# TEST REPORT ADDENDUM - RADIATED

FROM


Test of: Aruba Networks APIN0334, APIN0335

to

To: FCC CFR 47 Part 15 Subpart E 15.407 (DFS Bands)

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| | ARUB196-U26 (FCC Part15B Emissions) |

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# 1. MEASUREMENT AND PRESENTATION OF TEST DATA

The measurement and graphical data presented in this test report was generated automatically using state-of-the-art technology creating an easy to read report structure. Numerical measurement data is separated from supporting graphical data (plots) through hyperlinks. Numerical measurement data can be reviewed without scrolling through numerous graphical pages to arrive at the next data matrix.

Plots have been relegated into the Appendix 'Graphical Data' Section of this report

Testing and report automation was performed by MiTest. MiTest is an automated test system developed by MiCOM Labs. MiTest is the first cloud based modular test system enabling end-to-end automation of regulatory compliance testing for regulatory compliance.

# 2. Radiated Emissions

| Radiated Test Conditions for Radiated Spurious and Band-Edge Emissions | | | |
|---|---|---|---|
| **Standard:** | FCC CFR 47:15.407 | **Ambient Temp. (ºC):** | 20.0 - 24.5 |
| **Test Heading:** | Radiated Spurious and Band-Edge Emissions | **Rel. Humidity (%):** | 32 - 45 |
| **Standard Section(s):** | 15.407 (b), 15.205, 15.209 | **Pressure (mBars):** | 999 - 1001 |
| **Reference Document(s):** | See Normative References | | |

**Test Procedure for Radiated Spurious and Band-Edge Emissions**

Radiated emissions for restricted bands above 1 GHz are measured in the anechoic chamber at a 3-meter distance on every azimuth in both horizontal and vertical polarities. The emissions are recorded and maximized as a function of azimuth by rotation through 360° with a spectrum analyzer in peak hold mode. Depending on the frequency band spanned a notch filter and waveguide filter was used to remove the fundamental frequency. The highest emissions relative to the limit are listed for each frequency spanned. Measurements on any restricted band frequency or frequencies above 1 GHz are based on the use of measurement instrumentation employing peak and average detectors. All measurements were performed using a resolution bandwidth of 1 MHz.

Test configuration and setup for Undesirable Measurement were per the Radiated Test Set-up specified in this document.

15.407 (b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of −27 dBm/MHz.

(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

(7) The provisions of §15.205 apply to intentional radiators operating under this section.

(8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

**Limits for Restricted Bands (15.205, 15.209)**
**Peak emission: 74 dBuV/m**
**Average emission: 54 dBuV/m**

**Field Strength Calculation**
**The field strength is calculated by adding the Antenna Factor and Cable Loss, and subtracting Amplifier Gain from the measured reading. All factors are included in the reported data.**
**FS = R + AF + CORR - FO**

**where:**
**FS = Field Strength**
**R = Measured Spectrum analyzer Input Amplitude**
**AF = Antenna Factor**
**CORR = Correction Factor = CL – AG + NFL**
**CL = Cable Loss**
**AG = Amplifier Gain**
**FO = Distance Falloff Factor**
**NFL = Notch Filter Loss or Waveguide Loss**

**Example:**
**The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength (dBµV/m);**

$$E = \frac{1000000 \times \sqrt{30P}}{3}$$ µV/m

where P is the EIRP in Watts

Therefore: -27 dBm/MHz equates to 68.23 dBuV/m

Conversion between dBmV/m (or dBmV) and mV/m (or mV) are as follows:
Level (dBmV/m) = 20 * Log (level (mV/m))

40 dBmV/m = 100 mV/m
48 dBmV/m = 250 mV/m

**Restricted Bands of Operation (15.205)**
(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

| Frequency Band | | | |
|---|---|---|---|
| **MHz** | **MHz** | **MHz** | **GHz** |
| 0.090-0.110 | 16.42-16.423 | 399.9-410 | 4.5-5.15 |
| 0.495-0.505 | 16.69475-16.69525 | 608-614 | 5.35-5.46 |
| 2.1735-2.1905 | 16.80425-16.80475 | 960-1240 | 7.25-7.75 |
| 4.125-4.128 | 25.5-25.67 | 1300-1427 | 8.025-8.5 |
| 4.17725-4.17775 | 37.5-38.25 | 1435-1626.5 | 9.0-9.2 |
| 4.20725-4.20775 | 73-74.6 | 1645.5-1646.5 | 9.3-9.5 |
| 6.215-6.218 | 74.8-75.2 | 1660-1710 | 10.6-12.7 |
| 6.26775-6.26825 | 108-121.94 | 1718.8-1722.2 | 13.25-13.4 |
| 6.31175-6.31225 | 123-138 | 2200-2300 | 14.47-14.5 |
| 8.291-8.294 | 149.9-150.05 | 2310-2390 | 15.35-16.2 |
| 8.362-8.366 | 156.52475-156.52525 | 2483.5-2500 | 17.7-21.4 |
| 8.37625-8.38675 | 156.7-156.9 | 2690-2900 | 22.01-23.12 |
| 8.41425-8.41475 | 162.0125-167.17 | 3260-3267 | 23.6-24.0 |
| 12.29-12.293 | 167.72-173.2 | 3332-3339 | 31.2-31.8 |

| | | | |
|---|---|---|---|
| 12.51975-12.52025 | 240-285 | 3345.8-3358 | 36.43-36.5 |
| 12.57675-12.57725 | 322-335.4 | 3600-4400 | Above 38.6 |
| 13.36-13.41 | | | |

(b) Except as provided in paragraphs (d) and (e) of this section, the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

(c) Except as provided in paragraphs (d) and (e) of this section, regardless of the field strength limits specified elsewhere in this subpart, the provisions of this section apply to emissions from any intentional radiator.

(d) The following devices are exempt from the requirements of this section:

(1) Swept frequency field disturbance sensors operating between 1.705 and 37 MHz provided their emissions only sweep through the bands listed in paragraph (a) of this section, the sweep is never stopped with the fundamental emission within the bands listed in paragraph (a) of this section, and the fundamental emission is outside of the bands listed in paragraph (a) of this section more than 99% of the time the device is actively transmitting, without compensation for duty cycle.

(2) Transmitters used to detect buried electronic markers at 101.4 kHz which are employed by telephone companies.

(3) Cable locating equipment operated pursuant to §15.213.

(4) Any equipment operated under the provisions of §15.253, 15.255, and 15.256 in the frequency band 75-85 GHz, or §15.257 of this part.

(5) Biomedical telemetry devices operating under the provisions of §15.242 of this part are not subject to the restricted band 608-614 MHz but are subject to compliance within the other restricted bands.

(6) Transmitters operating under the provisions of subparts D or F of this part.

(7) Devices operated pursuant to §15.225 are exempt from complying with this section for the 13.36-13.41 MHz band only.

(8) Devices operated in the 24.075-24.175 GHz band under §15.245 are exempt from complying with the requirements of this section for the 48.15-48.35 GHz and 72.225-72.525 GHz bands only, and shall not exceed the limits specified in §15.245(b).

(9) Devices operated in the 24.0-24.25 GHz band under §15.249 are exempt from complying with the requirements of this section for the 48.0-48.5 GHz and 72.0-72.75 GHz bands only, and shall not exceed the limits specified in §15.249(a).

(e) Harmonic emissions appearing in the restricted bands above 17.7 GHz from field disturbance sensors operating under the provisions of §15.245 shall not exceed the limits specified in §15.245(b).

## 2.1.1. Restricted Band Emissions

### 2.1.1.1. AP-ANT-13B

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5260.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5257.28 | 83.91 | 3.64 | -11.30 | 76.25 | Fundamental | Horizontal | 151 | 1 | -- | -- | |
| #2 | 10511.46 | 54.34 | 5.48 | -4.26 | 55.56 | Peak (NRB) | Vertical | 200 | 1 | -- | -- | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5300.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5295.76 | 82.83 | 3.79 | -11.11 | 75.51 | Fundamental | Horizontal | 101 | 1 | -- | -- | |
| #2 | 10598.43 | 60.71 | 5.59 | -3.93 | 62.37 | Peak (NRB) | Vertical | 200 | 360 | -- | -- | Pass |
| #3 | 10600.52 | 48.47 | 5.58 | -3.93 | 50.12 | Max Avg | Vertical | 196 | 223 | 54.0 | -3.9 | Pass |
| #4 | 10600.52 | 63.50 | 5.58 | -3.93 | 65.15 | Max Peak | Vertical | 196 | 223 | 74.0 | -8.9 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5322.28 | 81.01 | 3.75 | -11.06 | 73.70 | Fundamental | Horizontal | 101 | 1 | -- | -- | |
| #2 | 10637.55 | 49.18 | 5.43 | -3.89 | 50.72 | Max Avg | Vertical | 186 | 221 | 54.0 | -3.3 | Pass |
| #3 | 10637.55 | 62.94 | 5.43 | -3.89 | 64.48 | Max Peak | Vertical | 186 | 221 | 74.0 | -9.5 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5503.84 | 69.02 | 3.75 | -11.18 | 61.59 | Fundamental | Vertical | 101 | 0 | -- | -- | |
| #2 | 11002.28 | 51.61 | 5.59 | -4.24 | 52.96 | Max Avg | Vertical | 186 | 278 | 54.0 | -1.0 | Pass |
| #3 | 11002.28 | 65.13 | 5.59 | -4.24 | 66.48 | Max Peak | Vertical | 186 | 278 | 74.0 | -7.5 | Pass |
| Test Notes: EUT on 150cm Table powered by PDSine 9001GR | | | | | | | | | | | | |

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5580.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5583.69 | 80.16 | 3.79 | -11.19 | 72.76 | Fundamental | Horizontal | 101 | 1 | -- | -- | |
| #2 | 11162.28 | 50.27 | 5.76 | -4.06 | 51.97 | Max Avg | Vertical | 192 | 229 | 54.0 | -2.0 | Pass |
| #3 | 11162.28 | 63.89 | 5.76 | -4.06 | 65.59 | Max Peak | Vertical | 192 | 229 | 74.0 | -8.4 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5720.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 14 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5723.84 | 65.75 | 3.79 | -10.72 | 58.82 | Fundamental | Horizontal | 101 | 0 | -- | -- | |
| #2 | 11430.90 | 51.78 | 5.48 | -4.92 | 52.34 | Max Avg | Vertical | 161 | 248 | 54.0 | -1.7 | Pass |
| #3 | 11430.90 | 66.65 | 5.48 | -4.92 | 67.21 | Max Peak | Vertical | 161 | 248 | 74.0 | -6.8 | Pass |
| Test Notes: EUT on 150cm Table powered by PDSine 9001GR. Power reduced to 14 due to 11.4 GHz harmonic | | | | | | | | | | | | |

### 2.1.1.2. AP-ANT-19

| Equipment Configuration for Radiated Spurious - Restricted Band Emissions | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5260.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5266.42 | 85.70 | 3.68 | -11.26 | 78.12 | Fundamental | Vertical | 101 | 1 | -- | -- | |
| #2 | 5266.42 | 85.70 | 3.68 | -11.26 | 78.12 | Peak (NRB) | Vertical | 101 | 1 | -- | -- | Pass |
| #3 | 5266.42 | 85.70 | 3.68 | -11.26 | 78.12 | Peak (NRB) | Vertical | 101 | 1 | -- | -- | Pass |
| #4 | 10520.56 | 47.06 | 5.43 | -4.21 | 48.28 | Max Avg | Vertical | 189 | 232 | 54.0 | -5.7 | Pass |
| #5 | 10520.56 | 61.78 | 5.43 | -4.21 | 63.00 | Max Peak | Vertical | 189 | 232 | 74.0 | -11.0 | Pass |
| #6 | 10520.56 | 51.84 | 5.43 | -4.21 | 53.06 | Peak (NRB) | Vertical | 101 | 59 | -- | -- | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5300.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5293.67 | 83.99 | 3.78 | -11.12 | 76.65 | Fundamental | Vertical | 101 | 1 | -- | -- | |
| #2 | 5293.67 | 83.99 | 3.78 | -11.12 | 76.65 | Peak (NRB) | Vertical | 101 | 1 | -- | -- | Pass |
| #3 | 10600.52 | 47.81 | 5.58 | -3.93 | 49.46 | Max Avg | Vertical | 187 | 276 | 54.0 | -4.5 | Pass |
| #4 | 10600.52 | 62.87 | 5.58 | -3.93 | 64.52 | Max Peak | Vertical | 187 | 276 | 74.0 | -9.5 | Pass |
| #5 | 10600.52 | 45.49 | 5.58 | -3.93 | 47.14 | Max Avg | Horizontal | 141 | 228 | 54.0 | -6.9 | Pass |
| #6 | 10600.52 | 61.00 | 5.58 | -3.93 | 62.65 | Max Peak | Horizontal | 141 | 228 | 74.0 | -11.4 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5321.45 | 83.83 | 3.75 | -11.06 | 76.52 | Fundamental | Vertical | 101 | 1 | -- | -- | |
| #2 | 5321.45 | 83.83 | 3.75 | -11.06 | 76.52 | Peak (NRB) | Vertical | 101 | 1 | -- | -- | Pass |
| #3 | 10638.35 | 46.16 | 5.43 | -3.89 | 47.70 | Max Avg | Vertical | 169 | 222 | 54.0 | -6.3 | Pass |
| #4 | 10638.35 | 60.23 | 5.43 | -3.89 | 61.77 | Max Peak | Vertical | 169 | 222 | 74.0 | -12.2 | Pass |
| #5 | 10638.35 | 45.61 | 5.43 | -3.89 | 47.15 | Max Avg | Horizontal | 168 | 228 | 54.0 | -6.9 | Pass |
| #6 | 10638.35 | 59.31 | 5.43 | -3.89 | 60.85 | Max Peak | Horizontal | 168 | 228 | 74.0 | -13.2 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5502.24 | 76.46 | 3.75 | -11.17 | 69.04 | Fundamental | Vertical | 101 | 1 | -- | -- | |
| #2 | 5502.24 | 76.46 | 3.75 | -11.17 | 69.04 | Peak (NRB) | Vertical | 101 | 1 | -- | -- | Pass |
| #3 | 11000.56 | 47.97 | 5.59 | -4.24 | 49.32 | Max Avg | Horizontal | 121 | 231 | 54.0 | -4.7 | Pass |
| #4 | 11000.56 | 62.93 | 5.59 | -4.24 | 64.28 | Max Peak | Horizontal | 121 | 231 | 74.0 | -9.7 | Pass |
| #5 | 11000.56 | 51.92 | 5.59 | -4.24 | 53.27 | Max Avg | Vertical | 198 | 269 | 54.0 | -0.7 | Pass |
| #6 | 11000.56 | 66.39 | 5.59 | -4.24 | 67.74 | Max Peak | Vertical | 198 | 269 | 74.0 | -6.3 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5580.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5580.68 | 84.96 | 3.80 | -11.20 | 77.56 | Fundamental | Vertical | 101 | 1 | -- | -- | |
| #2 | 5580.68 | 84.96 | 3.80 | -11.20 | 77.56 | Peak (NRB) | Vertical | 101 | 1 | -- | -- | Pass |
| #3 | 11162.40 | 52.06 | 5.76 | -4.06 | 53.76 | Max Avg | Vertical | 178 | 250 | 54.0 | -0.2 | Pass |
| #4 | 11162.40 | 65.72 | 5.76 | -4.06 | 67.42 | Max Peak | Vertical | 178 | 250 | 74.0 | -6.6 | Pass |
| #5 | 11162.40 | 51.88 | 5.76 | -4.06 | 53.58 | Max Avg | Horizontal | 134 | 247 | 54 | -0.42 | Pass |
| #6 | 11162.40 | 67.43 | 5.76 | -4.06 | 69.13 | Max Peak | Horizontal | 134 | 247 | 74.0 | -4.9 | Pass |
| #7 | 11162.41 | 51.56 | 5.76 | -4.06 | 53.26 | Max Avg | Vertical | 176 | 251 | 54 | -0.74 | Pass |
| #8 | 11162.41 | 66.10 | 5.76 | -4.06 | 67.80 | Max Peak | Vertical | 176 | 251 | 74.0 | -6.2 | Pass |
| #9 | 11162.41 | 50.99 | 5.76 | -4.06 | 52.69 | Max Avg | Horizontal | 128 | 250 | 54.0 | -1.3 | Pass |
| #10 | 11162.41 | 65.07 | 5.76 | -4.06 | 66.77 | Max Peak | Horizontal | 128 | 250 | 74.0 | -7.2 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5720.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5714.15 | 60.05 | 3.82 | -10.76 | 53.11 | Fundamental | Vertical | 101 | 1 | -- | -- | |
| #2 | 5714.15 | 60.05 | 3.82 | -10.76 | 53.11 | Peak (NRB) | Vertical | 101 | 1 | -- | -- | Pass |
| #3 | 11431.10 | 52.57 | 5.48 | -4.92 | 53.13 | Max Avg | Vertical | 184 | 253 | 54 | -0.87 | Pass |
| #4 | 11431.10 | 71.90 | 5.48 | -4.92 | 72.46 | Max Peak | Vertical | 184 | 253 | 74.0 | -1.5 | Pass |
| #5 | 11431.10 | 51.60 | 5.48 | -4.92 | 52.16 | Max Avg | Horizontal | 128 | 247 | 54.0 | -1.8 | Pass |
| #6 | 11431.10 | 67.02 | 5.48 | -4.92 | 67.58 | Max Peak | Horizontal | 128 | 247 | 74.0 | -6.4 | Pass |
| #7 | 11431.11 | 51.72 | 5.48 | -4.92 | 52.28 | Max Avg | Horizontal | 148 | 247 | 54.0 | -1.7 | Pass |
| #8 | 11431.11 | 67.14 | 5.48 | -4.92 | 67.70 | Max Peak | Horizontal | 148 | 247 | 74.0 | -6.3 | Pass |
| #9 | 11431.11 | 52.78 | 5.48 | -4.92 | 53.34 | Max Avg | Vertical | 191 | 250 | 54 | -0.66 | Pass |
| #10 | 11431.11 | 70.87 | 5.48 | -4.92 | 71.43 | Max Peak | Vertical | 191 | 250 | 74.0 | -2.6 | Pass |
| #11 | 11431.12 | 49.92 | 5.48 | -4.92 | 50.48 | Max Avg | Vertical | 100 | 76 | 54.0 | -3.5 | Pass |
| #12 | 11431.12 | 64.86 | 5.48 | -4.92 | 65.42 | Max Peak | Vertical | 100 | 76 | 74.0 | -8.6 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

### 2.1.1.3. AP-ANT-1W

| Equipment Configuration for Radiated Spurious - Restricted Band Emissions | | | |
|---|---|---|---|
| **Antenna:** | 1W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.8 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.0 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5260.00 | **Data Rate:** | 6Mbit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5257.12 | 83.60 | 3.64 | -11.30 | 75.94 | Fundamental | Horizontal | 101 | 1 | -- | -- | |
| #2 | 10522.12 | 54.83 | 5.43 | -4.20 | 56.06 | Peak (NRB) | Horizontal | 101 | 1 | -- | -- | Pass |
| Test Notes: EUT on 150cm Table powered by PDSine 9001GR | | | | | | | | | | | | |

| | | | |
|---|---|---|---|
| **Antenna:** | 1W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.8 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.0 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5300.00 | **Data Rate:** | 6Mbit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5293.99 | 79.09 | 3.78 | -11.12 | 71.75 | Fundamental | Horizontal | 200 | 1 | -- | -- | |
| #2 | 5293.99 | 79.09 | 3.78 | -11.12 | 71.75 | Peak (NRB) | Horizontal | 200 | 1 | -- | -- | Pass |
| #3 | 10604.08 | 47.30 | 5.56 | -3.92 | 48.94 | Max Avg | Horizontal | 192 | 284 | 54.0 | -5.1 | Pass |
| #4 | 10604.08 | 61.41 | 5.56 | -3.92 | 63.05 | Max Peak | Horizontal | 192 | 284 | 74.0 | -11.0 | Pass |
| #5 | 10604.08 | 42.63 | 5.56 | -3.92 | 44.27 | Max Avg | Vertical | 118 | 342 | 54.0 | -9.7 | Pass |
| #6 | 10604.08 | 56.98 | 5.56 | -3.92 | 58.62 | Max Peak | Vertical | 118 | 342 | 74.0 | -15.4 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | 1W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.8 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.0 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6Mbit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5321.96 | 74.25 | 3.75 | -11.06 | 66.94 | Fundamental | Horizontal | 200 | 1 | -- | -- | |
| #2 | 5321.96 | 74.25 | 3.75 | -11.06 | 66.94 | Peak (NRB) | Horizontal | 200 | 1 | -- | -- | Pass |
| #3 | 10644.97 | 47.12 | 5.32 | -3.89 | 48.55 | Max Avg | Horizontal | 190 | 286 | 54.0 | -5.5 | Pass |
| #4 | 10644.97 | 61.15 | 5.32 | -3.89 | 62.58 | Max Peak | Horizontal | 190 | 286 | 74.0 | -11.4 | Pass |
| #5 | 10644.97 | 43.34 | 5.32 | -3.89 | 44.77 | Max Avg | Vertical | 151 | 339 | 54.0 | -9.2 | Pass |
| #6 | 10644.97 | 57.49 | 5.32 | -3.89 | 58.92 | Max Peak | Vertical | 151 | 339 | 74.0 | -15.1 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-1W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.8 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.0 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 0.00 | 60.90 | 0.00 | 0.00 | 60.90 | Peak (NRB) | Vertical | 138 | 336 | -- | -- | Pass |
| #2 | 5503.92 | 66.24 | 3.75 | -11.18 | 58.81 | Fundamental | Horizontal | 200 | 0 | -- | -- | |
| #3 | 5503.92 | 66.24 | 3.75 | -11.18 | 58.81 | Peak (NRB) | Horizontal | 200 | 0 | -- | -- | Pass |
| #8 | 10991.43 | 47.93 | 5.61 | -4.27 | 49.27 | Max Avg | Horizontal | 141 | 38 | 54.0 | -4.7 | Pass |
| #9 | 10991.43 | 62.22 | 5.61 | -4.27 | 63.56 | Max Peak | Horizontal | 141 | 38 | 74.0 | -10.4 | Pass |
| #10 | 10991.43 | 44.47 | 5.61 | -4.27 | 45.81 | Max Avg | Vertical | 110 | 333 | 54.0 | -8.2 | Pass |
| #11 | 10991.43 | 59.12 | 5.61 | -4.27 | 60.46 | Max Peak | Vertical | 110 | 333 | 74.0 | -13.5 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-1W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.8 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.0 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5580.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5502.88 | 66.84 | 3.75 | -11.17 | 59.42 | Fundamental | Horizontal | 200 | 1 | -- | -- | |
| #2 | 5502.88 | 66.84 | 3.75 | -11.17 | 59.42 | Peak (NRB) | Horizontal | 200 | 1 | -- | -- | Pass |
| #9 | 11005.09 | 50.29 | 5.58 | -4.23 | 51.64 | Max Avg | Vertical | 105 | 328 | 54.0 | -2.4 | Pass |
| #10 | 11005.09 | 64.23 | 5.58 | -4.23 | 65.58 | Max Peak | Vertical | 105 | 328 | 74.0 | -8.4 | Pass |
| #11 | 11009.22 | 47.57 | 5.57 | -4.22 | 48.92 | Max Avg | Horizontal | 198 | 284 | 54.0 | -5.1 | Pass |
| #12 | 11009.22 | 61.79 | 5.57 | -4.22 | 63.14 | Max Peak | Horizontal | 198 | 284 | 74.0 | -10.9 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-1W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.8 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.0 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5720.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 20 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5723.93 | 55.38 | 3.79 | -10.72 | 48.45 | Fundamental | Horizontal | 200 | 1 | -- | -- | |
| #2 | 5723.93 | 55.38 | 3.79 | -10.72 | 48.45 | Peak (NRB) | Horizontal | 200 | 1 | -- | -- | Pass |
| #9 | 11434.07 | 52.05 | 5.41 | -4.92 | 52.54 | Max Avg | Vertical | 194 | 259 | 54.0 | -1.46 | Pass |
| #10 | 11434.07 | 68.48 | 5.41 | -4.92 | 68.97 | Max Peak | Vertical | 194 | 259 | 74.0 | -5.0 | Pass |
| #11 | 11434.07 | 50.09 | 5.41 | -4.92 | 50.58 | Max Avg | Horizontal | 137 | 252 | 54.0 | -3.4 | Pass |
| #12 | 11434.07 | 63.70 | 5.41 | -4.92 | 64.19 | Max Peak | Horizontal | 137 | 252 | 74.0 | -9.8 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

### 2.1.1.4. AP-ANT-20W

| Equipment Configuration for Radiated Spurious - Restricted Band Emissions | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5260.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5255.35 | 80.33 | 3.64 | -11.32 | 72.65 | Fundamental | Horizontal | 101 | 1 | -- | -- | |
| #2 | 5255.35 | 80.33 | 3.64 | -11.32 | 72.65 | Peak (NRB) | Horizontal | 101 | 1 | -- | -- | Pass |
| #3 | 10524.01 | 52.01 | 5.43 | -4.19 | 53.25 | Peak (NRB) | Horizontal | 100 | 29 | -- | -- | Pass |
| #4 | 10524.01 | 44.77 | 5.43 | -4.19 | 46.01 | Max Avg | Horizontal | 104 | 277 | 54.0 | -8.0 | Pass |
| #5 | 10524.01 | 58.71 | 5.43 | -4.19 | 59.95 | Max Peak | Horizontal | 104 | 277 | 74.0 | -14.1 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5300.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5292.87 | 72.21 | 3.77 | -11.13 | 64.85 | Fundamental | Vertical | 200 | 1 | -- | -- | |
| #2 | 5292.87 | 72.21 | 3.77 | -11.13 | 64.85 | Peak (NRB) | Vertical | 200 | 1 | -- | -- | Pass |
| #3 | 10603.44 | 43.60 | 5.57 | -3.93 | 45.24 | Max Avg | Horizontal | 196 | 296 | 54.0 | -8.8 | Pass |
| #4 | 10603.44 | 57.23 | 5.57 | -3.93 | 58.87 | Max Peak | Horizontal | 196 | 296 | 74.0 | -15.1 | Pass |
| #5 | 10603.44 | 41.62 | 5.57 | -3.93 | 43.26 | Max Avg | Vertical | 119 | 340 | 54.0 | -10.7 | Pass |
| #6 | 10603.44 | 55.97 | 5.57 | -3.93 | 57.61 | Max Peak | Vertical | 119 | 340 | 74.0 | -16.4 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5301.21 | 72.91 | 3.81 | -11.09 | 65.63 | Fundamental | Horizontal | 200 | 1 | -- | -- | |
| #2 | 5301.21 | 72.91 | 3.81 | -11.09 | 65.63 | Peak (NRB) | Horizontal | 200 | 1 | -- | -- | Pass |
| #3 | 10605.69 | 43.23 | 5.55 | -3.92 | 44.86 | Max Avg | Horizontal | 162 | 280 | 54.0 | -9.1 | Pass |
| #4 | 10605.69 | 57.74 | 5.55 | -3.92 | 59.37 | Max Peak | Horizontal | 162 | 280 | 74.0 | -14.6 | Pass |
| #5 | 10605.69 | 41.61 | 5.55 | -3.92 | 43.24 | Max Avg | Vertical | 117 | 340 | 54.0 | -10.8 | Pass |
| #6 | 10605.69 | 56.10 | 5.55 | -3.92 | 57.73 | Max Peak | Vertical | 117 | 340 | 74.0 | -16.3 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5497.99 | 71.68 | 3.74 | -11.17 | 64.25 | Fundamental | Horizontal | 101 | 0 | -- | -- | |
| #2 | 5497.99 | 71.68 | 3.74 | -11.17 | 64.25 | Peak (NRB) | Horizontal | 101 | 0 | -- | -- | Pass |
| #5 | 11000.32 | 52.47 | 5.59 | -4.24 | 53.82 | Max Avg | Horizontal | 116 | 300 | 54.0 | -0.18 | Pass |
| #6 | 11000.32 | 69.39 | 5.59 | -4.24 | 70.74 | Max Peak | Horizontal | 116 | 300 | 74.0 | -3.3 | Pass |
| #7 | 11000.32 | 47.92 | 5.59 | -4.24 | 49.27 | Max Avg | Vertical | 120 | 315 | 54.0 | -4.7 | Pass |
| #8 | 11000.32 | 62.92 | 5.59 | -4.24 | 64.27 | Max Peak | Vertical | 120 | 315 | 74.0 | -9.7 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5580.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5584.29 | 73.26 | 3.79 | -11.19 | 65.86 | Fundamental | Horizontal | 101 | 0 | -- | -- | |
| #2 | 5584.29 | 73.26 | 3.79 | -11.19 | 65.86 | Peak (NRB) | Horizontal | 101 | 0 | -- | -- | Pass |
| #3 | 11156.07 | 49.68 | 5.96 | -4.05 | 51.59 | Max Avg | Horizontal | 115 | 298 | 54.0 | -2.4 | Pass |
| #4 | 11156.07 | 63.55 | 5.96 | -4.05 | 65.46 | Max Peak | Horizontal | 115 | 298 | 74.0 | -8.5 | Pass |
| #5 | 11156.07 | 46.78 | 5.96 | -4.05 | 48.69 | Max Avg | Vertical | 115 | 26 | 54.0 | -5.3 | Pass |
| #6 | 11156.07 | 61.07 | 5.96 | -4.05 | 62.98 | Max Peak | Vertical | 115 | 26 | 74.0 | -11.0 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5720.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5726.09 | 62.72 | 3.79 | -10.72 | 55.79 | Fundamental | Horizontal | 101 | 1 | -- | -- | |
| #2 | 5726.09 | 62.72 | 3.79 | -10.72 | 55.79 | Peak (NRB) | Horizontal | 101 | 1 | -- | -- | Pass |
| #3 | 11437.52 | 52.09 | 5.34 | -4.92 | 52.51 | Max Avg | Horizontal | 114 | 267 | 54.0 | -1.5 | Pass |
| #4 | 11437.52 | 65.54 | 5.34 | -4.92 | 65.96 | Max Peak | Horizontal | 114 | 267 | 74.0 | -8.0 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

### 2.1.1.5. AP-ANT-40

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5260.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5259.04 | 80.33 | 3.65 | -11.29 | 72.69 | Fundamental | Horizontal | 101 | 1 | -- | -- | |
| #2 | 5259.04 | 80.33 | 3.65 | -11.29 | 72.69 | Peak (NRB) | Horizontal | 101 | 1 | -- | -- | Pass |
| #3 | 10514.55 | 48.53 | 5.45 | -4.23 | 49.75 | Peak (NRB) | Vertical | 101 | 82 | -- | -- | Pass |
| #4 | 10514.55 | 46.29 | 5.45 | -4.23 | 47.51 | Max Avg | Vertical | 170 | 243 | 54.0 | -6.5 | Pass |
| #5 | 10514.55 | 60.38 | 5.45 | -4.23 | 61.60 | Max Peak | Vertical | 170 | 243 | 74.0 | -12.4 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5300.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5292.47 | 75.21 | 3.76 | -11.13 | 67.84 | Fundamental | Horizontal | 200 | 1 | -- | -- | |
| #2 | 5292.47 | 75.21 | 3.76 | -11.13 | 67.84 | Peak (NRB) | Horizontal | 200 | 1 | -- | -- | Pass |
| #3 | 10596.71 | 50.35 | 5.60 | -3.93 | 52.02 | Peak (NRB) | Vertical | 198 | 55 | -- | -- | Pass |
| #4 | 10596.71 | 48.49 | 5.60 | -3.93 | 50.16 | Max Avg | Vertical | 190 | 300 | 54.0 | -3.8 | Pass |
| #5 | 10596.71 | 62.33 | 5.60 | -3.93 | 64.00 | Max Peak | Vertical | 190 | 300 | 74.0 | -10.0 | Pass |
| #6 | 10596.71 | 44.79 | 5.60 | -3.93 | 46.46 | Max Avg | Horizontal | 191 | 224 | 54.0 | -7.5 | Pass |
| #7 | 10596.71 | 58.72 | 5.60 | -3.93 | 60.39 | Max Peak | Horizontal | 191 | 224 | 74.0 | -13.6 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5325.46 | 74.01 | 3.73 | -11.06 | 66.68 | Fundamental | Horizontal | 200 | 110 | -- | -- | |
| #2 | 5325.46 | 74.01 | 3.73 | -11.06 | 66.68 | Peak (NRB) | Horizontal | 200 | 110 | -- | -- | Pass |
| #3 | 10636.75 | 48.97 | 5.45 | -3.89 | 50.53 | Max Avg | Vertical | 147 | 100 | 54.0 | -3.5 | Pass |
| #4 | 10636.75 | 63.30 | 5.45 | -3.89 | 64.86 | Max Peak | Vertical | 147 | 100 | 74.0 | -9.1 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5504.97 | 65.38 | 3.75 | -11.18 | 57.95 | Fundamental | Horizontal | 151 | 1 | -- | -- | |
| #2 | 5504.97 | 65.38 | 3.75 | -11.18 | 57.95 | Peak (NRB) | Horizontal | 151 | 1 | -- | -- | Pass |
| #3 | 11000.32 | 51.46 | 5.59 | -4.24 | 52.81 | Max Avg | Horizontal | 137 | 240 | 54.0 | -1.2 | Pass |
| #4 | 11000.32 | 66.02 | 5.59 | -4.24 | 67.37 | Max Peak | Horizontal | 137 | 240 | 74.0 | -6.6 | Pass |
| #5 | 11000.32 | 50.38 | 5.59 | -4.24 | 51.73 | Max Avg | Vertical | 195 | 260 | 54.0 | -2.3 | Pass |
| #6 | 11000.32 | 65.25 | 5.59 | -4.24 | 66.60 | Max Peak | Vertical | 195 | 260 | 74.0 | -7.4 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5580.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5584.85 | 67.62 | 3.79 | -11.19 | 60.22 | Fundamental | Horizontal | 101 | 1 | -- | -- | |
| #2 | 5584.85 | 67.62 | 3.79 | -11.19 | 60.22 | Peak (NRB) | Horizontal | 101 | 1 | -- | -- | Pass |
| #3 | 11159.75 | 51.39 | 5.85 | -4.07 | 53.17 | Max Avg | Horizontal | 134 | 242 | 54.0 | -0.8 | Pass |
| #4 | 11159.75 | 65.12 | 5.85 | -4.07 | 66.90 | Max Peak | Horizontal | 134 | 242 | 74.0 | -7.1 | Pass |
| #5 | 11159.75 | 46.27 | 5.85 | -4.07 | 48.05 | Max Avg | Vertical | 114 | 257 | 54.0 | -6.0 | Pass |
| #6 | 11159.75 | 60.38 | 5.85 | -4.07 | 62.16 | Max Peak | Vertical | 114 | 257 | 74.0 | -11.8 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5720.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5713.99 | 49.50 | 3.82 | -10.76 | 42.56 | Fundamental | Horizontal | 101 | 1 | -- | -- | |
| #2 | 5713.99 | 49.50 | 3.82 | -10.76 | 42.56 | Peak (NRB) | Horizontal | 101 | 1 | -- | -- | Pass |
| #5 | 11447.46 | 51.05 | 5.41 | -4.92 | 51.54 | Max Avg | Vertical | 156 | 272 | 54.0 | -2.5 | Pass |
| #6 | 11447.46 | 66.09 | 5.41 | -4.92 | 66.58 | Max Peak | Vertical | 156 | 272 | 74.0 | -7.4 | Pass |
| #7 | 11447.46 | 48.69 | 5.41 | -4.92 | 49.18 | Max Avg | Horizontal | 128 | 238 | 54.0 | -4.8 | Pass |
| #8 | 11447.46 | 63.63 | 5.41 | -4.92 | 64.12 | Max Peak | Horizontal | 128 | 238 | 74.0 | -9.9 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

### 2.1.1.6. AP-ANT-45

| Equipment Configuration for Radiated Spurious - Restricted Band Emissions | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5260.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5262.49 | 91.50 | 3.66 | -11.28 | 83.88 | Fundamental | Vertical | 101 | 0 | -- | -- | |
| #2 | 10526.57 | 51.84 | 5.42 | -4.18 | 53.08 | Peak (NRB) | Vertical | 200 | 0 | -- | -- | Pass |
| #3 | 15776.51 | 38.27 | 5.98 | 0.10 | 44.35 | Max Avg | Horizontal | 160 | 23 | 54.0 | -9.7 | Pass |
| #4 | 15776.51 | 53.43 | 5.98 | 0.10 | 59.51 | Max Peak | Horizontal | 160 | 23 | 74.0 | -14.5 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5300.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5294.07 | 88.54 | 3.78 | -11.12 | 81.20 | Fundamental | Vertical | 101 | 1 | -- | -- | |
| #2 | 10600.28 | 47.95 | 5.58 | -3.94 | 49.59 | Max Avg | Vertical | 198 | 217 | 54.0 | -4.4 | Pass |
| #3 | 10600.28 | 63.39 | 5.58 | -3.94 | 65.03 | Max Peak | Vertical | 198 | 217 | 74.0 | -9.0 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5321.72 | 85.92 | 3.75 | -11.06 | 78.61 | Fundamental | Vertical | 151 | 1 | -- | -- | |
| #2 | 10639.08 | 47.12 | 5.42 | -3.90 | 48.64 | Max Avg | Vertical | 152 | 103 | 54.0 | -5.4 | Pass |
| #3 | 10639.08 | 61.21 | 5.42 | -3.90 | 62.73 | Max Peak | Vertical | 152 | 103 | 74.0 | -11.3 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5503.92 | 75.26 | 3.75 | -11.18 | 67.83 | Fundamental | Horizontal | 101 | 1 | -- | -- | |
| #2 | 11001.72 | 52.29 | 5.59 | -4.24 | 53.64 | Max Avg | Horizontal | 157 | 237 | 54.0 | -0.4 | Pass |
| #3 | 11001.72 | 65.77 | 5.59 | -4.24 | 67.12 | Max Peak | Horizontal | 157 | 237 | 74.0 | -6.9 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5580.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5581.84 | 84.80 | 3.80 | -11.20 | 77.40 | Fundamental | Vertical | 101 | 1 | -- | -- | |
| #2 | 11159.07 | 50.62 | 5.89 | -4.06 | 52.45 | Max Avg | Vertical | 168 | 245 | 54.0 | -1.6 | Pass |
| #3 | 11159.07 | 64.68 | 5.89 | -4.06 | 66.51 | Max Peak | Vertical | 168 | 245 | 74.0 | -7.5 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5720.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 16 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5721.32 | 68.92 | 3.80 | -10.73 | 61.99 | Fundamental | Vertical | 101 | 1 | -- | -- | |
| #2 | 11433.22 | 51.76 | 5.43 | -4.92 | 52.27 | Max Avg | Vertical | 196 | 239 | 54.0 | -1.7 | Pass |
| #3 | 11433.22 | 66.16 | 5.43 | -4.92 | 66.67 | Max Peak | Vertical | 196 | 239 | 74.0 | -7.3 | Pass |
| Test Notes: EUT on 150cm Table powered by PDSine 9001GR. Power reduced to 16 due to 11.4 GHz harmonic | | | | | | | | | | | | |

### 2.1.1.7. AP-ANT-48

| Equipment Configuration for Radiated Spurious - Restricted Band Emissions | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5260.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5266.82 | 92.45 | 3.68 | -11.25 | 84.88 | Fundamental | Vertical | 101 | 1 | -- | -- | |
| #2 | 10512.55 | 53.51 | 5.47 | -4.24 | 54.74 | Peak (NRB) | Vertical | 101 | 32 | -- | -- | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR.

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5300.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5298.80 | 94.08 | 3.81 | -11.09 | 86.80 | Fundamental | Horizontal | 100 | 0 | -- | -- | |
| #2 | 10600.52 | 47.61 | 5.58 | -3.93 | 49.26 | Max Avg | Vertical | 196 | 283 | 54.0 | -4.7 | Pass |
| #3 | 10600.52 | 62.74 | 5.58 | -3.93 | 64.39 | Max Peak | Vertical | 196 | 283 | 74.0 | -9.6 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR.

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5318.16 | 90.36 | 3.75 | -11.07 | 83.04 | Fundamental | Horizontal | 101 | 1 | -- | -- | |
| #2 | 10637.35 | 49.74 | 5.45 | -3.89 | 51.30 | Max Avg | Vertical | 177 | 315 | 54.0 | -2.7 | Pass |
| #3 | 10637.35 | 63.42 | 5.45 | -3.89 | 64.98 | Max Peak | Vertical | 177 | 315 | 74.0 | -9.0 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR.

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5501.68 | 90.78 | 3.75 | -11.17 | 83.36 | Fundamental | Horizontal | 101 | 1 | -- | -- | |
| #2 | 11000.52 | 52.16 | 5.59 | -4.24 | 53.51 | Max Avg | Vertical | 188 | 315 | 54.0 | -0.5 | Pass |
| #3 | 11000.52 | 66.64 | 5.59 | -4.24 | 67.99 | Max Peak | Vertical | 188 | 315 | 74.0 | -6.0 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR.

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5580.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5578.48 | 92.68 | 3.81 | -11.20 | 85.29 | Fundamental | Vertical | 101 | 1 | -- | -- | |
| #2 | 11154.99 | 46.94 | 5.93 | -4.05 | 48.82 | Max Avg | Vertical | 158 | 246 | 54.0 | -5.2 | Pass |
| #3 | 11154.99 | 60.96 | 5.93 | -4.05 | 62.84 | Max Peak | Vertical | 158 | 246 | 74.0 | -11.2 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR.

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5720.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5718.67 | 92.22 | 3.80 | -10.75 | 85.27 | Fundamental | Horizontal | 101 | 1 | -- | -- | |
| #2 | 11431.02 | 53.18 | 5.48 | -4.92 | 53.74 | Max Avg | Vertical | 171 | 263 | 54 | -0.26 | Pass |
| #3 | 11431.02 | 72.82 | 5.48 | -4.92 | 73.38 | Max Peak | Vertical | 171 | 263 | 74.0 | -0.6 | Pass |

Test Notes: EUT on 150cm Table powered by PDSine 9001GR.

### 2.1.1.8. Metal Sheet

| Equipment Configuration for Radiated Spurious - Restricted Band Emissions | | | |
|---|---|---|---|
| **Antenna:** | Metal Sheet | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 2.10 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 5.10 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5260.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5255.83 | 86.01 | 3.64 | -11.31 | 78.34 | Fundamental | Vertical | 101 | 0 | -- | -- | |
| #2 | 5255.83 | 86.01 | 3.64 | -11.31 | 78.34 | Peak (NRB) | Vertical | 101 | 0 | -- | -- | Pass |
| #3 | 10510.90 | 48.99 | 5.48 | -4.26 | 50.21 | Peak (NRB) | Horizontal | 101 | 0 | -- | -- | Pass |
| Test Notes: EUT on 150cm table powered by PDSine 9001GR POE | | | | | | | | | | | | |

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Metal Sheet | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 2.10 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 5.10 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5300.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5299.44 | 73.60 | 3.81 | -11.09 | 66.32 | Fundamental | Vertical | 101 | 1 | -- | -- | |
| #2 | 5299.44 | 73.60 | 3.81 | -11.09 | 66.32 | Peak (NRB) | Vertical | 101 | 1 | -- | -- | Pass |
| #3 | 10587.81 | 42.05 | 5.71 | -3.95 | 43.81 | Max Avg | Horizontal | 166 | 78 | 54.0 | -10.2 | Pass |
| #4 | 10587.81 | 57.61 | 5.71 | -3.95 | 59.37 | Max Peak | Horizontal | 166 | 78 | 74.0 | -14.6 | Pass |
| #5 | 10587.81 | 38.80 | 5.71 | -3.95 | 40.56 | Max Avg | Vertical | 111 | 0 | 54.0 | -13.4 | Pass |
| #6 | 10587.81 | 53.55 | 5.71 | -3.95 | 55.31 | Max Peak | Vertical | 111 | 0 | 74.0 | -18.7 | Pass |
| #7 | 10587.81 | 47.67 | 5.71 | -3.95 | 49.43 | Peak (NRB) | Horizontal | 101 | 1 | -- | -- | Pass |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Metal Sheet | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 2.10 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 5.10 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5323.77 | 73.63 | 3.74 | -11.06 | 66.31 | Fundamental | Vertical | 101 | 1 | -- | -- | |
| #2 | 5323.77 | 73.63 | 3.74 | -11.06 | 66.31 | Peak (NRB) | Vertical | 101 | 1 | -- | -- | Pass |
| #3 | 10645.89 | 43.55 | 5.30 | -3.90 | 44.95 | Max Avg | Horizontal | 122 | 48 | 54.0 | -9.1 | Pass |
| #4 | 10645.89 | 57.89 | 5.30 | -3.90 | 59.29 | Max Peak | Horizontal | 122 | 48 | 74.0 | -14.7 | Pass |
| #5 | 10645.89 | 42.55 | 5.30 | -3.90 | 43.95 | Max Avg | Vertical | 122 | 65 | 54.0 | -10.1 | Pass |
| #6 | 10645.89 | 57.64 | 5.30 | -3.90 | 59.04 | Max Peak | Vertical | 122 | 65 | 74.0 | -15.0 | Pass |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Metal Sheet | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 2.10 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 5.10 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5492.46 | 91.04 | 3.71 | -11.18 | 83.57 | Fundamental | Horizontal | 101 | 1 | -- | -- | |
| #2 | 5492.46 | 91.04 | 3.71 | -11.18 | 83.57 | Peak (NRB) | Horizontal | 101 | 1 | -- | -- | Pass |
| #3 | 10993.18 | 45.66 | 5.60 | -4.26 | 47.00 | Max Avg | Horizontal | 100 | 50 | 54.0 | -7.0 | Pass |
| #4 | 10993.18 | 59.91 | 5.60 | -4.26 | 61.25 | Max Peak | Horizontal | 100 | 50 | 74.0 | -12.8 | Pass |
| #5 | 10993.18 | 44.42 | 5.60 | -4.26 | 45.76 | Max Avg | Vertical | 100 | 19 | 54.0 | -8.2 | Pass |
| #6 | 10993.18 | 58.75 | 5.60 | -4.26 | 60.09 | Max Peak | Vertical | 100 | 19 | 74.0 | -13.9 | Pass |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Metal Sheet | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 2.10 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 5.10 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5580.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5578.28 | 87.99 | 3.81 | -11.20 | 80.60 | Fundamental | Horizontal | 101 | 1 | -- | -- | |
| #2 | 5578.28 | 87.99 | 3.81 | -11.20 | 80.60 | Peak (NRB) | Horizontal | 101 | 1 | -- | -- | Pass |
| #3 | 11159.51 | 41.38 | 5.85 | -4.07 | 43.16 | Max Avg | Vertical | 144 | 20 | 54.0 | -10.8 | Pass |
| #4 | 11159.51 | 53.46 | 5.85 | -4.07 | 55.24 | Max Peak | Vertical | 144 | 20 | 74.0 | -18.8 | Pass |
| #5 | 11159.51 | 38.83 | 5.85 | -4.07 | 40.61 | Max Avg | Horizontal | 190 | 351 | 54.0 | -13.4 | Pass |
| #6 | 11159.51 | 52.55 | 5.85 | -4.07 | 54.33 | Max Peak | Horizontal | 190 | 351 | 74.0 | -19.7 | Pass |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE

**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Metal Sheet | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 2.10 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 5.10 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5720.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 21 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5715.75 | 67.90 | 3.81 | -10.76 | 60.95 | Fundamental | Vertical | 101 | 1 | -- | -- | |
| #2 | 5715.75 | 67.90 | 3.81 | -10.76 | 60.95 | Peak (NRB) | Vertical | 101 | 1 | -- | -- | Pass |
| #3 | 11445.21 | 49.83 | 5.40 | -4.92 | 50.31 | Max Avg | Horizontal | 166 | 75 | 54.0 | -3.7 | Pass |
| #4 | 11445.21 | 64.01 | 5.40 | -4.92 | 64.49 | Max Peak | Horizontal | 166 | 75 | 74.0 | -9.5 | Pass |
| #5 | 11445.21 | 43.96 | 5.40 | -4.92 | 44.44 | Max Avg | Vertical | 100 | 355 | 54.0 | -9.6 | Pass |
| #6 | 11445.21 | 57.60 | 5.40 | -4.92 | 58.08 | Max Peak | Vertical | 100 | 355 | 74.0 | -15.9 | Pass |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE

## 2.1.2. Restricted Band and Band-Edge Emissions

### 2.1.2.9. AP-ANT-13B

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5250 - 5350 MHz

| AP-ANT-13B | | Band-Edge Freq | Limit 54.0dBµV/m | Limit 74.0dBµV/m | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11a | 5320.00 | 5350.00 | 49.40 | 63.03 | 18.00 |
| 802.11ac-80 | 5290.00 | 5350.00 | 53.96 | 72.80 | 15.00 |
| 802.11n HT-20 | 5320.00 | 5350.00 | 50.85 | 64.86 | 18.00 |
| 802.11n HT-40 | 5310.00 | 5350.00 | 52.87 | 68.98 | 17.00 |
| 802.11ac-160 | 5250.00 | 5150.00 | 53.63 | 71.08 | 16.00 |
| 802.11ac-160 | 5250.00 | 5350.00 | 51.62 | 69.56 | |

5470 - 5725 MHz

| AP-ANT-13B | | Band-Edge Freq | Limit 54.0dBµV/m | Limit 74.0dBµV/m | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11a | 5500.00 | 5460.00 | 45.63 | 60.39 | 18.00 |
| 802.11ac-80 | 5530.00 | 5460.00 | 52.78 | 68.89 | 15.50 |
| 802.11n HT-20 | 5500.00 | 5460.00 | 46.10 | 59.99 | 18.00 |
| 802.11n HT-40 | 5510.00 | 5460.00 | 48.99 | 64.13 | 18.00 |
| 802.11ac-160 | 5570.00 | 5460.00 | 53.29 | 71.03 | 15.50 |

| AP-ANT-13B | | Band Edge Freq | Limit 68.23 | Power Setting |
|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | |
| 802.11a | 5500.00 | 5470.00 | 50.77 | 18.00 |
| 802.11ac-80 | 5530.00 | 5470.00 | 52.78 | 15.50 |
| 802.11n HT-20 | 5500.00 | 5470.00 | 51.29 | 18.00 |
| 802.11n HT-40 | 5510.00 | 5470.00 | 52.12 | 18.00 |
| 802.11ac-160 | 5570.00 | 5470.00 | 54.77 | 15.50 |

Click on the links to view the data.

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5458.52 | 22.29 | 3.79 | 34.31 | 60.39 | Max Peak | Vertical | 147 | 17 | 74.0 | -13.6 | Pass |
| #2 | 5460.00 | 7.53 | 3.79 | 34.31 | 45.63 | Max Avg | Vertical | 147 | 17 | 54.0 | -8.4 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5466.15 | 12.67 | 3.79 | 34.31 | 50.77 | Max Avg | Horizontal | 153 | 30 | 68.2* | -17.5 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5530.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 15.5 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5459.78 | 14.68 | 3.79 | 34.31 | 52.78 | Max Avg | Vertical | 147 | 17 | 54.0 | -1.2 | Pass |
| #2 | 5460.00 | 30.79 | 3.79 | 34.31 | 68.89 | Max Peak | Vertical | 147 | 17 | 74.0 | -5.1 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5460.54 | 14.68 | 3.79 | 34.31 | 52.78 | Max Avg | Horizontal | 153 | 30 | 68.2* | -15.5 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5458.50 | 21.89 | 3.80 | 34.30 | 59.99 | Max Peak | Vertical | 147 | 17 | 74.0 | -14.0 | Pass |
| #2 | 5459.24 | 8.00 | 3.79 | 34.31 | 46.10 | Max Avg | Vertical | 147 | 17 | 54.0 | -7.9 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5465.87 | 13.19 | 3.79 | 34.31 | 51.29 | Max Avg | -- | -- | -- | 68.2* | -16.9 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5510.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5455.75 | 10.89 | 3.80 | 34.30 | 48.99 | Max Avg | Vertical | 147 | 17 | 54.0 | -5.0 | Pass |
| #2 | 5455.93 | 26.03 | 3.80 | 34.30 | 64.13 | Max Peak | Vertical | 147 | 17 | 74.0 | -9.9 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5463.35 | 14.02 | 3.79 | 34.31 | 52.12 | Max Avg | Horizontal | 153 | 30 | 68.2 | -16.1 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |
| #2 | 5356.97 | 11.20 | 3.71 | 34.49 | 49.40 | Max Avg | Vertical | 155 | 6 | 54.0 | -4.6 | Pass |
| #3 | 5358.60 | 24.83 | 3.71 | 34.49 | 63.03 | Max Peak | Vertical | 155 | 6 | 74.0 | -11.0 | Pass |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5290.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 15 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |
| #2 | 5354.27 | 34.59 | 3.71 | 34.50 | 72.80 | Max Peak | Vertical | 147 | 17 | 74.0 | -1.2 | Pass |
| #3 | 5360.98 | 15.78 | 3.70 | 34.48 | 53.96 | Max Avg | Vertical | 147 | 17 | 54.0 | 0.0 | Pass |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |
| #2 | 5350.26 | 26.65 | 3.70 | 34.51 | 64.86 | Max Peak | Vertical | 147 | 17 | 74.0 | -9.1 | Pass |
| #3 | 5350.78 | 12.63 | 3.71 | 34.51 | 50.85 | Max Avg | Vertical | 147 | 17 | 54.0 | -3.2 | Pass |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5310.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 17 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |
| #2 | 5353.31 | 14.66 | 3.71 | 34.50 | 52.87 | Max Avg | Vertical | 147 | 17 | 54.0 | -1.1 | Pass |
| #3 | 5354.65 | 30.77 | 3.71 | 34.50 | 68.98 | Max Peak | Vertical | 147 | 17 | 74.0 | -5.0 | Pass |

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5210.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 16 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5150.00 | 15.85 | 3.67 | 34.11 | 53.63 | Max Avg | Vertical | 200 | -2 | 54.0 | -0.4 | Pass |
| #2 | 5150.00 | 33.30 | 3.67 | 34.11 | 71.08 | Max Peak | Vertical | 200 | -2 | 74.0 | -2.9 | Pass |
| #3 | 5150.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE.

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5290.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 16 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #2 | 5361.84 | 31.38 | 3.70 | 34.48 | 69.56 | Max Peak | Vertical | 200 | -2 | 74.0 | -4.4 | Pass |
| #3 | 5364.19 | 13.44 | 3.70 | 34.48 | 51.62 | Max Avg | Vertical | 200 | -2 | 54.0 | -2.4 | Pass |
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE.

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-13B | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 3.30 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5570.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 15.5 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5452.26 | 32.95 | 3.78 | 34.30 | 71.03 | Max Peak | Vertical | 199 | -3 | 74.0 | -3.0 | Pass |
| #2 | 5452.48 | 15.21 | 3.78 | 34.30 | 53.29 | Max Avg | Vertical | 199 | -3 | 54.0 | -0.7 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5469.94 | 16.66 | 3.79 | 34.32 | 54.77 | Max Avg | Horizontal | 153 | 30 | 68.2 | -13.5 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. Power reduced to meet Band Edge Limits. | | | | | | | | | | | | |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

### 2.1.2.10. AP-ANT-19

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5250 - 5350 MHz

| AP-ANT-19 | | Band-Edge Freq | Limit 54. | Limit 74.0 | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11a | 5320.00 | 5350.00 | 51.98 | 66.83 | 18.00 |
| 802.11ac-80 | 5290.00 | 5350.00 | 53.87 | 72.44 | 14.00 |
| 802.11n HT-20 | 5320.00 | 5350.00 | 51.62 | 65.28 | 18.00 |
| 802.11n HT-40 | 5310.00 | 5350.00 | 53.28 | 69.06 | 17.00 |
| 802.11ac-160 | 5250.00 | 5150.00 | 53.62 | 72.89 | 11.5 |
| 802.11ac-160 | 5250.00 | 5350.00 | 51.98 | 70.11 | |

5470 - 5725 MHz

| AP-ANT-19 | | Band-Edge Freq | Limit 54.0 | Limit 74.0 | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | dBµV/m | dBµV/m | dBµV/m | |
| 802.11a | 5500.00 | 5460.00 | 48.48 | 62.74 | 18.00 |
| 802.11ac-80 | 5530.00 | 5460.00 | 53.68 | 70.62 | 15.50 |
| 802.11n HT-20 | 5500.00 | 5460.00 | 48.65 | 63.72 | 18.00 |
| 802.11n HT-40 | 5510.00 | 5460.00 | 52.12 | 67.01 | 17.00 |
| 802.11ac-160 | 5570.00 | 5460.00 | 53.87 | 72.88 | 12.50 |

| AP-ANT-19 | | Band Edge Freq | Limit 68.23 | Power Setting |
|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | |
| 802.11a | 5500.00 | 5470.00 | 52.46 | 18.00 |
| 802.11ac-80 | 5530.00 | 5470.00 | 56.38 | 15.50 |
| 802.11n HT-20 | 5500.00 | 5470.00 | 52.12 | 18.00 |
| 802.11n HT-40 | 5510.00 | 5470.00 | 56.58 | 17.00 |
| 802.11ac-160 | 5570.00 | 5470.00 | 55.18 | 12.50 |

Click on the links to view the data.

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5456.07 | 10.38 | 3.80 | 34.30 | 48.48 | Max Avg | Vertical | 166 | 118 | 54.0 | -5.5 | Pass |
| #2 | 5456.35 | 24.64 | 3.80 | 34.30 | 62.74 | Max Peak | Vertical | 166 | 118 | 74.0 | -11.3 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5469.52 | 14.35 | 3.79 | 34.32 | 52.46 | Max Avg | Horizontal | 153 | 30 | 68.2* | -15.8 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5530.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 15.5 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5449.34 | 32.55 | 3.77 | 34.30 | 70.62 | Max Peak | Vertical | 166 | 118 | 74.0 | -3.4 | Pass |
| #2 | 5449.62 | 15.61 | 3.77 | 34.30 | 53.68 | Max Avg | Vertical | 166 | 118 | 54.0 | -0.3 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5469.24 | 18.27 | 3.79 | 34.32 | 56.38 | Max Avg | Horizontal | 153 | 30 | 68.2 | -11.9 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5454.53 | 25.63 | 3.79 | 34.30 | 63.72 | Max Peak | Vertical | 166 | 118 | 74.0 | -10.3 | Pass |
| #2 | 5455.65 | 10.55 | 3.80 | 34.30 | 48.65 | Max Avg | Vertical | 166 | 118 | 54.0 | -5.4 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5469.24 | 14.01 | 3.79 | 34.32 | 52.12 | Max Avg | Horizontal | 153 | 30 | 68.2 | -16.1 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5510.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 17 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5458.84 | 28.91 | 3.79 | 34.31 | 67.01 | Max Peak | Vertical | 166 | 118 | 74.0 | -7.0 | Pass |
| #2 | 5459.02 | 14.02 | 3.79 | 34.31 | 52.12 | Max Avg | Vertical | 166 | 118 | 54.0 | -1.9 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5465.59 | 18.48 | 3.79 | 34.32 | 56.58 | Max Avg | Horizontal | 153 | 30 | 68.2 | -11.7 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5353.53 | 13.77 | 3.71 | 34.50 | 51.98 | Max Avg | Vertical | 166 | 102 | 54.0 | -2.0 | Pass |
| #2 | 5355.05 | 28.62 | 3.71 | 34.50 | 66.83 | Max Peak | Vertical | 166 | 102 | 74.0 | -7.2 | Pass |
| #3 | 53500.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5290.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 14 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5363.65 | 15.69 | 3.70 | 34.48 | 53.87 | Max Avg | Vertical | 166 | 118 | 54.0 | -0.1 | Pass |
| #2 | 5364.65 | 34.28 | 3.69 | 34.47 | 72.44 | Max Peak | Vertical | 166 | 118 | 74.0 | -1.6 | Pass |
| #3 | 53500.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5352.95 | 27.07 | 3.71 | 34.50 | 65.28 | Max Peak | Vertical | 166 | 118 | 74.0 | -8.7 | Pass |
| #2 | 5353.31 | 13.41 | 3.71 | 34.50 | 51.62 | Max Avg | Vertical | 166 | 118 | 54.0 | -2.4 | Pass |
| #3 | 53500.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5310.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 17 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5357.78 | 30.86 | 3.71 | 34.49 | 69.06 | Max Peak | Vertical | 166 | 118 | 74.0 | -4.9 | Pass |
| #2 | 5363.57 | 15.10 | 3.70 | 34.48 | 53.28 | Max Avg | Vertical | 166 | 118 | 54.0 | -0.7 | Pass |
| #3 | 53500.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |

**Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5745.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5715.00 | 17.44 | 3.81 | 34.34 | 55.59 | Marker | Vertical | 166 | 118 | 68.2 | -12.6 | Pass |
| #2 | 5721.61 | 21.53 | 3.80 | 34.35 | 59.68 | Marker | Vertical | 166 | 118 | 78.2 | -18.6 | Pass |
| #3 | 5725.00 | -- | -- | -- | -- | Band-Edge | -- | -- | -- | -- | -- | -- |

**Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5775.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 16 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5709.67 | 23.21 | 3.84 | 34.34 | 61.39 | Marker | Vertical | 174 | 69 | 68.2 | -6.8 | Pass |
| #2 | 5716.51 | 23.24 | 3.81 | 34.34 | 61.39 | Marker | Vertical | 174 | 69 | 78.2 | -16.8 | Pass |
| #3 | 5725.00 | -- | -- | -- | -- | Band-Edge | -- | -- | -- | -- | -- | -- |

**Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5745.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5707.24 | 16.95 | 3.85 | 34.34 | 55.14 | Marker | Vertical | 174 | 69 | 68.2 | -13.1 | Pass |
| #2 | 5725.00 | 24.51 | 3.79 | 34.35 | 62.65 | Marker | Vertical | 174 | 69 | 78.2 | -15.6 | Pass |
| #3 | 5725.00 | -- | -- | -- | -- | Band-Edge | -- | -- | -- | -- | -- | -- |

**Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5755.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5709.91 | 20.93 | 3.84 | 34.34 | 59.11 | Marker | Vertical | 174 | 69 | 68.2 | -9.1 | Pass |
| #2 | 5716.51 | 22.55 | 3.81 | 34.34 | 60.70 | Marker | Vertical | 174 | 69 | 78.2 | -17.5 | Pass |
| #3 | 5725.00 | -- | -- | -- | -- | Band-Edge | -- | -- | -- | -- | -- | -- |

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5530.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 12.5 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5452.51 | 15.78 | 3.79 | 34.30 | 53.87 | Max Avg | Vertical | 144 | 312 | 54.0 | -0.1 | Pass |
| #2 | 5455.81 | 34.78 | 3.80 | 34.30 | 72.88 | Max Peak | Vertical | 144 | 312 | 74.0 | -1.1 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5469.94 | 17.07 | 3.79 | 34.32 | 55.18 | Max Avg | Horizontal | 153 | 30 | 68.2* | -13.1 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. Power reduced to meet Band Edge Limits. | | | | | | | | | | | | |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5250.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 12.5 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5140.13 | 15.80 | 3.70 | 34.12 | 53.62 | Max Avg | Vertical | 153 | 346 | 54.0 | -0.4 | Pass |
| #2 | 5147.39 | 35.10 | 3.68 | 34.11 | 72.89 | Max Peak | Vertical | 153 | 346 | 74.0 | -1.1 | Pass |
| #3 | 5150.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. Power reduced to meet Band Edge Limits.

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-19 | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 6.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5290.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 11.5 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #2 | 5353.91 | 13.77 | 3.71 | 34.50 | 51.98 | Max Avg | Vertical | 153 | 346 | 54.0 | -2.0 | Pass |
| #3 | 5354.55 | 31.90 | 3.71 | 34.50 | 70.11 | Max Peak | Vertical | 153 | 346 | 74.0 | -3.9 | Pass |
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. Power reduced to meet Band Edge Limits.

### 2.1.2.11. AP-ANT-1W

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5250 - 5350 MHz

| AP-ANT-1W | | Band-Edge Freq | Limit 54.0 | Limit 74.0 | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11a | 5320.00 | 5350.00 | 45.96 | 59.15 | 18.00 |
| 802.11ac-80 | 5290.00 | 5350.00 | 51.74 | 67.77 | 16.50 |
| 802.11n HT-20 | 5320.00 | 5350.00 | 45.48 | 55.96 | 18.00 |
| 802.11n HT-40 | 5310.00 | 5350.00 | 45.48 | 58.40 | 18.00 |
| 802.11ac-160 | 5250.00 | 5150.00 | 53.45 | 70.40 | 14.5 |
| 802.11ac-160 | 5250.00 | 5350.00 | 53.07 | 69.21 | |

5470 - 5725 MHz

| AP-ANT-1W | | Band-Edge Freq | Limit 54.0 | Limit 74.0 | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11a | 5500.00 | 5460.00 | 46.76 | 61.31 | 18.00 |
| 802.11ac-80 | 5530.00 | 5460.00 | 53.39 | 70.22 | 16.00 |
| 802.11n HT-20 | 5500.00 | 5460.00 | 46.76 | 61.39 | 18.00 |
| 802.11n HT-40 | 5510.00 | 5460.00 | 50.62 | 66.36 | 18.00 |
| 802.11ac-160 | 5570.00 | 5460.00 | 53.59 | 71.00 | 16.00 |

| AP-ANT-1W | | Band-Edge Freq | Limit 68.2dBµV/m | Power Setting |
|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | |
| 802.11a | 5500.00 | 5470.00 | 45.87 | 18.00 |
| 802.11ac-80 | 5530.00 | 5470.00 | 54.85 | 16.00 |
| 802.11n HT-20 | 5500.00 | 5470.00 | 44.88 | 18.00 |
| 802.11n HT-40 | 5510.00 | 5470.00 | 58.15 | 18.00 |
| 802.11ac-160 | 5570.00 | 5470.00 | 54.15 | 16.00 |

Click on the links to view the data.

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-1W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.80 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5456.89 | 8.66 | 3.80 | 34.30 | 46.76 | Max Avg | Vertical | 148 | 44 | 54.0 | -7.2 | Pass |
| #2 | 5458.02 | 23.21 | 3.80 | 34.30 | 61.31 | Max Peak | Vertical | 148 | 44 | 74.0 | -12.7 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5469.79 | 7.76 | 3.79 | 34.32 | 45.87 | Max Avg | Horizontal | 153 | 30 | 68.2 | -22.4 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-1W | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 5.80 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5530.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 16 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5444.77 | 32.16 | 3.76 | 34.30 | 70.22 | Max Peak | Vertical | 148 | 44 | 74.0 | -3.8 | Pass |
| #2 | 5445.77 | 15.33 | 3.76 | 34.30 | 53.39 | Max Avg | Vertical | 148 | 44 | 54.0 | -0.6 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5466.15 | 16.75 | 3.79 | 34.31 | 54.85 | Max Avg | Horizontal | 153 | 30 | 68.2* | -13.4 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-1W | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 5.80 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5455.27 | 23.30 | 3.79 | 34.30 | 61.39 | Max Peak | Vertical | 148 | 44 | 74.0 | -12.6 | Pass |
| #2 | 5456.21 | 8.66 | 3.80 | 34.30 | 46.76 | Max Avg | Vertical | 148 | 44 | 54.0 | -7.2 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5469.80 | 6.77 | 3.79 | 34.32 | 44.88 | Max Avg | Horizontal | 153 | 30 | 68.2 | -23.4 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-1W | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 5.80 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5510.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5445.67 | 28.30 | 3.76 | 34.30 | 66.36 | Max Peak | Vertical | 148 | 44 | 74.0 | -7.6 | Pass |
| #2 | 5446.51 | 12.56 | 3.76 | 34.30 | 50.62 | Max Avg | Vertical | 148 | 44 | 54.0 | -3.4 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5466.43 | 20.05 | 3.79 | 34.32 | 58.15 | Max Avg | Horizontal | 153 | 30 | 68.2 | -10.1 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-1W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.80 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |
| #2 | 5350.22 | 7.75 | 3.70 | 34.51 | 45.96 | Max Avg | Vertical | 150 | 54 | 54.0 | -8.0 | Pass |
| #3 | 5351.00 | 20.93 | 3.71 | 34.51 | 59.15 | Max Peak | Vertical | 150 | 54 | 74.0 | -14.9 | Pass |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-1W | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 5.80 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5290.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 16.5 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |
| #2 | 5358.10 | 13.54 | 3.71 | 34.49 | 51.74 | Max Avg | Vertical | 150 | 57 | 54.0 | -2.3 | Pass |
| #3 | 5358.66 | 29.57 | 3.71 | 34.49 | 67.77 | Max Peak | Vertical | 150 | 57 | 74.0 | -6.2 | Pass |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-1W | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 5.80 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | 7.27 | 3.70 | 34.51 | 45.48 | Max Avg | Vertical | 150 | 57 | 54.0 | -8.5 | Pass |
| #2 | 5350.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |
| #3 | 5353.53 | 17.75 | 3.71 | 34.50 | 55.96 | Max Peak | Vertical | 150 | 57 | 74.0 | -18.0 | Pass |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-1W | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 5.80 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5310.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | 7.27 | 3.70 | 34.51 | 45.48 | Max Avg | Vertical | 150 | 57 | 54.0 | -8.5 | Pass |
| #2 | 5350.00 | 20.19 | 3.70 | 34.51 | 58.40 | Max Peak | Vertical | 150 | 57 | 74.0 | -15.6 | Pass |
| #3 | 5350.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-1W | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 5.80 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5250.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 14.5 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5148.55 | 32.62 | 3.67 | 34.11 | 70.40 | Max Peak | Horizontal | 158 | 31 | 74.0 | -3.6 | Pass |
| #2 | 5150.00 | 15.67 | 3.67 | 34.11 | 53.45 | Max Avg | Horizontal | 158 | 31 | 54.0 | -0.6 | Pass |
| #3 | 5150.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE.

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-1W | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 5.80 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5290.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 16 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5351.44 | 30.99 | 3.71 | 34.51 | 69.21 | Max Peak | Horizontal | 158 | 31 | 74.0 | -4.8 | Pass |
| #3 | 5369.94 | 14.92 | 3.69 | 34.46 | 53.07 | Max Avg | Horizontal | 158 | 31 | 54.0 | -0.9 | Pass |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE.

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-1W | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 5.80 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5570.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 16 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5459.96 | 32.90 | 3.79 | 34.31 | 71.00 | Max Peak | Horizontal | 170 | 304 | 74.0 | -3.0 | Pass |
| #2 | 5460.00 | 15.49 | 3.79 | 34.31 | 53.59 | Max Avg | Horizontal | 170 | 304 | 54.0 | -0.4 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5464.83 | 16.05 | 3.79 | 34.31 | 54.15 | Max Avg | Horizontal | 153 | 30 | 68.2 | -14.1 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE.

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

### 2.1.2.12. AP-ANT-20W

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5250 - 5350 MHz

| AP-ANT-20W | | Band-Edge Freq | Limit 54.0dBµV/m | Limit 74.0dBµV/m | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11a | 5320.00 | 5350.00 | 50.44 | 64.39 | 18.00 |
| 802.11ac-80 | 5290.00 | 5350.00 | 53.87 | 73.47 | 15.00 |
| 802.11n HT-20 | 5320.00 | 5350.00 | 50.72 | 64.45 | 18.00 |
| 802.11n HT-40 | 5310.00 | 5350.00 | 53.28 | 68.81 | 17.00 |
| 802.11ac-160 | 5250.00 | 5150.00 | 48.57 | 64.81 | 16.00 |
| 802.11ac-160 | 5250.00 | 5350.00 | 53.87 | 72.57 | |

5470 - 5725 MHz

| AP-ANT-20W | | Band-Edge Freq | Limit 54.0dBµV/m | Limit 74.0dBµV/m | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11a | 5500.00 | 5460.00 | 44.61 | 57.85 | 18.00 |
| 802.11ac-80 | 5530.00 | 5460.00 | 52.89 | 71.03 | 16.50 |
| 802.11n HT-20 | 5500.00 | 5460.00 | 44.61 | 57.43 | 18.00 |
| 802.11n HT-40 | 5510.00 | 5460.00 | 47.37 | 63.41 | 18.00 |
| 802.11ac-160 | 5570.00 | 5460.00 | 50.76 | 67.90 | |

| AP-ANT-20W | | Band-Edge Freq | Limit 68.2dBµV/m | Power Setting |
|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | |
| 802.11a | 5500.00 | 5470.00 | 45.14 | 18.00 |
| 802.11ac-80 | 5530.00 | 5470.00 | 50.36 | 16.50 |
| 802.11n HT-20 | 5500.00 | 5470.00 | 45.14 | 18.00 |
| 802.11n HT-40 | 5510.00 | 5470.00 | 54.68 | 18.00 |
| 802.11ac-160 | 5570.00 | 5470.00 | 53.09 | |

80 + 80 MHz: 5250 - 5350 and 5470 - 5725 MHz Simultaneous Operation

| AP-ANT-20W | | Restricted Band Freq | Limit 54.0 | Limit 74.0 | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11ac-80+80 | 5290.00 | 5350.00 | 47.96 | 61.48 | 18.0 |
| | 5530.00 | 5460.00 | 42.10 | 54.58 | |

| AP-ANT-20W | | Band-Edge Freq | Limit 68.23 | Power Setting |
|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | |
| 802.11ac-80+80 | 5530.00 | 5470.00 | 45.64 | 18.0 |

Click on the links to view the data.

**80 + 80 MHz:** The following measurements were made with the unit operating in ac80+80 mode. As this report is for DFS operation applicable channel frequencies were 5290 and 5530 MHz.

The Restricted Band-Edges for 5350 and 5460 MHz were operating simulataneously and measured, with results reported below.

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11ac-80+80 |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5290.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #2 | 5366.23 | 23.32 | 3.69 | 34.47 | 61.48 | Max Peak | Vertical | 160 | 0 | 74.0 | -12.5 | Pass |
| #3 | 5490.00 | 9.91 | 3.71 | 34.34 | 47.96 | Max Avg | Vertical | 160 | 0 | 54.0 | -6.0 | Pass |
| #4 | 5447.35 | 4.03 | 3.77 | 34.30 | 42.10 | Max Avg | Vertical | 160 | 0 | 54.0 | -11.9 | Pass |
| #5 | 5447.35 | 16.51 | 3.77 | 34.30 | 54.58 | Max Peak | Vertical | 160 | 0 | 74.0 | -19.4 | Pass |
| #6 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #7 | 5465.63 | 7.54 | 3.79 | 34.31 | 45.64 | Max Avg | Horizontal | 153 | 30 | 68.2* | -22.6 | Pass |
| #8 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5459.72 | 19.75 | 3.79 | 34.31 | 57.85 | Max Peak | Horizontal | 141 | 51 | 74.0 | -16.2 | Pass |
| #2 | 5460.00 | 6.51 | 3.79 | 34.31 | 44.61 | Max Avg | Horizontal | 141 | 51 | 54.0 | -9.4 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5461.14 | 7.04 | 3.79 | 34.31 | 45.14 | Max Avg | Horizontal | 153 | 30 | 68.2 | -23.1 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5530.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 16.5 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5457.74 | 14.79 | 3.80 | 34.30 | 52.89 | Max Avg | Horizontal | 141 | 298 | 54.0 | -1.1 | Pass |
| #2 | 5458.02 | 32.93 | 3.80 | 34.30 | 71.03 | Max Peak | Horizontal | 141 | 298 | 74.0 | -3.0 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5465.03 | 12.26 | 3.79 | 34.31 | 50.36 | Max Avg | Horizontal | 153 | 30 | 68.2 | -17.9 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5460.00 | 6.51 | 3.79 | 34.31 | 44.61 | Max Avg | Horizontal | 141 | 51 | 54.0 | -9.4 | Pass |
| #2 | 5460.00 | 19.33 | 3.79 | 34.31 | 57.43 | Max Peak | Horizontal | 141 | 51 | 74.0 | -16.6 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5461.66 | 7.04 | 3.79 | 34.31 | 45.14 | Max Avg | Horizontal | 153 | 30 | 68.2* | -23.1 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5510.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5450.72 | 25.33 | 3.78 | 34.30 | 63.41 | Max Peak | Horizontal | 141 | 51 | 74.0 | -10.6 | Pass |
| #2 | 5451.84 | 9.29 | 3.78 | 34.30 | 47.37 | Max Avg | Horizontal | 141 | 51 | 54.0 | -6.6 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5469.80 | 16.57 | 3.79 | 34.32 | 54.68 | Max Avg | Horizontal | 153 | 30 | 68.2 | -13.6 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5351.82 | 26.17 | 3.71 | 34.51 | 64.39 | Max Peak | Horizontal | 141 | 297 | 74.0 | -9.6 | Pass |
| #2 | 5351.98 | 12.22 | 3.71 | 34.51 | 50.44 | Max Avg | Horizontal | 141 | 297 | 54.0 | -3.6 | Pass |
| #3 | 53500.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5290.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 15 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5355.51 | 15.66 | 3.71 | 34.50 | 53.87 | Max Avg | Horizontal | 141 | 298 | 54.0 | -0.1 | Pass |
| #2 | 5355.95 | 35.26 | 3.71 | 34.50 | 73.47 | Max Peak | Horizontal | 141 | 298 | 74.0 | -0.5 | Pass |
| #3 | 53500.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5351.16 | 26.23 | 3.71 | 34.51 | 64.45 | Max Peak | Horizontal | 141 | 297 | 74.0 | -9.6 | Pass |
| #2 | 5351.62 | 12.50 | 3.71 | 34.51 | 50.72 | Max Avg | Horizontal | 141 | 297 | 54.0 | -3.3 | Pass |
| #3 | 53500.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5310.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 17 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5354.39 | 30.60 | 3.71 | 34.50 | 68.81 | Max Peak | Horizontal | 141 | 297 | 74.0 | -5.2 | Pass |
| #2 | 5355.65 | 15.07 | 3.71 | 34.50 | 53.28 | Max Avg | Horizontal | 141 | 297 | 54.0 | -0.7 | Pass |
| #3 | 53500.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5250.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 16 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5138.68 | 10.75 | 3.70 | 34.12 | 48.57 | Max Avg | Horizontal | 150 | 323 | 54.0 | -5.4 | Pass |
| #2 | 5141.58 | 26.99 | 3.70 | 34.12 | 64.81 | Max Peak | Horizontal | 150 | 323 | 74.0 | -9.2 | Pass |
| #3 | 5150.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE.

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5290.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 16 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5353.11 | 15.66 | 3.71 | 34.50 | 53.87 | Max Avg | Horizontal | 150 | 323 | 54.0 | -0.1 | Pass |
| #3 | 5354.97 | 34.36 | 3.71 | 34.50 | 72.57 | Max Peak | Horizontal | 150 | 323 | 74.0 | -1.4 | Pass |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE.

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-20W | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 2.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 6.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5570.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 16 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5444.07 | 29.84 | 3.75 | 34.31 | 67.90 | Max Peak | Horizontal | 150 | 312 | 74.0 | -6.1 | Pass |
| #2 | 5460.00 | 12.66 | 3.79 | 34.31 | 50.76 | Max Avg | Horizontal | 150 | 312 | 54.0 | -3.2 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5464.83 | 14.99 | 3.79 | 34.31 | 53.09 | Max Avg | Horizontal | 153 | 30 | 68.2 | -15.1 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE.

### 2.1.2.13. AP-ANT-40

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5250 - 5350 MHz

| AP-ANT-40 | | Band-Edge Freq | Limit 54.0 | Limit 74.0 | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | dBµV/m | dBµV/m | dBµV/m | |
| 802.11a | 5320.00 | 5350.00 | 52.21 | 65.65 | 17.50 |
| 802.11ac-80 | 5290.00 | 5350.00 | 53.68 | 73.46 | 13.00 |
| 802.11n HT-20 | 5320.00 | 5350.00 | 52.87 | 67.42 | 18.00 |
| 802.11n HT-40 | 5310.00 | 5350.00 | 53.58 | 69.19 | 16.50 |
| 802.11ac-160 | 5250.00 | 5150.00 | 52.84 | 69.56 | 12.50 |
| 802.11ac-160 | 5250.00 | 5350.00 | 53.38 | 70.94 | |

5470 - 5725 MHz

| AP-ANT-40 | | Band-Edge Freq | Limit 54.0 | Limit 74.0 | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11a | 5500.00 | 5460.00 | 50.21 | 66.26 | 18.00 |
| 802.11ac-80 | 5530.00 | 5460.00 | 53.20 | 70.99 | 14.50 |
| 802.11n HT-20 | 5500.00 | 5460.00 | 50.49 | 64.77 | 18.00 |
| 802.11n HT-40 | 5510.00 | 5460.00 | 53.09 | 67.57 | 17.00 |
| 802.11ac-160 | 5570.00 | 5460.00 | 53.09 | 68.93 | 15.00 |

| AP-ANT-40 | | Band-Edge Freq | Limit 68.2 | Power Setting |
|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | |
| 802.11a | 5500.00 | 5470.00 | 54.51 | 18.00 |
| 802.11ac-80 | 5530.00 | 5470.00 | 55.18 | 14.50 |
| 802.11n HT-20 | 5500.00 | 5470.00 | 53.69 | 18.00 |
| 802.11n HT-40 | 5510.00 | 5470.00 | 57.67 | 17.00 |
| 802.11ac-160 | 5570.00 | 5470.00 | 54.93 | 15.00 |

Click on the links to view the data.

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5454.97 | 12.12 | 3.79 | 34.30 | 50.21 | Max Avg | Horizontal | 153 | 330 | 54.0 | -3.8 | Pass |
| #2 | 5454.97 | 28.17 | 3.79 | 34.30 | 66.26 | Max Peak | Horizontal | 153 | 330 | 74.0 | -7.7 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5468.40 | 16.40 | 3.79 | 34.32 | 54.51 | Max Avg | Horizontal | 153 | 30 | 68.2* | -13.7 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5530.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 14.5 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5460.00 | 15.10 | 3.79 | 34.31 | 53.20 | Max Avg | Horizontal | 153 | 330 | 54.0 | -0.8 | Pass |
| #2 | 5460.00 | 32.89 | 3.79 | 34.31 | 70.99 | Max Peak | Horizontal | 153 | 330 | 74.0 | -3.0 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5461.94 | 17.08 | 3.79 | 34.31 | 55.18 | Max Avg | Horizontal | 153 | 30 | 68.2 | -13.1 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5455.23 | 12.40 | 3.79 | 34.30 | 50.49 | Max Avg | Horizontal | 153 | 330 | 54.0 | -3.5 | Pass |
| #2 | 5455.23 | 26.68 | 3.79 | 34.30 | 64.77 | Max Peak | Horizontal | 153 | 330 | 74.0 | -9.2 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5467.55 | 15.58 | 3.79 | 34.32 | 53.69 | Max Avg | Horizontal | 153 | 30 | 68.2 | -14.5 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5510.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 17 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5457.39 | 14.99 | 3.80 | 34.30 | 53.09 | Max Avg | Horizontal | 153 | 330 | 54.0 | -0.9 | Pass |
| #2 | 5458.24 | 29.47 | 3.80 | 34.30 | 67.57 | Max Peak | Horizontal | 153 | 330 | 74.0 | -6.4 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5464.75 | 19.57 | 3.79 | 34.31 | 57.67 | Max Avg | Horizontal | 153 | 30 | 68.2 | -10.6 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 17.5 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5351.82 | 27.43 | 3.71 | 34.51 | 65.65 | Max Peak | Horizontal | 153 | 331 | 74.0 | -8.4 | Pass |
| #3 | 5352.61 | 14.00 | 3.71 | 34.50 | 52.21 | Max Avg | Horizontal | 153 | 331 | 54.0 | -1.8 | Pass |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5290.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 13 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5362.06 | 35.28 | 3.70 | 34.48 | 73.46 | Max Peak | Horizontal | 153 | 331 | 74.0 | -0.5 | Pass |
| #2 | 5362.32 | 15.50 | 3.70 | 34.48 | 53.68 | Max Avg | Horizontal | 153 | 331 | 54.0 | -0.3 | Pass |
| #3 | 5350.00 | 0.00 | 0.00 | 0.00 | -- | Band-Edge | | 0 | 0 | -- | -- | |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5352.30 | 14.65 | 3.71 | 34.51 | 52.87 | Max Avg | Horizontal | 153 | 331 | 54.0 | -1.1 | Pass |
| #3 | 5354.35 | 29.21 | 3.71 | 34.50 | 67.42 | Max Peak | Horizontal | 153 | 331 | 74.0 | -6.6 | Pass |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5310.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 16.5 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5354.39 | 15.37 | 3.71 | 34.50 | 53.58 | Max Avg | Horizontal | 153 | 331 | 54.0 | -0.4 | Pass |
| #3 | 5355.03 | 30.98 | 3.71 | 34.50 | 69.19 | Max Peak | Horizontal | 153 | 331 | 74.0 | -4.8 | Pass |

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5250.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 12.5 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5143.09 | 15.02 | 3.70 | 34.12 | 52.84 | Max Avg | Horizontal | 199 | 41 | 54.0 | -1.2 | Pass |
| #2 | 5147.44 | 31.77 | 3.68 | 34.11 | 69.56 | Max Peak | Horizontal | 199 | 41 | 74.0 | -4.4 | Pass |
| #3 | 5150.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. Power reduced to meet Band Edge Limits.

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5250.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 14 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5361.58 | 15.20 | 3.70 | 34.48 | 53.38 | Max Avg | Horizontal | 199 | 41 | 54.0 | -0.6 | Pass |
| #3 | 5362.04 | 32.76 | 3.70 | 34.48 | 70.94 | Max Peak | Horizontal | 199 | 41 | 74.0 | -3.1 | Pass |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. Power reduced to meet Band Edge Limits.

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-40 | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 4.70 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5570.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 15 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5459.40 | 30.83 | 3.79 | 34.31 | 68.93 | Max Peak | Horizontal | 200 | 41 | 74.0 | -5.1 | Pass |
| #2 | 5460.00 | 14.99 | 3.79 | 34.31 | 53.09 | Max Avg | Horizontal | 200 | 41 | 54.0 | -0.9 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5465.13 | 16.82 | 3.79 | 34.32 | 54.93 | Max Avg | Horizontal | 153 | 30 | 68.2 | -13.3 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. Power reduced to meet Band Edge Limits.

### 2.1.2.14. AP-ANT-45

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5250 - 5350 MHz

| AP-ANT-45 | | Band-Edge Freq | Limit 54.0dBµV/m | Limit 74.0dBµV/m | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11a | 5320.00 | 5350.00 | 53.08 | 66.94 | 17.00 |
| 802.11ac-80 | 5290.00 | 5350.00 | 52.66 | 73.28 | 10.50 |
| 802.11n HT-20 | 5320.00 | 5350.00 | 52.87 | 66.46 | 17.00 |
| 802.11n HT-40 | 5310.00 | 5350.00 | 53.18 | 69.35 | 15.50 |
| 802.11ac-160 | 5250 | 5150 | 53.62 | 69.40 | 15.00 |
| 802.11ac-160 | 5250 | 5350 | 53.78 | 72.79 | |

5470 - 5725 MHz

| AP-ANT-45 | | Band-Edge Freq | Limit 54.0dBµV/m | Limit 74.0dBµV/m | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11a | 5500.00 | 5460.00 | 52.99 | 69.92 | 18.00 |
| 802.11ac-80 | 5530.00 | 5460.00 | 53.68 | 71.03 | 14.00 |
| 802.11n HT-20 | 5500.00 | 5460.00 | 52.01 | 67.03 | 18.00 |
| 802.11n HT-40 | 5510.00 | 5460.00 | 52.12 | 69.50 | 17.00 |
| 802.11ac-160 | 5570.00 | 5460.00 | 53.30 | 70.42 | 14.50 |

| AP-ANT-45 | | Band-Edge Freq | Limit 68.2 | Power Setting |
|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | |
| 802.11a | 5500.00 | 5470.00 | 52.89 | 18.00 |
| 802.11ac-80 | 5530.00 | 5470.00 | 56.16 | 14.50 |
| 802.11n HT-20 | 5500.00 | 5470.00 | 51.77 | 18.00 |
| 802.11n HT-40 | 5510.00 | 5470.00 | 61.78 | 17.00 |
| 802.11ac-160 | 5570.00 | 5470.00 | 53.59 | 14.50 |

Click on the links to view the data.

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5458.64 | 31.82 | 3.79 | 34.31 | 69.92 | Max Peak | Horizontal | 160 | 42 | 74.0 | -4.1 | Pass |
| #2 | 5459.68 | 14.89 | 3.79 | 34.31 | 52.99 | Max Avg | Horizontal | 160 | 42 | 54.0 | -1.0 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5460.72 | 14.79 | 3.79 | 34.31 | 52.89 | Max Avg | Horizontal | 153 | 30 | 68.2* | -15.3 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5530.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 14 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5449.24 | 15.61 | 3.77 | 34.30 | 53.68 | Max Avg | Horizontal | 160 | 42 | 54.0 | -0.3 | Pass |
| #2 | 5449.76 | 32.96 | 3.77 | 34.30 | 71.03 | Max Peak | Horizontal | 160 | 42 | 74.0 | -3.0 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5469.58 | 18.05 | 3.79 | 34.32 | 56.16 | Max Avg | Horizontal | 153 | 30 | 68.2 | -12.1 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5459.38 | 13.91 | 3.79 | 34.31 | 52.01 | Max Avg | Horizontal | 160 | 42 | 54.0 | -2.0 | Pass |
| #2 | 5459.64 | 28.93 | 3.79 | 34.31 | 67.03 | Max Peak | Horizontal | 160 | 42 | 74.0 | -7.0 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5460.20 | 13.67 | 3.79 | 34.31 | 51.77 | Max Avg | Horizontal | 153 | 30 | 68.2 | -16.5 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5510.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 17 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 1 | 5456.03 | 14.02 | 3.80 | 34.30 | 52.12 | Max Avg | Horizontal | 160 | 42 | 54.0 | -1.9 |
| #2 | 2 | 5456.87 | 31.40 | 3.80 | 34.30 | 69.50 | Max Peak | Horizontal | 160 | 42 | 74.0 | -4.5 |
| #3 | 3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- |
| #4 | 4 | 5469.84 | 23.67 | 3.79 | 34.32 | 61.78 | Max Avg | Horizontal | 153 | 30 | 68.2 | -6.5 |
| #5 | 5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 17 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | 14.87 | 3.70 | 34.51 | 53.08 | Max Avg | Vertical | 161 | 5 | 54.0 | -0.9 | Pass |
| #2 | 5350.00 | 28.73 | 3.70 | 34.51 | 66.94 | Max Peak | Vertical | 161 | 5 | 74.0 | -7.1 | Pass |
| #3 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5290.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 10.5 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5358.92 | 14.46 | 3.71 | 34.49 | 52.66 | Max Avg | Vertical | 161 | 5 | 54.0 | -1.3 | Pass |
| #3 | 5358.92 | 35.08 | 3.71 | 34.49 | 73.28 | Max Peak | Vertical | 161 | 5 | 74.0 | -0.7 | Pass |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 17 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5350.44 | 14.66 | 3.70 | 34.51 | 52.87 | Max Avg | Vertical | 161 | 5 | 54.0 | -1.1 | Pass |
| #3 | 5350.44 | 28.25 | 3.70 | 34.51 | 66.46 | Max Peak | Vertical | 161 | 5 | 74.0 | -7.5 | Pass |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5310.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 15.5 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5358.14 | 31.15 | 3.71 | 34.49 | 69.35 | Max Peak | Vertical | 161 | 5 | 74.0 | -4.7 | Pass |
| #3 | 5358.66 | 14.98 | 3.71 | 34.49 | 53.18 | Max Avg | Vertical | 161 | 5 | 54.0 | -0.8 | Pass |

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5250.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 15 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5141.58 | 15.80 | 3.70 | 34.12 | 53.62 | Max Avg | Horizontal | 162 | 8 | 54.0 | -0.4 | Pass |
| #2 | 5141.58 | 31.58 | 3.70 | 34.12 | 69.40 | Max Peak | Horizontal | 162 | 8 | 74.0 | -4.6 | Pass |
| #3 | 5150.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. Power reduced to meet Band Edge Limits.

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5250.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 15.5 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5354.93 | 15.57 | 3.71 | 34.50 | 53.78 | Max Avg | Horizontal | 162 | 8 | 54.0 | -0.2 | Pass |
| #3 | 5355.25 | 34.58 | 3.71 | 34.50 | 72.79 | Max Peak | Horizontal | 162 | 8 | 74.0 | -1.2 | Pass |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. Power reduced to meet Band Edge Limits.

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-45 | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 5.00 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5570.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 14.5 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5460.00 | 15.20 | 3.79 | 34.31 | 53.30 | Max Avg | Horizontal | 162 | 8 | 54.0 | -0.7 | Pass |
| #2 | 5460.00 | 32.32 | 3.79 | 34.31 | 70.42 | Max Peak | Horizontal | 162 | 8 | 74.0 | -3.6 | Pass |
| #4 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #3 | 5461.52 | 15.49 | 3.79 | 34.32 | 53.59 | Max Avg | Horizontal | 153 | 30 | 68.2* | -14.6 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. Power reduced to meet Band Edge Limits.

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

### 2.1.2.15. AP-ANT-48

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5250 - 5350 MHz

| AP-ANT-48 | | Band-Edge Freq | Limit 54.0dBµV/m | Limit 74.0dBµV/m | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11a | 5320.00 | 5350.00 | 53.38 | 66.12 | 16.00 |
| 802.11ac-80 | 5290.00 | 5350.00 | 53.78 | 71.45 | 9.50 |
| 802.11n HT-20 | 5320.00 | 5350.00 | 51.98 | 66.68 | 18.00 |
| 802.11n HT-40 | 5310.00 | 5350.00 | 53.68 | 66.83 | 14.00 |
| 802.11ac-160 | 5250 | 5150 | 52.74 | 69.75 | 12.00 |
| 802.11ac-160 | 5250 | 5350 | 53.78 | 72.43 | |

5470 - 5725 MHz

| AP-ANT-48 | | Band-Edge Freq | Limit 54.0dBµV/m | Limit 74.0dBµV/m | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11a | 5500.00 | 5460.00 | 53.19 | 66.88 | 16.00 |
| 802.11ac-80 | 5530.00 | 5460.00 | 53.78 | 68.50 | 8.00 |
| 802.11n HT-20 | 5500.00 | 5460.00 | 53.39 | 66.26 | 17.00 |
| 802.11n HT-40 | 5510.00 | 5460.00 | 53.78 | 66.39 | 13.00 |
| 802.11ac-160 | 5570.00 | 5460.00 | 52.89 | 71.32 | 13.50 |

| AP-ANT-48 | | Band-Edge Freq | Limit 68.2dBµV/m | Power Setting |
|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | |
| 802.11a | 5500.00 | 5470.00 | 55.18 | 16.00 |
| 802.11ac-80 | 5530.00 | 5470.00 | 53.98 | 8.00 |
| 802.11n HT-20 | 5500.00 | 5470.00 | 55.95 | 17.00 |
| 802.11n HT-40 | 5510.00 | 5470.00 | 53.20 | 13.00 |
| 802.11ac-160 | 5570.00 | 5470.00 | 52.88 | 13.50 |

80 + 80 MHz: 5250 - 5350 and 5470 - 5725 MHz Simultaneous Operation

| AP-ANT-48 | | Restricted Band Freq | Limit 54.0 | Limit 74.0 | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11ac-80+80 | 5290.00 | 5350.00 | 53.29 | 72.50 | 16.00 |
| | 5530.00 | 5460.00 | 50.48 | 69.42 | |

| AP-ANT-48 | | Band-Edge Freq | Limit 68.23 | Power Setting |
|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | |
| 802.11ac-80+80 | 5530.00 | 5470.00 | 53.10 | 16.00 |

Click on the links to view the data.

**80 + 80 MHz:** The following measurements were made with the unit operating in ac80+80 mode. As this report is for DFS operation applicable channel frequencies were 5290 and 5530 MHz.

The Restricted Band-Edges for 5350 and 5460 MHz were operating simulataneously and measured, with results reported below.

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11ac-80+80 |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5290.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 16 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #2 | 5350.11 | 15.08 | 3.70 | 34.51 | 53.29 | Max Avg | Vertical | 162 | 362 | 54.0 | -0.7 | Pass |
| #3 | 5351.28 | 34.28 | 3.71 | 34.51 | 72.50 | Max Peak | Vertical | 162 | 362 | 74.0 | -1.5 | Pass |
| #4 | 5445.75 | 31.34 | 3.78 | 34.30 | 69.42 | Max Peak | Vertical | 162 | 362 | 74.0 | -4.6 | Pass |
| #5 | 5447.35 | 12.39 | 3.78 | 34.30 | 50.48 | Max Avg | Vertical | 162 | 362 | 54.0 | -3.5 | Pass |
| #6 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #7 | 5467.56 | 14.99 | 3.79 | 34.32 | 53.10 | Max Avg | Horizontal | 153 | 30 | 68.2 | -15.1 | Pass |
| #8 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 16 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5452.00 | 28.80 | 3.78 | 34.30 | 66.88 | Max Peak | Horizontal | 162 | 362 | 74.0 | -7.1 | Pass |
| #2 | 5455.95 | 15.09 | 3.80 | 34.30 | 53.19 | Max Avg | Horizontal | 162 | 362 | 54.0 | -0.8 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5469.84 | 17.07 | 3.79 | 34.32 | 55.18 | Max Avg | Horizontal | 153 | 30 | 68.2 | -13.1 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5530.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 8 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5458.04 | 15.68 | 3.80 | 34.30 | 53.78 | Max Avg | Horizontal | 149 | 368 | 54.0 | -0.2 | Pass |
| #2 | 5458.32 | 30.40 | 3.80 | 34.30 | 68.50 | Max Peak | Horizontal | 149 | 368 | 74.0 | -5.5 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5469.80 | 15.87 | 3.79 | 34.32 | 53.98 | Max Avg | Horizontal | 153 | 30 | 68.2 | -14.3 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 17 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5456.07 | 15.29 | 3.80 | 34.30 | 53.39 | Max Avg | Horizontal | 162 | 362 | 54.0 | -0.6 | Pass |
| #2 | 5458.60 | 28.16 | 3.79 | 34.31 | 66.26 | Max Peak | Horizontal | 162 | 362 | 74.0 | -7.7 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5468.96 | 17.84 | 3.79 | 34.32 | 55.95 | Max Avg | Horizontal | 153 | 30 | 68.2 | -12.3 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5510.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 13 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5457.76 | 28.29 | 3.80 | 34.30 | 66.39 | Max Peak | Horizontal | 162 | 362 | 74.0 | -7.6 | Pass |
| #2 | 5458.32 | 15.68 | 3.80 | 34.30 | 53.78 | Max Avg | Horizontal | 162 | 362 | 54.0 | -0.2 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5469.52 | 15.09 | 3.79 | 34.32 | 53.20 | Max Avg | Horizontal | 153 | 30 | 68.2 | -15.0 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 16 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5356.77 | 27.92 | 3.71 | 34.49 | 66.12 | Max Peak | Vertical | 152 | 361 | 74.0 | -7.9 | Pass |
| #3 | 5357.66 | 15.18 | 3.71 | 34.49 | 53.38 | Max Avg | Vertical | 152 | 361 | 54.0 | -0.6 | Pass |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5290.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 9.5 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5350.62 | 15.56 | 3.71 | 34.51 | 53.78 | Max Avg | Horizontal | 149 | 368 | 54.0 | -0.2 | Pass |
| #3 | 5351.66 | 33.23 | 3.71 | 34.51 | 71.45 | Max Peak | Horizontal | 149 | 368 | 74.0 | -2.6 | Pass |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5356.57 | 28.48 | 3.71 | 34.49 | 66.68 | Max Peak | Vertical | 152 | 361 | 74.0 | -7.3 | Pass |
| #3 | 5356.81 | 13.78 | 3.71 | 34.49 | 51.98 | Max Avg | Vertical | 152 | 361 | 54.0 | -2.0 | Pass |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5310.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 14 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | 15.47 | 3.70 | 34.51 | 53.68 | Max Avg | Vertical | 152 | 361 | 54.0 | -0.3 | Pass |
| #2 | 5350.00 | 28.62 | 3.70 | 34.51 | 66.83 | Max Peak | Vertical | 152 | 361 | 74.0 | -7.2 | Pass |
| #3 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5250.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 12 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5137.22 | 31.94 | 3.69 | 34.12 | 69.75 | Max Peak | Horizontal | 180 | -6 | 74.0 | -4.3 | Pass |
| #2 | 5138.73 | 14.92 | 3.70 | 34.12 | 52.74 | Max Avg | Horizontal | 180 | -6 | 54.0 | -1.3 | Pass |
| #3 | 5150.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. Power reduced to meet Band Edge Limits.

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5250.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 13 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5357.47 | 15.58 | 3.71 | 34.49 | 53.78 | Max Avg | Horizontal | 180 | -6 | 54.0 | -0.2 | Pass |
| #3 | 5357.60 | 34.23 | 3.71 | 34.49 | 72.43 | Max Peak | Horizontal | 180 | -6 | 74.0 | -1.6 | Pass |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. Power reduced to meet Band Edge Limits.

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | AP-ANT-48 | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 8.50 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5530.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 13.5 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5457.84 | 33.22 | 3.80 | 34.30 | 71.32 | Max Peak | Horizontal | 183 | -6 | 74.0 | -2.7 | Pass |
| #2 | 5458.38 | 14.79 | 3.80 | 34.30 | 52.89 | Max Avg | Horizontal | 183 | -6 | 54.0 | -1.1 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5460.62 | 14.78 | 3.79 | 34.31 | 52.88 | Max Avg | Horizontal | 153 | 30 | 68.2* | -15.4 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. Power reduced to meet Band Edge Limits.

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

### 2.1.2.16. Metal Sheet

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5250 - 5350 MHz

| Metal Sheet | | Band-Edge Freq | Limit 54.0dBµV/m | Limit 74.0dBµV/m | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11a | 5320.00 | 5350.00 | 53.68 | 68.98 | 18.50 |
| 802.11ac-80 | 5290.00 | 5350.00 | 53.87 | 73.97 | 14.00 |
| 802.11n HT-20 | 5320.00 | 5350.00 | 52.76 | 66.91 | 18.50 |
| 802.11n HT-40 | 5310.00 | 5350.00 | 52.09 | 68.55 | 17.00 |
| 802.11ac-160 | 5250.00 | 5150.00 | 53.82 | 69.13 | 15.5 |
| 802.11ac-160 | 5250.00 | 5350.00 | 53.28 | 72.43 | |

5470 - 5725 MHz

| Metal Sheet | | Band-Edge Freq | Limit 54.0dBµV/m | Limit 74.0dBµV/m | Power Setting |
|---|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | dBµV/m | |
| 802.11a | 5500.00 | 5460.00 | 47.17 | 61.11 | 18.00 |
| 802.11ac-80 | 5530.00 | 5460.00 | 53.39 | 69.44 | 15.50 |
| 802.11n HT-20 | 5500.00 | 5460.00 | 47.37 | 61.43 | 18.00 |
| 802.11n HT-40 | 5510.00 | 5460.00 | 53.49 | 69.36 | 17.50 |
| 802.11ac-160 | 5570.00 | 5460.00 | 52.35 | 70.23 | 15.50 |

| Metal Sheet | | Band-Edge Freq | Limit 68.2dBµV/m | Power Setting |
|---|---|---|---|---|
| Operational Mode | Operating Frequency (MHz) | MHz | dBµV/m | |
| 802.11a | 5500.00 | 5470.00 | 52.46 | 18.00 |
| 802.11ac-80 | 5530.00 | 5470.00 | 55.33 | 15.50 |
| 802.11n HT-20 | 5500.00 | 5470.00 | 52.57 | 18.00 |
| 802.11n HT-40 | 5510.00 | 5470.00 | 56.79 | 17.50 |
| 802.11ac-160 | 5570.00 | 5470.00 | 52.00 | 15.50 |

Click on the links to view the data.

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Metal Sheet | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | Not Applicable | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | Not Applicable | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5453.91 | 23.02 | 3.79 | 34.30 | 61.11 | Max Peak | Vertical | 179 | 313 | 74.0 | -12.9 | Pass |
| #2 | 5455.19 | 9.08 | 3.79 | 34.30 | 47.17 | Max Avg | Vertical | 179 | 313 | 54.0 | -6.8 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5466.39 | 14.36 | 3.79 | 34.31 | 52.46 | Max Avg | Horizontal | 153 | 30 | 68.2 | -15.8 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Metal Sheet | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | Not Applicable | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | Not Applicable | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5530.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 15.5 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5447.21 | 15.33 | 3.76 | 34.30 | 53.39 | Max Avg | Vertical | 173 | 329 | 54.0 | -0.6 | Pass |
| #2 | 5447.25 | 31.38 | 3.76 | 34.30 | 69.44 | Max Peak | Vertical | 173 | 329 | 74.0 | -4.6 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5466.39 | 17.22 | 3.79 | 34.32 | 55.33 | Max Avg | Horizontal | 153 | 30 | 68.2 | -12.9 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Metal Sheet | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | Not Applicable | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | Not Applicable | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5500.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 18 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5454.15 | 9.28 | 3.79 | 34.30 | 47.37 | Max Avg | Vertical | 179 | 313 | 54.0 | -6.6 | Pass |
| #2 | 5454.75 | 23.34 | 3.79 | 34.30 | 61.43 | Max Peak | Vertical | 179 | 313 | 74.0 | -12.6 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5465.43 | 14.46 | 3.79 | 34.32 | 52.57 | Max Avg | Horizontal | 153 | 30 | 68.2 | -15.7 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Metal Sheet | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | Not Applicable | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | Not Applicable | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5510.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 17.5 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5453.65 | 15.40 | 3.79 | 34.30 | 53.49 | Max Avg | Vertical | 179 | 313 | 54.0 | -0.5 | Pass |
| #2 | 5454.67 | 31.27 | 3.79 | 34.30 | 69.36 | Max Peak | Vertical | 179 | 313 | 74.0 | -4.6 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5465.11 | 18.68 | 3.79 | 34.32 | 56.79 | Max Avg | Horizontal | 153 | 30 | 68.2 | -11.4 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Metal Sheet | **Variant:** | 802.11a |
| **Antenna Gain (dBi):** | 2.10 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 5.10 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.00 MBit/s |
| **Power Setting:** | 18.5 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5352.61 | 30.77 | 3.71 | 34.50 | 68.98 | Max Peak | Vertical | 179 | 330 | 74.0 | -5.0 | Pass |
| #3 | 5352.85 | 15.47 | 3.71 | 34.50 | 53.68 | Max Avg | Vertical | 179 | 330 | 54.0 | -0.3 | Pass |
| Test Notes: reduced power setting from 21 to 18.5 | | | | | | | | | | | | |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Metal Sheet | **Variant:** | 802.11ac-80 |
| **Antenna Gain (dBi):** | 2.10 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 5.10 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5290.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 14 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5363.35 | 35.79 | 3.70 | 34.48 | 73.97 | Max Peak | Vertical | 179 | 330 | 74.0 | 0.0 | Pass |
| #3 | 5364.65 | 15.71 | 3.69 | 34.47 | 53.87 | Max Avg | Vertical | 179 | 330 | 54.0 | -0.1 | Pass |

Test Notes: reduced power setting from 21 to 14

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Metal Sheet | **Variant:** | 802.11n HT-20 |
| **Antenna Gain (dBi):** | 2.10 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 5.10 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5320.00 | **Data Rate:** | 6.50 MBit/s |
| **Power Setting:** | 18.5 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5353.05 | 28.70 | 3.71 | 34.50 | 66.91 | Max Peak | Vertical | 179 | 330 | 74.0 | -7.1 | Pass |
| #3 | 5353.57 | 14.55 | 3.71 | 34.50 | 52.76 | Max Avg | Vertical | 179 | 330 | 54.0 | -1.2 | Pass |
| Test Notes: reduced power setting from 21 to 18.5 | | | | | | | | | | | | |

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Metal Sheet | **Variant:** | 802.11n HT-40 |
| **Antenna Gain (dBi):** | 2.10 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 5.10 | **Duty Cycle (%):** | 100 |
| **Channel Frequency (MHz):** | 5310.00 | **Data Rate:** | 13.50 MBit/s |
| **Power Setting:** | 17 | **Tested By:** | SB |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5363.51 | 30.37 | 3.70 | 34.48 | 68.55 | Max Peak | Vertical | 179 | 330 | 74.0 | -5.5 | Pass |
| #3 | 5364.55 | 13.93 | 3.69 | 34.47 | 52.09 | Max Avg | Vertical | 179 | 330 | 54.0 | -1.9 | Pass |

Test Notes: reduced power setting from 21 to 17

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Aruba Networks Metal Sheet | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 2.10 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5250.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 15.5 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5136.92 | 31.32 | 3.69 | 34.12 | 69.13 | Max Peak | Vertical | 159 | 305 | 74.0 | -4.9 | Pass |
| #2 | 5150.00 | 16.04 | 3.67 | 34.11 | 53.82 | Max Avg | Vertical | 159 | 305 | 54.0 | -0.2 | Pass |
| #3 | 5150.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. Power reduced to meet Band Edge Limits.

**Equipment Configuration for Restricted Upper Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Aruba Networks Metal Sheet | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 2.10 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5290.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 16 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5350.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |
| #2 | 5355.13 | 33.22 | 3.71 | 34.50 | 71.43 | Max Peak | Vertical | 159 | 305 | 74.0 | -2.6 | Pass |
| #3 | 5356.01 | 15.07 | 3.71 | 34.50 | 53.28 | Max Avg | Vertical | 159 | 305 | 54.0 | -0.7 | Pass |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. .

**Equipment Configuration for Restricted Lower Band-Edge Emissions**

| | | | |
|---|---|---|---|
| **Antenna:** | Aruba Networks Metal Sheet | **Variant:** | 802.11ac-160 |
| **Antenna Gain (dBi):** | 2.10 | **Modulation:** | OFDM |
| **Beam Forming Gain (Y):** | 3.00 | **Duty Cycle (%):** | 95 |
| **Channel Frequency (MHz):** | 5530.00 | **Data Rate:** | 29.30 MBit/s |
| **Power Setting:** | 15.5 | **Tested By:** | JMH |

**Test Measurement Results**

| Num | Frequency MHz | Raw dBµV | Cable Loss | AF dB | Level dBµV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBµV/m | Margin dB | Pass /Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 | 5457.56 | 14.25 | 3.80 | 34.30 | 52.35 | Max Avg | Vertical | 160 | 305 | 54.0 | -1.7 | Pass |
| #2 | 5457.84 | 32.13 | 3.80 | 34.30 | 70.23 | Max Peak | Vertical | 160 | 305 | 74.0 | -3.8 | Pass |
| #3 | 5460.00 | -- | -- | -- | -- | Restricted Band | -- | -- | -- | -- | -- | -- |
| #4 | 5460.02 | 27.72 | 3.79 | 34.31 | 52.00 | Max Avg | Horizontal | 153 | 30 | 68.2 | -16.2 | Pass |
| #5 | 5470.00 | -- | -- | -- | -- | Band Edge | -- | -- | -- | -- | -- | -- |

Test Notes: EUT on 150cm table powered by PDSine 9001GR POE. Power reduced to meet Band Edge Limits.

*Note 68.2 dBµV/m is band edge average limit for 5470 MHz per FCC 407