*Channel 159 / 5795 MHz*

| Freq GHz | Read Level dBuV | Ant. Fac dB/m | Pre. Fac dB | Cab.Los dB | Measured Level dBuV | Limit Line dBuV/m | Over limit dB | Remark | Pol/Phase |
|---|---|---|---|---|---|---|---|---|---|
| 17.385 | 57.67 | 33.23 | 35.04 | 3.91 | 59.77 | 68.20 | -8.43 | Peak | Horizontal |
| 17.385 | 40.38 | 33.23 | 35.04 | 3.91 | 42.48 | 54.00 | -11.52 | Average | Horizontal |
| 17.385 | 57.12 | 33.23 | 35.04 | 3.91 | 59.22 | 68.20 | -8.98 | Peak | Vertical |
| 17.385 | 37.62 | 33.23 | 35.04 | 3.91 | 39.72 | 54.00 | -14.28 | Average | Vertical |

*IEEE 802.11ac VHT80 (Combine with Antenna Chain0 and Antenna Chain1)*

*Channel 155 / 5775 MHz*

| Freq GHz | Read Level dBuV | Ant. Fac dB/m | Pre. Fac dB | Cab.Los dB | Measured Level dBuV | Limit Line dBuV/m | Over limit dB | Remark | Pol |
|---|---|---|---|---|---|---|---|---|---|
| 17.325 | 60.21 | 33.27 | 35.15 | 3.93 | 62.26 | 68.20 | -5.94 | Peak | Horizontal |
| 17.325 | 42.17 | 33.27 | 35.15 | 3.93 | 44.22 | 54.00 | -9.78 | Average | Horizontal |
| 17.325 | 60.20 | 33.27 | 35.15 | 3.93 | 62.25 | 68.20 | -5.95 | Peak | Vertical |
| 17.325 | 43.42 | 33.27 | 35.15 | 3.93 | 45.47 | 54.00 | -8.53 | Average | Vertical |

*Notes:*

*1). Measuring frequencies from 9 KHz ~ 40 GHz, No emission found between lowest internal used/generated frequency to 30MHz.*
*2). Radiated emissions measured in frequency range from 9 KHz ~ 40 GHz were made with an instrument using Peak detector mode.*
*3). 18~40GHz at least have 20dB margin. No recording in the test report.*
*4). Worst case data at 6Mbps at IEEE 802.11a; MCS0 at IEEE 802.11n HT20, IEEE 802.11n HT40, IEEE 802.11a VHT20, IEEE 802.11ac VHT40 and IEEE 802.11ac VHT80;*
*5). Data of measurement within this frequency range shown "---" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
*6). Pre-scan at Antenna0 and Antenna1 for IEEE 802.11a mode, pre-scan at Antenna0, Antenna1 and Combined Antenna 0 and Antenna 1 for IEEE 802.11n and IEEE 802.11ac, recorded worst case.*

## 5.6. Power line conducted emissions

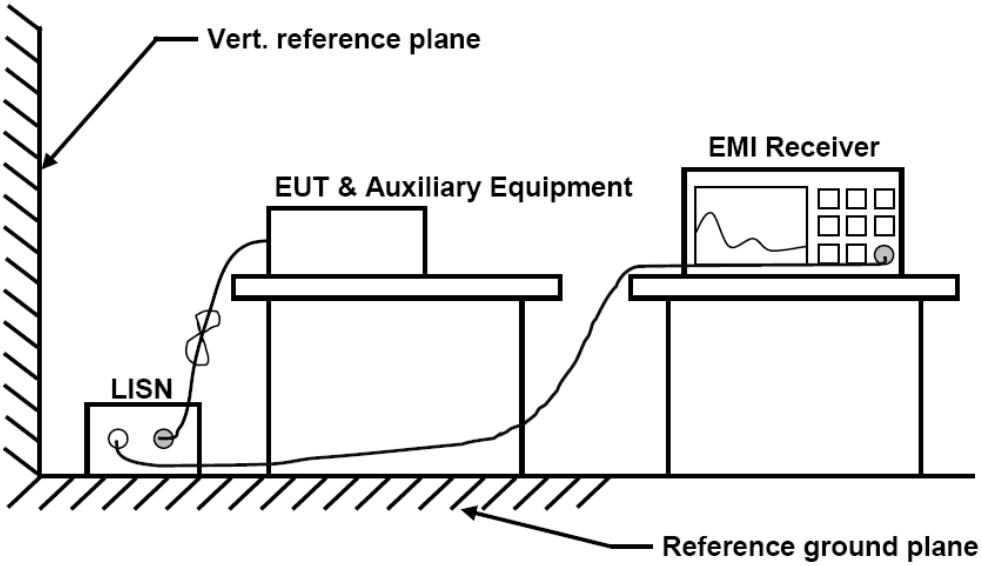
### 5.6.1 Standard Applicable

According to §15.207 (a): For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range are listed as follows:

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

* Decreasing linearly with the logarithm of the frequency

### 5.6.2 Block Diagram of Test Setup



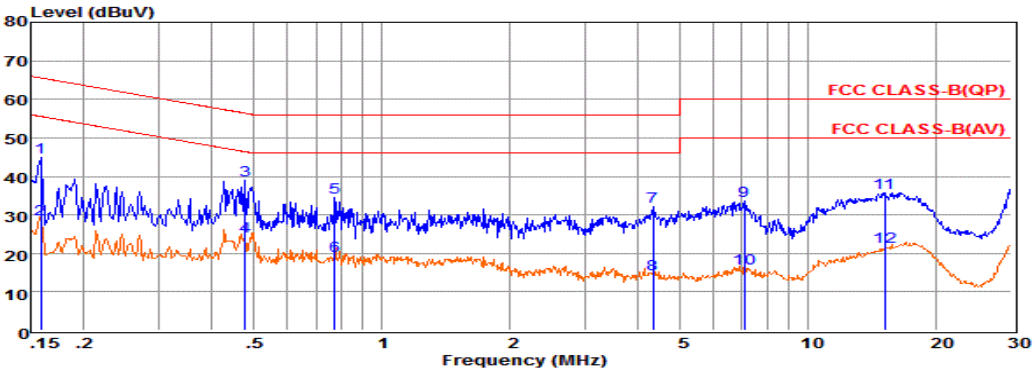

### 5.6.3 Test Results

**PASS.**

The test data please refer to following page.

***AC Conducted Emission of power by adapter @ AC 120V/60Hz @ IEEE 802.11ac VHT20 (worst case)***

*Line*

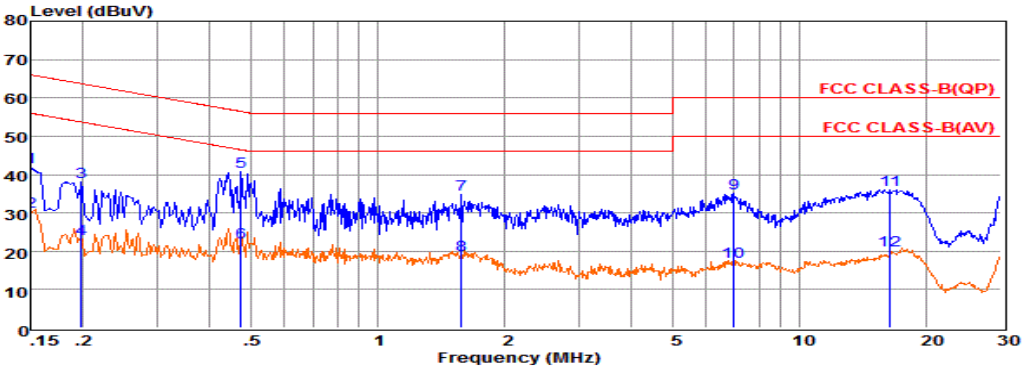



Pol: LINE

| | Freq MHz | Reading dBpW | LisnFac dB | CabLos dB | Measured dBpW | Limit dBpW | Over dB | Remark |
|---|---|---|---|---|---|---|---|---|
| 1 | 0.16 | 25.26 | 9.58 | 0.02 | 44.86 | 65.56 | -20.70 | QP |
| 2 | 0.16 | 9.38 | 9.58 | 0.02 | 28.98 | 55.55 | -26.57 | Average |
| 3 | 0.48 | 19.29 | 9.62 | 0.04 | 38.95 | 56.36 | -17.41 | QP |
| 4 | 0.48 | 4.75 | 9.62 | 0.04 | 24.41 | 46.36 | -21.95 | Average |
| 5 | 0.78 | 14.91 | 9.64 | 0.04 | 34.59 | 56.00 | -21.41 | QP |
| 6 | 0.78 | -0.42 | 9.64 | 0.04 | 19.26 | 46.00 | -26.74 | Average |
| 7 | 4.34 | 12.31 | 9.65 | 0.06 | 32.02 | 56.00 | -23.98 | QP |
| 8 | 4.34 | -5.06 | 9.65 | 0.06 | 14.65 | 46.00 | -31.35 | Average |
| 9 | 7.10 | 13.85 | 9.68 | 0.07 | 33.60 | 60.00 | -26.40 | QP |
| 10 | 7.10 | -3.66 | 9.68 | 0.07 | 16.09 | 50.00 | -33.91 | Average |
| 11 | 15.15 | 15.97 | 9.71 | 0.10 | 35.78 | 60.00 | -24.22 | QP |
| 12 | 15.15 | 1.87 | 9.71 | 0.10 | 21.68 | 50.00 | -28.32 | Average |

Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss.
2. The emission levels that are 20dB below the official limit are not reported.

*Neutral*




Pol: NEUTRAL

| | Freq MHz | Reading dBpW | LisnFac dB | CabLos dB | Measured dBpW | Limit dBpW | Over dB | Remark |
|---|---|---|---|---|---|---|---|---|
| 1 | 0.15 | 22.10 | 9.70 | 0.02 | 41.82 | 66.00 | -24.18 | QP |
| 2 | 0.15 | 10.72 | 9.70 | 0.02 | 30.44 | 55.99 | -25.55 | Average |
| 3 | 0.20 | 18.46 | 9.59 | 0.02 | 38.07 | 63.71 | -25.64 | QP |
| 4 | 0.20 | 3.57 | 9.59 | 0.02 | 23.18 | 53.71 | -30.53 | Average |
| 5 | 0.47 | 20.95 | 9.62 | 0.04 | 40.61 | 56.45 | -15.84 | QP |
| 6 | 0.47 | 2.62 | 9.62 | 0.04 | 22.28 | 46.45 | -24.17 | Average |
| 7 | 1.58 | 15.12 | 9.63 | 0.05 | 34.80 | 56.00 | -21.20 | QP |
| 8 | 1.58 | -0.77 | 9.63 | 0.05 | 18.91 | 46.00 | -27.09 | Average |
| 9 | 6.99 | 15.25 | 9.69 | 0.07 | 35.01 | 60.00 | -24.99 | QP |
| 10 | 6.99 | -2.64 | 9.69 | 0.07 | 17.12 | 50.00 | -32.88 | Average |
| 11 | 16.40 | 16.22 | 9.75 | 0.11 | 36.08 | 60.00 | -23.92 | QP |
| 12 | 16.40 | 0.23 | 9.75 | 0.11 | 20.09 | 50.00 | -29.91 | Average |

Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss.
2. The emission levels that are 20dB below the official limit are not reported.

****Note: Pre-scan all modes and recorded the worst case results in this report (IEEE 802.11ac VHT20 mode (High Channel, Combined Antenna Chain0 and Antenna Chain1)).*

## 5.7 Undesirable Emissions Measurement

### 5.7.1 Limit

According to ξ15.407 (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:

(a) 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.

(b) 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.

(c) 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.

(d) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.

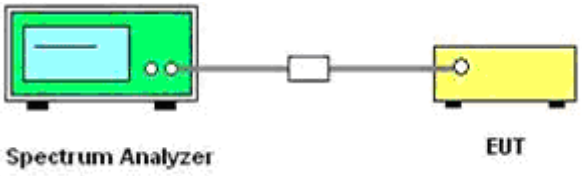
(e) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

(f) 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.

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

(h) 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.

### 5.7.2 Test Configuration




### 5.7.3 Test Procedure

1. The power was monitored at the coupler port with a Spectrum Analyzer. The power level was set to the maximum level.
2. Set the RBW = 1MHz.
3. Set the VBW ≥ 3MHz
4. Number of points in sweep ≥ 2 × span / RBW. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)
5. Manually set sweep time ≥ 10 × (number of points in sweep) × (total on/off period of the transmitted signal).
6. Set detector = power averaging (rms).
7. Sweep time = auto couple.
8. Trace mode = max hold.
9. Allow trace to fully stabilize.

5.7.4 Test Results

| IEEE 802.11a (Antenna Chain0) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | Antenna Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| 5650.0 | -42.12 | 5.000 | -37.12 | Peak | 27.0 | -64.12 | PASS |
| 5650.0 | -54.57 | 5.000 | -49.57 | Average | 27.0 | -76.57 | PASS |
| 5700.0 | -42.21 | 5.000 | -37.21 | Peak | 15.6 | -52.81 | PASS |
| 5700.0 | -54.52 | 5.000 | -49.52 | Average | 15.6 | -65.12 | PASS |
| 5720.0 | -42.69 | 5.000 | -37.69 | Peak | 10.0 | -47.69 | PASS |
| 5720.0 | -54.36 | 5.000 | -49.36 | Average | 10.0 | -59.36 | PASS |
| 5725.0 | -43.21 | 5.000 | -38.21 | Peak | -27.0 | -11.21 | PASS |
| 5725.0 | -54.35 | 5.000 | -49.35 | Average | -27.0 | -22.35 | PASS |
| 5850.0 | -41.99 | 5.000 | -36.99 | Peak | -27.0 | -9.99 | PASS |
| 5850.0 | -54.09 | 5.000 | -49.09 | Average | -27.0 | -22.09 | PASS |
| 5855.0 | -42.41 | 5.000 | -37.41 | Peak | 10.0 | -47.41 | PASS |
| 5855.0 | -54.13 | 5.000 | -49.13 | Average | 10.0 | -59.13 | PASS |
| 5875.0 | -42.59 | 5.000 | -37.59 | Peak | 15.6 | -53.19 | PASS |
| 5875.0 | -54.12 | 5.000 | -49.12 | Average | 15.6 | -64.72 | PASS |
| 5925.0 | -42.20 | 5.000 | -37.20 | Peak | 27.0 | -64.20 | PASS |
| 5925.0 | -54.19 | 5.000 | -49.19 | Average | 27.0 | -76.19 | PASS |

| IEEE 802.11n HT20 (Antenna Chain0) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | Antenna Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| 5650.0 | -42.97 | 5.000 | -37.97 | Peak | 27.0 | -64.97 | PASS |
| 5650.0 | -54.58 | 5.000 | -49.58 | Average | 27.0 | -76.58 | PASS |
| 5700.0 | -41.98 | 5.000 | -36.98 | Peak | 15.6 | -52.58 | PASS |
| 5700.0 | -54.43 | 5.000 | -49.43 | Average | 15.6 | -65.03 | PASS |
| 5720.0 | -41.22 | 5.000 | -36.22 | Peak | 10.0 | -46.22 | PASS |
| 5720.0 | -54.52 | 5.000 | -49.52 | Average | 10.0 | -59.52 | PASS |
| 5725.0 | -42.39 | 5.000 | -37.39 | Peak | -27.0 | -10.39 | PASS |
| 5725.0 | -54.37 | 5.000 | -49.37 | Average | -27.0 | -22.37 | PASS |
| 5850.0 | -41.86 | 5.000 | -36.86 | Peak | -27.0 | -9.86 | PASS |
| 5850.0 | -54.06 | 5.000 | -49.06 | Average | -27.0 | -22.06 | PASS |
| 5855.0 | -41.88 | 5.000 | -36.88 | Peak | 10.0 | -46.88 | PASS |
| 5855.0 | -54.10 | 5.000 | -49.10 | Average | 10.0 | -59.10 | PASS |
| 5875.0 | -42.68 | 5.000 | -37.68 | Peak | 15.6 | -53.28 | PASS |
| 5875.0 | -54.15 | 5.000 | -49.15 | Average | 15.6 | -64.75 | PASS |
| 5925.0 | -42.48 | 5.000 | -37.48 | Peak | 27.0 | -64.48 | PASS |
| 5925.0 | -54.21 | 5.000 | -49.21 | Average | 27.0 | -76.21 | PASS |

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| IEEE 802.11ac VHT20 (Antenna Chain0) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | Antenna Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| 5650.0 | -42.59 | 5.000 | -37.59 | Peak | 27.0 | -64.59 | PASS |
| 5650.0 | -54.60 | 5.000 | -49.60 | Average | 27.0 | -76.60 | PASS |
| 5700.0 | -42.07 | 5.000 | -37.07 | Peak | 15.6 | -52.67 | PASS |
| 5700.0 | -54.46 | 5.000 | -49.46 | Average | 15.6 | -65.06 | PASS |
| 5720.0 | -43.20 | 5.000 | -38.20 | Peak | 10.0 | -48.20 | PASS |
| 5720.0 | -54.54 | 5.000 | -49.54 | Average | 10.0 | -59.54 | PASS |
| 5725.0 | -40.91 | 5.000 | -35.91 | Peak | -27.0 | -8.91 | PASS |
| 5725.0 | -54.36 | 5.000 | -49.36 | Average | -27.0 | -22.36 | PASS |
| 5850.0 | -42.14 | 5.000 | -37.14 | Peak | -27.0 | -10.14 | PASS |
| 5850.0 | -54.10 | 5.000 | -49.10 | Average | -27.0 | -22.10 | PASS |
| 5855.0 | -41.43 | 5.000 | -36.43 | Peak | 10.0 | -46.43 | PASS |
| 5855.0 | -54.18 | 5.000 | -49.18 | Average | 10.0 | -59.18 | PASS |
| 5875.0 | -42.63 | 5.000 | -37.63 | Peak | 15.6 | -53.23 | PASS |
| 5875.0 | -54.18 | 5.000 | -49.18 | Average | 15.6 | -64.78 | PASS |
| 5925.0 | -41.89 | 5.000 | -36.89 | Peak | 27.0 | -63.89 | PASS |
| 5925.0 | -54.27 | 5.000 | -49.27 | Average | 27.0 | -76.27 | PASS |

| IEEE 802.11n HT40 (Antenna Chain0) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | Antenna Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| 5650.0 | -42.47 | 5.000 | -37.47 | Peak | 27.0 | -64.47 | PASS |
| 5650.0 | -54.45 | 5.000 | -49.45 | Average | 27.0 | -76.45 | PASS |
| 5700.0 | -42.04 | 5.000 | -37.04 | Peak | 15.6 | -52.64 | PASS |
| 5700.0 | -54.34 | 5.000 | -49.34 | Average | 15.6 | -64.94 | PASS |
| 5720.0 | -42.76 | 5.000 | -37.76 | Peak | 10.0 | -47.76 | PASS |
| 5720.0 | -54.22 | 5.000 | -49.22 | Average | 10.0 | -59.22 | PASS |
| 5725.0 | -42.29 | 5.000 | -37.29 | Peak | -27.0 | -10.29 | PASS |
| 5725.0 | -54.22 | 5.000 | -49.22 | Average | -27.0 | -22.22 | PASS |
| 5850.0 | -42.51 | 5.000 | -37.51 | Peak | -27.0 | -10.51 | PASS |
| 5850.0 | -53.79 | 5.000 | -48.79 | Average | -27.0 | -21.79 | PASS |
| 5855.0 | -41.98 | 5.000 | -36.98 | Peak | 10.0 | -46.98 | PASS |
| 5855.0 | -53.78 | 5.000 | -48.78 | Average | 10.0 | -58.78 | PASS |
| 5875.0 | -42.51 | 5.000 | -37.51 | Peak | 15.6 | -53.11 | PASS |
| 5875.0 | -53.81 | 5.000 | -48.81 | Average | 15.6 | -64.41 | PASS |
| 5925.0 | -41.99 | 5.000 | -36.99 | Peak | 27.0 | -63.99 | PASS |
| 5925.0 | -53.91 | 5.000 | -48.91 | Average | 27.0 | -75.91 | PASS |

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| IEEE 802.11ac VHT40 (Antenna Chain0) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | Antenna Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| 5650.0 | -42.69 | 5.000 | -37.69 | Peak | 27.0 | -64.69 | PASS |
| 5650.0 | -54.46 | 5.000 | -49.46 | Average | 27.0 | -76.46 | PASS |
| 5700.0 | -43.49 | 5.000 | -38.49 | Peak | 15.6 | -54.09 | PASS |
| 5700.0 | -54.38 | 5.000 | -49.38 | Average | 15.6 | -64.98 | PASS |
| 5720.0 | -42.95 | 5.000 | -37.95 | Peak | 10.0 | -47.95 | PASS |
| 5720.0 | -54.26 | 5.000 | -49.26 | Average | 10.0 | -59.26 | PASS |
| 5725.0 | -42.81 | 5.000 | -37.81 | Peak | -27.0 | -10.81 | PASS |
| 5725.0 | -54.22 | 5.000 | -49.22 | Average | -27.0 | -22.22 | PASS |
| 5850.0 | -42.47 | 5.000 | -37.47 | Peak | -27.0 | -10.47 | PASS |
| 5850.0 | -53.82 | 5.000 | -48.82 | Average | -27.0 | -21.82 | PASS |
| 5855.0 | -40.69 | 5.000 | -35.69 | Peak | 10.0 | -45.69 | PASS |
| 5855.0 | -53.79 | 5.000 | -48.79 | Average | 10.0 | -58.79 | PASS |
| 5875.0 | -42.05 | 5.000 | -37.05 | Peak | 15.6 | -52.65 | PASS |
| 5875.0 | -53.80 | 5.000 | -48.80 | Average | 15.6 | -64.40 | PASS |
| 5925.0 | -43.09 | 5.000 | -38.09 | Peak | 27.0 | -65.09 | PASS |
| 5925.0 | -53.85 | 5.000 | -48.85 | Average | 27.0 | -75.85 | PASS |

| IEEE 802.11ac VHT80 (Antenna Chain0) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | Antenna Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| 5650.0 | -42.08 | 5.000 | -37.08 | Peak | 27.0 | -64.08 | PASS |
| 5650.0 | -53.55 | 5.000 | -48.55 | Average | 27.0 | -75.55 | PASS |
| 5700.0 | -42.63 | 5.000 | -37.63 | Peak | 15.6 | -53.23 | PASS |
| 5700.0 | -53.50 | 5.000 | -48.50 | Average | 15.6 | -64.10 | PASS |
| 5720.0 | -42.06 | 5.000 | -37.06 | Peak | 10.0 | -47.06 | PASS |
| 5720.0 | -53.48 | 5.000 | -48.48 | Average | 10.0 | -58.48 | PASS |
| 5725.0 | -42.33 | 5.000 | -37.33 | Peak | -27.0 | -10.33 | PASS |
| 5725.0 | -53.47 | 5.000 | -48.47 | Average | -27.0 | -21.47 | PASS |
| 5850.0 | -42.33 | 5.000 | -37.33 | Peak | -27.0 | -10.33 | PASS |
| 5850.0 | -53.47 | 5.000 | -48.47 | Average | -27.0 | -21.47 | PASS |
| 5855.0 | -42.06 | 5.000 | -37.06 | Peak | 10.0 | -47.06 | PASS |
| 5855.0 | -53.48 | 5.000 | -48.48 | Average | 10.0 | -58.48 | PASS |
| 5875.0 | -42.63 | 5.000 | -37.63 | Peak | 15.6 | -53.23 | PASS |
| 5875.0 | -53.50 | 5.000 | -48.50 | Average | 15.6 | -64.10 | PASS |
| 5925.0 | -42.08 | 5.000 | -37.08 | Peak | 27.0 | -64.08 | PASS |
| 5925.0 | -53.55 | 5.000 | -48.55 | Average | 27.0 | -75.55 | PASS |

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| IEEE 802.11a (Antenna Chain1) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | Antenna Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| 5650.0 | -42.81 | 5.000 | -37.81 | Peak | 27.0 | -64.81 | PASS |
| 5650.0 | -54.53 | 5.000 | -49.53 | Average | 27.0 | -76.53 | PASS |
| 5700.0 | -42.84 | 5.000 | -37.84 | Peak | 15.6 | -53.44 | PASS |
| 5700.0 | -54.49 | 5.000 | -49.49 | Average | 15.6 | -65.09 | PASS |
| 5720.0 | -42.46 | 5.000 | -37.46 | Peak | 10.0 | -47.46 | PASS |
| 5720.0 | -54.38 | 5.000 | -49.38 | Average | 10.0 | -59.38 | PASS |
| 5725.0 | -42.47 | 5.000 | -37.47 | Peak | -27.0 | -10.47 | PASS |
| 5725.0 | -54.37 | 5.000 | -49.37 | Average | -27.0 | -22.37 | PASS |
| 5850.0 | -42.08 | 5.000 | -37.08 | Peak | -27.0 | -10.08 | PASS |
| 5850.0 | -54.03 | 5.000 | -49.03 | Average | -27.0 | -22.03 | PASS |
| 5855.0 | -42.42 | 5.000 | -37.42 | Peak | 10.0 | -47.42 | PASS |
| 5855.0 | -54.12 | 5.000 | -49.12 | Average | 10.0 | -59.12 | PASS |
| 5875.0 | -40.84 | 5.000 | -35.84 | Peak | 15.6 | -51.44 | PASS |
| 5875.0 | -54.20 | 5.000 | -49.20 | Average | 15.6 | -64.80 | PASS |
| 5925.0 | -42.18 | 5.000 | -37.18 | Peak | 27.0 | -64.18 | PASS |
| 5925.0 | -54.21 | 5.000 | -49.21 | Average | 27.0 | -76.21 | PASS |

| IEEE 802.11n HT20 (Antenna Chain1) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | Antenna Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| 5650.0 | -42.58 | 5.000 | -37.58 | Peak | 27.0 | -64.58 | PASS |
| 5650.0 | -54.53 | 5.000 | -49.53 | Average | 27.0 | -76.53 | PASS |
| 5700.0 | -42.55 | 5.000 | -37.55 | Peak | 15.6 | -53.15 | PASS |
| 5700.0 | -54.39 | 5.000 | -49.39 | Average | 15.6 | -64.99 | PASS |
| 5720.0 | -43.32 | 5.000 | -38.32 | Peak | 10.0 | -48.32 | PASS |
| 5720.0 | -54.46 | 5.000 | -49.46 | Average | 10.0 | -59.46 | PASS |
| 5725.0 | -42.96 | 5.000 | -37.96 | Peak | -27.0 | -10.96 | PASS |
| 5725.0 | -54.30 | 5.000 | -49.30 | Average | -27.0 | -22.30 | PASS |
| 5850.0 | -43.10 | 5.000 | -38.10 | Peak | -27.0 | -11.10 | PASS |
| 5850.0 | -54.07 | 5.000 | -49.07 | Average | -27.0 | -22.07 | PASS |
| 5855.0 | -41.93 | 5.000 | -36.93 | Peak | 10.0 | -46.93 | PASS |
| 5855.0 | -54.16 | 5.000 | -49.16 | Average | 10.0 | -59.16 | PASS |
| 5875.0 | -42.56 | 5.000 | -37.56 | Peak | 15.6 | -53.16 | PASS |
| 5875.0 | -54.18 | 5.000 | -49.18 | Average | 15.6 | -64.78 | PASS |
| 5925.0 | -42.04 | 5.000 | -37.04 | Peak | 27.0 | -64.04 | PASS |
| 5925.0 | -54.22 | 5.000 | -49.22 | Average | 27.0 | -76.22 | PASS |

| IEEE 802.11ac VHT20 (Antenna Chain1) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | Antenna Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| 5650.0 | -42.74 | 5.000 | -37.74 | Peak | 27.0 | -64.74 | PASS |
| 5650.0 | -54.56 | 5.000 | -49.56 | Average | 27.0 | -76.56 | PASS |
| 5700.0 | -43.17 | 5.000 | -38.17 | Peak | 15.6 | -53.77 | PASS |
| 5700.0 | -54.40 | 5.000 | -49.40 | Average | 15.6 | -65.00 | PASS |
| 5720.0 | -42.75 | 5.000 | -37.75 | Peak | 10.0 | -47.75 | PASS |
| 5720.0 | -54.49 | 5.000 | -49.49 | Average | 10.0 | -59.49 | PASS |
| 5725.0 | -41.59 | 5.000 | -36.59 | Peak | -27.0 | -9.59 | PASS |
| 5725.0 | -54.28 | 5.000 | -49.28 | Average | -27.0 | -22.28 | PASS |
| 5850.0 | -42.85 | 5.000 | -37.85 | Peak | -27.0 | -10.85 | PASS |
| 5850.0 | -54.09 | 5.000 | -49.09 | Average | -27.0 | -22.09 | PASS |
| 5855.0 | -41.51 | 5.000 | -36.51 | Peak | 10.0 | -46.51 | PASS |
| 5855.0 | -54.14 | 5.000 | -49.14 | Average | 10.0 | -59.14 | PASS |
| 5875.0 | -42.49 | 5.000 | -37.49 | Peak | 15.6 | -53.09 | PASS |
| 5875.0 | -54.19 | 5.000 | -49.19 | Average | 15.6 | -64.79 | PASS |
| 5925.0 | -42.67 | 5.000 | -37.67 | Peak | 27.0 | -64.67 | PASS |
| 5925.0 | -54.25 | 5.000 | -49.25 | Average | 27.0 | -76.25 | PASS |

| IEEE 802.11n HT40 (Antenna Chain1) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | Antenna Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| 5650.0 | -42.48 | 5.000 | -37.48 | Peak | 27.0 | -64.48 | PASS |
| 5650.0 | -54.41 | 5.000 | -49.41 | Average | 27.0 | -76.41 | PASS |
| 5700.0 | -41.95 | 5.000 | -36.95 | Peak | 15.6 | -52.55 | PASS |
| 5700.0 | -54.33 | 5.000 | -49.33 | Average | 15.6 | -64.93 | PASS |
| 5720.0 | -42.95 | 5.000 | -37.95 | Peak | 10.0 | -47.95 | PASS |
| 5720.0 | -54.21 | 5.000 | -49.21 | Average | 10.0 | -59.21 | PASS |
| 5725.0 | -43.27 | 5.000 | -38.27 | Peak | -27.0 | -11.27 | PASS |
| 5725.0 | -54.16 | 5.000 | -49.16 | Average | -27.0 | -22.16 | PASS |
| 5850.0 | -42.16 | 5.000 | -37.16 | Peak | -27.0 | -10.16 | PASS |
| 5850.0 | -53.76 | 5.000 | -48.76 | Average | -27.0 | -21.76 | PASS |
| 5855.0 | -42.18 | 5.000 | -37.18 | Peak | 10.0 | -47.18 | PASS |
| 5855.0 | -53.76 | 5.000 | -48.76 | Average | 10.0 | -58.76 | PASS |
| 5875.0 | -42.12 | 5.000 | -37.12 | Peak | 15.6 | -52.72 | PASS |
| 5875.0 | -53.83 | 5.000 | -48.83 | Average | 15.6 | -64.43 | PASS |
| 5925.0 | -42.43 | 5.000 | -37.43 | Peak | 27.0 | -64.43 | PASS |
| 5925.0 | -53.84 | 5.000 | -48.84 | Average | 27.0 | -75.84 | PASS |

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| IEEE 802.11ac VHT40 (Antenna Chain1) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | Antenna Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| 5650.0 | -42.95 | 5.000 | -37.95 | Peak | 27.0 | -64.95 | PASS |
| 5650.0 | -54.38 | 5.000 | -49.38 | Average | 27.0 | -76.38 | PASS |
| 5700.0 | -42.81 | 5.000 | -37.81 | Peak | 15.6 | -53.41 | PASS |
| 5700.0 | -54.28 | 5.000 | -49.28 | Average | 15.6 | -64.88 | PASS |
| 5720.0 | -42.24 | 5.000 | -37.24 | Peak | 10.0 | -47.24 | PASS |
| 5720.0 | -54.22 | 5.000 | -49.22 | Average | 10.0 | -59.22 | PASS |
| 5725.0 | -42.72 | 5.000 | -37.72 | Peak | -27.0 | -10.72 | PASS |
| 5725.0 | -54.18 | 5.000 | -49.18 | Average | -27.0 | -22.18 | PASS |
| 5850.0 | -42.25 | 5.000 | -37.25 | Peak | -27.0 | -10.25 | PASS |
| 5850.0 | -53.79 | 5.000 | -48.79 | Average | -27.0 | -21.79 | PASS |
| 5855.0 | -42.58 | 5.000 | -37.58 | Peak | 10.0 | -47.58 | PASS |
| 5855.0 | -53.80 | 5.000 | -48.80 | Average | 10.0 | -58.80 | PASS |
| 5875.0 | -43.04 | 5.000 | -38.04 | Peak | 15.6 | -53.64 | PASS |
| 5875.0 | -53.83 | 5.000 | -48.83 | Average | 15.6 | -64.43 | PASS |
| 5925.0 | -42.66 | 5.000 | -37.66 | Peak | 27.0 | -64.66 | PASS |
| 5925.0 | -53.86 | 5.000 | -48.86 | Average | 27.0 | -75.86 | PASS |

| IEEE 802.11ac VHT80 (Antenna Chain1) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | Antenna Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| 5650.0 | -42.13 | 5.000 | -37.13 | Peak | 27.0 | -64.13 | PASS |
| 5650.0 | -53.58 | 5.000 | -48.58 | Average | 27.0 | -75.58 | PASS |
| 5700.0 | -42.14 | 5.000 | -37.14 | Peak | 15.6 | -52.74 | PASS |
| 5700.0 | -53.46 | 5.000 | -48.46 | Average | 15.6 | -64.06 | PASS |
| 5720.0 | -42.72 | 5.000 | -37.72 | Peak | 10.0 | -47.72 | PASS |
| 5720.0 | -53.48 | 5.000 | -48.48 | Average | 10.0 | -58.48 | PASS |
| 5725.0 | -41.89 | 5.000 | -36.89 | Peak | -27.0 | -9.89 | PASS |
| 5725.0 | -53.44 | 5.000 | -48.44 | Average | -27.0 | -21.44 | PASS |
| 5850.0 | -41.89 | 5.000 | -36.89 | Peak | -27.0 | -9.89 | PASS |
| 5850.0 | -53.44 | 5.000 | -48.44 | Average | -27.0 | -21.44 | PASS |
| 5855.0 | -42.72 | 5.000 | -37.72 | Peak | 10.0 | -47.72 | PASS |
| 5855.0 | -53.48 | 5.000 | -48.48 | Average | 10.0 | -58.48 | PASS |
| 5875.0 | -42.14 | 5.000 | -37.14 | Peak | 15.6 | -52.74 | PASS |
| 5875.0 | -53.46 | 5.000 | -48.46 | Average | 15.6 | -64.06 | PASS |
| 5925.0 | -42.13 | 5.000 | -37.13 | Peak | 27.0 | -64.13 | PASS |
| 5925.0 | -53.58 | 5.000 | -48.58 | Average | 27.0 | -75.58 | PASS |

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| IEEE 802.11n HT20 (Combined Antenna Chain0 and Antenna Chain1) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | | | Directional Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| | Chain0 | Chain1 | Sum | | | | | | |
| 5650.0 | -42.97 | -42.58 | -39.76 | 8.010 | -31.75 | Peak | 27.0 | -58.75 | PASS |
| 5650.0 | -54.58 | -54.53 | -51.54 | 8.010 | -43.53 | Average | 27.0 | -70.53 | PASS |
| 5700.0 | -41.98 | -42.55 | -39.25 | 8.010 | -31.24 | Peak | 15.6 | -46.84 | PASS |
| 5700.0 | -54.43 | -54.39 | -51.40 | 8.010 | -43.39 | Average | 15.6 | -58.99 | PASS |
| 5720.0 | -41.22 | -43.32 | -39.13 | 8.010 | -31.12 | Peak | 10.0 | -41.12 | PASS |
| 5720.0 | -54.52 | -54.46 | -51.48 | 8.010 | -43.47 | Average | 10.0 | -53.47 | PASS |
| 5725.0 | -42.39 | -42.96 | -39.66 | 8.010 | -31.65 | Peak | -27.0 | -4.65 | PASS |
| 5725.0 | -54.37 | -54.30 | -51.32 | 8.010 | -43.31 | Average | -27.0 | -16.31 | PASS |
| 5850.0 | -41.86 | -43.10 | -39.43 | 8.010 | -31.42 | Peak | -27.0 | -4.42 | PASS |
| 5850.0 | -54.06 | -54.07 | -51.05 | 8.010 | -43.04 | Average | -27.0 | -16.04 | PASS |
| 5855.0 | -41.88 | -41.93 | -38.89 | 8.010 | -30.88 | Peak | 10.0 | -40.88 | PASS |
| 5855.0 | -54.10 | -54.16 | -51.12 | 8.010 | -43.11 | Average | 10.0 | -53.11 | PASS |
| 5875.0 | -42.68 | -42.56 | -39.61 | 8.010 | -31.60 | Peak | 15.6 | -47.20 | PASS |
| 5875.0 | -54.15 | -54.18 | -51.15 | 8.010 | -43.14 | Average | 15.6 | -58.74 | PASS |
| 5925.0 | -42.48 | -42.04 | -39.24 | 8.010 | -31.23 | Peak | 27.0 | -58.23 | PASS |
| 5925.0 | -54.21 | -54.22 | -51.20 | 8.010 | -43.19 | Average | 27.0 | -70.19 | PASS |

| IEEE 802.11ac VHT20 (Combined Antenna Chain0 and Antenna Chain1) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | | | Directional Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| | Chain0 | Chain1 | Sum | | | | | | |
| 5650.0 | -42.59 | -42.74 | -39.65 | 8.010 | -31.64 | Peak | 27.0 | -58.64 | PASS |
| 5650.0 | -54.60 | -54.56 | -51.57 | 8.010 | -43.56 | Average | 27.0 | -70.56 | PASS |
| 5700.0 | -42.07 | -43.17 | -39.57 | 8.010 | -31.56 | Peak | 15.6 | -47.16 | PASS |
| 5700.0 | -54.46 | -54.40 | -51.42 | 8.010 | -43.41 | Average | 15.6 | -59.01 | PASS |
| 5720.0 | -43.20 | -42.75 | -39.96 | 8.010 | -31.95 | Peak | 10.0 | -41.95 | PASS |
| 5720.0 | -54.54 | -54.49 | -51.50 | 8.010 | -43.49 | Average | 10.0 | -53.49 | PASS |
| 5725.0 | -40.91 | -41.59 | -38.23 | 8.010 | -30.22 | Peak | -27.0 | -3.22 | PASS |
| 5725.0 | -54.36 | -54.28 | -51.31 | 8.010 | -43.30 | Average | -27.0 | -16.30 | PASS |
| 5850.0 | -42.14 | -42.85 | -39.47 | 8.010 | -31.46 | Peak | -27.0 | -4.46 | PASS |
| 5850.0 | -54.10 | -54.09 | -51.08 | 8.010 | -43.07 | Average | -27.0 | -16.07 | PASS |
| 5855.0 | -41.43 | -41.51 | -38.46 | 8.010 | -30.45 | Peak | 10.0 | -40.45 | PASS |
| 5855.0 | -54.18 | -54.14 | -51.15 | 8.010 | -43.14 | Average | 10.0 | -53.14 | PASS |
| 5875.0 | -42.63 | -42.49 | -39.55 | 8.010 | -31.54 | Peak | 15.6 | -47.14 | PASS |
| 5875.0 | -54.18 | -54.19 | -51.17 | 8.010 | -43.16 | Average | 15.6 | -58.76 | PASS |
| 5925.0 | -41.89 | -42.67 | -39.25 | 8.010 | -31.24 | Peak | 27.0 | -58.24 | PASS |
| 5925.0 | -54.27 | -54.25 | -51.25 | 8.010 | -43.24 | Average | 27.0 | -70.24 | PASS |

| IEEE 802.11n HT40 (Combined Antenna Chain0 and Antenna Chain1) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | | | Directional Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| | Chain0 | Chain1 | Sum | | | | | | |
| 5650.0 | -42.47 | -42.48 | -39.46 | 8.010 | -31.45 | Peak | 27.0 | -58.45 | PASS |
| 5650.0 | -54.45 | -54.41 | -51.42 | 8.010 | -43.41 | Average | 27.0 | -70.41 | PASS |
| 5700.0 | -42.04 | -41.95 | -38.98 | 8.010 | -30.97 | Peak | 15.6 | -46.57 | PASS |
| 5700.0 | -54.34 | -54.33 | -51.32 | 8.010 | -43.31 | Average | 15.6 | -58.91 | PASS |
| 5720.0 | -42.76 | -42.95 | -39.84 | 8.010 | -31.83 | Peak | 10.0 | -41.83 | PASS |
| 5720.0 | -54.22 | -54.21 | -51.20 | 8.010 | -43.19 | Average | 10.0 | -53.19 | PASS |
| 5725.0 | -42.29 | -43.27 | -39.74 | 8.010 | -31.73 | Peak | -27.0 | -4.73 | PASS |
| 5725.0 | -54.22 | -54.16 | -51.18 | 8.010 | -43.17 | Average | -27.0 | -16.17 | PASS |
| 5850.0 | -42.51 | -42.16 | -39.32 | 8.010 | -31.31 | Peak | -27.0 | -4.31 | PASS |
| 5850.0 | -53.79 | -53.76 | -50.76 | 8.010 | -42.75 | Average | -27.0 | -15.75 | PASS |
| 5855.0 | -41.98 | -42.18 | -39.07 | 8.010 | -31.06 | Peak | 10.0 | -41.06 | PASS |
| 5855.0 | -53.78 | -53.76 | -50.76 | 8.010 | -42.75 | Average | 10.0 | -52.75 | PASS |
| 5875.0 | -42.51 | -42.12 | -39.30 | 8.010 | -31.29 | Peak | 15.6 | -46.89 | PASS |
| 5875.0 | -53.81 | -53.83 | -50.81 | 8.010 | -42.80 | Average | 15.6 | -58.40 | PASS |
| 5925.0 | -41.99 | -42.43 | -39.19 | 8.010 | -31.18 | Peak | 27.0 | -58.18 | PASS |
| 5925.0 | -53.91 | -53.84 | -50.86 | 8.010 | -42.85 | Average | 27.0 | -69.85 | PASS |

| IEEE 802.11ac VHT40 (Combined Antenna Chain0 and Antenna Chain1) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | | | Directional Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| | Chain0 | Chain1 | Sum | | | | | | |
| 5650.0 | -42.69 | -42.95 | -39.81 | 8.010 | -31.80 | Peak | 27.0 | -58.80 | PASS |
| 5650.0 | -54.46 | -54.38 | -51.41 | 8.010 | -43.40 | Average | 27.0 | -70.40 | PASS |
| 5700.0 | -43.49 | -42.81 | -40.13 | 8.010 | -32.12 | Peak | 15.6 | -47.72 | PASS |
| 5700.0 | -54.38 | -54.28 | -51.32 | 8.010 | -43.31 | Average | 15.6 | -58.91 | PASS |
| 5720.0 | -42.95 | -42.24 | -39.57 | 8.010 | -31.56 | Peak | 10.0 | -41.56 | PASS |
| 5720.0 | -54.26 | -54.22 | -51.23 | 8.010 | -43.22 | Average | 10.0 | -53.22 | PASS |
| 5725.0 | -42.81 | -42.72 | -39.75 | 8.010 | -31.74 | Peak | -27.0 | -4.74 | PASS |
| 5725.0 | -54.22 | -54.18 | -51.19 | 8.010 | -43.18 | Average | -27.0 | -16.18 | PASS |
| 5850.0 | -42.47 | -42.25 | -39.35 | 8.010 | -31.34 | Peak | -27.0 | -4.34 | PASS |
| 5850.0 | -53.82 | -53.79 | -50.79 | 8.010 | -42.78 | Average | -27.0 | -15.78 | PASS |
| 5855.0 | -40.69 | -42.58 | -38.52 | 8.010 | -30.51 | Peak | 10.0 | -40.51 | PASS |
| 5855.0 | -53.79 | -53.80 | -50.78 | 8.010 | -42.77 | Average | 10.0 | -52.77 | PASS |
| 5875.0 | -42.05 | -43.04 | -39.51 | 8.010 | -31.50 | Peak | 15.6 | -47.10 | PASS |
| 5875.0 | -53.80 | -53.83 | -50.80 | 8.010 | -42.79 | Average | 15.6 | -58.39 | PASS |
| 5925.0 | -43.09 | -42.66 | -39.86 | 8.010 | -31.85 | Peak | 27.0 | -58.85 | PASS |
| 5925.0 | -53.85 | -53.86 | -50.84 | 8.010 | -42.83 | Average | 27.0 | -69.83 | PASS |

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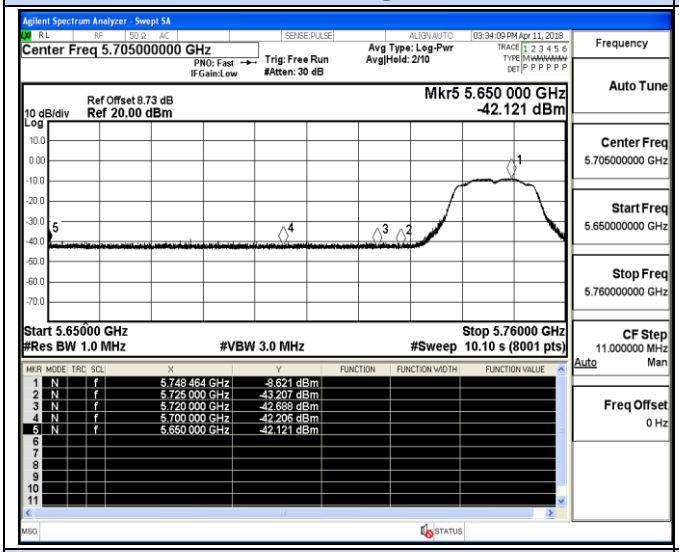
| IEEE 802.11ac VHT80 (Combined Antenna Chain0 and Antenna Chain1) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Conducted Power (dBm) | | | Directional Gain (dBi) | EIRP (dBm/1MHz) | Detector | Limit (dBm/1MHz) | Over limit (dB) | Verdict |
| | Chain0 | Chain1 | Sum | | | | | | |
| 5650.0 | -42.08 | -42.13 | -39.09 | 8.010 | -31.08 | Peak | 27.0 | -58.08 | PASS |
| 5650.0 | -53.55 | -53.58 | -50.55 | 8.010 | -42.54 | Average | 27.0 | -69.54 | PASS |
| 5700.0 | -42.63 | -42.14 | -39.37 | 8.010 | -31.36 | Peak | 15.6 | -46.96 | PASS |
| 5700.0 | -53.50 | -53.46 | -50.47 | 8.010 | -42.46 | Average | 15.6 | -58.06 | PASS |
| 5720.0 | -42.06 | -42.72 | -39.37 | 8.010 | -31.36 | Peak | 10.0 | -41.36 | PASS |
| 5720.0 | -53.48 | -53.48 | -50.47 | 8.010 | -42.46 | Average | 10.0 | -52.46 | PASS |
| 5725.0 | -42.33 | -41.89 | -39.09 | 8.010 | -31.08 | Peak | -27.0 | -4.08 | PASS |
| 5725.0 | -53.47 | -53.44 | -50.44 | 8.010 | -42.43 | Average | -27.0 | -15.43 | PASS |
| 5850.0 | -42.33 | -41.89 | -39.09 | 8.010 | -31.08 | Peak | -27.0 | -4.08 | PASS |
| 5850.0 | -53.47 | -53.44 | -50.44 | 8.010 | -42.43 | Average | -27.0 | -15.43 | PASS |
| 5855.0 | -42.06 | -42.72 | -39.37 | 8.010 | -31.36 | Peak | 10.0 | -41.36 | PASS |
| 5855.0 | -53.48 | -53.48 | -50.47 | 8.010 | -42.46 | Average | 10.0 | -52.46 | PASS |
| 5875.0 | -42.63 | -42.14 | -39.37 | 8.010 | -31.36 | Peak | 15.6 | -46.96 | PASS |
| 5875.0 | -53.50 | -53.46 | -50.47 | 8.010 | -42.46 | Average | 15.6 | -58.06 | PASS |
| 5925.0 | -42.08 | -42.13 | -39.09 | 8.010 | -31.08 | Peak | 27.0 | -58.08 | PASS |
| 5925.0 | -53.55 | -53.58 | -50.55 | 8.010 | -42.54 | Average | 27.0 | -69.54 | PASS |

*Remark:*

1. *Measured unwanted emission at difference data rate for each mode and recorded worst case for each mode.*
2. *Test results including cable loss;*
3. *Worst case data at 6Mbps at IEEE 802.11a; MCS0 at IEEE 802.11n HT20, IEEE 802.11n HT40, IEEE 802.11a VHT20, IEEE 802.11ac VHT40 and IEEE 802.11ac VHT80;*
4. *E.I.R.P = Conducted power + Directional Gain*
5. *EIRP calculation. A value representative of an upper bound on out-of-band antenna gain (in dBi) shall be added to the measured antenna-port conducted emission power to compute EIRP within the specified measurement bandwidth. (For emissions in the restricted bands, additional calculations are required to convert EIRP to field strength at the specified distance.) The upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands or 2 dBi, whichever is greater.3 However, for devices that operate in multiple bands using the same transmit antenna, the highest gain of the antenna within the operating band nearest to the out-of-band frequency being measured may be used in lieu of the overall highest gain when measuring emissions at frequencies within 20% of the absolute frequency at the nearest edge of that band, but in no case shall a value less than 2 dBi be selected.*
6. *Over limit = EIRP - Limit*
7. *Please refer to following test plots;*

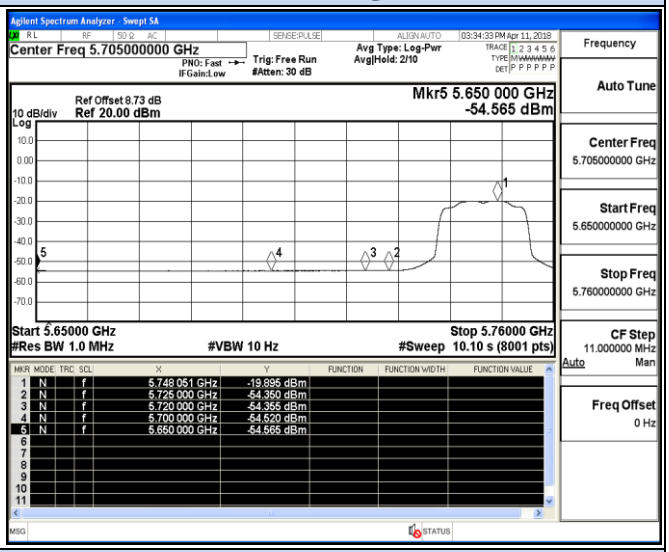
## Unwanted emission

### IEEE 802.11a @ Chain0

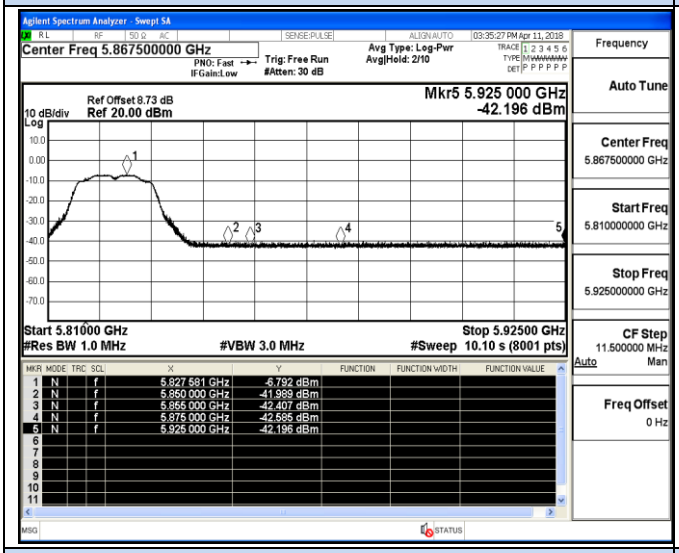



Channel 149 / 5745 MHz – Peak

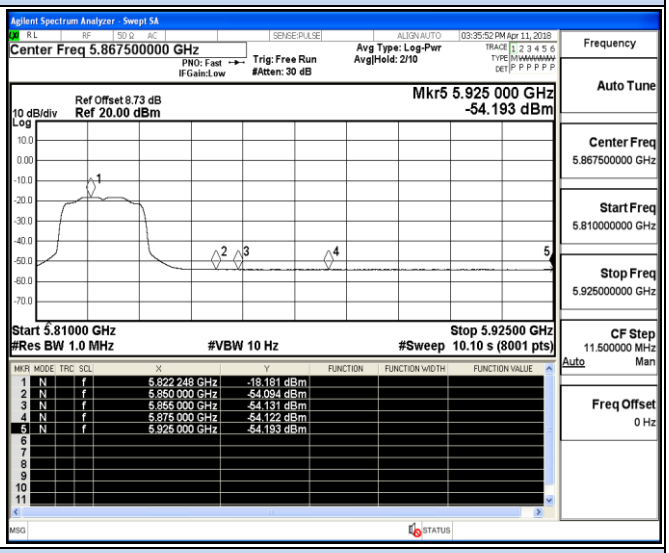
### IEEE 802.11a @ Chain0




Channel 149 / 5745 MHz – AV

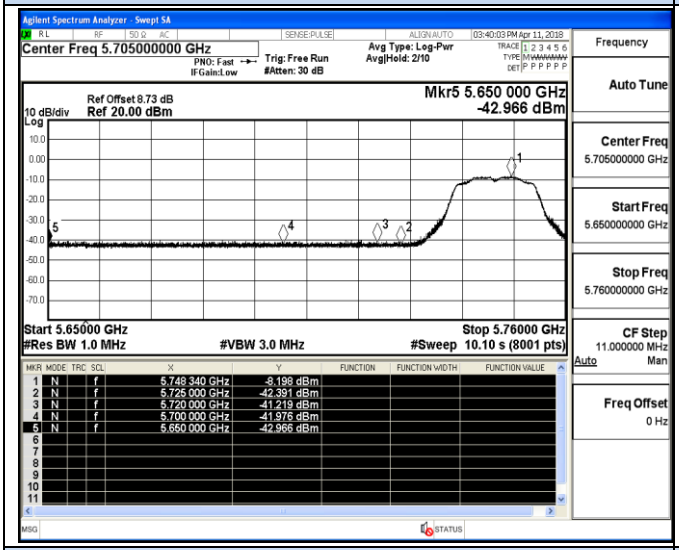



Channel 165 / 5825 MHz – Peak



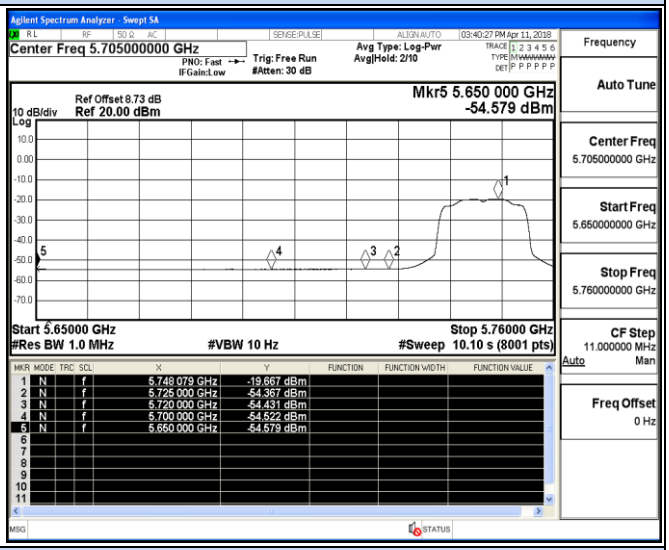

Channel 165 / 5825 MHz – AV

### IEEE 802.11n HT20 @ Chain0




Channel 149 / 5745 MHz – Peak

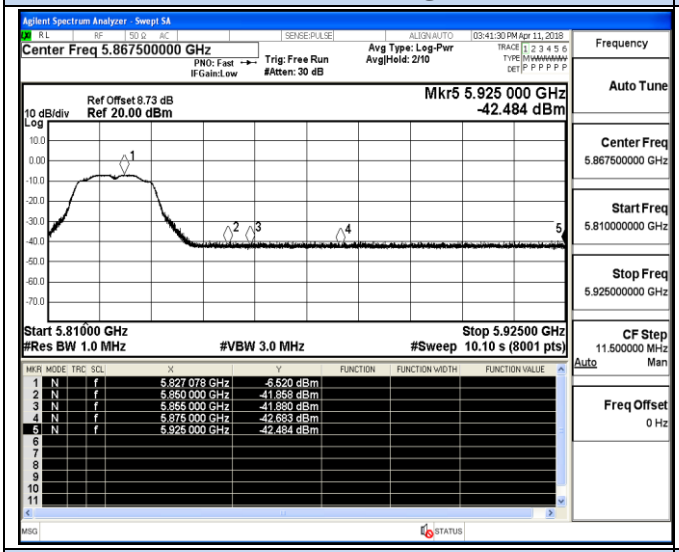
### IEEE 802.11n HT20 @ Chain0




Channel 149 / 5745 MHz – AV

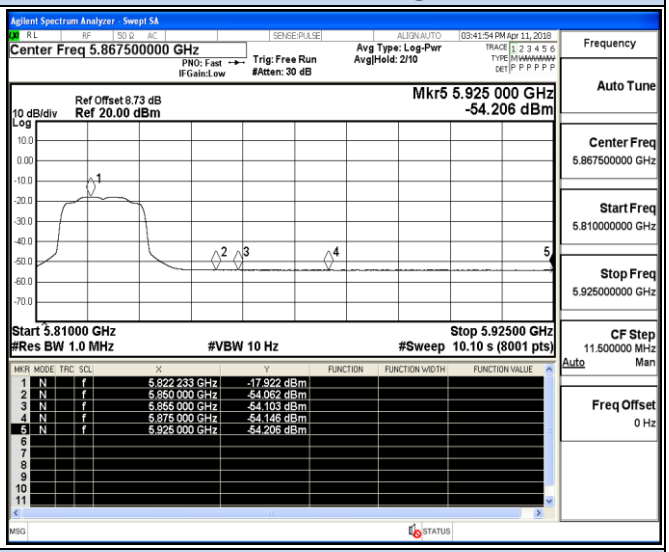
## Unwanted emission

### IEEE 802.11n HT20 @ Chain0



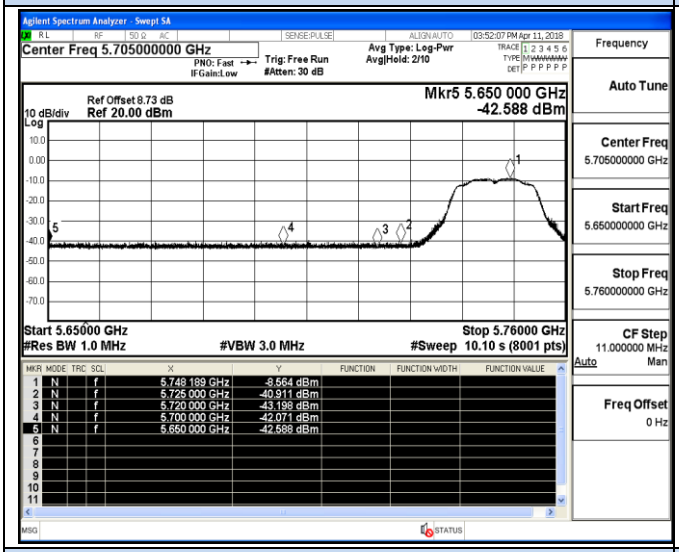

Channel 165 / 5825 MHz – Peak

### IEEE 802.11n HT20 @ Chain0



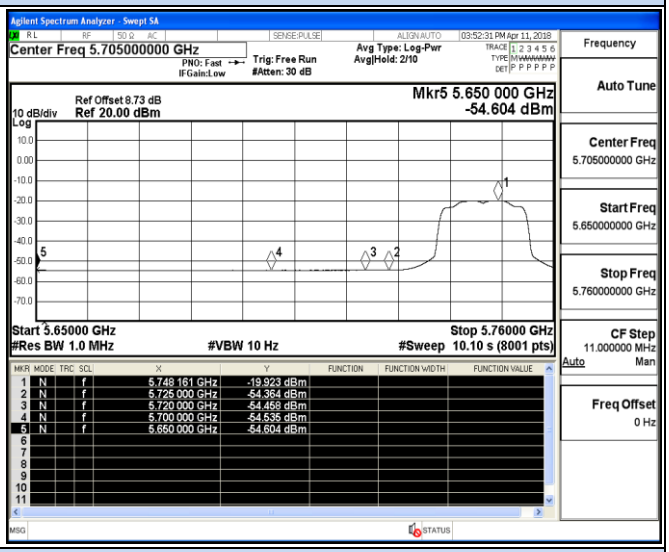

Channel 165 / 5825 MHz – AV

### IEEE 802.11ac VHT20 @ Chain0

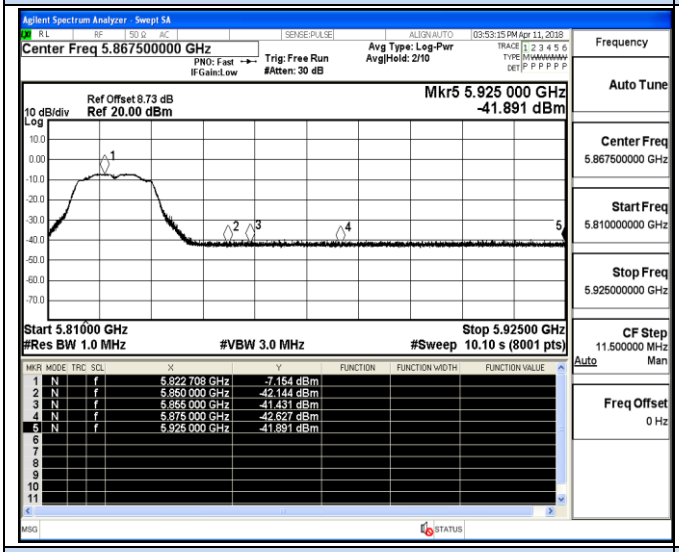



Channel 149 / 5745 MHz – Peak

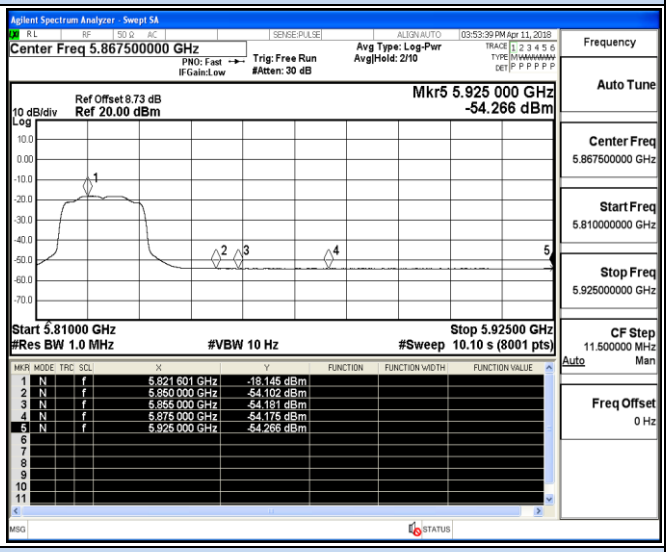
### IEEE 802.11ac VHT20 @ Chain0




Channel 149 / 5745 MHz – AV



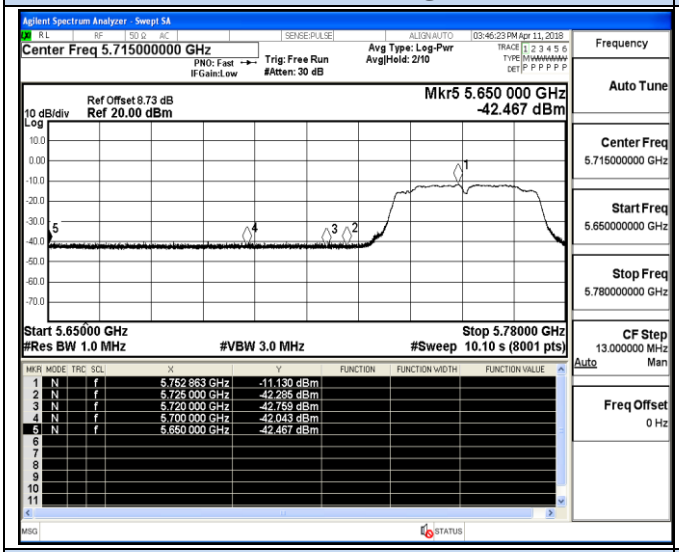

Channel 165 / 5825 MHz – Peak



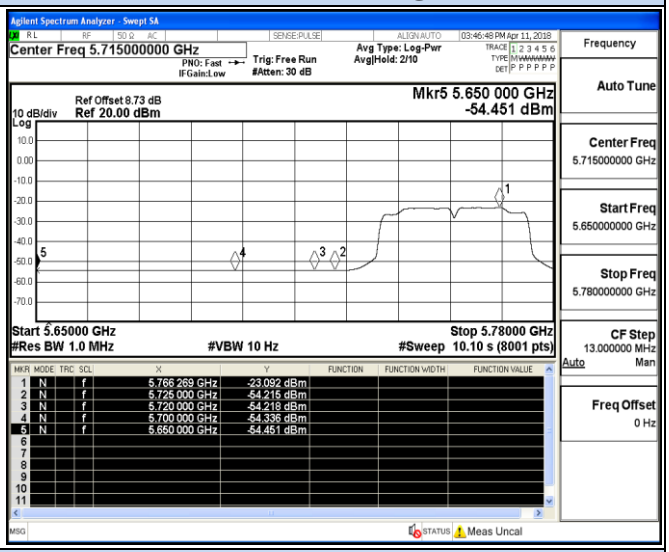

Channel 165 / 5825 MHz – AV

## Unwanted emission

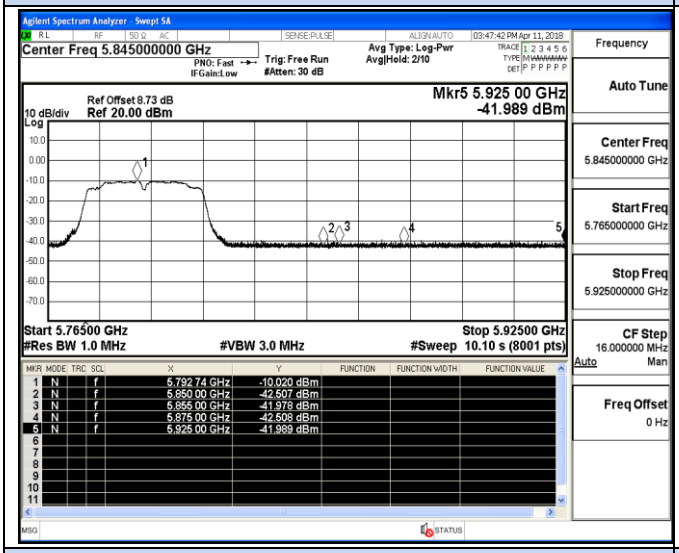
### IEEE 802.11n HT40 @ Chain0



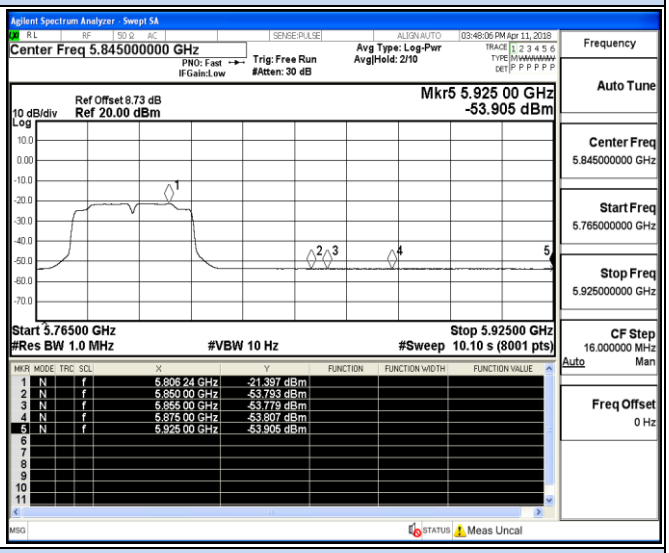

### IEEE 802.11n HT40 @ Chain0




### Channel 151 / 5755 MHz – Peak



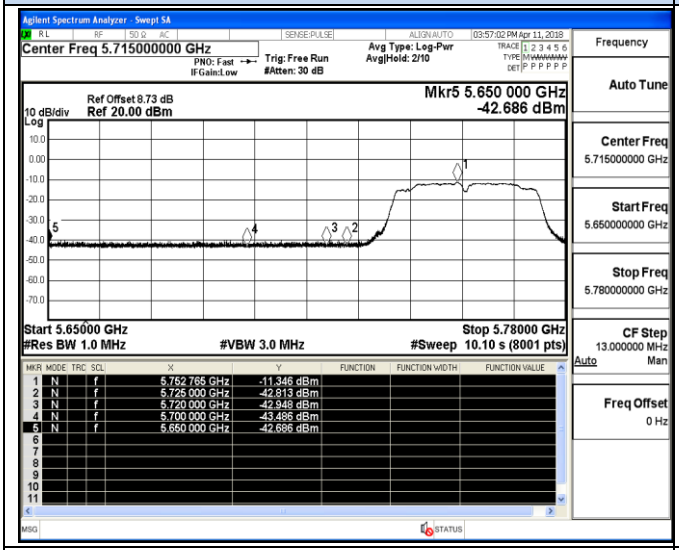

### Channel 151 / 5755 MHz – AV



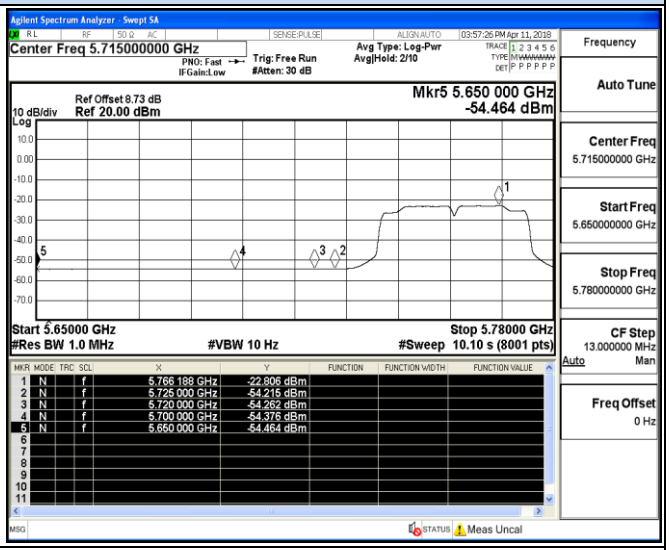

### Channel 159 / 5795 MHz – Peak

### Channel 159 / 5795 MHz – AV

### IEEE 802.11ac VHT40 @ Chain0




### IEEE 802.11ac VHT40 @ Chain0

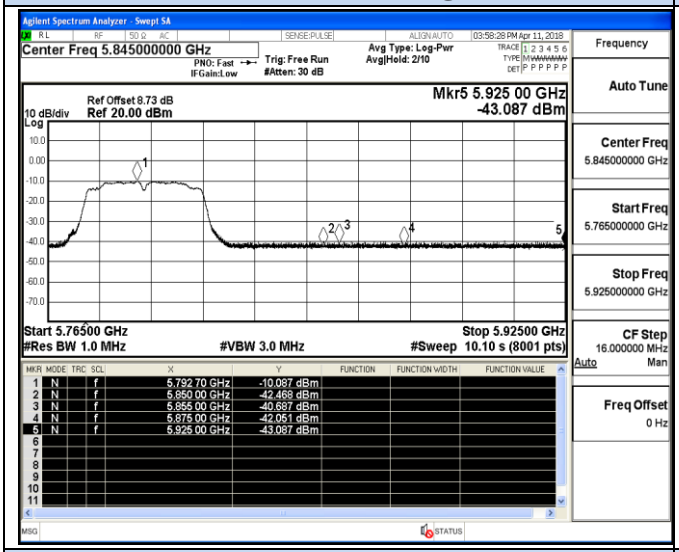



### Channel 151 / 5755 MHz – Peak

### Channel 151 / 5755 MHz – AV

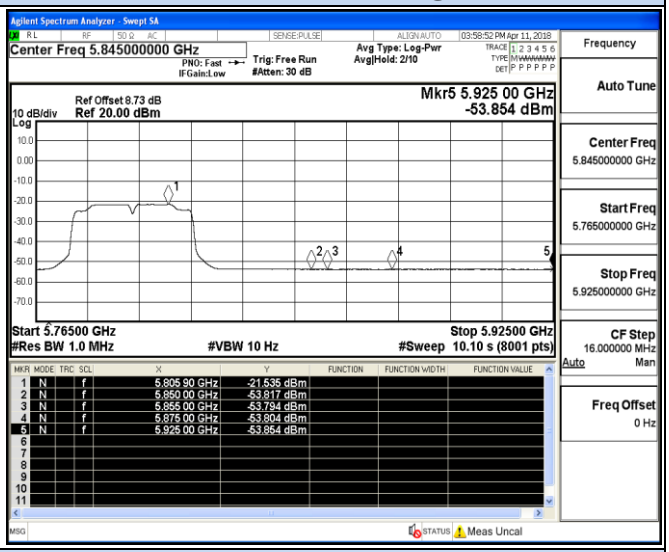
## Unwanted emission

### IEEE 802.11ac VHT40 @ Chain0



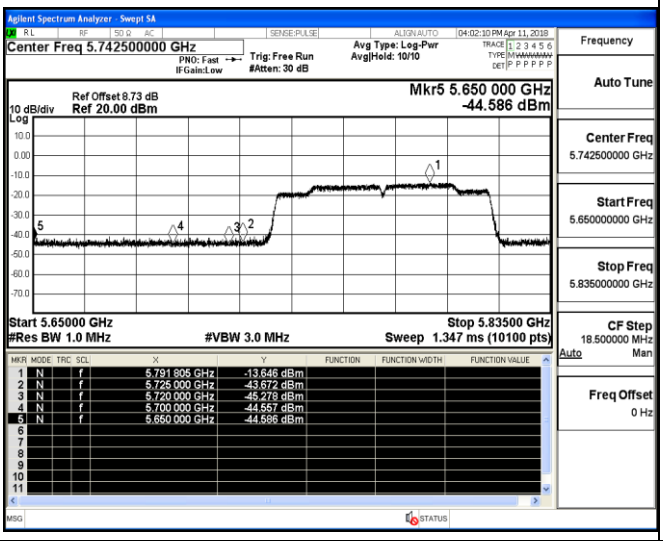

Channel 159 / 5795 MHz – Peak

### IEEE 802.11ac VHT40 @ Chain0



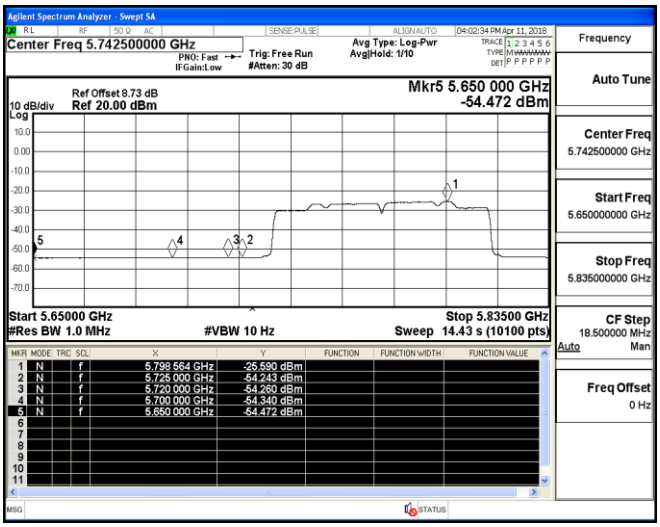

Channel 159 / 5795 MHz – AV

### IEEE 802.11ac VHT80 @ Chain0

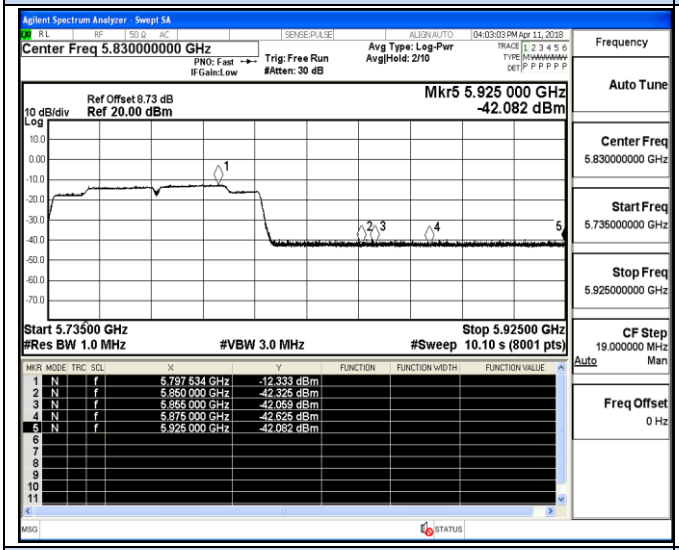



Channel 155 / 5775 MHz – Peak

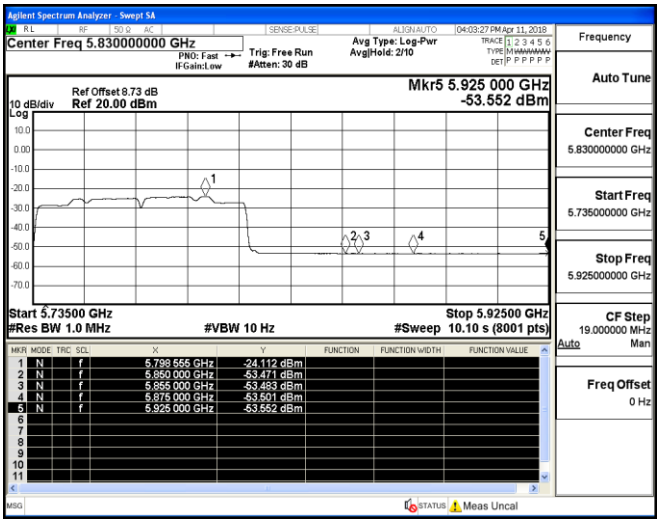
### IEEE 802.11ac VHT80 @ Chain0




Channel 155 / 5775 MHz – AV



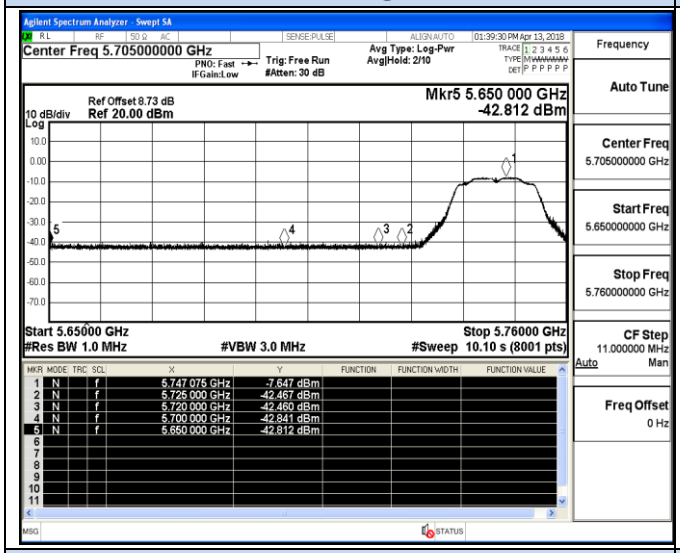

Channel 155 / 5775 MHz – Peak



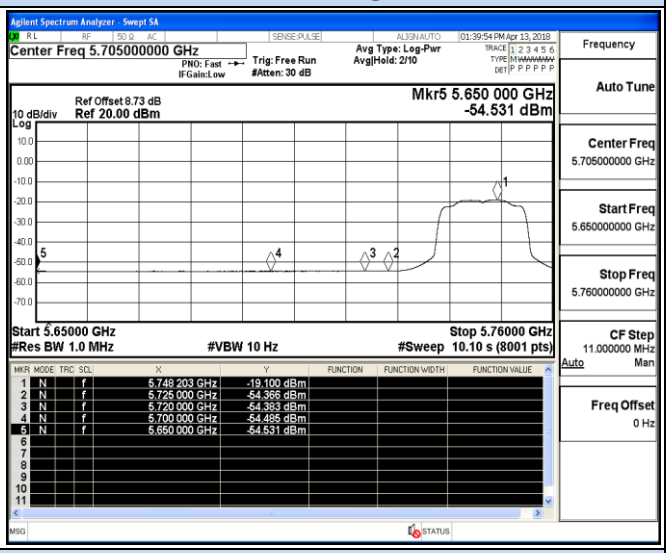

Channel 155 / 5775 MHz – AV

## Unwanted emission

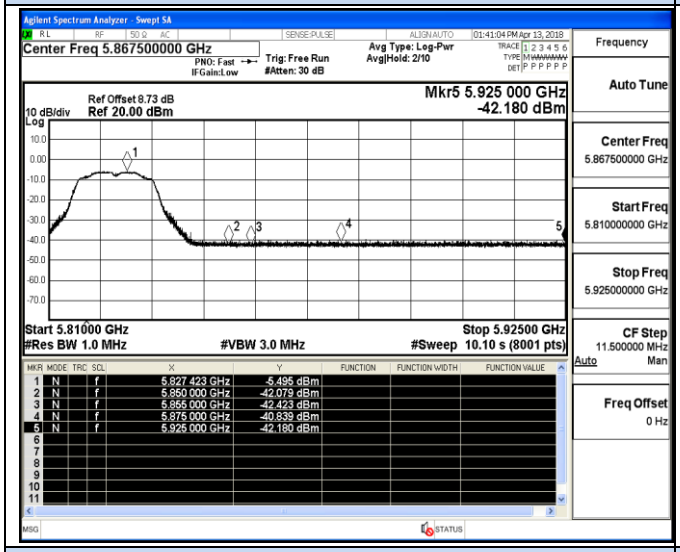
### IEEE 802.11a @ Chain1



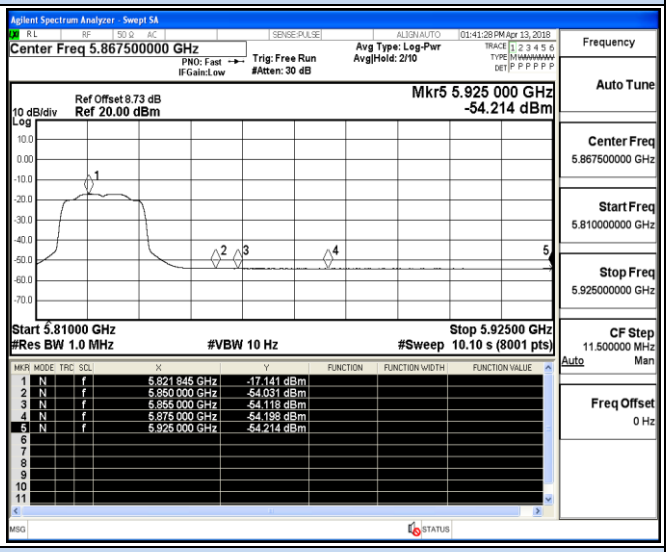

### IEEE 802.11a @ Chain1




### Channel 149 / 5745 MHz – Peak



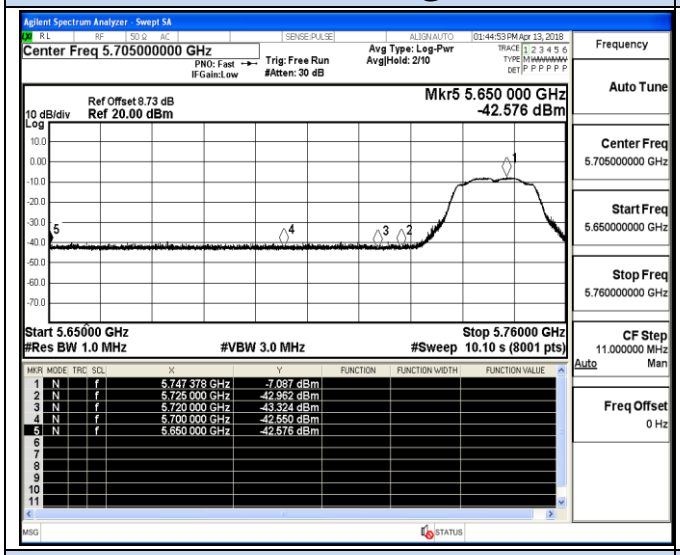

### Channel 149 / 5745 MHz – AV



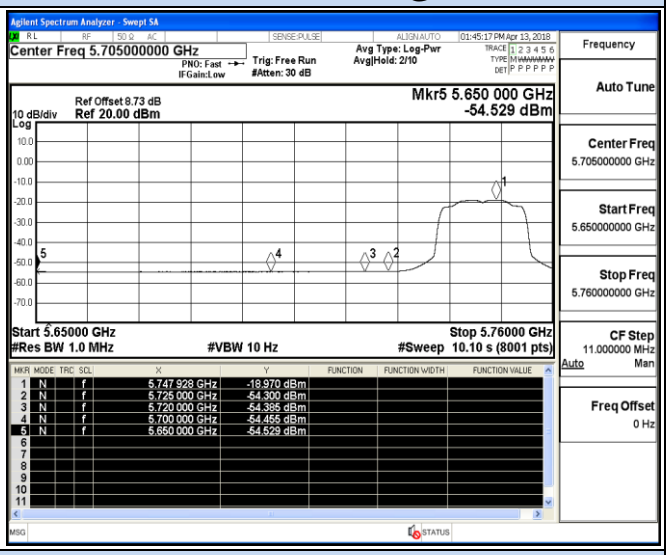

### Channel 165 / 5825 MHz – Peak

### Channel 165 / 5825 MHz – AV

### IEEE 802.11n HT20 @ Chain1




### IEEE 802.11n HT20 @ Chain1

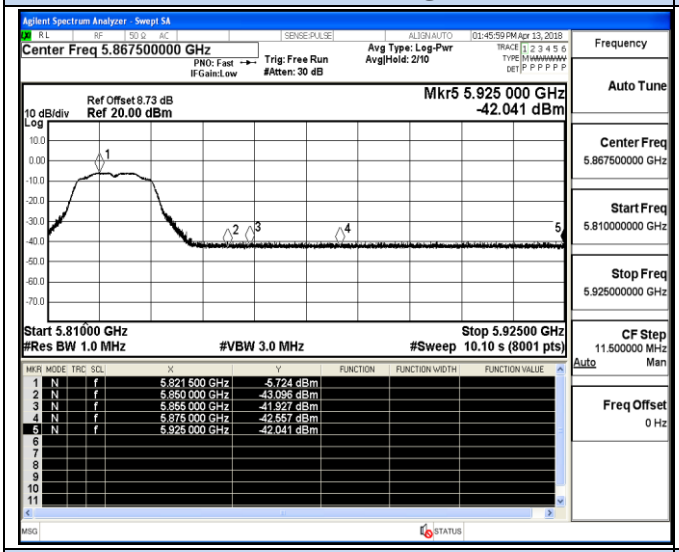



### Channel 149 / 5745 MHz – Peak

### Channel 149 / 5745 MHz – AV

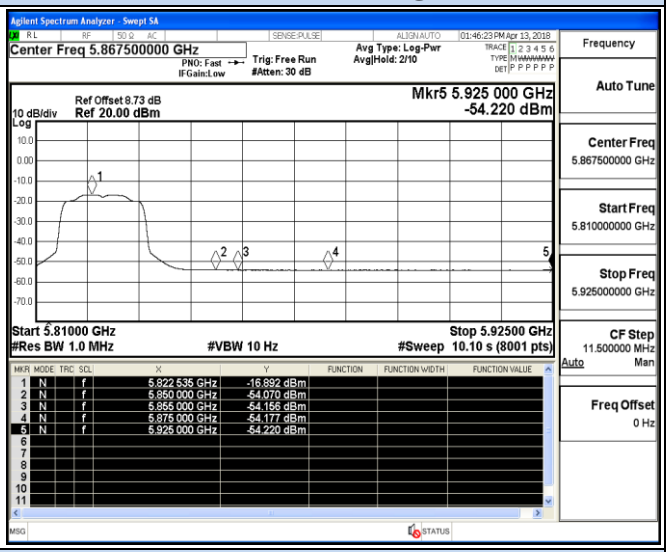
## Unwanted emission

### IEEE 802.11n HT20 @ Chain1



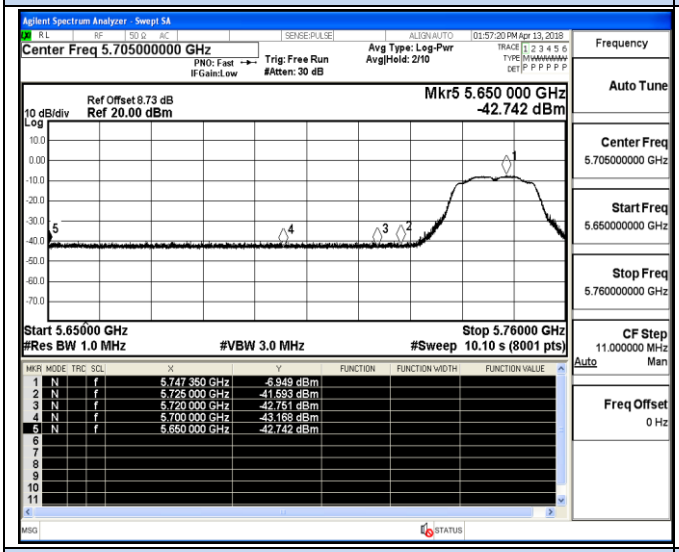

Channel 165 / 5825 MHz – Peak

### IEEE 802.11n HT20 @ Chain1



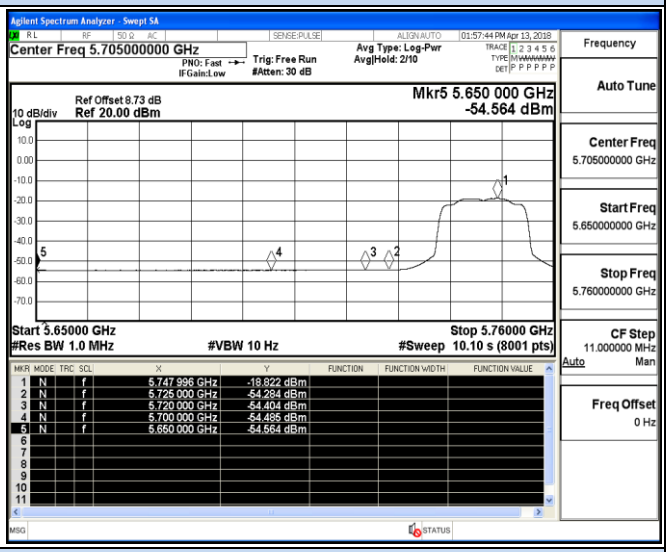

Channel 165 / 5825 MHz – AV

### IEEE 802.11ac VHT20 @ Chain1

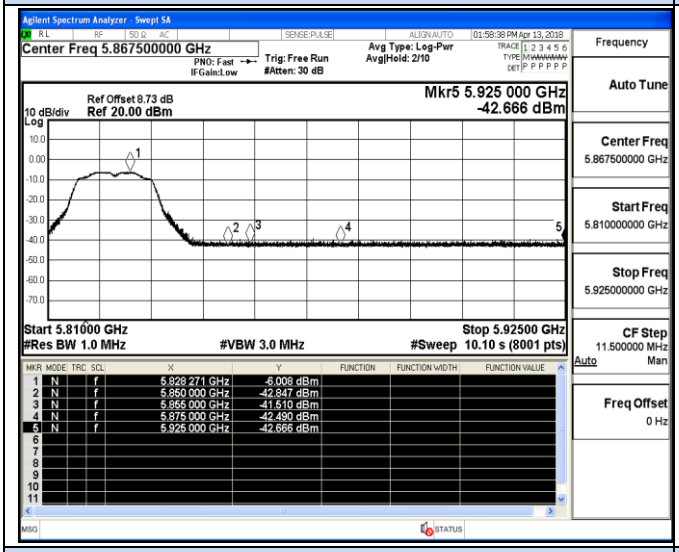



Channel 149 / 5745 MHz – Peak

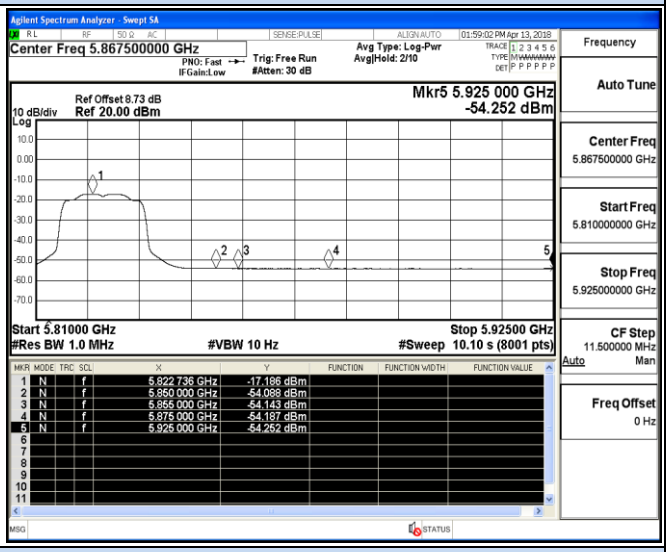
### IEEE 802.11ac VHT20 @ Chain1




Channel 149 / 5745 MHz – AV



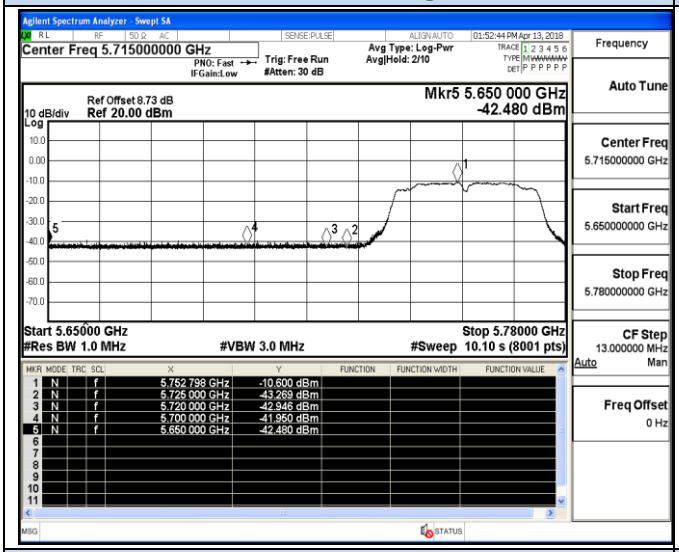

Channel 165 / 5825 MHz – Peak



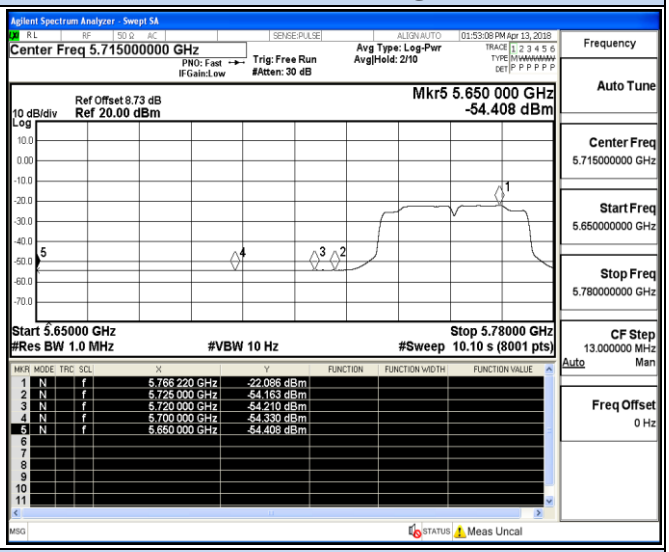

Channel 165 / 5825 MHz – AV

## Unwanted emission

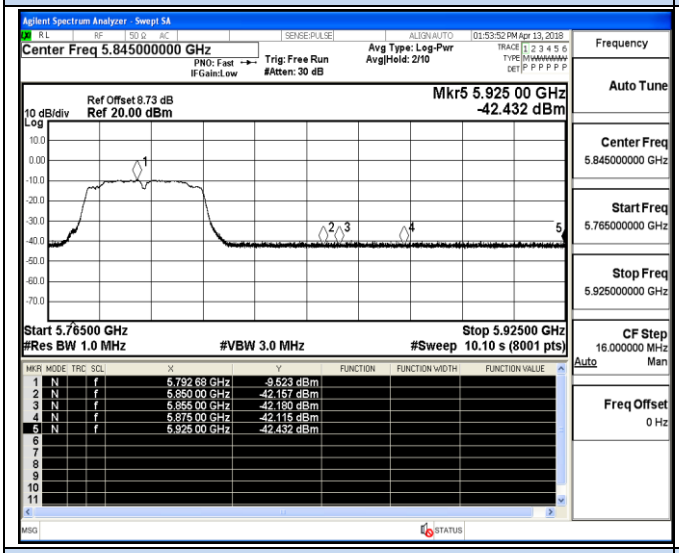
### IEEE 802.11n HT40 @ Chain1



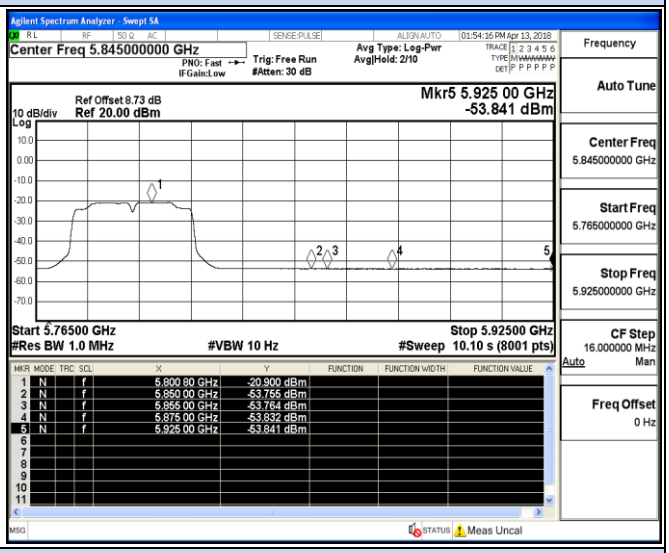

### IEEE 802.11n HT40 @ Chain1




### Channel 151 / 5755 MHz – Peak



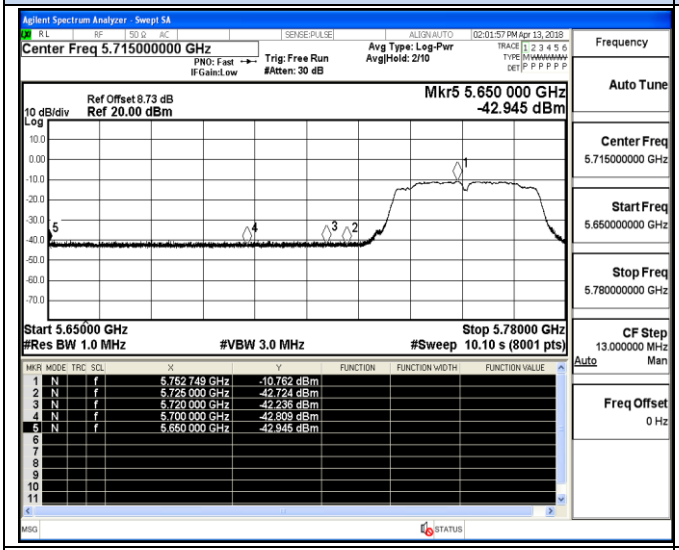

### Channel 151 / 5755 MHz – AV



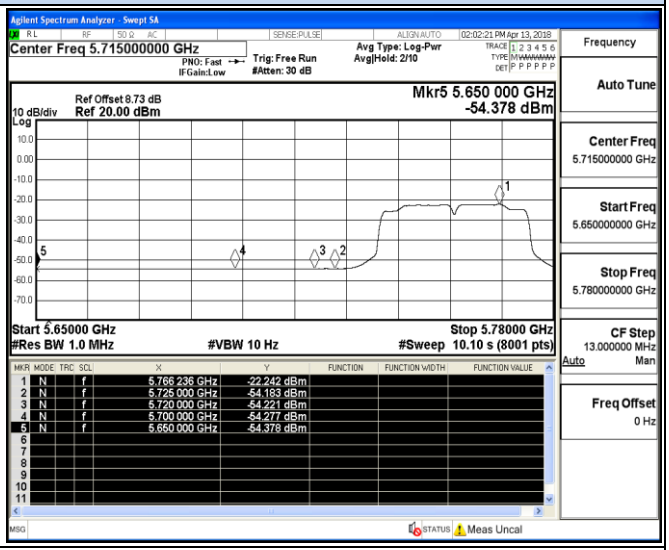

### Channel 159 / 5795 MHz – Peak

### Channel 159 / 5795 MHz – AV

### IEEE 802.11ac VHT40 @ Chain1




### IEEE 802.11ac VHT40 @ Chain1

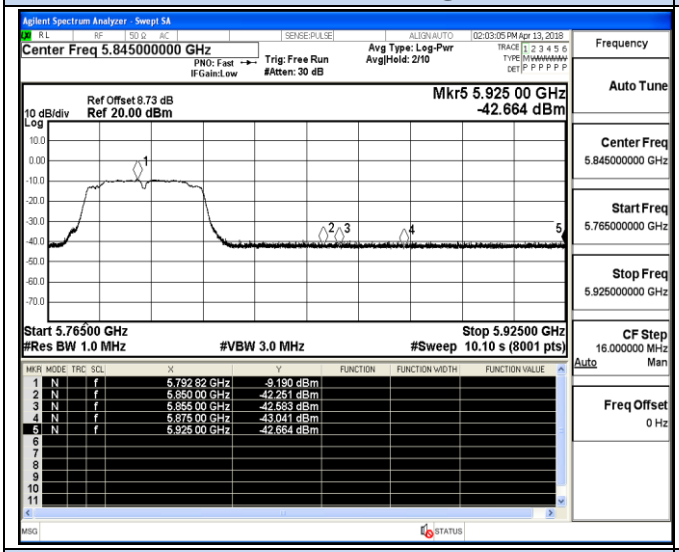



### Channel 151 / 5755 MHz – Peak

### Channel 151 / 5755 MHz – AV

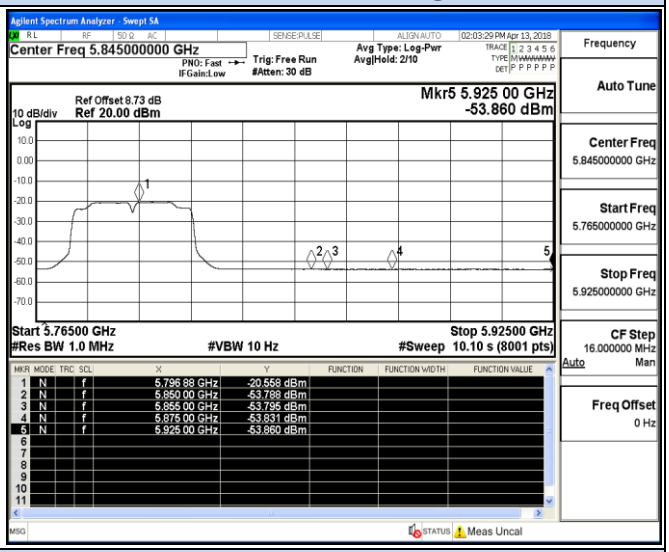
## Unwanted emission

### IEEE 802.11ac VHT40 @ Chain1



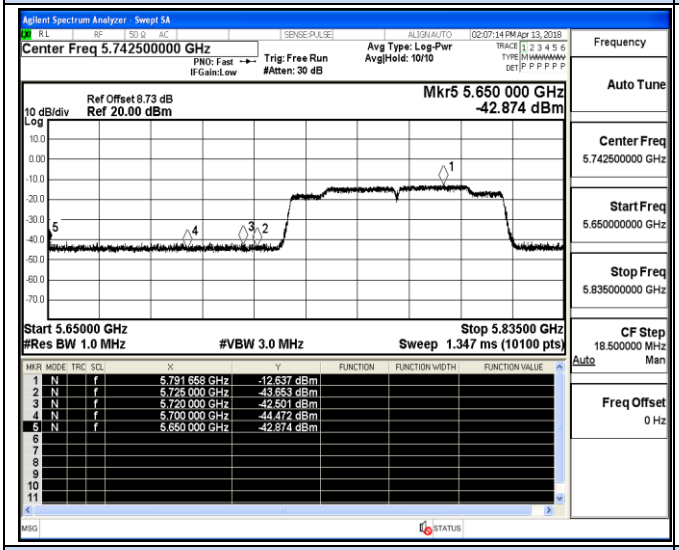

Channel 159 / 5795 MHz – Peak

### IEEE 802.11ac VHT40 @ Chain1



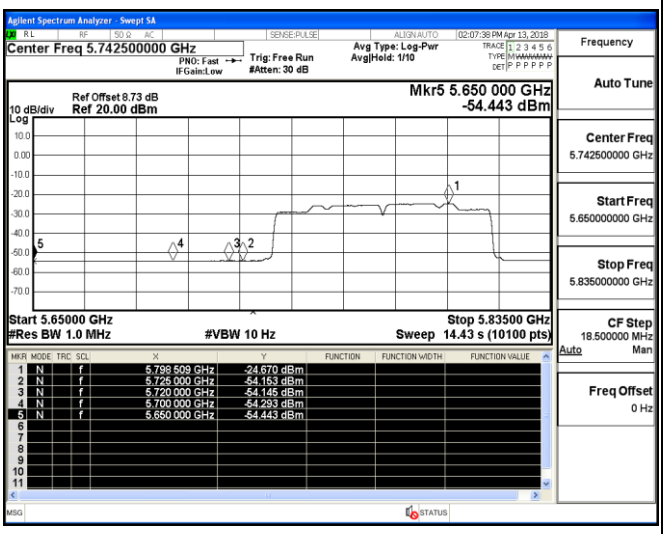

Channel 159 / 5795 MHz – AV

### IEEE 802.11ac VHT80 @ Chain1

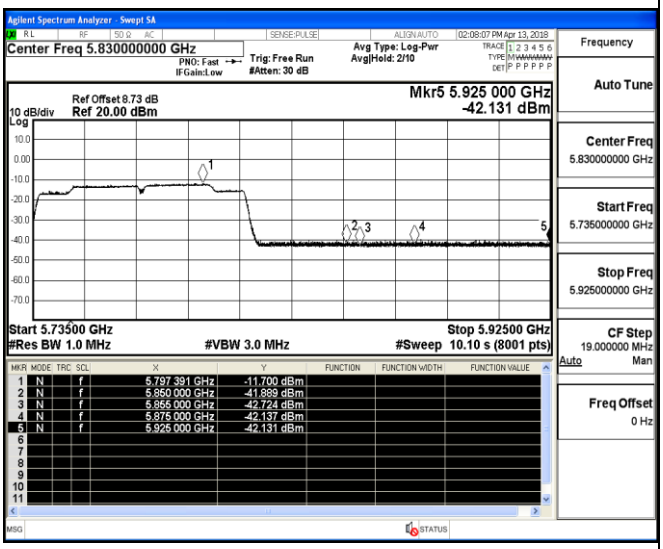



Channel 155 / 5775 MHz – Peak

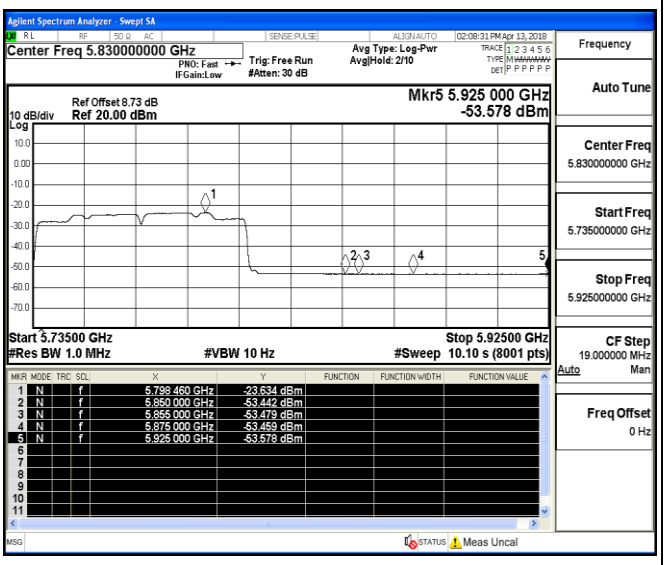
### IEEE 802.11ac VHT80 @ Chain1




Channel 155 / 5775 MHz – AV




Channel 155 / 5775 MHz – Peak




Channel 155 / 5775 MHz – AV

## 5.8. Antenna Requirements

### 5.8.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited

And according to FCC 47 CFR Section 15.407 (a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

### 5.8.2 Antenna Connected Construction

#### 5.8.2.1. Standard Applicable

According to § 15.203 & RSS-Gen, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

#### 5.8.2.2. Antenna Connector Construction

The gains of antenna used for transmitting is 5.0dBi, and the antenna is a Monopole Antenna connect to PCB board and no consideration of replacement. Please see EUT photo for details.

#### 5.8.2.3. Results: Compliance.

**Measurement**

The antenna gain of the complete system is calculated by the difference of radiated power in EIRP and the conducted power of the module.
Conducted power refers ANSI C63.10:2013 Output power test procedure for NII devices.
Radiated power refers to ANSI C63.10:2013 Radiated emissions tests.

**Measurement parameters**

| Measurement parameter | |
|---|---|
| Detector: | Peak |
| Sweep Time: | Auto |
| Resolution bandwidth: | 1MHz |
| Video bandwidth: | 3MHz |
| Trace-Mode: | Max hold |

**Limits**

| FCC | ISED |
|---|---|
| Antenna Gain | |
| 6 dBi | |

Note: The antenna gain of the complete system is calculated by the difference of radiated power in EIRP and the conducted power of the module. For WLAN devices, the OFDM (IEEE 802.11a) mode is used;

### *Antenna Chain0*

| $T_{nom}$ | $V_{nom}$ | Lowest Channel 5745 MHz | Middle Channel 5785 MHz | Highest Channel 5825 MHz |
|---|---|---|---|---|
| Conducted power [dBm] Measured with DSSS modulation | | 10.08 | 11.05 | 10.30 |
| Radiated power [dBm] Measured with DSSS modulation | | 14.97 | 16.02 | 15.23 |
| Gain [dBi] Calculated | | 4.89 | 4.97 | 4.93 |
| Measurement uncertainty | | | ± 1.6 dB (cond.) / ± 3.8 dB (rad.) | |

### *Antenna Chain1*

| $T_{nom}$ | $V_{nom}$ | Lowest Channel 5745 MHz | Middle Channel 5785 MHz | Highest Channel 5825 MHz |
|---|---|---|---|---|
| Conducted power [dBm] Measured with DSSS modulation | | 10.45 | 11.60 | 11.56 |
| Radiated power [dBm] Measured with DSSS modulation | | 15.36 | 16.59 | 16.43 |
| Gain [dBi] Calculated | | 4.91 | 4.99 | 4.87 |
| Measurement uncertainty | | | ± 1.6 dB (cond.) / ± 3.8 dB (rad.) | |

# 6. LIST OF MEASURING EQUIPMENTS

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|---|---|---|---|---|---|---|
| 1 | Power Meter | R&S | NRVS | 100444 | 2017-06-17 | 2018-06-16 |
| 2 | Power Sensor | R&S | NRV-Z81 | 100458 | 2017-06-17 | 2018-06-16 |
| 3 | Power Sensor | R&S | NRV-Z32 | 10057 | 2017-06-17 | 2018-06-16 |
| 4 | ESA-E SERIES SPECTRUM ANALYZER | Agilent | E4407B | MY41440754 | 2017-11-17 | 2018-11-16 |
| 5 | MXA Signal Analyzer | Agilent | N9020A | MY49100040 | 2017-06-17 | 2018-06-16 |
| 6 | SPECTRUM ANALYZER | R&S | FSP | 100503 | 2017-06-17 | 2018-06-16 |
| 7 | 3m Semi Anechoic Chamber | SIDT FRANKONIA | SAC-3M | 03CH03-HY | 2017-06-17 | 2018-06-16 |
| 8 | Positioning Controller | MF | MF-7082 | / | 2017-06-17 | 2018-06-16 |
| 9 | EMI Test Software | AUDIX | E3 | N/A | 2017-06-17 | 2018-06-16 |
| 10 | EMI Test Receiver | R&S | ESR 7 | 101181 | 2017-06-17 | 2018-06-16 |
| 11 | AMPLIFIER | QuieTek | QTK-A2525G | CHM10809065 | 2017-11-17 | 2018-11-16 |
| 12 | Active Loop Antenna | SCHWARZBECK | FMZB 1519B | 00005 | 2017-06-23 | 2018-06-22 |
| 13 | By-log Antenna | SCHWARZBECK | VULB9163 | 9163-470 | 2017-05-02 | 2018-05-01 |
| 14 | Horn Antenna | EMCO | 3115 | 6741 | 2017-06-23 | 2018-06-22 |
| 15 | Broadband Horn Antenna | SCHWARZBECK | BBHA 9170 | 791 | 2017-09-21 | 2018-09-20 |
| 16 | Broadband Preamplifier | SCHWARZBECK | BBV 9719 | 9719-025 | 2017-09-21 | 2018-09-20 |
| 17 | RF Cable-R03m | Jye Bao | RG142 | CB021 | 2017-06-17 | 2018-06-16 |
| 18 | RF Cable-HIGH | SUHNER | SUCOFLEX 106 | 03CH03-HY | 2017-06-17 | 2018-06-16 |
| 19 | TEST RECEIVER | R&S | ESCI | 101142 | 2017-06-17 | 2018-06-16 |
| 20 | RF Cable-CON | UTIFLEX | 3102-26886-4 | CB049 | 2017-06-17 | 2018-06-16 |
| 21 | 10dB Attenuator | SCHWARZBECK | MTS-IMP136 | 261115-001-0032 | 2017-06-17 | 2018-06-16 |
| 22 | Artificial Mains | R&S | ENV216 | 101288 | 2017-06-17 | 2018-06-16 |
| 23 | RF Control Unit | Tonscend | JS0806-2 | 178060073 | 2017-10-28 | 2018-10-27 |
| 24 | BT/WIFI Test Software | Tonscend | JS1120-3 | / | N/A | N/A |
| Note: All equipment is calibrated through GUANGZHOU LISAI CALIBRATION AND TEST CO.,LTD. | | | | | | |

# 7. TEST SETUP PHOTOGRAPHS OF EUT

Please refer to separated files for Test Setup Photos of the EUT.

# 8. EXTERIOR PHOTOGRAPHS OF THE EUT

Please refer to separated files for External Photos of the EUT.

# 9. INTERIOR PHOTOGRAPHS OF THE EUT

Please refer to separated files for Internal Photos of the EUT.

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