mode with modulation |
| Test Procedure: | <ol style="list-style-type: none"> 1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the |



| | |
|---------------------|---|
| | <p>maximum reading.</p> <p>5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</p> <p>6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasipeak or average method as specified and then reported in a data sheet.</p> |
| Test Result: | PASS |



4.6.2. Test Instruments

| Radiated Emission Test Site (966) | | | | |
|-----------------------------------|--------------|--------------------|---------------|-----------------|
| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Due |
| Receiver | R&S | ESRP3 | HKE-005 | Dec. 27, 2019 |
| Spectrum analyzer | Agilent | N9020A | HKE-048 | Dec. 27, 2019 |
| Preamplifier | EMCI | EMC051845S E | HKE-015 | Dec. 27, 2019 |
| Preamplifier | Agilent | 83051A | HKE-016 | Dec. 27, 2019 |
| Loop antenna | Schwarzbeck | FMZB 1519 B | HKE-014 | Dec. 26, 2019 |
| Broadband antenna | Schwarzbeck | VULB 9163 | HKE-012 | Dec. 26, 2019 |
| Horn antenna | Schwarzbeck | 9120D | HKE-013 | Dec. 26, 2019 |
| Antenna Mast | Keleto | CC-A-4M | N/A | N/A |
| Position controller | Taiwan MF | MF7802 | HKE-011 | Dec. 27, 2019 |
| Radiated test software | Tonscend | TS+ Rev 2.5.0.0 | HKE-082 | N/A |
| RF cable (9KHz-1GHz) | Times | 381806-001 | N/A | N/A |
| Hf antenna | Schwarzbeck | LB-180400-KF | HKE-031 | Dec. 27, 2019 |
| RF cable | Tonscend | 1-18G | HKE-099 | Dec. 27, 2019 |
| RF cable | Times | 1-40G | HKE-034 | Dec. 27, 2019 |

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).



4.6.3. Test Data

ANT 1

Operation Mode: 802.11a Mode with 5.2G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 52.09 | -2.49 | 49.6 | 74 | -24.4 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 52.71 | -2.49 | 50.22 | 74 | -23.78 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.2G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 53.27 | -2.28 | 50.99 | 74 | -23.01 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 51.49 | -2.11 | 49.38 | 74 | -24.62 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 52.17 | -2.28 | 49.89 | 74 | -24.11 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 51.92 | -2.11 | 49.81 | 74 | -24.19 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11n20 Mode with 5.2G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 53.15 | -2.49 | 50.66 | 74 | -23.34 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 51.59 | -2.49 | 49.1 | 74 | -24.9 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.2G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 52.06 | -2.28 | 49.78 | 74 | -24.22 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 50.59 | -2.11 | 48.48 | 74 | -25.52 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 54.18 | -2.28 | 51.9 | 74 | -22.1 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 50.92 | -2.11 | 48.81 | 74 | -25.19 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11 n40 Mode with 5.2G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 52.73 | -2.49 | 50.24 | 74 | -23.76 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 51.94 | -2.49 | 49.45 | 74 | -24.55 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.2G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 53.17 | -2.28 | 50.89 | 74 | -23.11 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 50.42 | -2.11 | 48.31 | 74 | -25.69 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 51.82 | -2.28 | 49.54 | 74 | -24.46 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 49.69 | -2.11 | 47.58 | 74 | -26.42 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11 ac20 Mode with 5.2G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 51.85 | -2.49 | 49.36 | 74 | -24.64 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 52.76 | -2.49 | 50.27 | 74 | -23.73 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.2G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 53.24 | -2.28 | 50.96 | 74 | -23.04 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 52.39 | -2.11 | 50.28 | 74 | -23.72 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 52.92 | -2.28 | 50.64 | 74 | -23.36 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 50.43 | -2.11 | 48.32 | 74 | -25.68 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11 ac40 Mode with 5.2G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 51.94 | -2.49 | 49.45 | 74 | -24.55 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 51.77 | -2.49 | 49.28 | 74 | -24.72 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.2G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 53.04 | -2.28 | 50.76 | 74 | -23.24 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 52.75 | -2.11 | 50.64 | 74 | -23.36 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 63.29 | -2.28 | 61.01 | 74 | -12.99 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 51.47 | -2.11 | 49.36 | 74 | -24.64 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11 ac80 Mode with 5.2G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 53.75 | -2.49 | 51.26 | 74 | -22.74 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 51.16 | -2.49 | 48.67 | 74 | -25.33 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.2G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 53.59 | -2.28 | 51.31 | 74 | -22.69 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 51.75 | -2.11 | 49.64 | 74 | -24.36 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 53.18 | -2.28 | 50.9 | 74 | -23.1 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 52.36 | -2.11 | 50.25 | 74 | -23.75 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

**ANT 2**

Operation Mode: 802.11a Mode with 5.2G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 50.94 | -2.49 | 48.45 | 74 | -25.55 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 51.76 | -2.49 | 49.27 | 74 | -24.73 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.2G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 54.06 | -2.28 | 51.78 | 74 | -22.22 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 52.93 | -2.11 | 50.82 | 74 | -23.18 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 52.17 | -2.28 | 49.89 | 74 | -24.11 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 51.4 | -2.11 | 49.29 | 74 | -24.71 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11n20 Mode with 5.2G TX CH Low

Horizontal

| Frequency (MHz) | Meter Reading (dB μ V) | Factor (dB) | Emission Level (dB μ V/m) | Limits (dB μ V/m) | Margin (dB) | Detector Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|---------------|
| 5150 | 55.06 | -2.49 | 52.57 | 74 | -21.43 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency (MHz) | Meter Reading (dB μ V) | Factor (dB) | Emission Level (dB μ V/m) | Limits (dB μ V/m) | Margin (dB) | Detector Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|---------------|
| 5150 | 51.59 | -2.49 | 49.1 | 74 | -24.9 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.2G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 54.32 | -2.28 | 52.04 | 74 | -21.96 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 51.93 | -2.11 | 49.82 | 74 | -24.18 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 53.17 | -2.28 | 50.89 | 74 | -23.11 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 50.22 | -2.11 | 48.11 | 74 | -25.89 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11 n40 Mode with 5.2G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 52.47 | -2.49 | 49.98 | 74 | -24.02 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 51.05 | -2.49 | 48.56 | 74 | -25.44 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.2G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 54.28 | -2.28 | 52 | 74 | -22 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 50.7 | -2.11 | 48.59 | 74 | -25.41 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 52.6 | -2.28 | 50.32 | 74 | -23.68 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 51.87 | -2.11 | 49.76 | 74 | -24.24 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11 ac20 Mode with 5.2G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 52.39 | -2.49 | 49.9 | 74 | -24.1 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 52.93 | -2.49 | 50.44 | 74 | -23.56 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.2G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 54.51 | -2.28 | 52.23 | 74 | -21.77 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 52.06 | -2.11 | 49.95 | 74 | -24.05 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 51.97 | -2.28 | 49.69 | 74 | -24.31 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 50.76 | -2.11 | 48.65 | 74 | -25.35 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11 ac40 Mode with 5.2G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 53.27 | -2.49 | 50.78 | 74 | -23.22 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 51.49 | -2.49 | 49 | 74 | -25 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.2G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 55.95 | -2.28 | 53.67 | 74 | -20.33 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 54.35 | -2.11 | 52.24 | 74 | -21.76 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 52.79 | -2.28 | 50.51 | 74 | -23.49 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 51.42 | -2.11 | 49.31 | 74 | -24.69 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11 ac80 Mode with 5.2G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 55.29 | -2.49 | 52.8 | 74 | -21.2 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5150 | 50.26 | -2.49 | 47.77 | 74 | -26.23 | peak |
| 5150 | / | -2.49 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.2G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 54.73 | -2.28 | 52.45 | 74 | -21.55 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 51.93 | -2.11 | 49.82 | 74 | -24.18 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5250 | 54.92 | -2.28 | 52.64 | 74 | -21.36 | peak |
| 5250 | / | -2.28 | / | 54 | / | AVG |
| 5350 | 51.54 | -2.11 | 49.43 | 74 | -24.57 | peak |
| 5350 | / | -2.11 | / | 54 | / | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

**ANT 1**

Operation Mode: 802.11a Mode with 5.8G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 56.25 | -2.06 | 54.19 | 68.2 | -14.01 | peak |
| 5650 | 37.73 | -2.06 | 35.67 | 48.2 | -12.53 | AVG |
| 5700 | 88.92 | -1.96 | 86.96 | 105.2 | -18.24 | peak |
| 5700 | 69.52 | -1.96 | 67.56 | 85.2 | -17.64 | AVG |
| 5720 | 91.39 | -2.87 | 88.52 | 110.8 | -22.28 | peak |
| 5720 | 73.88 | -2.87 | 71.01 | 90.8 | -19.79 | AVG |
| 5725 | 109.74 | -2.14 | 107.6 | 122.2 | -14.6 | peak |
| 5725 | 86.96 | -2.14 | 84.82 | 102.2 | -17.38 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 56.69 | -2.06 | 54.63 | 68.2 | -13.57 | peak |
| 5650 | 34.15 | -2.06 | 32.09 | 48.2 | -16.11 | AVG |
| 5700 | 90.75 | -1.96 | 88.79 | 105.2 | -16.41 | peak |
| 5700 | 66.13 | -1.96 | 64.17 | 85.2 | -21.03 | AVG |
| 5720 | 93.41 | -2.87 | 90.54 | 110.8 | -20.26 | peak |
| 5720 | 77.13 | -2.87 | 74.26 | 90.8 | -16.54 | AVG |
| 5725 | 111.7 | -2.14 | 109.56 | 122.2 | -12.64 | peak |
| 5725 | 90.13 | -2.14 | 87.99 | 102.2 | -14.21 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.8G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 111.22 | -1.97 | 109.25 | 122.2 | -12.95 | peak |
| 5850 | 88.57 | -1.97 | 86.6 | 102.2 | -15.6 | AVG |
| 5855 | 94.57 | -2.13 | 92.44 | 110.8 | -18.36 | peak |
| 5855 | 71.79 | -2.13 | 69.66 | 90.8 | -21.14 | AVG |
| 5875 | 87.19 | -2.65 | 84.54 | 105.2 | -20.66 | peak |
| 5875 | 61.18 | -2.65 | 58.53 | 85.2 | -26.67 | AVG |
| 5925 | 54.23 | -2.28 | 51.95 | 68.2 | -16.25 | peak |
| 5925 | 36.97 | -2.28 | 34.69 | 48.2 | -13.51 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 113.29 | -1.97 | 111.32 | 122.2 | -10.88 | peak |
| 5850 | 86.62 | -1.97 | 84.65 | 102.2 | -17.55 | AVG |
| 5855 | 94.42 | -2.13 | 92.29 | 110.8 | -18.51 | peak |
| 5855 | 72.91 | -2.13 | 70.78 | 90.8 | -20.02 | AVG |
| 5875 | 86.1 | -2.65 | 83.45 | 105.2 | -21.75 | peak |
| 5875 | 68.25 | -2.65 | 65.6 | 85.2 | -19.6 | AVG |
| 5925 | 54.52 | -2.28 | 52.24 | 68.2 | -15.96 | peak |
| 5925 | 35.46 | -2.28 | 33.18 | 48.2 | -15.02 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11n20 Mode with 5.8G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 57.28 | -2.06 | 55.22 | 68.2 | -12.98 | peak |
| 5650 | 32.25 | -2.06 | 30.19 | 48.2 | -18.01 | AVG |
| 5700 | 89.74 | -1.96 | 87.78 | 105.2 | -17.42 | peak |
| 5700 | 67.03 | -1.96 | 65.07 | 85.2 | -20.13 | AVG |
| 5720 | 95.71 | -2.87 | 92.84 | 110.8 | -17.96 | peak |
| 5720 | 77.29 | -2.87 | 74.42 | 90.8 | -16.38 | AVG |
| 5725 | 113.43 | -2.14 | 111.29 | 122.2 | -10.91 | peak |
| 5725 | 91.38 | -2.14 | 89.24 | 102.2 | -12.96 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 61.88 | -2.06 | 59.82 | 68.2 | -8.38 | peak |
| 5650 | 37.86 | -2.06 | 35.8 | 48.2 | -12.4 | AVG |
| 5700 | 95.57 | -1.96 | 93.61 | 105.2 | -11.59 | peak |
| 5700 | 74.5 | -1.96 | 72.54 | 85.2 | -12.66 | AVG |
| 5720 | 94.33 | -2.87 | 91.46 | 110.8 | -19.34 | peak |
| 5720 | 77.76 | -2.87 | 74.89 | 90.8 | -15.91 | AVG |
| 5725 | 111.05 | -2.14 | 108.91 | 122.2 | -13.29 | peak |
| 5725 | 91.83 | -2.14 | 89.69 | 102.2 | -12.51 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.8G
Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 110.41 | -1.97 | 108.44 | 122.2 | -13.76 | peak |
| 5850 | 87.66 | -1.97 | 85.69 | 102.2 | -16.51 | AVG |
| 5855 | 94.74 | -2.13 | 92.61 | 110.8 | -18.19 | peak |
| 5855 | 72.29 | -2.13 | 70.16 | 90.8 | -20.64 | AVG |
| 5875 | 89.39 | -2.65 | 86.74 | 105.2 | -18.46 | peak |
| 5875 | 71.94 | -2.65 | 69.29 | 85.2 | -15.91 | AVG |
| 5925 | 54.33 | -2.28 | 52.05 | 68.2 | -16.15 | peak |
| 5925 | 37.78 | -2.28 | 35.5 | 48.2 | -12.7 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 111.49 | -1.97 | 109.52 | 122.2 | -12.68 | peak |
| 5850 | 94.12 | -1.97 | 92.15 | 102.2 | -10.05 | AVG |
| 5855 | 94.13 | -2.13 | 92 | 110.8 | -18.8 | peak |
| 5855 | 74.59 | -2.13 | 72.46 | 90.8 | -18.34 | AVG |
| 5875 | 87.01 | -2.65 | 84.36 | 105.2 | -20.84 | peak |
| 5875 | 66.17 | -2.65 | 63.52 | 85.2 | -21.68 | AVG |
| 5925 | 57.83 | -2.28 | 55.55 | 68.2 | -12.65 | peak |
| 5925 | 39.95 | -2.28 | 37.67 | 48.2 | -10.53 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11n40 Mode with 5.8G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 56.82 | -2.06 | 54.76 | 68.2 | -13.44 | peak |
| 5650 | 37.09 | -2.06 | 35.03 | 48.2 | -13.17 | AVG |
| 5700 | 92.76 | -1.96 | 90.8 | 105.2 | -14.4 | peak |
| 5700 | 72.13 | -1.96 | 70.17 | 85.2 | -15.03 | AVG |
| 5720 | 92.41 | -2.87 | 89.54 | 110.8 | -21.26 | peak |
| 5720 | 64.09 | -2.87 | 61.22 | 90.8 | -29.58 | AVG |
| 5725 | 112.15 | -2.14 | 110.01 | 122.2 | -12.19 | peak |
| 5725 | 92.61 | -2.14 | 90.47 | 102.2 | -11.73 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 62.26 | -2.06 | 60.2 | 68.2 | -8 | peak |
| 5650 | 36.07 | -2.06 | 34.01 | 48.2 | -14.19 | AVG |
| 5700 | 97.02 | -1.96 | 95.06 | 105.2 | -10.14 | peak |
| 5700 | 71.23 | -1.96 | 69.27 | 85.2 | -15.93 | AVG |
| 5720 | 90.43 | -2.87 | 87.56 | 110.8 | -23.24 | peak |
| 5720 | 74.89 | -2.87 | 72.02 | 90.8 | -18.78 | AVG |
| 5725 | 112.21 | -2.14 | 110.07 | 122.2 | -12.13 | peak |
| 5725 | 90.28 | -2.14 | 88.14 | 102.2 | -14.06 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.8G
Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 62.19 | -1.97 | 60.22 | 122.2 | -61.98 | peak |
| 5850 | 35.29 | -1.97 | 33.32 | 102.2 | -68.88 | AVG |
| 5855 | 97.44 | -2.13 | 95.31 | 110.8 | -15.49 | peak |
| 5855 | 71.71 | -2.13 | 69.58 | 90.8 | -21.22 | AVG |
| 5875 | 90.97 | -2.65 | 88.32 | 105.2 | -16.88 | peak |
| 5875 | 75.85 | -2.65 | 73.2 | 85.2 | -12 | AVG |
| 5925 | 111.65 | -2.28 | 109.37 | 68.2 | 41.17 | peak |
| 5925 | 89.65 | -2.28 | 87.37 | 48.2 | 39.17 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 107.33 | -1.97 | 105.36 | 122.2 | -16.84 | peak |
| 5850 | 92.57 | -1.97 | 90.6 | 102.2 | -11.6 | AVG |
| 5855 | 91.54 | -2.13 | 89.41 | 110.8 | -21.39 | peak |
| 5855 | 75.26 | -2.13 | 73.13 | 90.8 | -17.67 | AVG |
| 5875 | 85.3 | -2.65 | 82.65 | 105.2 | -22.55 | peak |
| 5875 | 62.73 | -2.65 | 60.08 | 85.2 | -25.12 | AVG |
| 5925 | 54.36 | -2.28 | 52.08 | 68.2 | -16.12 | peak |
| 5925 | 38.65 | -2.28 | 36.37 | 48.2 | -11.83 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11ac20 Mode with 5.8G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 57.98 | -2.06 | 55.92 | 68.2 | -12.28 | peak |
| 5650 | 38.18 | -2.06 | 36.12 | 48.2 | -12.08 | AVG |
| 5700 | 88.48 | -1.96 | 86.52 | 105.2 | -18.68 | peak |
| 5700 | 65.57 | -1.96 | 63.61 | 85.2 | -21.59 | AVG |
| 5720 | 92.19 | -2.87 | 89.32 | 110.8 | -21.48 | peak |
| 5720 | 74.2 | -2.87 | 71.33 | 90.8 | -19.47 | AVG |
| 5725 | 110.81 | -2.14 | 108.67 | 122.2 | -13.53 | peak |
| 5725 | 88.14 | -2.14 | 86 | 102.2 | -16.2 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 58.31 | -2.06 | 56.25 | 68.2 | -11.95 | peak |
| 5650 | 37.61 | -2.06 | 35.55 | 48.2 | -12.65 | AVG |
| 5700 | 92.51 | -1.96 | 90.55 | 105.2 | -14.65 | peak |
| 5700 | 67.29 | -1.96 | 65.33 | 85.2 | -19.87 | AVG |
| 5720 | 92.91 | -2.87 | 90.04 | 110.8 | -20.76 | peak |
| 5720 | 78.26 | -2.87 | 75.39 | 90.8 | -15.41 | AVG |
| 5725 | 110.65 | -2.14 | 108.51 | 122.2 | -13.69 | peak |
| 5725 | 90.45 | -2.14 | 88.31 | 102.2 | -13.89 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.8G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 109.72 | -1.97 | 107.75 | 122.2 | -14.45 | peak |
| 5850 | 88.52 | -1.97 | 86.55 | 102.2 | -15.65 | AVG |
| 5855 | 95.51 | -2.13 | 93.38 | 110.8 | -17.42 | peak |
| 5855 | 76.68 | -2.13 | 74.55 | 90.8 | -16.25 | AVG |
| 5875 | 90.34 | -2.65 | 87.69 | 105.2 | -17.51 | peak |
| 5875 | 68.12 | -2.65 | 65.47 | 85.2 | -19.73 | AVG |
| 5925 | 53.61 | -2.28 | 51.33 | 68.2 | -16.87 | peak |
| 5925 | 37.41 | -2.28 | 35.13 | 48.2 | -13.07 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 109.95 | -1.97 | 107.98 | 122.2 | -14.22 | peak |
| 5850 | 86.98 | -1.97 | 85.01 | 102.2 | -17.19 | AVG |
| 5855 | 89.58 | -2.13 | 87.45 | 110.8 | -23.35 | peak |
| 5855 | 77.89 | -2.13 | 75.76 | 90.8 | -15.04 | AVG |
| 5875 | 84.81 | -2.65 | 82.16 | 105.2 | -23.04 | peak |
| 5875 | 72.21 | -2.65 | 69.56 | 85.2 | -15.64 | AVG |
| 5925 | 56.37 | -2.28 | 54.09 | 68.2 | -14.11 | peak |
| 5925 | 37.64 | -2.28 | 35.36 | 48.2 | -12.84 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11ac40 Mode with 5.8G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 58.38 | -2.06 | 56.32 | 68.2 | -11.88 | peak |
| 5650 | 36.35 | -2.06 | 34.29 | 48.2 | -13.91 | AVG |
| 5700 | 88.52 | -1.96 | 86.56 | 105.2 | -18.64 | peak |
| 5700 | 69.1 | -1.96 | 67.14 | 85.2 | -18.06 | AVG |
| 5720 | 94.57 | -2.87 | 91.7 | 110.8 | -19.1 | peak |
| 5720 | 74.31 | -2.87 | 71.44 | 90.8 | -19.36 | AVG |
| 5725 | 111.53 | -2.14 | 109.39 | 122.2 | -12.81 | peak |
| 5725 | 89.55 | -2.14 | 87.41 | 102.2 | -14.79 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 58.04 | -2.06 | 55.98 | 68.2 | -12.22 | peak |
| 5650 | 38.25 | -2.06 | 36.19 | 48.2 | -12.01 | AVG |
| 5700 | 88.35 | -1.96 | 86.39 | 105.2 | -18.81 | peak |
| 5700 | 67.66 | -1.96 | 65.7 | 85.2 | -19.5 | AVG |
| 5720 | 93.84 | -2.87 | 90.97 | 110.8 | -19.83 | peak |
| 5720 | 71.39 | -2.87 | 68.52 | 90.8 | -22.28 | AVG |
| 5725 | 112.5 | -2.14 | 110.36 | 122.2 | -11.84 | peak |
| 5725 | 92.34 | -2.14 | 90.2 | 102.2 | -12 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.8G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 113.25 | -1.97 | 111.28 | 122.2 | -10.92 | peak |
| 5850 | 90.66 | -1.97 | 88.69 | 102.2 | -13.51 | AVG |
| 5855 | 91.34 | -2.13 | 89.21 | 110.8 | -21.59 | peak |
| 5855 | 75.55 | -2.13 | 73.42 | 90.8 | -17.38 | AVG |
| 5875 | 87.23 | -2.65 | 84.58 | 105.2 | -20.62 | peak |
| 5875 | 64.49 | -2.65 | 61.84 | 85.2 | -23.36 | AVG |
| 5925 | 54.42 | -2.28 | 52.14 | 68.2 | -16.06 | peak |
| 5925 | 37.73 | -2.28 | 35.45 | 48.2 | -12.75 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 113.04 | -1.97 | 111.07 | 122.2 | -11.13 | peak |
| 5850 | 88.52 | -1.97 | 86.55 | 102.2 | -15.65 | AVG |
| 5855 | 91.19 | -2.13 | 89.06 | 110.8 | -21.74 | peak |
| 5855 | 70.96 | -2.13 | 68.83 | 90.8 | -21.97 | AVG |
| 5875 | 87.56 | -2.65 | 84.91 | 105.2 | -20.29 | peak |
| 5875 | 64.66 | -2.65 | 62.01 | 85.2 | -23.19 | AVG |
| 5925 | 56.36 | -2.28 | 54.08 | 68.2 | -14.12 | peak |
| 5925 | 34.15 | -2.28 | 31.87 | 48.2 | -16.33 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11ac80 Mode with 5.8G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 56.73 | -2.06 | 54.67 | 68.2 | -13.53 | peak |
| 5650 | 37.69 | -2.06 | 35.63 | 48.2 | -12.57 | AVG |
| 5700 | 87.31 | -1.96 | 85.35 | 105.2 | -19.85 | peak |
| 5700 | 65.28 | -1.96 | 63.32 | 85.2 | -21.88 | AVG |
| 5720 | 94.11 | -2.87 | 91.24 | 110.8 | -19.56 | peak |
| 5720 | 76.37 | -2.87 | 73.5 | 90.8 | -17.3 | AVG |
| 5725 | 111.82 | -2.14 | 109.68 | 122.2 | -12.52 | peak |
| 5725 | 91.22 | -2.14 | 89.08 | 102.2 | -13.12 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 56.41 | -2.06 | 54.35 | 68.2 | -13.85 | peak |
| 5650 | 37.17 | -2.06 | 35.11 | 48.2 | -13.09 | AVG |
| 5700 | 91.62 | -1.96 | 89.66 | 105.2 | -15.54 | peak |
| 5700 | 67.88 | -1.96 | 65.92 | 85.2 | -19.28 | AVG |
| 5720 | 94.58 | -2.87 | 91.71 | 110.8 | -19.09 | peak |
| 5720 | 69.61 | -2.87 | 66.74 | 90.8 | -24.06 | AVG |
| 5725 | 112.12 | -2.14 | 109.98 | 122.2 | -12.22 | peak |
| 5725 | 94.68 | -2.14 | 92.54 | 102.2 | -9.66 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.8G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 111.38 | -1.97 | 109.41 | 122.2 | -12.79 | peak |
| 5850 | 91.81 | -1.97 | 89.84 | 102.2 | -12.36 | AVG |
| 5855 | 92.69 | -2.13 | 90.56 | 110.8 | -20.24 | peak |
| 5855 | 76.96 | -2.13 | 74.83 | 90.8 | -15.97 | AVG |
| 5875 | 84.84 | -2.65 | 82.19 | 105.2 | -23.01 | peak |
| 5875 | 62.26 | -2.65 | 59.61 | 85.2 | -25.59 | AVG |
| 5925 | 51.79 | -2.28 | 49.51 | 68.2 | -18.69 | peak |
| 5925 | 39.27 | -2.28 | 36.99 | 48.2 | -11.21 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 111.21 | -1.97 | 109.24 | 122.2 | -12.96 | peak |
| 5850 | 92.83 | -1.97 | 90.86 | 102.2 | -11.34 | AVG |
| 5855 | 94.44 | -2.13 | 92.31 | 110.8 | -18.49 | peak |
| 5855 | 77.06 | -2.13 | 74.93 | 90.8 | -15.87 | AVG |
| 5875 | 82.74 | -2.65 | 80.09 | 105.2 | -25.11 | peak |
| 5875 | 64.96 | -2.65 | 62.31 | 85.2 | -22.89 | AVG |
| 5925 | 56.49 | -2.28 | 54.21 | 68.2 | -13.99 | peak |
| 5925 | 37.15 | -2.28 | 34.87 | 48.2 | -13.33 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

**ANT 2**

Operation Mode: 802.11a Mode with 5.8G TX CH Low

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 57.57 | -2.06 | 55.51 | 68.2 | -12.69 | peak |
| 5650 | 34.32 | -2.06 | 32.26 | 48.2 | -15.94 | AVG |
| 5700 | 92.04 | -1.96 | 90.08 | 105.2 | -15.12 | peak |
| 5700 | 66.58 | -1.96 | 64.62 | 85.2 | -20.58 | AVG |
| 5720 | 94.71 | -2.87 | 91.84 | 110.8 | -18.96 | peak |
| 5720 | 74.16 | -2.87 | 71.29 | 90.8 | -19.51 | AVG |
| 5725 | 110.76 | -2.14 | 108.62 | 122.2 | -13.58 | peak |
| 5725 | 89.85 | -2.14 | 87.71 | 102.2 | -14.49 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 58.57 | -2.06 | 56.51 | 68.2 | -11.69 | peak |
| 5650 | 38.15 | -2.06 | 36.09 | 48.2 | -12.11 | AVG |
| 5700 | 91.24 | -1.96 | 89.28 | 105.2 | -15.92 | peak |
| 5700 | 64.84 | -1.96 | 62.88 | 85.2 | -22.32 | AVG |
| 5720 | 97.7 | -2.87 | 94.83 | 110.8 | -15.97 | peak |
| 5720 | 73.38 | -2.87 | 70.51 | 90.8 | -20.29 | AVG |
| 5725 | 111.25 | -2.14 | 109.11 | 122.2 | -13.09 | peak |
| 5725 | 89.62 | -2.14 | 87.48 | 102.2 | -14.72 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.8G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 113.01 | -1.97 | 111.04 | 122.2 | -11.16 | peak |
| 5850 | 89.11 | -1.97 | 87.14 | 102.2 | -15.06 | AVG |
| 5855 | 94.92 | -2.13 | 92.79 | 110.8 | -18.01 | peak |
| 5855 | 74.16 | -2.13 | 72.03 | 90.8 | -18.77 | AVG |
| 5875 | 86.63 | -2.65 | 83.98 | 105.2 | -21.22 | peak |
| 5875 | 65.66 | -2.65 | 63.01 | 85.2 | -22.19 | AVG |
| 5925 | 55.47 | -2.28 | 53.19 | 68.2 | -15.01 | peak |
| 5925 | 39.14 | -2.28 | 36.86 | 48.2 | -11.34 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 112.04 | -1.97 | 110.07 | 122.2 | -12.13 | peak |
| 5850 | 90.49 | -1.97 | 88.52 | 102.2 | -13.68 | AVG |
| 5855 | 93.74 | -2.13 | 91.61 | 110.8 | -19.19 | peak |
| 5855 | 77.6 | -2.13 | 75.47 | 90.8 | -15.33 | AVG |
| 5875 | 86.74 | -2.65 | 84.09 | 105.2 | -21.11 | peak |
| 5875 | 66.57 | -2.65 | 63.92 | 85.2 | -21.28 | AVG |
| 5925 | 56.82 | -2.28 | 54.54 | 68.2 | -13.66 | peak |
| 5925 | 38.73 | -2.28 | 36.45 | 48.2 | -11.75 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11n20 Mode with 5.8G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 58.48 | -2.06 | 56.42 | 68.2 | -11.78 | peak |
| 5650 | 36.79 | -2.06 | 34.73 | 48.2 | -13.47 | AVG |
| 5700 | 90.58 | -1.96 | 88.62 | 105.2 | -16.58 | peak |
| 5700 | 70.12 | -1.96 | 68.16 | 85.2 | -17.04 | AVG |
| 5720 | 91.61 | -2.87 | 88.74 | 110.8 | -22.06 | peak |
| 5720 | 76.38 | -2.87 | 73.51 | 90.8 | -17.29 | AVG |
| 5725 | 112.01 | -2.14 | 109.87 | 122.2 | -12.33 | peak |
| 5725 | 95.93 | -2.14 | 93.79 | 102.2 | -8.41 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 59.55 | -2.06 | 57.49 | 68.2 | -10.71 | peak |
| 5650 | 38.82 | -2.06 | 36.76 | 48.2 | -11.44 | AVG |
| 5700 | 96.87 | -1.96 | 94.91 | 105.2 | -10.29 | peak |
| 5700 | 67.54 | -1.96 | 65.58 | 85.2 | -19.62 | AVG |
| 5720 | 93.03 | -2.87 | 90.16 | 110.8 | -20.64 | peak |
| 5720 | 77.91 | -2.87 | 75.04 | 90.8 | -15.76 | AVG |
| 5725 | 112.03 | -2.14 | 109.89 | 122.2 | -12.31 | peak |
| 5725 | 95.01 | -2.14 | 92.87 | 102.2 | -9.33 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.8G
Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 111.06 | -1.97 | 109.09 | 122.2 | -13.11 | peak |
| 5850 | 88.96 | -1.97 | 86.99 | 102.2 | -15.21 | AVG |
| 5855 | 92.39 | -2.13 | 90.26 | 110.8 | -20.54 | peak |
| 5855 | 79.21 | -2.13 | 77.08 | 90.8 | -13.72 | AVG |
| 5875 | 84.3 | -2.65 | 81.65 | 105.2 | -23.55 | peak |
| 5875 | 68.38 | -2.65 | 65.73 | 85.2 | -19.47 | AVG |
| 5925 | 52.47 | -2.28 | 50.19 | 68.2 | -18.01 | peak |
| 5925 | 36.38 | -2.28 | 34.1 | 48.2 | -14.1 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 110.68 | -1.97 | 108.71 | 122.2 | -13.49 | peak |
| 5850 | 91.25 | -1.97 | 89.28 | 102.2 | -12.92 | AVG |
| 5855 | 95.32 | -2.13 | 93.19 | 110.8 | -17.61 | peak |
| 5855 | 79.09 | -2.13 | 76.96 | 90.8 | -13.84 | AVG |
| 5875 | 87.24 | -2.65 | 84.59 | 105.2 | -20.61 | peak |
| 5875 | 68.35 | -2.65 | 65.7 | 85.2 | -19.5 | AVG |
| 5925 | 57.47 | -2.28 | 55.19 | 68.2 | -13.01 | peak |
| 5925 | 42.25 | -2.28 | 39.97 | 48.2 | -8.23 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11n40 Mode with 5.8G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 54.97 | -2.06 | 52.91 | 68.2 | -15.29 | peak |
| 5650 | 36.41 | -2.06 | 34.35 | 48.2 | -13.85 | AVG |
| 5700 | 94.67 | -1.96 | 92.71 | 105.2 | -12.49 | peak |
| 5700 | 65.07 | -1.96 | 63.11 | 85.2 | -22.09 | AVG |
| 5720 | 92.09 | -2.87 | 89.22 | 110.8 | -21.58 | peak |
| 5720 | 73.29 | -2.87 | 70.42 | 90.8 | -20.38 | AVG |
| 5725 | 111.39 | -2.14 | 109.25 | 122.2 | -12.95 | peak |
| 5725 | 91.41 | -2.14 | 89.27 | 102.2 | -12.93 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 60.64 | -2.06 | 58.58 | 68.2 | -9.62 | peak |
| 5650 | 37.67 | -2.06 | 35.61 | 48.2 | -12.59 | AVG |
| 5700 | 96.21 | -1.96 | 94.25 | 105.2 | -10.95 | peak |
| 5700 | 66.25 | -1.96 | 64.29 | 85.2 | -20.91 | AVG |
| 5720 | 90.23 | -2.87 | 87.36 | 110.8 | -23.44 | peak |
| 5720 | 74.42 | -2.87 | 71.55 | 90.8 | -19.25 | AVG |
| 5725 | 112.4 | -2.14 | 110.26 | 122.2 | -11.94 | peak |
| 5725 | 89.34 | -2.14 | 87.2 | 102.2 | -15 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.8G
Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 107.95 | -1.97 | 105.98 | 122.2 | -16.22 | peak |
| 5850 | 88.97 | -1.97 | 87 | 102.2 | -15.2 | AVG |
| 5855 | 94.63 | -2.13 | 92.5 | 110.8 | -18.3 | peak |
| 5855 | 77.02 | -2.13 | 74.89 | 90.8 | -15.91 | AVG |
| 5875 | 89.98 | -2.65 | 87.33 | 105.2 | -17.87 | peak |
| 5875 | 65.02 | -2.65 | 62.37 | 85.2 | -22.83 | AVG |
| 5925 | 54.37 | -2.28 | 52.09 | 68.2 | -16.11 | peak |
| 5925 | 41.95 | -2.28 | 39.67 | 48.2 | -8.53 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 108.22 | -1.97 | 106.25 | 122.2 | -15.95 | peak |
| 5850 | 93.73 | -1.97 | 91.76 | 102.2 | -10.44 | AVG |
| 5855 | 94.33 | -2.13 | 92.2 | 110.8 | -18.6 | peak |
| 5855 | 73.97 | -2.13 | 71.84 | 90.8 | -18.96 | AVG |
| 5875 | 87.04 | -2.65 | 84.39 | 105.2 | -20.81 | peak |
| 5875 | 68.16 | -2.65 | 65.51 | 85.2 | -19.69 | AVG |
| 5925 | 52.37 | -2.28 | 50.09 | 68.2 | -18.11 | peak |
| 5925 | 35.56 | -2.28 | 33.28 | 48.2 | -14.92 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11ac20 Mode with 5.8G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 59.52 | -2.06 | 57.46 | 68.2 | -10.74 | peak |
| 5650 | 37.46 | -2.06 | 35.4 | 48.2 | -12.8 | AVG |
| 5700 | 89.47 | -1.96 | 87.51 | 105.2 | -17.69 | peak |
| 5700 | 68.3 | -1.96 | 66.34 | 85.2 | -18.86 | AVG |
| 5720 | 93.76 | -2.87 | 90.89 | 110.8 | -19.91 | peak |
| 5720 | 74.69 | -2.87 | 71.82 | 90.8 | -18.98 | AVG |
| 5725 | 110.41 | -2.14 | 108.27 | 122.2 | -13.93 | peak |
| 5725 | 94.97 | -2.14 | 92.83 | 102.2 | -9.37 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 59.48 | -2.06 | 57.42 | 68.2 | -10.78 | peak |
| 5650 | 36.26 | -2.06 | 34.2 | 48.2 | -14 | AVG |
| 5700 | 90.75 | -1.96 | 88.79 | 105.2 | -16.41 | peak |
| 5700 | 66.95 | -1.96 | 64.99 | 85.2 | -20.21 | AVG |
| 5720 | 96.57 | -2.87 | 93.7 | 110.8 | -17.1 | peak |
| 5720 | 72.03 | -2.87 | 69.16 | 90.8 | -21.64 | AVG |
| 5725 | 111.52 | -2.14 | 109.38 | 122.2 | -12.82 | peak |
| 5725 | 94.44 | -2.14 | 92.3 | 102.2 | -9.9 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.8G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 109.19 | -1.97 | 107.22 | 122.2 | -14.98 | peak |
| 5850 | 91.55 | -1.97 | 89.58 | 102.2 | -12.62 | AVG |
| 5855 | 93.61 | -2.13 | 91.48 | 110.8 | -19.32 | peak |
| 5855 | 75.86 | -2.13 | 73.73 | 90.8 | -17.07 | AVG |
| 5875 | 87.63 | -2.65 | 84.98 | 105.2 | -20.22 | peak |
| 5875 | 70.32 | -2.65 | 67.67 | 85.2 | -17.53 | AVG |
| 5925 | 53.83 | -2.28 | 51.55 | 68.2 | -16.65 | peak |
| 5925 | 35.97 | -2.28 | 33.69 | 48.2 | -14.51 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 112.43 | -1.97 | 110.46 | 122.2 | -11.74 | peak |
| 5850 | 90.68 | -1.97 | 88.71 | 102.2 | -13.49 | AVG |
| 5855 | 92.69 | -2.13 | 90.56 | 110.8 | -20.24 | peak |
| 5855 | 75.17 | -2.13 | 73.04 | 90.8 | -17.76 | AVG |
| 5875 | 84.98 | -2.65 | 82.33 | 105.2 | -22.87 | peak |
| 5875 | 65.6 | -2.65 | 62.95 | 85.2 | -22.25 | AVG |
| 5925 | 54.28 | -2.28 | 52 | 68.2 | -16.2 | peak |
| 5925 | 37.07 | -2.28 | 34.79 | 48.2 | -13.41 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11ac40 Mode with 5.8G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 56.44 | -2.06 | 54.38 | 68.2 | -13.82 | peak |
| 5650 | 37.04 | -2.06 | 34.98 | 48.2 | -13.22 | AVG |
| 5700 | 88.49 | -1.96 | 86.53 | 105.2 | -18.67 | peak |
| 5700 | 67.22 | -1.96 | 65.26 | 85.2 | -19.94 | AVG |
| 5720 | 90.48 | -2.87 | 87.61 | 110.8 | -23.19 | peak |
| 5720 | 75.21 | -2.87 | 72.34 | 90.8 | -18.46 | AVG |
| 5725 | 110.8 | -2.14 | 108.66 | 122.2 | -13.54 | peak |
| 5725 | 92.87 | -2.14 | 90.73 | 102.2 | -11.47 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 57.74 | -2.06 | 55.68 | 68.2 | -12.52 | peak |
| 5650 | 38.51 | -2.06 | 36.45 | 48.2 | -11.75 | AVG |
| 5700 | 91.91 | -1.96 | 89.95 | 105.2 | -15.25 | peak |
| 5700 | 67.32 | -1.96 | 65.36 | 85.2 | -19.84 | AVG |
| 5720 | 94.97 | -2.87 | 92.1 | 110.8 | -18.7 | peak |
| 5720 | 75.44 | -2.87 | 72.57 | 90.8 | -18.23 | AVG |
| 5725 | 113.42 | -2.14 | 111.28 | 122.2 | -10.92 | peak |
| 5725 | 93.58 | -2.14 | 91.44 | 102.2 | -10.76 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.8G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz) | (dBµV) | (dB) | (dBµV/m) | (dBµV/m) | (dB) | |
| 5850 | 112.13 | -1.97 | 110.16 | 122.2 | -12.04 | peak |
| 5850 | 91.19 | -1.97 | 89.22 | 102.2 | -12.98 | AVG |
| 5855 | 94.04 | -2.13 | 91.91 | 110.8 | -18.89 | peak |
| 5855 | 76.13 | -2.13 | 74 | 90.8 | -16.8 | AVG |
| 5875 | 87.25 | -2.65 | 84.6 | 105.2 | -20.6 | peak |
| 5875 | 68.72 | -2.65 | 66.07 | 85.2 | -19.13 | AVG |
| 5925 | 54.78 | -2.28 | 52.5 | 68.2 | -15.7 | peak |
| 5925 | 34.84 | -2.28 | 32.56 | 48.2 | -15.64 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz) | (dBµV) | (dB) | (dBµV/m) | (dBµV/m) | (dB) | |
| 5850 | 113.75 | -1.97 | 111.78 | 122.2 | -10.42 | peak |
| 5850 | 88.15 | -1.97 | 86.18 | 102.2 | -16.02 | AVG |
| 5855 | 91.92 | -2.13 | 89.79 | 110.8 | -21.01 | peak |
| 5855 | 78.36 | -2.13 | 76.23 | 90.8 | -14.57 | AVG |
| 5875 | 86.3 | -2.65 | 83.65 | 105.2 | -21.55 | peak |
| 5875 | 64.03 | -2.65 | 61.38 | 85.2 | -23.82 | AVG |
| 5925 | 54.45 | -2.28 | 52.17 | 68.2 | -16.03 | peak |
| 5925 | 39.21 | -2.28 | 36.93 | 48.2 | -11.27 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: 802.11ac80 Mode with 5.8G TX CH Low

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 58.16 | -2.06 | 56.1 | 68.2 | -12.1 | peak |
| 5650 | 35.87 | -2.06 | 33.81 | 48.2 | -14.39 | AVG |
| 5700 | 91.08 | -1.96 | 89.12 | 105.2 | -16.08 | peak |
| 5700 | 75.04 | -1.96 | 73.08 | 85.2 | -12.12 | AVG |
| 5720 | 90.7 | -2.87 | 87.83 | 110.8 | -22.97 | peak |
| 5720 | 65.23 | -2.87 | 62.36 | 90.8 | -28.44 | AVG |
| 5725 | 111.41 | -2.14 | 109.27 | 122.2 | -12.93 | peak |
| 5725 | 85.73 | -2.14 | 83.59 | 102.2 | -18.61 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5650 | 58.13 | -2.06 | 56.07 | 68.2 | -12.13 | peak |
| 5650 | 34.79 | -2.06 | 32.73 | 48.2 | -15.47 | AVG |
| 5700 | 91.22 | -1.96 | 89.26 | 105.2 | -15.94 | peak |
| 5700 | 67.65 | -1.96 | 65.69 | 85.2 | -19.51 | AVG |
| 5720 | 95.17 | -2.87 | 92.3 | 110.8 | -18.5 | peak |
| 5720 | 76.05 | -2.87 | 73.18 | 90.8 | -17.62 | AVG |
| 5725 | 114.19 | -2.14 | 112.05 | 122.2 | -10.15 | peak |
| 5725 | 93.55 | -2.14 | 91.41 | 102.2 | -10.79 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Operation Mode: TX CH High with 5.8G

Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 113.9 | -1.97 | 111.93 | 122.2 | -10.27 | peak |
| 5850 | 90.77 | -1.97 | 88.8 | 102.2 | -13.4 | AVG |
| 5855 | 94.16 | -2.13 | 92.03 | 110.8 | -18.77 | peak |
| 5855 | 81.16 | -2.13 | 79.03 | 90.8 | -11.77 | AVG |
| 5875 | 85.35 | -2.65 | 82.7 | 105.2 | -22.5 | peak |
| 5875 | 62.49 | -2.65 | 59.84 | 85.2 | -25.36 | AVG |
| 5925 | 51.59 | -2.28 | 49.31 | 68.2 | -18.89 | peak |
| 5925 | 37.42 | -2.28 | 35.14 | 48.2 | -13.06 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 5850 | 109.85 | -1.97 | 107.88 | 122.2 | -14.32 | peak |
| 5850 | 92.48 | -1.97 | 90.51 | 102.2 | -11.69 | AVG |
| 5855 | 92.86 | -2.13 | 90.73 | 110.8 | -20.07 | peak |
| 5855 | 77.36 | -2.13 | 75.23 | 90.8 | -15.57 | AVG |
| 5875 | 87.37 | -2.65 | 84.72 | 105.2 | -20.48 | peak |
| 5875 | 63.57 | -2.65 | 60.92 | 85.2 | -24.28 | AVG |
| 5925 | 56.89 | -2.28 | 54.61 | 68.2 | -13.59 | peak |
| 5925 | 36.9 | -2.28 | 34.62 | 48.2 | -13.58 | AVG |

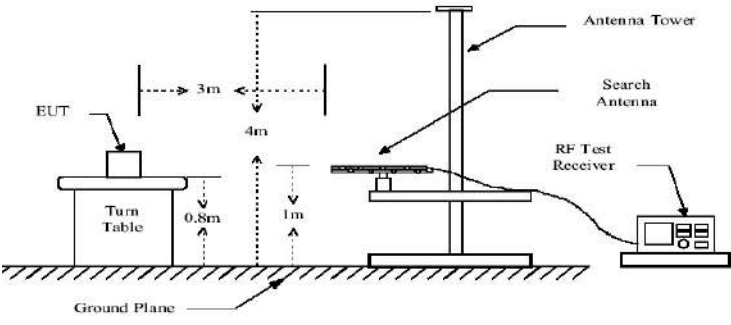
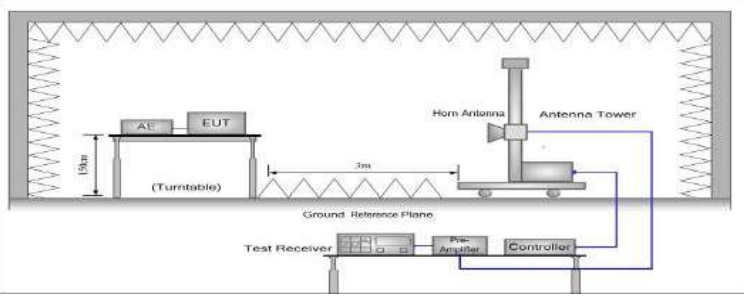
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



4.7. Spurious Emission

4.7.1.1. Test Specification

| | | | | | |
|------------------------------|---|-----------------------------------|-------------------------------|--------|------------------|
| Test Requirement: | FCC CFR47 Part 15 Section 15.407 & 15.209 & 15.205 | | | | |
| Test Method: | KDB 789033 D02 v02r01 | | | | |
| Frequency Range: | 9kHz to 40GHz | | | | |
| Measurement Distance: | 3 m | | | | |
| Antenna Polarization: | Horizontal & Vertical | | | | |
| Operation mode: | Transmitting mode with modulation | | | | |
| Receiver Setup: | Frequency | Detector | RBW | VBW | Remark |
| | 9kHz- 150kHz | Quasi-peak | 200Hz | 1kHz | Quasi-peak Value |
| | 150kHz- 30MHz | Quasi-peak | 9kHz | 30kHz | Quasi-peak Value |
| | 30MHz-1GHz | Quasi-peak | 100kHz | 300kHz | Quasi-peak Value |
| | Above 1GHz | Peak | 1MHz | 3MHz | Peak Value |
| | | Peak | 1MHz | 10Hz | Average Value |
| Limit: | Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table, | | | | |
| | Frequency | Field Strength (microvolts/meter) | Measurement Distance (meters) | | |
| | 0.009-0.490 | 2400/F(KHz) | 300 | | |
| | 0.490-1.705 | 24000/F(KHz) | 30 | | |
| | 1.705-30 | 30 | 30 | | |
| | 30-88 | 100 | 3 | | |
| | 88-216 | 150 | 3 | | |
| | 216-960 | 200 | 3 | | |
| | Above 960 | 500 | 3 | | |
| | Frequency | Limit (dBuV/m @3m) | Detector | | |
| Above 1G | 74.0 | Peak | | | |
| | 54.0 | Average | | | |
| Test setup: | For radiated emissions below 30MHz | | | | |
| | <p style="text-align: center;">30MHz to 1GHz</p> | | | | |

| | |
|-------------------------------|--|
| |  <p>Above 1GHz</p>  |
| <p>Test Procedure:</p> | <ol style="list-style-type: none"> 1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. |
| <p>Test results:</p> | <p>PASS</p> |



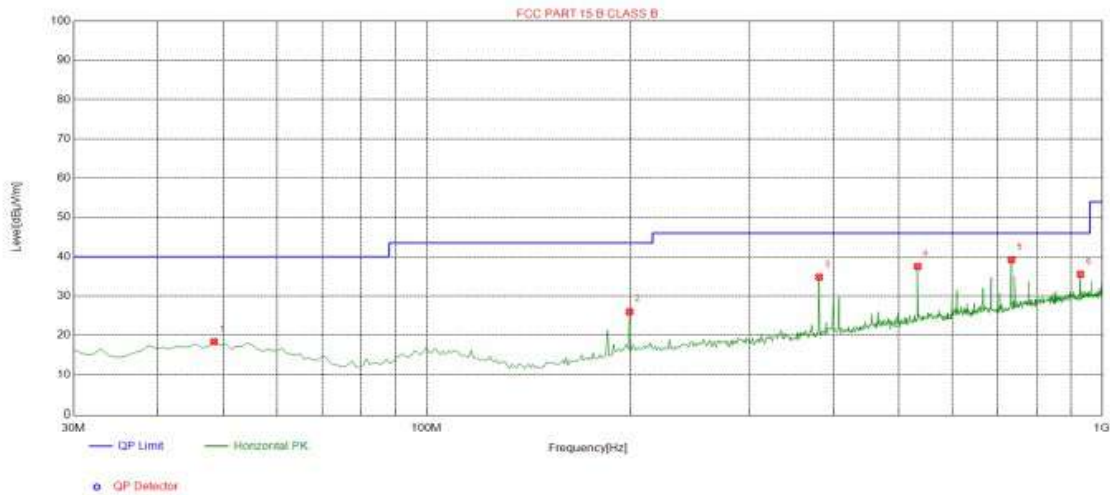
4.7.2. Test Data

test mode: TX 802.11a 5180MHz

All the test modes completed for test. The worst case of Radiated Emission; the test data of this mode was reported.

Below 1GHz

Horizontal



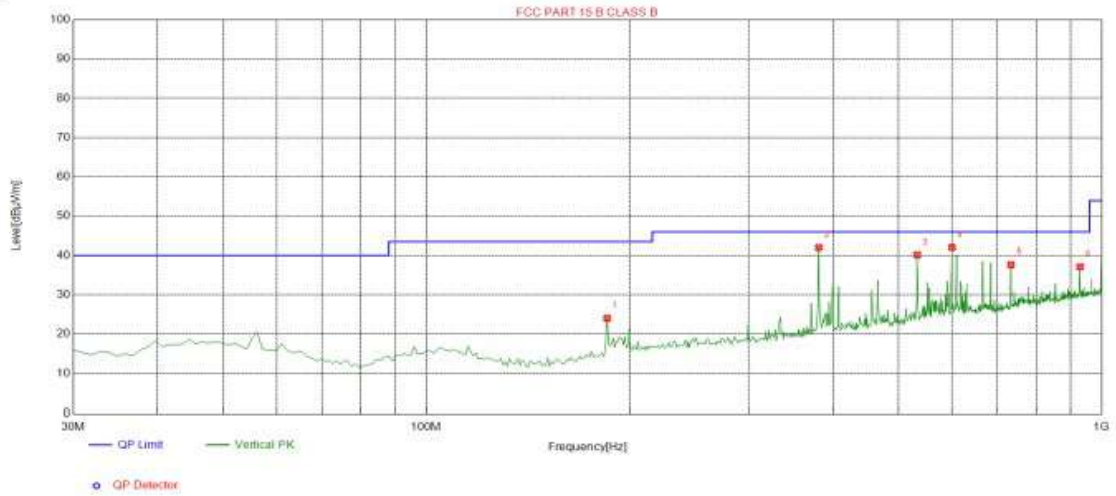
Suspected List

| Suspected List | | | | | | | | |
|----------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO. | Freq. [MHz] | Level [dBµV/m] | Factor [dB] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1 | 48.4300 | 18.39 | -13.65 | 40.00 | 21.61 | 100 | 176 | Horizontal |
| 2 | 199.750 | 26.00 | -15.08 | 43.50 | 17.50 | 100 | 40 | Horizontal |
| 3 | 381.140 | 34.80 | -10.81 | 46.00 | 11.20 | 100 | 292 | Horizontal |
| 4 | 533.430 | 37.52 | -7.37 | 46.00 | 8.48 | 100 | 170 | Horizontal |
| 5 | 734.220 | 39.21 | -4.37 | 46.00 | 6.79 | 100 | 351 | Horizontal |
| 6 | 929.190 | 35.53 | -1.84 | 46.00 | 10.47 | 100 | 133 | Horizontal |

Remark: Transd = Cable lose + Antenna factor - Pre-amplifier; Margin = Limit – Level



Vertical



Suspected List

| Suspected List | | | | | | | | |
|----------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO. | Freq. [MHz] | Level [dBµV/m] | Factor [dB] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1 | 185.200 | 24.02 | -16.42 | 43.50 | 19.48 | 100 | 185 | Vertical |
| 2 | 381.140 | 42.03 | -10.81 | 46.00 | 3.97 | 100 | 175 | Vertical |
| 3 | 533.430 | 40.16 | -7.37 | 46.00 | 5.84 | 100 | 63 | Vertical |
| 4 | 600.360 | 42.06 | -6.09 | 46.00 | 3.94 | 100 | 229 | Vertical |
| 5 | 734.220 | 37.65 | -4.37 | 46.00 | 8.35 | 100 | 231 | Vertical |
| 6 | 929.190 | 37.12 | -1.84 | 46.00 | 8.88 | 100 | 282 | Vertical |

Remark: Transd = Cable lose + Antenna factor - Pre-amplifier; Margin = Limit – Level

**Above 1GHz**

LOW CH 36 (802.11 a Mode with 5.2G)/5180

Horizontal:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 3647 | 60.51 | -4.59 | 55.92 | 74 | -18.08 | peak |
| 3647 | 46.82 | -4.59 | 42.23 | 54 | -11.77 | AVG |
| 10360 | 51.71 | 3.74 | 55.45 | 74 | -18.55 | peak |
| 10360 | 42.68 | 3.74 | 46.42 | 54 | -7.58 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 3647 | 60.22 | -4.59 | 55.63 | 74 | -18.37 | peak |
| 3647 | 45.68 | -4.59 | 41.09 | 54 | -12.91 | AVG |
| 10360 | 50.44 | 3.74 | 54.18 | 74 | -19.82 | peak |
| 10360 | 40.35 | 3.74 | 44.09 | 54 | -9.91 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



MID CH40 (802.11 a Mode with 5.2G)/5200
Horizontal:

| Frequency (MHz) | Meter Reading (dB μ V) | Factor (dB) | Emission Level (dB μ V/m) | Limits (dB μ V/m) | Margin (dB) | Detector Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|---------------|
| 3647 | 62.01 | -4.59 | 57.42 | 74 | -16.58 | peak |
| 3647 | 45.14 | -4.59 | 40.55 | 54 | -13.45 | AVG |
| 10400 | 53.59 | 3.74 | 57.33 | 74 | -16.67 | peak |
| 10400 | 39.32 | 3.74 | 43.06 | 54 | -10.94 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency (MHz) | Meter Reading (dB μ V) | Factor (dB) | Emission Level (dB μ V/m) | Limits (dB μ V/m) | Margin (dB) | Detector Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|---------------|
| 3647 | 62.35 | -4.59 | 57.76 | 74 | -16.24 | peak |
| 3647 | 45.67 | -4.59 | 41.08 | 54 | -12.92 | AVG |
| 10400 | 54.04 | 3.74 | 57.78 | 74 | -16.22 | peak |
| 10400 | 40.51 | 3.74 | 44.25 | 54 | -9.75 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



HIGH CH 48 (802.11a Mode with 5.2G)/5240
Horizontal:

| Frequency (MHz) | Meter Reading (dB μ V) | Factor (dB) | Emission Level (dB μ V/m) | Limits (dB μ V/m) | Margin (dB) | Detector Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|---------------|
| 3647 | 61.62 | -4.59 | 57.03 | 74 | -16.97 | |
| 3647 | 45.14 | -4.59 | 40.55 | 54 | -13.45 | AVG |
| 10480 | 53.27 | 3.75 | 57.02 | 74 | -16.98 | peak |
| 10480 | 41.93 | 3.75 | 45.68 | 54 | -8.32 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency (MHz) | Meter Reading (dB μ V) | Factor (dB) | Emission Level (dB μ V/m) | Limits (dB μ V/m) | Margin (dB) | Detector Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|---------------|
| 3647 | 61.12 | -4.59 | 56.53 | 74 | -17.47 | |
| 3647 | 45.39 | -4.59 | 40.8 | 54 | -13.2 | AVG |
| 10480 | 51.87 | 3.75 | 55.62 | 74 | -18.38 | peak |
| 10480 | 61.43 | 3.75 | 65.18 | 54 | 11.18 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Remark:

- (1) Measuring frequencies from 1 GHz to the 25 GHz.
- (2) "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency.
- (3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (4) Data of measurement within this frequency range shown "---" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.
- (6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dB μ V/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dB μ V/m(PK Value) <54 dB μ V/m(AV Limit), the Average Detected not need to completed.



LOW CH 149 (802.11 a Mode with 5.8G)/5745

Horizontal:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 3368 | 64.76 | -4.59 | 60.17 | 74 | -13.83 | peak |
| 3368 | 46.72 | -4.59 | 42.13 | 54 | -11.87 | AVG |
| 11096 | 50.47 | 4.21 | 54.68 | 74 | -19.32 | peak |
| 11096 | 38.94 | 4.21 | 43.15 | 54 | -10.85 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 3368 | 61.99 | -4.59 | 57.4 | 74 | -16.6 | peak |
| 3368 | 48.21 | -4.59 | 43.62 | 54 | -10.38 | AVG |
| 11096 | 55.66 | 4.21 | 59.87 | 74 | -14.13 | peak |
| 11096 | 37.11 | 4.21 | 41.32 | 54 | -12.68 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



MID CH157 (802.11 a Mode with 5.8G)/5785

Horizontal:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 3172 | 62.83 | -4.59 | 58.24 | 74 | -15.76 | peak |
| 3172 | 45.35 | -4.59 | 40.76 | 54 | -13.24 | AVG |
| 10523 | 52.21 | 4.21 | 56.42 | 74 | -17.58 | peak |
| 10523 | 42.02 | 4.21 | 46.23 | 54 | -7.77 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------------|--------|---------------|
| (MHz) | (dB μ V) | (dB) | (dB μ V/m) | (dB μ V/m) | (dB) | |
| 3172 | 56.67 | -4.59 | 52.08 | 74 | -21.92 | peak |
| 3172 | 45.09 | -4.59 | 40.5 | 54 | -13.5 | AVG |
| 10523 | 53.49 | 4.21 | 57.7 | 74 | -16.3 | peak |
| 10523 | 37.8 | 4.21 | 42.01 | 54 | -11.99 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



HIGH CH 165 (802.11a Mode with 5.8G)/5825

Horizontal:

| Frequency (MHz) | Meter Reading (dB μ V) | Factor (dB) | Emission Level (dB μ V/m) | Limits (dB μ V/m) | Margin (dB) | Detector Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|---------------|
| 2705 | 59.38 | -4.59 | 54.79 | 74 | -19.21 | peak |
| 2705 | 48.47 | -4.59 | 43.88 | 54 | -10.12 | AVG |
| 11717 | 53.25 | 4.84 | 58.09 | 74 | -15.91 | peak |
| 11717 | 37.75 | 4.84 | 42.59 | 54 | -11.41 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

| Frequency (MHz) | Meter Reading (dB μ V) | Factor (dB) | Emission Level (dB μ V/m) | Limits (dB μ V/m) | Margin (dB) | Detector Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|---------------|
| 2705 | 58.05 | -4.59 | 53.46 | 74 | -20.54 | peak |
| 2705 | 45.28 | -4.59 | 40.69 | 54 | -13.31 | AVG |
| 11717 | 50.61 | 4.84 | 55.45 | 74 | -18.55 | peak |
| 11717 | 39.18 | 4.84 | 44.02 | 54 | -9.98 | AVG |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Remark:

- (1) Measuring frequencies from 1 GHz to the 40 GHz.
- (2) "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency.
- (3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (4) Data of measurement within this frequency range shown "---" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.
- (6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.



4.8. Frequency Stability Measurement

4.8.1. Test Specification

| | |
|--------------------------|---|
| Test Requirement: | FCC Part15 Section 15.407(g) |
| Test Method: | ANSI C63.10: 2013 |
| Limit: | The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of -30 degrees to 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 25 degrees C. |
| Test Setup: | <pre> graph LR SA[Spectrum Analyzer] --- EUT[EUT] subgraph TC [Temperature Chamber] EUT end P[AC/DC Power supply] --- EUT </pre> |
| Test Procedure: | <p>Frequency stability V.S. Temperature measurement:</p> <ol style="list-style-type: none"> 1. The equipment under test was connected to an external DC power supply and input rated voltage. 2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. 3. The EUT was placed inside the temperature chamber. 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to - 30 °C . After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached, and record the values <p>Frequency stability V.S. Voltage measurement:</p> <ol style="list-style-type: none"> 1. Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage. 2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. |



| | |
|---------------------|---|
| | 3. Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change. |
| Test Result: | PASS |
| Remark: | N/A |

**Test Result as follows:**

| Mode | Voltage (V) | FHL (5180MHz) | Deviation (kHz) | FHH (5240MHz) | Deviation (kHz) |
|-----------|-------------|---------------|-----------------|---------------|-----------------|
| 5.2G Band | 3.15V | 5180.024 | 24 | 5239.985 | 15 |
| | 3.7 V | 5179.981 | 19 | 5239.976 | 24 |
| | 4.2 V | 5179.976 | 24 | 5240.017 | 17 |

| Mode | Temperature (°C) | FHL (5180MHz) | Deviation (kHz) | FHH (5240MHz) | Deviation (kHz) |
|-----------|------------------|---------------|-----------------|---------------|-----------------|
| 5.2G Band | -30 | 5179.986 | 14 | 5240.019 | 19 |
| | -20 | 5179.975 | 25 | 5239.976 | 24 |
| | -10 | 5179.981 | 19 | 5239.967 | 33 |
| | 0 | 5179.969 | 31 | 5240.019 | 19 |
| | 10 | 5179.983 | 17 | 5239.974 | 26 |
| | 20 | 5179.986 | 14 | 5239.979 | 21 |
| | 30 | 5179.975 | 25 | 5239.985 | 15 |
| | 40 | 5179.993 | 7 | 5240.039 | 39 |
| | 50 | 5179.987 | 13 | 5240.018 | 18 |



| Mode | Voltage (V) | FHL (5745MHz) | Deviation (kHz) | FHH (5825MHz) | Deviation (kHz) |
|-----------|-------------|---------------|-----------------|---------------|-----------------|
| 5.8G Band | 3.15V | 5744.983 | 17 | 5824.979 | 21 |
| | 3.7 V | 5745.029 | 29 | 5824.981 | 19 |
| | 4.2 V | 5745.024 | 24 | 5825.026 | 26 |

| Mode | Temperature (°C) | FHL (5745MHz) | Deviation (kHz) | FHH (5825MHz) | Deviation (kHz) |
|-----------|------------------|---------------|-----------------|---------------|-----------------|
| 5.8G Band | -30 | 5745.021 | 21 | 5824.981 | 19 |
| | -20 | 5744.982 | 18 | 5824.979 | 21 |
| | -10 | 5745.026 | 26 | 5825.024 | 24 |
| | 0 | 5745.024 | 24 | 5824.981 | 19 |
| | 10 | 5744.981 | 19 | 5824.979 | 21 |
| | 20 | 5744.986 | 14 | 5824.983 | 17 |
| | 30 | 5744.979 | 21 | 5825.024 | 24 |
| | 40 | 5745.022 | 22 | 5825.022 | 22 |
| | 50 | 5744.983 | 17 | 5824.985 | 15 |

4.9. ANTENNA REQUIREMENT

Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.407, if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

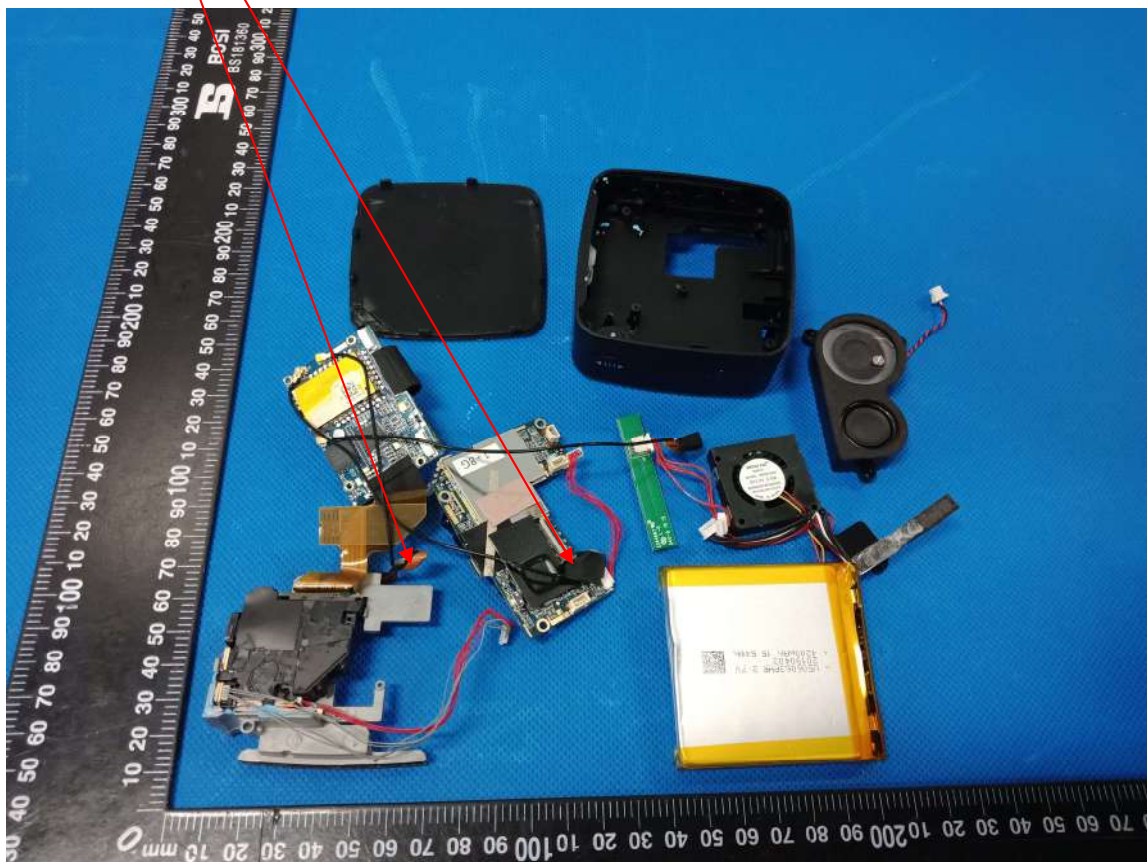
Refer to statement below for compliance.

The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

Antenna Connected Construction

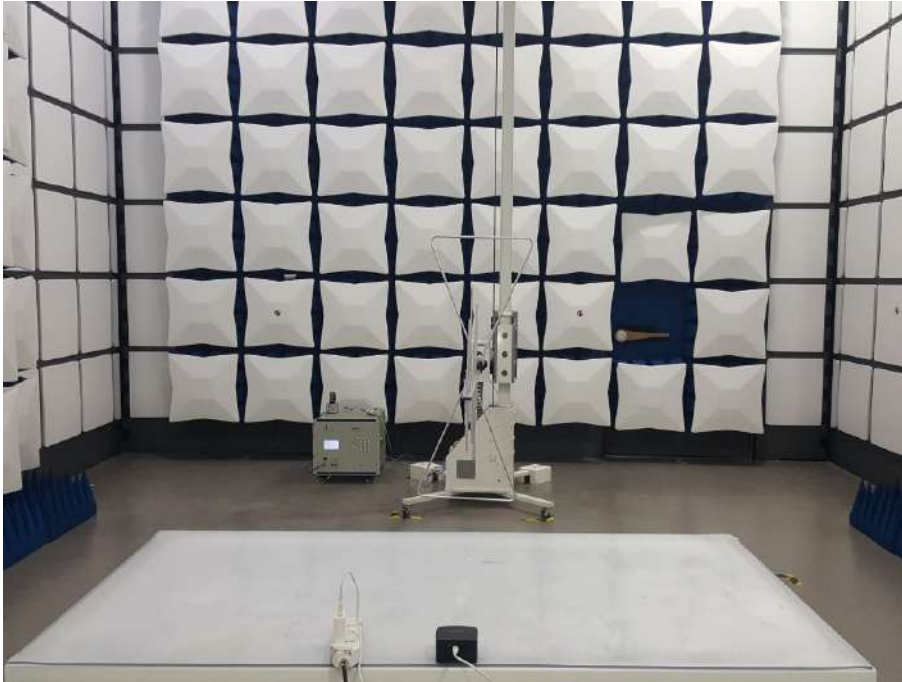
The antenna used in this product is a Internal Antenna, and the best case gain of the antenna is Antenna port 1:1dBi and Antenna port 2:1dBi.

WIFI ANTENNA



4.10. Photographs of Test Setup

Radiated Emission





Conducted Emission





4.11. PHOTOS OF THE EUT

Reference to the reporter: ANNEX A of external photos and ANNEX B of internal photos.