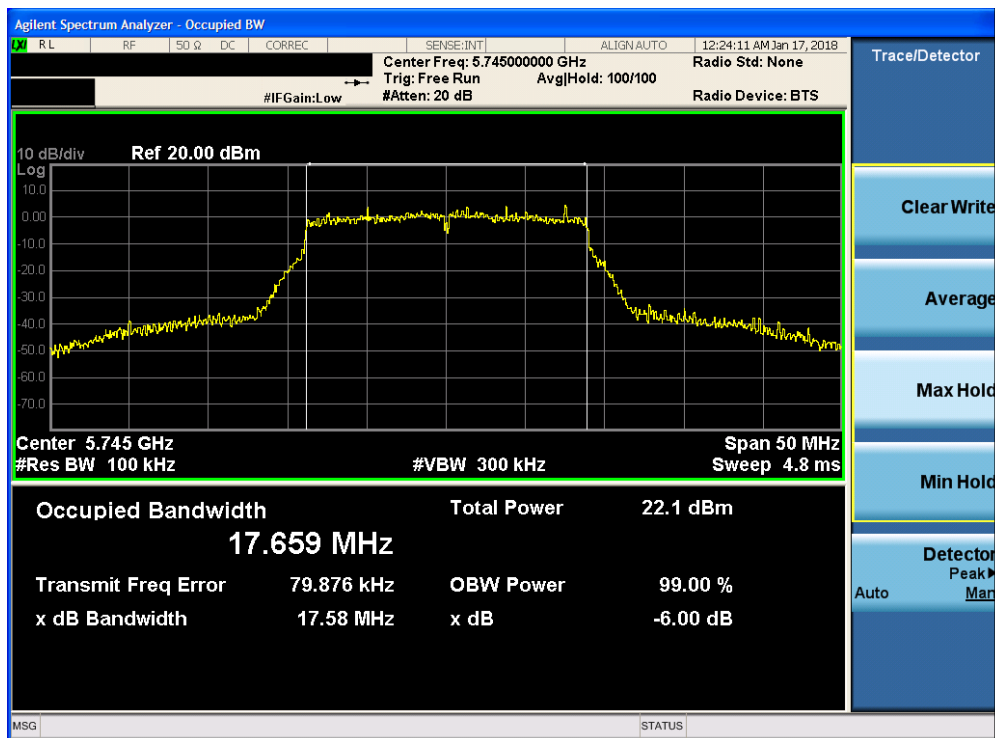
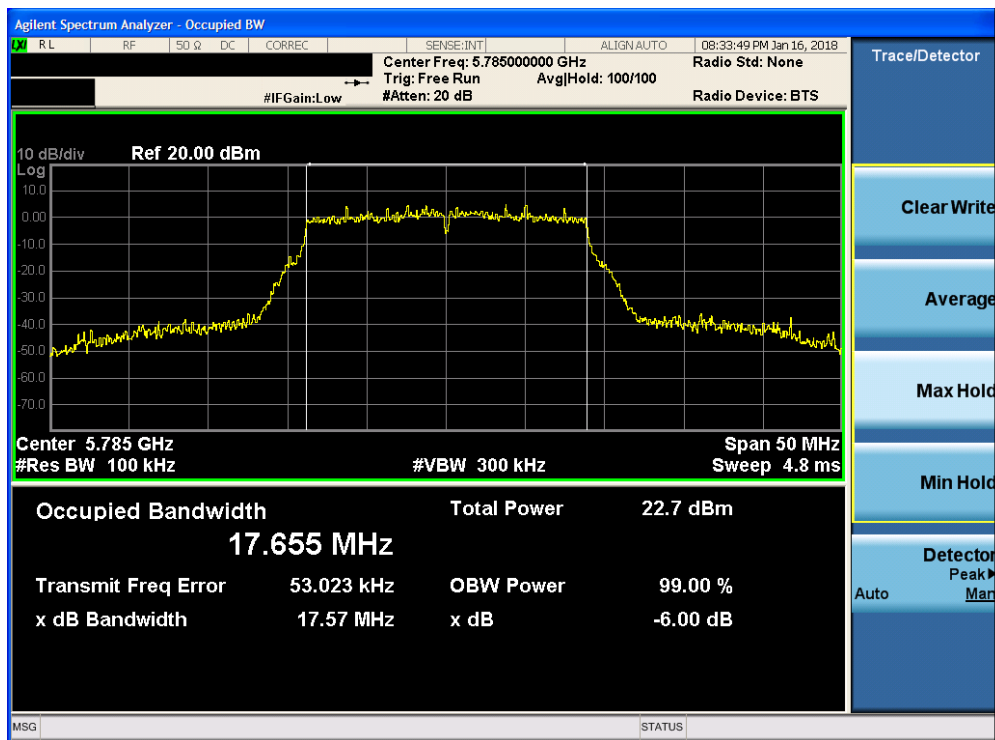


Plot 7-117. 6dB Bandwidth Plot MIMO ANT1 (20MHz BW 802.11n (UNII Band 3) – Ch. 149)

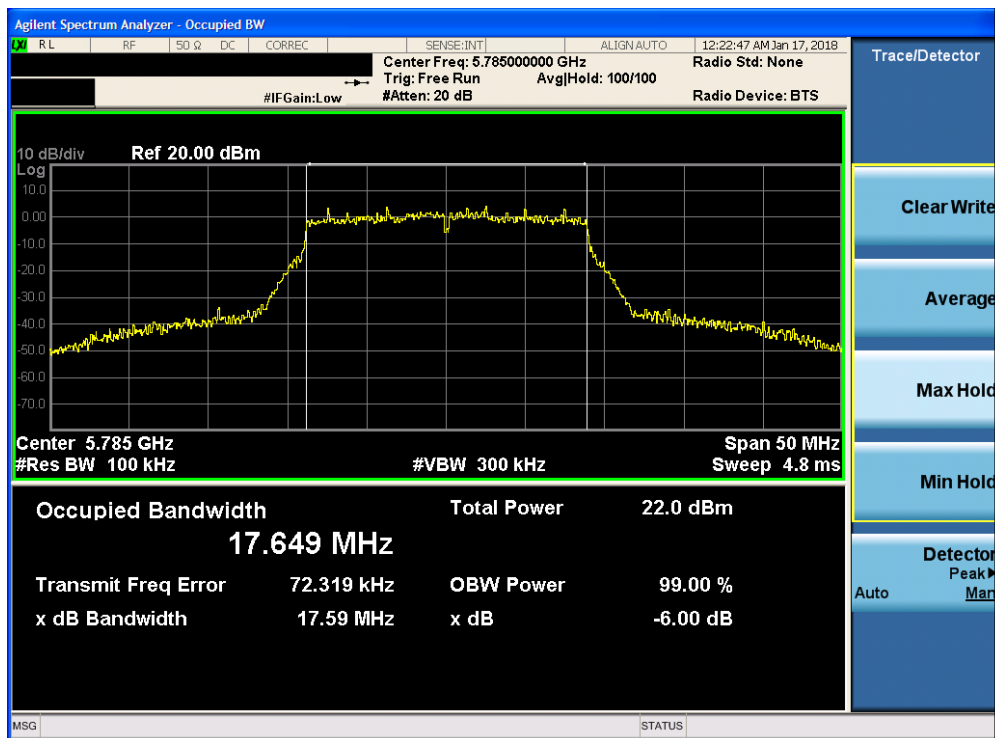


Plot 7-118. 6dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 149)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 81 of 298 |

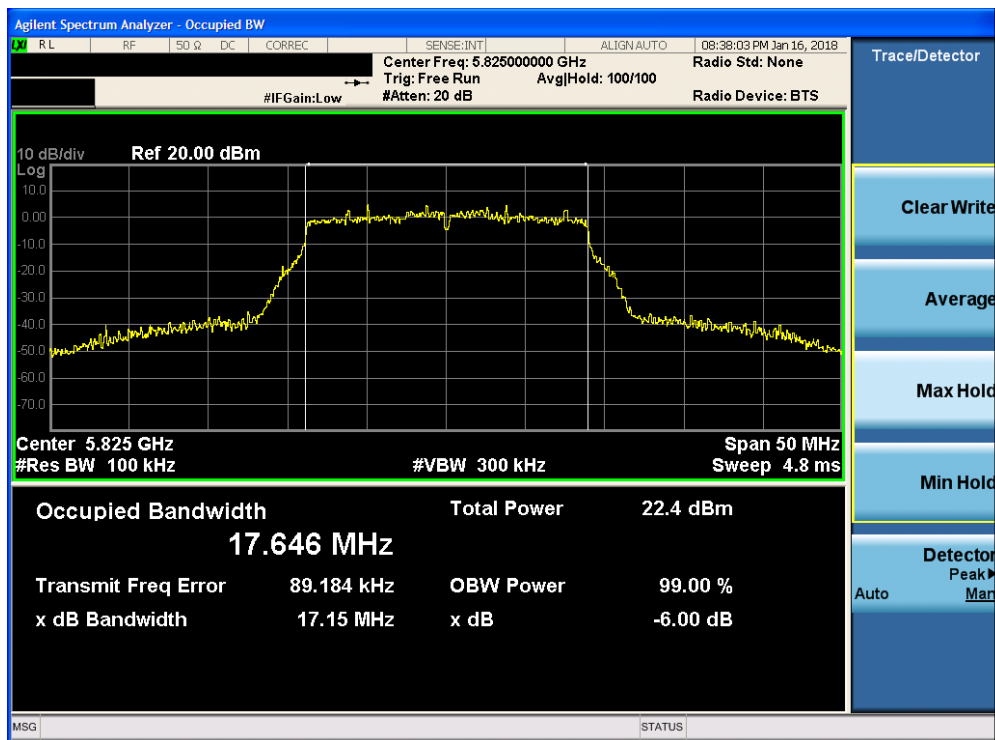


Plot 7-119. 6dB Bandwidth Plot MIMO ANT1 (20MHz BW 802.11n (UNII Band 3) – Ch. 157)

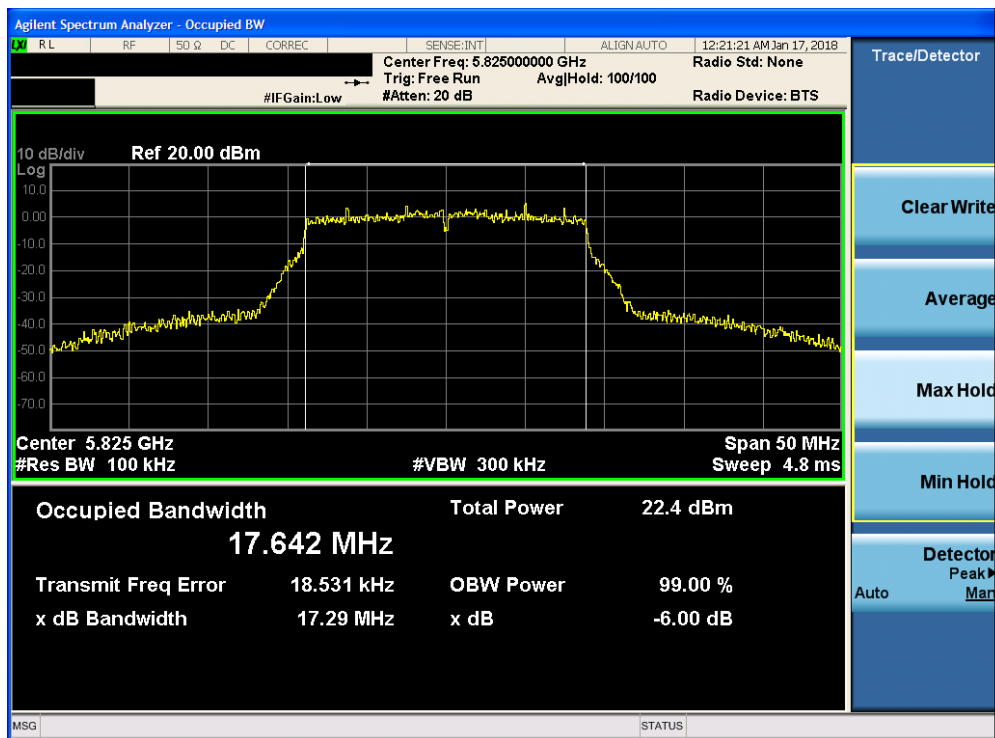


Plot 7-120. 6dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 157)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 82 of 298 |

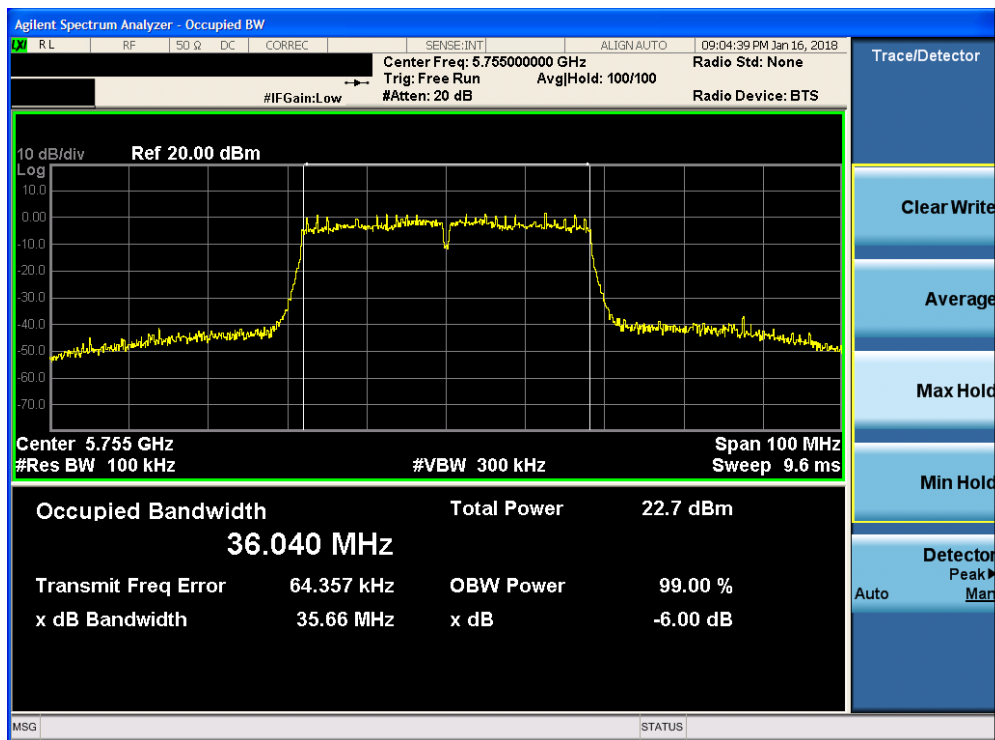


Plot 7-121. 6dB Bandwidth Plot MIMO ANT1 (20MHz BW 802.11n (UNII Band 3) – Ch. 165)

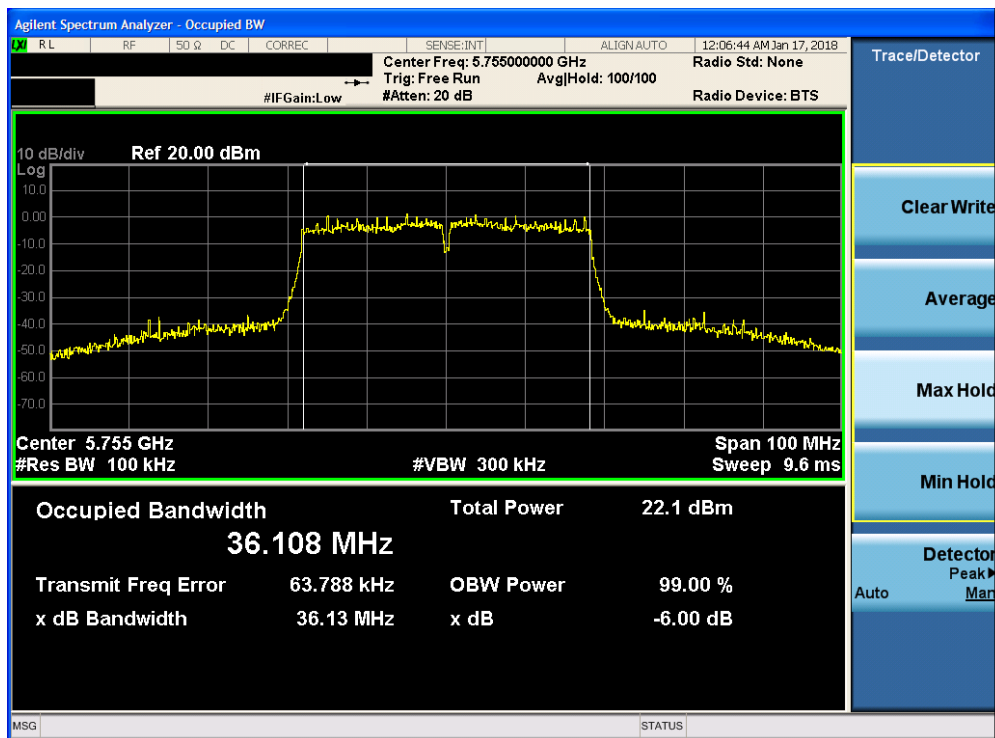


Plot 7-122. 6dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 165)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 83 of 298 |

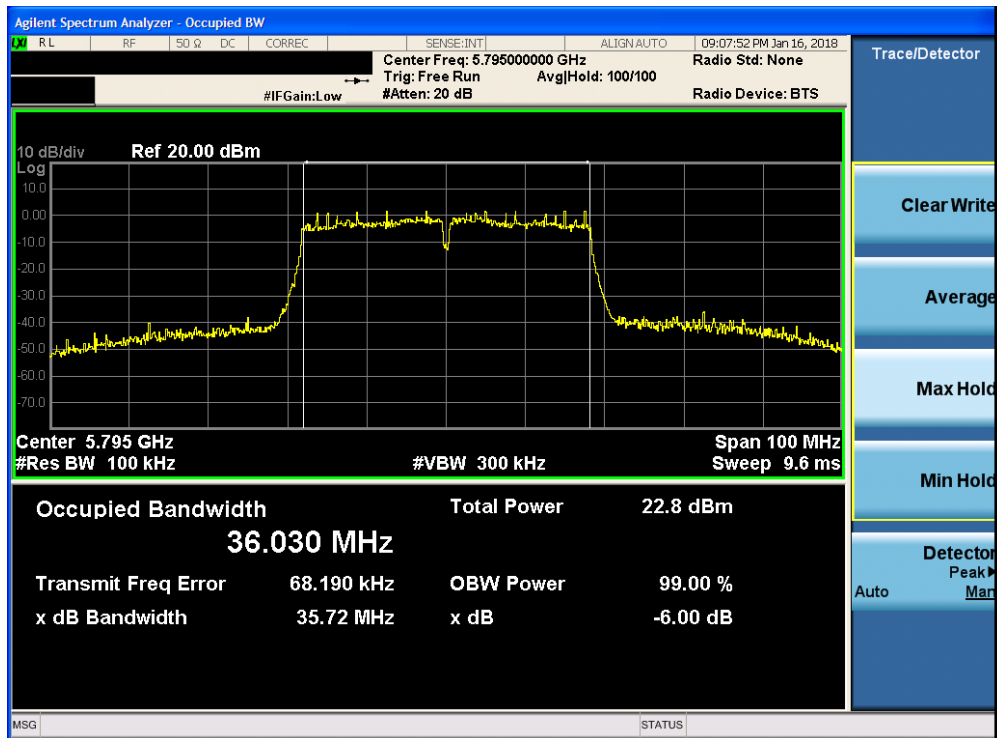


Plot 7-123. 6dB Bandwidth Plot MIMO ANT1 (40MHz BW 802.11n (UNII Band 3) – Ch. 151)

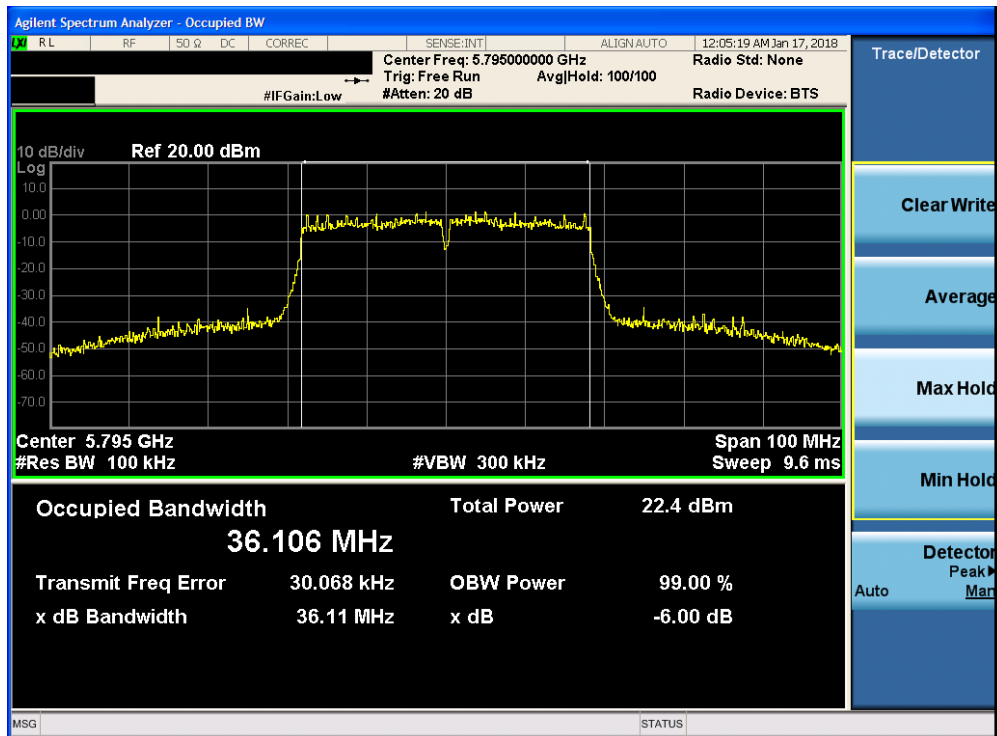


Plot 7-124. 6dB Bandwidth Plot MIMO ANT2 (40MHz BW 802.11n (UNII Band 3) – Ch. 151)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 84 of 298 |

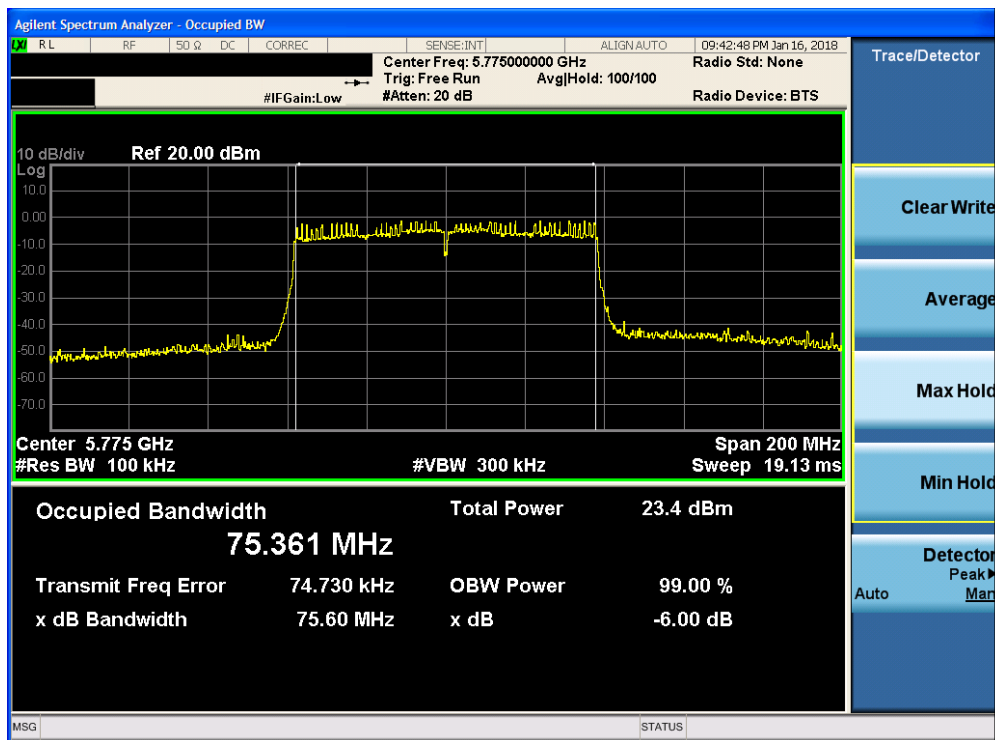


Plot 7-125. 6dB Bandwidth Plot MIMO ANT1 (40MHz BW 802.11n (UNII Band 3) – Ch. 159)

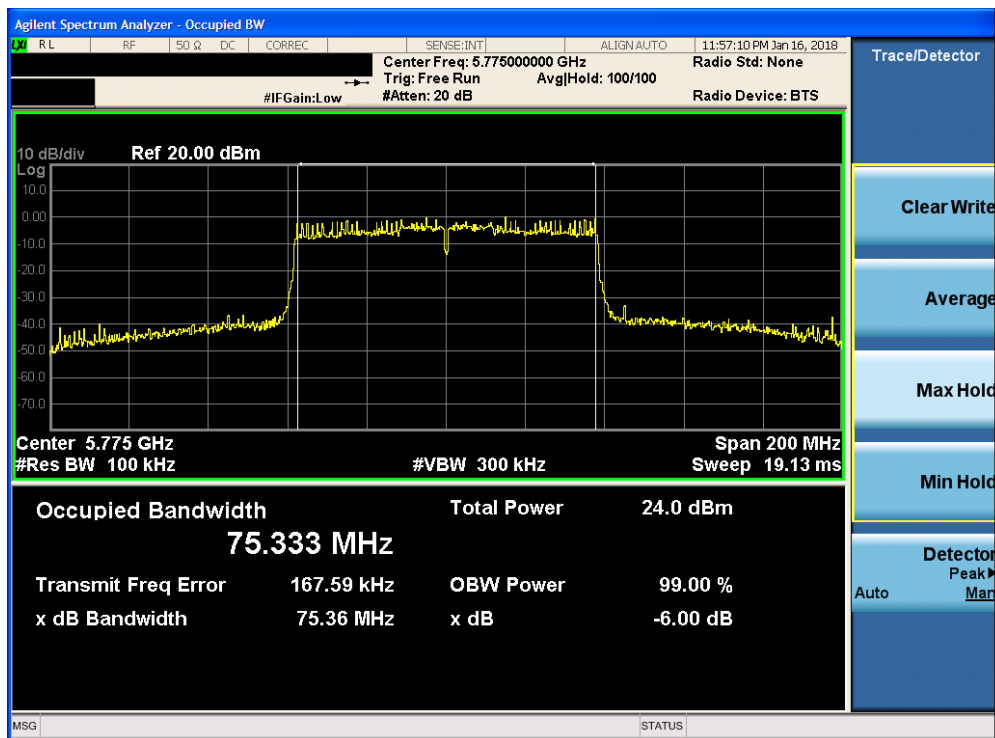


Plot 7-126. 6dB Bandwidth Plot MIMO ANT2 (40MHz BW 802.11n (UNII Band 3) – Ch. 159)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 85 of 298 |



Plot 7-127. 6dB Bandwidth Plot MIMO ANT1 (80MHz BW 802.11ac (UNII Band 3) – Ch. 155)



Plot 7-128. 6dB Bandwidth Plot MIMO ANT2 (80MHz BW 802.11ac (UNII Band 3) – Ch. 155)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 86 of 298 |

7.4 UNII Output Power Measurement – 802.11a/n/ac §15.407(a.1.iv) §15.407(a.2) §15.407(a.3); RSS-247 [6.2]

Test Overview and Limits

A transmitter antenna terminal of the EUT is connected to the input of an RF pulse power sensor. Measurement is made using a broadband average power meter while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v01r04, and at the appropriate frequencies. If transmitting antennas of directional gain greater than 6dBi are used the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

In the 5.15 – 5.25GHz band, the maximum permissible conducted output power is 250mW (23.98dBm).

In the 5.25 – 5.35GHz band, the maximum permissible conducted output power is the lesser of 250mW (23.98dBm) and $11 \text{ dBm} + 10\log_{10}(26\text{dB BW}) = 11 \text{ dBm} + 10\log_{10}(20.88) = 24.20\text{dBm}$.

In the 5.47 – 5.725GHz band, the maximum permissible conducted output power is the lesser of 250mW (23.98dBm) and $11 \text{ dBm} + 10\log_{10}(26\text{dB BW}) = 11 \text{ dBm} + 10\log_{10}(20.94) = 24.21\text{dBm}$.

In the 5.725 – 5.850GHz band, the maximum permissible conducted output power is 1W (30dBm).

RSS-247 – In 5.15 – 5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10}B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz.

Test Procedure Used

ANSI C63.10-2013 – Section 12.3.3.2 Method PM-G
KDB 789033 D02 v01r04 – Section E3)b) Method PM-G
ANSI C63.10-2013 – Section 14.2 Measure-and-Sum Technique
KDB 662911 v02r01 – Section E1) Measure-and-Sum Technique

Test Settings

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-3. Test Instrument & Measurement Setup

Test Notes

Refer to Section 2.5.

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 87 of 298 |

FCC-SISO Antenna-1 Conducted Output Power Measurements

| Freq [MHz] | Channel | Detector | Ant. Gain [dBi] | 5GHz (20MHz) Conducted Power [dBm] | | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------|---------|----------|-----------------|------------------------------------|---------|---------------------------------|-----------------------------|
| | | | | IEEE Transmission Mode | | | |
| | | | | 802.11a | 802.11n | | |
| 5180 | 36 | AVG | 0.30 | 15.88 | 15.98 | 23.98 | -8.00 |
| 5200 | 40 | AVG | 0.69 | 16.49 | 16.40 | 23.98 | -7.49 |
| 5220 | 44 | AVG | 1.27 | 16.50 | 16.42 | 23.98 | -7.48 |
| 5240 | 48 | AVG | 1.17 | 16.39 | 16.47 | 23.98 | -7.51 |
| 5260 | 52 | AVG | 1.36 | 16.80 | 17.00 | 23.98 | -6.98 |
| 5280 | 56 | AVG | 1.54 | 16.92 | 16.91 | 23.98 | -7.06 |
| 5300 | 60 | AVG | 1.70 | 17.00 | 16.95 | 23.98 | -6.98 |
| 5320 | 64 | AVG | 2.24 | 15.92 | 15.98 | 23.98 | -8.00 |
| 5500 | 100 | AVG | 3.20 | 15.27 | 15.30 | 23.98 | -8.68 |
| 5580 | 116 | AVG | 3.02 | 16.99 | 16.83 | 23.98 | -6.99 |
| 5600 | 120 | AVG | 3.10 | 16.89 | 16.85 | 23.98 | -7.09 |
| 5620 | 124 | AVG | 3.07 | 17.00 | 16.99 | 23.98 | -6.98 |
| 5700 | 140 | AVG | 3.25 | 14.98 | 14.85 | 23.98 | -9.00 |
| 5720 | 144 | AVG | 3.25 | 16.96 | 16.89 | 23.98 | -7.02 |
| 5745 | 149 | AVG | 3.18 | 16.44 | 16.35 | 30.00 | -13.56 |
| 5785 | 157 | AVG | 3.35 | 16.28 | 16.32 | 30.00 | -13.68 |
| 5825 | 165 | AVG | 3.54 | 16.40 | 16.37 | 30.00 | -13.60 |

Table 7-8. FCC-SISO ANT1 20MHz BW (UNII) Maximum Conducted Output Power

| Freq [MHz] | Channel | Detector | Ant. Gain [dBi] | 5GHz (40MHz) Conducted Power [dBm] | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------|---------|----------|-----------------|------------------------------------|---------------------------------|-----------------------------|
| | | | | IEEE Transmission Mode | | |
| | | | | 802.11n | | |
| 5190 | 38 | AVG | 0.69 | 13.35 | 23.98 | -10.63 |
| 5230 | 46 | AVG | 1.27 | 16.48 | 23.98 | -7.50 |
| 5270 | 54 | AVG | 1.54 | 17.00 | 23.98 | -6.98 |
| 5310 | 62 | AVG | 2.24 | 14.95 | 23.98 | -9.03 |
| 5510 | 102 | AVG | 3.39 | 14.37 | 23.98 | -9.61 |
| 5550 | 110 | AVG | 3.39 | 17.00 | 23.98 | -6.98 |
| 5590 | 118 | AVG | 3.10 | 16.95 | 23.98 | -7.03 |
| 5630 | 126 | AVG | 3.07 | 16.99 | 23.98 | -6.99 |
| 5670 | 134 | AVG | 3.07 | 16.00 | 23.98 | -7.98 |
| 5710 | 142 | AVG | 3.07 | 16.99 | 23.98 | -6.99 |
| 5755 | 151 | AVG | 3.25 | 16.35 | 30.00 | -13.65 |
| 5795 | 159 | AVG | 3.35 | 16.50 | 30.00 | -13.50 |

Table 7-9. FCC-SISO ANT1 40MHz BW (UNII) Maximum Conducted Output Power

| Freq [MHz] | Channel | Detector | Ant. Gain [dBi] | 5GHz (80MHz) Conducted Power [dBm] | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------|---------|----------|-----------------|------------------------------------|---------------------------------|-----------------------------|
| | | | | IEEE Transmission Mode | | |
| | | | | 802.11ac | | |
| 5210 | 42 | AVG | 1.27 | 12.87 | 23.98 | -22.71 |
| 5290 | 58 | AVG | 1.70 | 12.84 | 23.98 | -22.28 |
| 5530 | 106 | AVG | 3.39 | 14.00 | 23.98 | -20.59 |
| 5610 | 122 | AVG | 3.10 | 16.98 | 23.98 | -20.88 |
| 5690 | 138 | AVG | 3.25 | 16.99 | 23.98 | -20.73 |
| 5775 | 155 | AVG | 3.37 | 16.50 | 30.00 | -26.63 |

Table 7-10. FCC-SISO ANT1 80MHz BW (UNII) Maximum Conducted Output Power

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 88 of 298 |

ISED-SISO Antenna-1 Conducted Output Power Measurements

| Freq [MHz] | Channel | Detector | Ant. Gain [dBi] | 5GHz (20MHz) Conducted Power | | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] | e.i.r.p. [dBm] | Max e.i.r.p Limit [dBm] | e.i.r.p. Margin |
|------------|---------|----------|-----------------|------------------------------|---------|---------------------------------|-----------------------------|----------------|-------------------------|-----------------|
| | | | | IEEE Transmission Mode | | | | | | |
| | | | | 802.11a | 802.11n | | | | | |
| 5180 | 36 | AVG | 0.30 | 14.89 | 14.81 | 23.98 | -9.09 | 15.19 | 23.01 | -7.82 |
| 5200 | 40 | AVG | 0.69 | 15.00 | 14.94 | 23.98 | -8.98 | 15.69 | 23.01 | -7.32 |
| 5220 | 44 | AVG | 1.27 | 15.00 | 14.94 | 23.98 | -8.98 | 16.27 | 23.01 | -6.74 |
| 5240 | 48 | AVG | 1.17 | 14.90 | 14.89 | 23.98 | -9.08 | 16.07 | 23.01 | -6.94 |
| 5260 | 52 | AVG | 1.36 | 16.80 | 17.00 | 23.98 | -6.98 | 18.36 | 30.00 | -11.64 |
| 5280 | 56 | AVG | 1.54 | 16.92 | 16.91 | 23.98 | -7.06 | 18.46 | 30.00 | -11.54 |
| 5300 | 60 | AVG | 1.70 | 17.00 | 16.95 | 23.98 | -6.98 | 18.70 | 30.00 | -11.30 |
| 5320 | 64 | AVG | 2.24 | 15.92 | 15.98 | 23.98 | -8.00 | 18.22 | 30.00 | -11.78 |
| 5500 | 100 | AVG | 3.20 | 15.27 | 15.30 | 23.98 | -8.68 | 18.50 | 30.00 | -11.50 |
| 5580 | 116 | AVG | 3.02 | 16.99 | 16.83 | 23.98 | -6.99 | 20.01 | 30.00 | -9.99 |
| 5700 | 140 | AVG | 3.25 | 14.98 | 14.85 | 23.98 | -9.00 | 18.23 | 30.00 | -11.77 |
| 5720 | 144 | AVG | 3.25 | 16.96 | 16.89 | 23.98 | -7.02 | 20.21 | 30.00 | -9.79 |
| 5745 | 149 | AVG | 3.18 | 16.44 | 16.35 | 30.00 | -13.56 | 19.62 | 36.00 | -16.38 |
| 5785 | 157 | AVG | 3.35 | 16.28 | 16.32 | 30.00 | -13.68 | 19.67 | 36.00 | -16.33 |
| 5825 | 165 | AVG | 3.54 | 16.40 | 16.37 | 30.00 | -13.60 | 19.94 | 36.00 | -16.06 |

Table 7-11. ISED-SISO ANT1 20MHz BW (UNII) Maximum Conducted Output Power

| Freq [MHz] | Channel | Detector | Ant. Gain [dBi] | 5GHz (40MHz) Conducted Power [dBm] | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] | e.i.r.p. [dBm] | Max e.i.r.p Limit [dBm] | e.i.r.p. Margin |
|------------|---------|----------|-----------------|------------------------------------|---------------------------------|-----------------------------|----------------|-------------------------|-----------------|
| | | | | IEEE Transmission Mode | | | | | |
| | | | | 802.11n | | | | | |
| 5190 | 38 | AVG | 0.69 | 13.35 | 23.98 | -10.63 | 14.04 | 23.01 | -8.97 |
| 5230 | 46 | AVG | 1.27 | 16.48 | 23.98 | -7.50 | 17.75 | 23.01 | -5.26 |
| 5270 | 54 | AVG | 1.54 | 17.00 | 23.98 | -6.98 | 18.54 | 30.00 | -11.46 |
| 5310 | 62 | AVG | 2.24 | 14.95 | 23.98 | -9.03 | 17.19 | 30.00 | -12.81 |
| 5510 | 102 | AVG | 3.39 | 14.37 | 23.98 | -9.61 | 17.76 | 30.00 | -12.24 |
| 5550 | 110 | AVG | 3.39 | 17.00 | 23.98 | -6.98 | 20.39 | 30.00 | -9.61 |
| 5670 | 134 | AVG | 3.07 | 16.00 | 23.98 | -7.98 | 19.07 | 30.00 | -10.93 |
| 5710 | 142 | AVG | 3.07 | 16.99 | 23.98 | -6.99 | 20.06 | 30.00 | -9.94 |
| 5755 | 151 | AVG | 3.25 | 16.35 | 30.00 | -13.65 | 19.60 | 36.00 | -16.40 |
| 5795 | 159 | AVG | 3.35 | 16.50 | 30.00 | -13.50 | 19.85 | 36.00 | -16.15 |

Table 7-12. ISED-SISO ANT1 40MHz BW (UNII) Maximum Conducted Output Power

| Freq [MHz] | Channel | Detector | Ant. Gain [dBi] | 5GHz (80MHz) Conducted Power [dBm] | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] | e.i.r.p. [dBm] | Max e.i.r.p Limit [dBm] | e.i.r.p. Margin |
|------------|---------|----------|-----------------|------------------------------------|---------------------------------|-----------------------------|----------------|-------------------------|-----------------|
| | | | | IEEE Transmission Mode | | | | | |
| | | | | 802.11ac | | | | | |
| 5210 | 42 | AVG | 1.27 | 12.87 | 23.98 | -22.71 | 14.14 | 23.01 | -8.87 |
| 5290 | 58 | AVG | 1.70 | 12.84 | 23.98 | -22.28 | 14.54 | 30.00 | -15.46 |
| 5530 | 106 | AVG | 3.39 | 14.00 | 23.98 | -20.59 | 17.39 | 30.00 | -12.61 |
| 5690 | 138 | AVG | 3.25 | 16.99 | 23.98 | -20.73 | 20.24 | 30.00 | -9.76 |
| 5775 | 155 | AVG | 3.37 | 16.50 | 30.00 | -26.63 | 19.87 | 36.00 | -16.13 |

Table 7-13. ISED-SISO ANT1 80MHz BW (UNII) Maximum Conducted Output Power

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 89 of 298 |

FCC-SISO Antenna-2 Conducted Output Power Measurements

| Freq [MHz] | Channel | Detector | Ant. Gain [dBi] | 5GHz (20MHz) Conducted Power [dBm] | | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------|---------|----------|-----------------|------------------------------------|---------|---------------------------------|-----------------------------|
| | | | | IEEE Transmission Mode | | | |
| | | | | 802.11a | 802.11n | | |
| 5180 | 36 | AVG | 2.19 | 15.86 | 15.95 | 23.98 | -8.03 |
| 5200 | 40 | AVG | 2.22 | 16.36 | 16.45 | 23.98 | -7.53 |
| 5220 | 44 | AVG | 2.64 | 16.44 | 16.35 | 23.98 | -7.54 |
| 5240 | 48 | AVG | 2.62 | 16.49 | 16.50 | 23.98 | -7.48 |
| 5260 | 52 | AVG | 2.77 | 16.80 | 16.99 | 23.98 | -6.99 |
| 5280 | 56 | AVG | 2.50 | 16.85 | 16.80 | 23.98 | -7.13 |
| 5300 | 60 | AVG | 2.31 | 17.00 | 16.93 | 23.98 | -6.98 |
| 5320 | 64 | AVG | 2.19 | 15.96 | 15.86 | 23.98 | -8.02 |
| 5500 | 100 | AVG | 2.10 | 15.46 | 15.48 | 23.98 | -8.50 |
| 5580 | 116 | AVG | 3.02 | 16.90 | 17.00 | 23.98 | -6.98 |
| 5600 | 120 | AVG | 2.94 | 16.93 | 16.90 | 23.98 | -7.05 |
| 5620 | 124 | AVG | 3.09 | 16.85 | 16.99 | 23.98 | -6.99 |
| 5700 | 140 | AVG | 3.25 | 15.00 | 15.00 | 23.98 | -8.98 |
| 5720 | 144 | AVG | 3.17 | 17.00 | 16.82 | 23.98 | -6.98 |
| 5745 | 149 | AVG | 3.12 | 16.42 | 16.50 | 30.00 | -13.50 |
| 5785 | 157 | AVG | 3.14 | 16.30 | 16.48 | 30.00 | -13.52 |
| 5825 | 165 | AVG | 2.92 | 16.50 | 16.50 | 30.00 | -13.50 |

Table 7-14. FCC-SISO ANT2 20MHz BW (UNII) Maximum Conducted Output Power

| Freq [MHz] | Channel | Detector | Ant. Gain [dBi] | 5GHz (40MHz) Conducted Power [dBm] | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------|---------|----------|-----------------|------------------------------------|---------------------------------|-----------------------------|
| | | | | IEEE Transmission Mode | | |
| | | | | 802.11n | | |
| 5190 | 38 | AVG | 2.22 | 13.33 | 23.98 | -10.65 |
| 5230 | 46 | AVG | 2.64 | 16.36 | 23.98 | -7.62 |
| 5270 | 54 | AVG | 2.77 | 16.93 | 23.98 | -7.05 |
| 5310 | 62 | AVG | 2.31 | 14.92 | 23.98 | -9.06 |
| 5510 | 102 | AVG | 2.25 | 14.50 | 23.98 | -9.48 |
| 5550 | 110 | AVG | 2.75 | 16.99 | 23.98 | -6.99 |
| 5630 | 126 | AVG | 3.09 | 17.00 | 23.98 | -6.98 |
| 5670 | 134 | AVG | 2.97 | 15.90 | 23.98 | -8.08 |
| 5710 | 142 | AVG | 3.17 | 16.97 | 23.98 | -7.01 |
| 5755 | 151 | AVG | 3.17 | 16.50 | 30.00 | -13.50 |
| 5795 | 159 | AVG | 3.14 | 16.50 | 30.00 | -13.50 |

Table 7-15. FCC SISO ANT2 40MHz BW (UNII) Maximum Conducted Output Power

| Freq [MHz] | Channel | Detector | Ant. Gain [dBi] | 5GHz (80MHz) Conducted Power [dBm] | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------|---------|----------|-----------------|------------------------------------|---------------------------------|-----------------------------|
| | | | | IEEE Transmission Mode | | |
| | | | | 802.11ac | | |
| 5210 | 42 | AVG | 2.40 | 12.93 | 23.98 | -21.58 |
| 5290 | 58 | AVG | 2.50 | 12.88 | 23.98 | -21.48 |
| 5530 | 106 | AVG | 2.48 | 14.00 | 23.98 | -21.50 |
| 5610 | 122 | AVG | 3.09 | 17.00 | 23.98 | -20.89 |
| 5690 | 138 | AVG | 3.17 | 17.00 | 23.98 | -20.81 |
| 5775 | 155 | AVG | 3.17 | 16.32 | 30.00 | -26.83 |

Table 7-16. FCC SISO ANT2 80MHz BW (UNII) Maximum Conducted Output Power

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 90 of 298 |

ISED SISO Antenna-2 Conducted Output Power Measurements

| Freq [MHz] | Channel | Detector | Ant. Gain [dBi] | 5GHz (20MHz) Conducted Power [dBm] | | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] | e.i.r.p. [dBm] | Max e.i.r.p Limit [dBm] | e.i.r.p. Margin |
|------------|---------|----------|-----------------|------------------------------------|---------|---------------------------------|-----------------------------|----------------|-------------------------|-----------------|
| | | | | IEEE Transmission Mode | | | | | | |
| | | | | 802.11a | 802.11n | | | | | |
| 5180 | 36 | AVG | 2.19 | 14.99 | 14.93 | 23.98 | -8.99 | 17.18 | 23.01 | -5.83 |
| 5200 | 40 | AVG | 2.22 | 15.00 | 14.88 | 23.98 | -8.98 | 17.22 | 23.01 | -5.79 |
| 5220 | 44 | AVG | 2.64 | 14.98 | 14.92 | 23.98 | -9.00 | 17.62 | 23.01 | -5.39 |
| 5240 | 48 | AVG | 2.62 | 14.95 | 14.92 | 23.98 | -9.03 | 17.57 | 23.01 | -5.44 |
| 5260 | 52 | AVG | 2.77 | 16.80 | 16.99 | 23.98 | -6.99 | 19.76 | 30.00 | -10.24 |
| 5280 | 56 | AVG | 2.50 | 16.85 | 16.80 | 23.98 | -7.13 | 19.35 | 30.00 | -10.65 |
| 5300 | 60 | AVG | 2.31 | 17.00 | 16.93 | 23.98 | -6.98 | 19.31 | 30.00 | -10.69 |
| 5320 | 64 | AVG | 2.19 | 15.96 | 15.86 | 23.98 | -8.02 | 18.15 | 30.00 | -11.85 |
| 5500 | 100 | AVG | 2.10 | 15.46 | 15.48 | 23.98 | -8.50 | 17.58 | 30.00 | -12.42 |
| 5580 | 116 | AVG | 3.02 | 16.90 | 17.00 | 23.98 | -6.98 | 20.02 | 30.00 | -9.98 |
| 5700 | 140 | AVG | 3.25 | 15.00 | 15.00 | 23.98 | -8.98 | 18.25 | 30.00 | -11.75 |
| 5720 | 144 | AVG | 3.17 | 17.00 | 16.82 | 23.98 | -6.98 | 20.17 | 30.00 | -9.83 |
| 5745 | 149 | AVG | 3.12 | 16.42 | 16.50 | 30.00 | -13.50 | 19.62 | 36.00 | -16.38 |
| 5785 | 157 | AVG | 3.14 | 16.30 | 16.48 | 30.00 | -13.52 | 19.62 | 36.00 | -16.38 |
| 5825 | 165 | AVG | 2.92 | 16.50 | 16.50 | 30.00 | -13.50 | 19.42 | 36.00 | -16.58 |

Table 7-17. ISED-SISO ANT2 20MHz BW (UNII) Maximum Conducted Output Power

| Freq [MHz] | Channel | Detector | Ant. Gain [dBi] | 5GHz (40MHz) Conducted Power [dBm] | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] | e.i.r.p. [dBm] | Max e.i.r.p Limit [dBm] | e.i.r.p. Margin |
|------------|---------|----------|-----------------|------------------------------------|---------------------------------|-----------------------------|----------------|-------------------------|-----------------|
| | | | | IEEE Transmission | | | | | |
| | | | | 802.11n | | | | | |
| 5190 | 38 | AVG | 2.22 | 13.33 | 23.98 | -10.65 | 15.55 | 23.01 | -7.46 |
| 5230 | 46 | AVG | 2.64 | 16.36 | 23.98 | -7.62 | 19.00 | 23.01 | -4.01 |
| 5270 | 54 | AVG | 2.77 | 16.93 | 23.98 | -7.05 | 19.70 | 30.00 | -10.30 |
| 5310 | 62 | AVG | 2.31 | 14.92 | 23.98 | -9.06 | 17.23 | 30.00 | -12.77 |
| 5510 | 102 | AVG | 2.25 | 14.50 | 23.98 | -9.48 | 16.75 | 30.00 | -13.25 |
| 5550 | 110 | AVG | 2.75 | 16.99 | 23.98 | -6.99 | 19.74 | 30.00 | -10.26 |
| 5670 | 134 | AVG | 2.97 | 15.90 | 23.98 | -8.08 | 18.87 | 30.00 | -11.13 |
| 5710 | 142 | AVG | 3.17 | 16.97 | 23.98 | -7.01 | 20.14 | 30.00 | -9.86 |
| 5755 | 151 | AVG | 3.17 | 16.50 | 30.00 | -13.50 | 19.67 | 36.00 | -16.33 |
| 5795 | 159 | AVG | 3.14 | 16.50 | 30.00 | -13.50 | 19.64 | 36.00 | -16.36 |

Table 7-18. ISED-SISO ANT2 40MHz BW (UNII) Maximum Conducted Output Power

| Freq [MHz] | Channel | Detector | Ant. Gain [dBi] | 5GHz (80MHz) Conducted Power [dBm] | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] | e.i.r.p. [dBm] | Max e.i.r.p Limit [dBm] | e.i.r.p. Margin |
|------------|---------|----------|-----------------|------------------------------------|---------------------------------|-----------------------------|----------------|-------------------------|-----------------|
| | | | | IEEE Transmission Mode | | | | | |
| | | | | 802.11ac | | | | | |
| 5210 | 42 | AVG | 2.40 | 12.93 | 23.98 | -21.58 | 15.33 | 23.01 | -10.08 |
| 5290 | 58 | AVG | 2.50 | 12.88 | 23.98 | -21.48 | 15.38 | 30.00 | -17.12 |
| 5530 | 106 | AVG | 2.48 | 14.00 | 23.98 | -21.50 | 16.48 | 30.00 | -16.00 |
| 5690 | 138 | AVG | 3.17 | 17.00 | 23.98 | -20.81 | 20.17 | 30.00 | -13.00 |
| 5775 | 155 | AVG | 3.17 | 16.32 | 30.00 | -26.83 | 19.49 | 36.00 | -16.51 |

Table 7-19. ISED-SISO ANT2 80MHz BW (UNII) Maximum Conducted Output Power

| | | | | |
|--|---|----------------------------|--|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | | Page 91 of 298 |

FCC-MIMO Conducted Output Power Measurements

| Freq [MHz] | Channel | Mode | Detector | Ant. Gain [dBi] | 5GHz (20MHz) Conducted Power [dBm] | | | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------|---------|------|----------|-----------------|------------------------------------|-------|-------|---------------------------------|-----------------------------|
| | | | | | IEEE Transmission Mode | | | | |
| | | | | | ANT1 | ANT2 | MIMO | | |
| 5180 | 36 | CDD | AVG | 4.31 | 14.99 | 15.00 | 18.00 | 23.98 | -5.98 |
| 5200 | 40 | CDD | AVG | 4.50 | 16.46 | 16.50 | 19.49 | 23.98 | -4.49 |
| 5220 | 44 | CDD | AVG | 4.99 | 16.49 | 16.48 | 19.50 | 23.98 | -4.48 |
| 5240 | 48 | CDD | AVG | 4.94 | 16.50 | 16.40 | 19.46 | 23.98 | -4.52 |
| 5260 | 52 | SDM | AVG | 5.10 | 16.89 | 17.00 | 19.96 | 23.98 | -4.02 |
| 5280 | 56 | SDM | AVG | 5.04 | 16.87 | 17.00 | 19.95 | 23.98 | -4.03 |
| 5300 | 60 | SDM | AVG | 5.02 | 17.00 | 17.00 | 20.00 | 23.98 | -3.98 |
| 5320 | 64 | CDD | AVG | 5.23 | 14.36 | 14.41 | 17.40 | 23.98 | -6.58 |
| 5500 | 100 | CDD | AVG | 5.68 | 14.94 | 15.00 | 17.98 | 23.98 | -6.00 |
| 5580 | 116 | SDM | AVG | 6.03 | 16.95 | 16.80 | 19.89 | 23.98 | -4.09 |
| 5600 | 120 | SDM | AVG | 6.03 | 16.89 | 16.85 | 19.88 | 23.95 | -4.07 |
| 5620 | 124 | SDM | AVG | 6.09 | 16.89 | 16.88 | 19.90 | 23.89 | -3.99 |
| 5700 | 140 | CDD | AVG | 6.26 | 13.86 | 13.95 | 16.92 | 23.72 | -6.80 |
| 5720 | 144 | CDD | AVG | 6.22 | 17.00 | 16.90 | 19.96 | 23.76 | -3.80 |
| 5745 | 149 | CDD | AVG | 6.16 | 16.43 | 16.50 | 19.48 | 29.84 | -10.36 |
| 5785 | 157 | CDD | AVG | 6.26 | 16.25 | 16.30 | 19.29 | 29.74 | -10.46 |
| 5825 | 165 | CDD | AVG | 6.25 | 16.45 | 16.32 | 19.40 | 29.75 | -10.36 |

Table 7-20. FCC-MIMO 20MHz BW (UNII) Maximum Conducted Output Power

| Freq [MHz] | Channel | Mode | Detector | Ant. Gain [dBi] | 5GHz (40MHz) Conducted Power [dBm] | | | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------|---------|------|----------|-----------------|------------------------------------|-------|-------|---------------------------------|-----------------------------|
| | | | | | IEEE Transmission Mode | | | | |
| | | | | | ANT1 | ANT2 | MIMO | | |
| 5190 | 38 | CDD | AVG | 4.50 | 12.50 | 12.50 | 15.50 | 23.98 | -8.48 |
| 5230 | 46 | CDD | AVG | 4.99 | 16.50 | 16.36 | 19.44 | 23.98 | -4.54 |
| 5270 | 54 | CDD | AVG | 5.19 | 16.85 | 16.98 | 19.93 | 23.98 | -4.05 |
| 5310 | 62 | CDD | AVG | 5.29 | 13.36 | 13.32 | 16.35 | 23.98 | -7.63 |
| 5510 | 102 | CDD | AVG | 5.85 | 13.00 | 12.95 | 15.99 | 23.98 | -7.99 |
| 5550 | 110 | CDD | AVG | 6.09 | 16.91 | 16.93 | 19.93 | 23.89 | -3.96 |
| 5630 | 126 | CDD | AVG | 6.09 | 16.86 | 16.94 | 19.91 | 23.89 | -3.98 |
| 5670 | 134 | CDD | AVG | 6.03 | 15.00 | 15.00 | 18.00 | 23.95 | -5.95 |
| 5710 | 142 | CDD | AVG | 6.13 | 16.80 | 17.00 | 19.91 | 23.85 | -3.94 |
| 5755 | 151 | CDD | AVG | 6.22 | 16.26 | 16.45 | 19.37 | 29.78 | -10.41 |
| 5795 | 159 | CDD | AVG | 6.26 | 16.31 | 16.39 | 19.36 | 29.74 | -10.38 |

Table 7-21. FCC-MIMO 40MHz BW (UNII) Maximum Conducted Output Power

| Freq [MHz] | Channel | Mode | Detector | Ant. Gain [dBi] | 5GHz (80MHz) Conducted Power [dBm] | | | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] |
|------------|---------|------|----------|-----------------|------------------------------------|-------|-------|---------------------------------|-----------------------------|
| | | | | | IEEE Transmission Mode | | | | |
| | | | | | ANT1 | ANT2 | MIMO | | |
| 5210 | 42 | CDD | AVG | 4.86 | 11.98 | 11.89 | 14.95 | 23.98 | -9.03 |
| 5290 | 58 | CDD | AVG | 5.12 | 12.00 | 12.00 | 15.00 | 23.98 | -8.98 |
| 5530 | 106 | CDD | AVG | 5.96 | 13.00 | 12.92 | 15.97 | 23.98 | -8.01 |
| 5610 | 122 | CDD | AVG | 6.11 | 16.91 | 16.72 | 19.83 | 23.87 | -4.05 |
| 5690 | 138 | CDD | AVG | 6.22 | 17.00 | 17.00 | 20.00 | 23.76 | -3.76 |
| 5775 | 155 | CDD | AVG | 6.28 | 16.00 | 16.00 | 19.00 | 29.72 | -10.72 |

Table 7-22. FCC-MIMO 80MHz BW 802.11ac (UNII) Maximum Conducted Output Power

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 92 of 298 |

ISED-MIMO Conducted Output Power Measurements

| Freq [MHz] | Channel | Mode | Detector | Directional Ant. Gain [dBi] | 5GHz (20MHz) Conducted Power [dBm] | | | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] | e.i.r.p. [dBm] | Max e.i.r.p Limit [dBm] | e.i.r.p. Margin |
|------------|---------|------|----------|-----------------------------------|------------------------------------|-------|-------|--|-----------------------------------|-------------------|----------------------------|--------------------|
| | | | | | IEEE Transmission Mode | | | | | | | |
| | | | | | ANT1 | ANT2 | MIMO | | | | | |
| 5180 | 36 | CDD | AVG | 4.31 | 11.96 | 11.95 | 14.97 | 23.98 | -9.01 | 19.27 | 23.01 | -3.74 |
| 5200 | 40 | CDD | AVG | 4.50 | 11.98 | 11.86 | 14.93 | 23.98 | -9.05 | 19.43 | 23.01 | -3.58 |
| 5220 | 44 | CDD | AVG | 4.99 | 12.00 | 12.00 | 15.00 | 23.98 | -8.98 | 19.99 | 23.01 | -3.02 |
| 5240 | 48 | CDD | AVG | 4.94 | 11.88 | 11.82 | 14.86 | 23.98 | -9.12 | 19.80 | 23.01 | -3.21 |
| 5260 | 52 | SDM | AVG | 5.10 | 16.89 | 17.00 | 19.96 | 23.98 | -4.02 | 25.06 | 30.00 | -4.94 |
| 5280 | 56 | SDM | AVG | 5.04 | 16.87 | 17.00 | 19.95 | 23.98 | -4.03 | 24.99 | 30.00 | -5.01 |
| 5300 | 60 | SDM | AVG | 5.02 | 17.00 | 17.00 | 20.00 | 23.98 | -3.98 | 25.02 | 30.00 | -4.98 |
| 5320 | 64 | CDD | AVG | 5.23 | 14.36 | 14.41 | 17.40 | 23.98 | -6.58 | 22.62 | 30.00 | -7.38 |
| 5500 | 100 | CDD | AVG | 5.68 | 14.94 | 15.00 | 17.98 | 23.98 | -6.00 | 23.66 | 30.00 | -6.34 |
| 5580 | 116 | SDM | AVG | 6.03 | 16.95 | 16.80 | 19.89 | 23.98 | -4.09 | 25.92 | 30.00 | -4.08 |
| 5700 | 140 | CDD | AVG | 6.26 | 13.86 | 13.95 | 16.92 | 23.72 | -6.80 | 23.18 | 30.00 | -6.82 |
| 5720 | 144 | CDD | AVG | 6.22 | 17.00 | 16.90 | 19.96 | 23.76 | -3.80 | 26.18 | 30.00 | -3.82 |
| 5745 | 149 | CDD | AVG | 6.16 | 16.43 | 16.50 | 19.48 | 29.84 | -10.36 | 25.64 | 36.00 | -10.36 |
| 5785 | 157 | CDD | AVG | 6.26 | 16.25 | 16.30 | 19.29 | 29.74 | -10.46 | 25.54 | 36.00 | -10.46 |
| 5825 | 165 | CDD | AVG | 6.25 | 16.45 | 16.32 | 19.40 | 29.75 | -10.36 | 25.64 | 36.00 | -10.36 |

Table 7-23. ISED-MIMO 20MHz BW (UNII) Maximum Conducted Output Power

| Freq [MHz] | Channel | Mode | Detector | Directional Ant. Gain [dBi] | 5GHz (40MHz) Conducted Power [dBm] | | | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] | e.i.r.p. [dBm] | Max e.i.r.p Limit [dBm] | e.i.r.p. Margin |
|------------|---------|------|----------|-----------------------------------|---------------------------------------|-------|-------|--|-----------------------------------|-------------------|----------------------------|--------------------|
| | | | | | IEEE Transmission Mode | | | | | | | |
| | | | | | ANT1 | ANT2 | MIMO | | | | | |
| 5190 | 38 | CDD | AVG | 4.50 | 12.50 | 12.50 | 15.50 | 23.98 | -8.48 | 20.00 | 23.01 | -3.01 |
| 5230 | 46 | CDD | AVG | 4.99 | 13.99 | 14.00 | 17.00 | 23.98 | -6.98 | 21.99 | 23.01 | -1.02 |
| 5270 | 54 | CDD | AVG | 5.19 | 16.85 | 16.98 | 19.93 | 23.98 | -4.05 | 25.11 | 30.00 | -4.89 |
| 5310 | 62 | CDD | AVG | 5.29 | 13.36 | 13.32 | 16.35 | 23.98 | -7.63 | 21.64 | 30.00 | -8.36 |
| 5510 | 102 | CDD | AVG | 5.85 | 13.00 | 12.95 | 15.99 | 23.98 | -7.99 | 21.83 | 30.00 | -8.17 |
| 5550 | 110 | CDD | AVG | 6.09 | 16.91 | 16.93 | 19.93 | 23.89 | -3.96 | 26.02 | 30.00 | -3.98 |
| 5670 | 134 | CDD | AVG | 6.03 | 15.00 | 15.00 | 18.00 | 23.95 | -5.95 | 24.03 | 30.00 | -5.97 |
| 5710 | 142 | CDD | AVG | 6.13 | 16.80 | 17.00 | 19.91 | 23.85 | -3.94 | 26.04 | 30.00 | -3.96 |
| 5755 | 151 | CDD | AVG | 6.22 | 16.26 | 16.45 | 19.37 | 29.78 | -10.41 | 25.59 | 36.00 | -10.41 |
| 5795 | 159 | CDD | AVG | 6.26 | 16.31 | 16.39 | 19.36 | 29.74 | -10.38 | 25.62 | 36.00 | -10.38 |

Table 7-24. ISED-MIMO 40MHz BW (UNII) Maximum Conducted Output Power

| Freq [MHz] | Channel | Mode | Detector | Directional Ant. Gain [dBi] | 5GHz (80MHz) Conducted Power [dBm] | | | Max Conducted Power Limit [dBm] | Conducted Power Margin [dB] | e.i.r.p. [dBm] | Max e.i.r.p Limit [dBm] | e.i.r.p. Margin |
|------------|---------|------|----------|-----------------------------------|---------------------------------------|-------|-------|--|-----------------------------------|-------------------|----------------------------|--------------------|
| | | | | | IEEE Transmission Mode | | | | | | | |
| | | | | | ANT1 | ANT2 | MIMO | | | | | |
| 5210 | 42 | CDD | AVG | 4.86 | 11.98 | 11.89 | 14.95 | 23.98 | -9.03 | 19.81 | 23.01 | -3.20 |
| 5290 | 58 | CDD | AVG | 5.12 | 12.00 | 12.00 | 15.00 | 23.98 | -8.98 | 20.12 | 30.00 | -9.88 |
| 5530 | 106 | CDD | AVG | 5.96 | 13.00 | 12.92 | 15.97 | 23.98 | -8.01 | 21.93 | 30.00 | -8.07 |
| 5690 | 138 | CDD | AVG | 6.22 | 17.00 | 17.00 | 20.00 | 23.76 | -3.76 | 26.22 | 30.00 | -3.78 |
| 5775 | 155 | CDD | AVG | 6.28 | 16.00 | 16.00 | 19.00 | 29.72 | -10.72 | 25.28 | 36.00 | -10.72 |

Table 7-25. ISED-MIMO 80MHz BW 802.11ac (UNII) Maximum Conducted Output Power

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 93 of 298 |

Note:

Per ANSI C63.10-2013 and KDB 662911 v02r01 Section E1), the conducted powers at Antenna 1 and Antenna 2 were first measured separately during MIMO transmission as shown in the section above. The measured values were then summed in linear power units then converted back to dBm.

Per ANSI C63.10-2013 Section 14.4.3, the directional gain is calculated using the following formula, where G_n is the gain of the n th antenna and N_{ANT} , the total number of antennas used.

$$\text{Directional gain} = 10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}] \text{ dBi}$$

Sample MIMO Calculation:

At 5180MHz the average conducted output power was measured to be 14.99 dBm for Antenna-1 and 15.00 dBm for Antenna-2.

Antenna 1 + Antenna 2 = MIMO

$$(14.99 \text{ dBm} + 15.00 \text{ dBm}) = (31.55 \text{ mW} + 31.62 \text{ mW}) = 63.17 \text{ mW} = 18.00 \text{ dBm}$$

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 94 of 298 |

7.5 Maximum Power Spectral Density – 802.11a/n/ac §15.407(a.1.iv) §15.407(a.2) §15.407(a.3); RSS-247 [6.2]

Test Overview and Limit

The spectrum analyzer was connected to the antenna terminal while the EUT was operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v01r04, and at the appropriate frequencies. Method SA-1, as defined in ANSI C63.10-2013 and KDB 789033 D02 v01r04, was used to measure the power spectral density. If transmitting antennas of directional gain greater than 6dBi are used the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

In the 5.15 – 5.25GHz, 5.25 – 5.35GHz, 5.47 – 5.725GHz bands, the maximum permissible power spectral density is 11dBm/MHz.

In the 5.725 – 5.850GHz band, the maximum permissible power spectral density is 30dBm/500kHz.

RSS-247 – In 5.15 – 5.25 GHz band, the e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

Test Procedure Used

ANSI C63.10-2013 – Section 12.3.2.2
KDB 789033 D02 v01r04 – Section F
ANSI C63.10-2013 – Section 14.3.2.2 Measure-and-Sum Technique
KDB 662911 v02r01 – Section E)2) Measure-and-Sum Technique

Test Settings

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire emission bandwidth of the signal
3. RBW = 1MHz
4. VBW = 3MHz
5. Number of sweep points $\geq 2 \times (\text{span/RBW})$
6. Sweep time = auto
7. Detector = power averaging (RMS)
8. Trigger was set to free run for all modes
9. Trace was averaged over 100 sweeps
10. The peak search function of the spectrum analyzer was used to find the peak of the spectrum.

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 95 of 298 |

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-4. Test Instrument & Measurement Setup

Test Notes

None

| | | | |
|---|---|-----------------------------------|--|
| FCC ID: BCGA1893 | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 96 of 298 |

SISO Antenna-1 Power Spectral Density Measurements

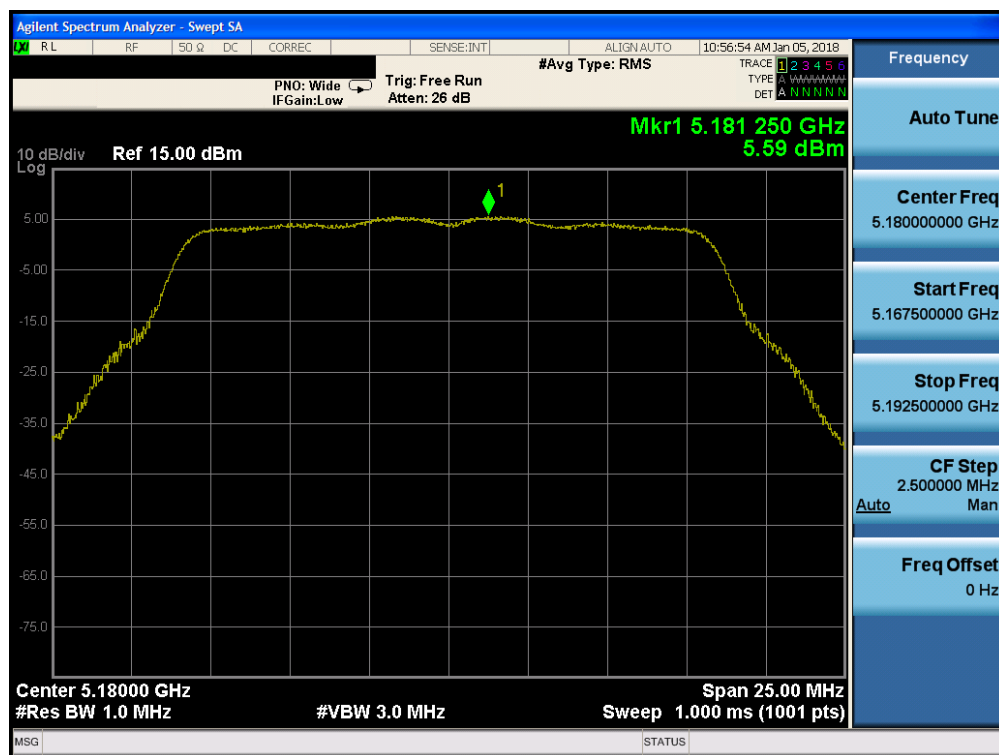
| | Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured Power Density [dBm] | Antenna Gain [dBi] | Max Power Density [dBm/MHz] | Margin [dB] |
|---------|-----------------|-------------|-------------|------------------|------------------------------|--------------------|-----------------------------|-------------|
| Band 1 | 5180 | 36 | a | 6 | 5.59 | 1.3 | 11.0 | -5.41 |
| | 5200 | 40 | a | 6 | 6.15 | 1.3 | 11.0 | -4.85 |
| | 5240 | 48 | a | 6 | 6.72 | 1.3 | 11.0 | -4.28 |
| | 5180 | 36 | n (20MHz) | 6.5/7.2 (MCS0) | 6.07 | 1.3 | 11.0 | -4.93 |
| | 5200 | 40 | n (20MHz) | 6.5/7.2 (MCS0) | 6.75 | 1.3 | 11.0 | -4.25 |
| | 5240 | 48 | n (20MHz) | 6.5/7.2 (MCS0) | 7.18 | 1.3 | 11.0 | -3.82 |
| | 5190 | 38 | n (40MHz) | 13.5/15 (MCS0) | 0.99 | 1.3 | 11.0 | -10.01 |
| | 5230 | 46 | n (40MHz) | 13.5/15 (MCS0) | 2.24 | 1.3 | 11.0 | -8.76 |
| | 5210 | 42 | ac (80MHz) | 29.3/32.5 (MCS0) | -2.12 | 1.3 | 11.0 | -13.12 |
| Band 2A | 5260 | 52 | a | 6 | 6.46 | 2.2 | 11.0 | -4.54 |
| | 5280 | 56 | a | 6 | 6.41 | 2.2 | 11.0 | -4.59 |
| | 5320 | 64 | a | 6 | 6.25 | 2.2 | 11.0 | -4.75 |
| | 5260 | 52 | n (20MHz) | 6.5/7.2 (MCS0) | 6.34 | 2.2 | 11.0 | -4.66 |
| | 5280 | 56 | n (20MHz) | 6.5/7.2 (MCS0) | 6.23 | 2.2 | 11.0 | -4.77 |
| | 5320 | 64 | n (20MHz) | 6.5/7.2 (MCS0) | 5.99 | 2.2 | 11.0 | -5.01 |
| | 5270 | 54 | n (40MHz) | 13.5/15 (MCS0) | 2.12 | 2.2 | 11.0 | -8.88 |
| | 5310 | 62 | n (40MHz) | 13.5/15 (MCS0) | 0.79 | 2.2 | 11.0 | -10.22 |
| | 5290 | 58 | ac (80MHz) | 29.3/32.5 (MCS0) | -3.80 | 2.2 | 11.0 | -14.80 |
| Band 2C | 5500 | 100 | a | 6 | 5.68 | 3.4 | 11.0 | -5.32 |
| | 5580 | 116 | a | 6 | 7.57 | 3.4 | 11.0 | -3.43 |
| | 5720 | 144 | a | 6 | 7.31 | 3.4 | 11.0 | -3.69 |
| | 5500 | 100 | n (20MHz) | 6.5/7.2 (MCS0) | 5.94 | 3.4 | 11.0 | -5.07 |
| | 5520 | 104 | n (20MHz) | 6.5/7.2 (MCS0) | 6.59 | 3.4 | 11.0 | -4.42 |
| | 5540 | 108 | n (20MHz) | 6.5/7.2 (MCS0) | 6.44 | 3.4 | 11.0 | -4.56 |
| | 5580 | 116 | n (20MHz) | 6.5/7.2 (MCS0) | 6.35 | 3.4 | 11.0 | -4.65 |
| | 5660 | 132 | n (20MHz) | 6.5/7.2 (MCS0) | 5.17 | 3.4 | 11.0 | -5.83 |
| | 5680 | 136 | n (20MHz) | 6.5/7.2 (MCS0) | 5.00 | 3.4 | 11.0 | -6.00 |
| | 5720 | 144 | n (20MHz) | 6.5/7.2 (MCS0) | 7.08 | 3.4 | 11.0 | -3.92 |
| | 5510 | 102 | n (40MHz) | 13.5/15 (MCS0) | 0.18 | 3.4 | 11.0 | -10.82 |
| | 5550 | 110 | n (40MHz) | 13.5/15 (MCS0) | 4.01 | 3.4 | 11.0 | -6.99 |
| | 5710 | 142 | n (40MHz) | 13.5/15 (MCS0) | 3.47 | 3.4 | 11.0 | -7.53 |
| | 5530 | 106 | ac (80MHz) | 29.3/32.5 (MCS0) | -2.53 | 3.4 | 11.0 | -13.53 |
| | 5690 | 138 | ac (80MHz) | 29.3/32.5 (MCS0) | -2.55 | 3.4 | 11.0 | -13.55 |

Table 7-26. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements SISO ANT1

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 97 of 298 |

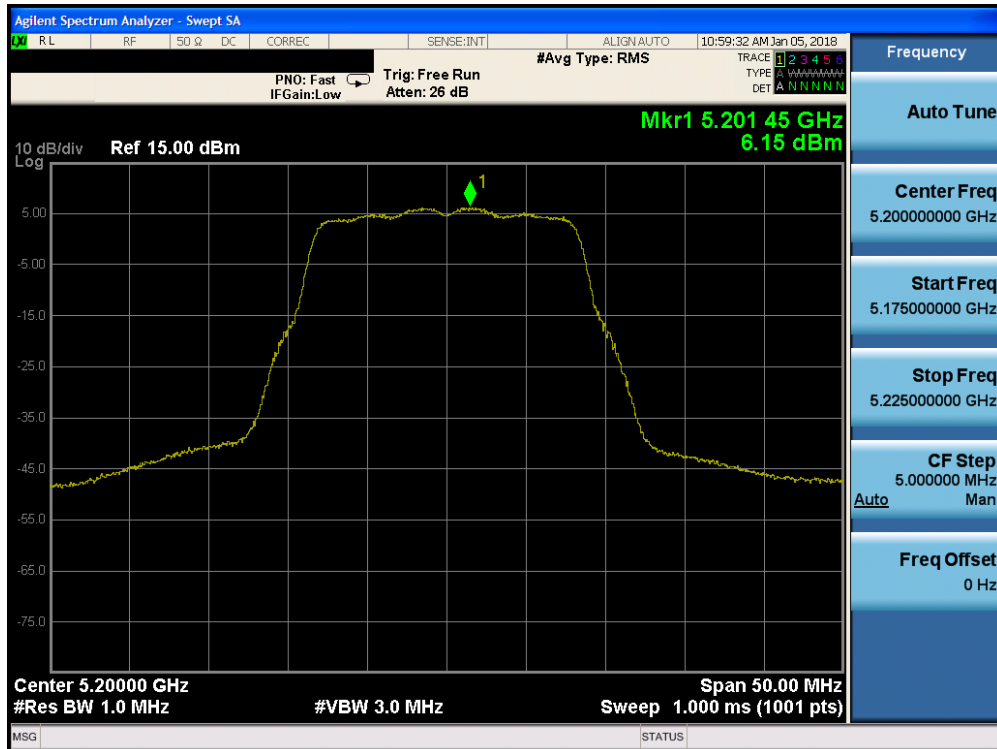
| | Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured Power Density [dBm] | Antenna Gain [dBi] | e.i.r.p. Power Density [dBm/MHz] | Max e.i.r.p. Power Density Limit [dBm/MHz] | e.i.r.p. Power Density Margin [dB] |
|--------|-----------------|-------------|-------------|------------------|------------------------------|--------------------|----------------------------------|--|------------------------------------|
| Band 1 | 5180 | 36 | a | 6 | 5.59 | 1.3 | 6.86 | 10.0 | -3.14 |
| | 5200 | 40 | a | 6 | 6.15 | 1.3 | 7.42 | 10.0 | -2.58 |
| | 5240 | 48 | a | 6 | 6.72 | 1.3 | 7.99 | 10.0 | -2.01 |
| | 5180 | 36 | n (20MHz) | 6.5/7.2 (MCS0) | 6.07 | 1.3 | 7.34 | 10.0 | -2.66 |
| | 5200 | 40 | n (20MHz) | 6.5/7.2 (MCS0) | 6.75 | 1.3 | 8.02 | 10.0 | -1.98 |
| | 5240 | 48 | n (20MHz) | 6.5/7.2 (MCS0) | 7.18 | 1.3 | 8.45 | 10.0 | -1.55 |
| | 5190 | 38 | n (40MHz) | 13.5/15 (MCS0) | 0.99 | 1.3 | 2.26 | 10.0 | -7.74 |
| | 5230 | 46 | n (40MHz) | 13.5/15 (MCS0) | 2.24 | 1.3 | 3.51 | 10.0 | -6.49 |
| | 5210 | 42 | ac (80MHz) | 29.3/32.5 (MCS0) | -2.12 | 1.3 | -0.85 | 10.0 | -10.85 |

Table 7-27. Band 1 e.i.r.p. Power Spectral Density Measurements SISO ANT1 (RSS-247)

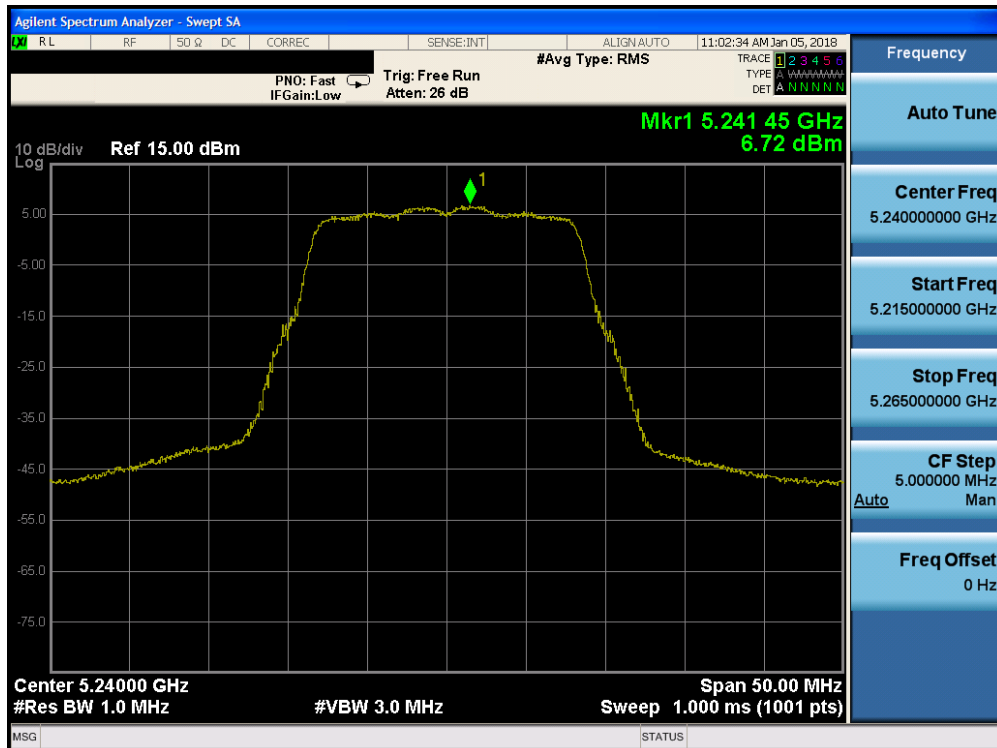


Plot 7-129. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 1) – Ch. 36)

| | | | |
|---|---|-----------------------------------|--|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 98 of 298 |

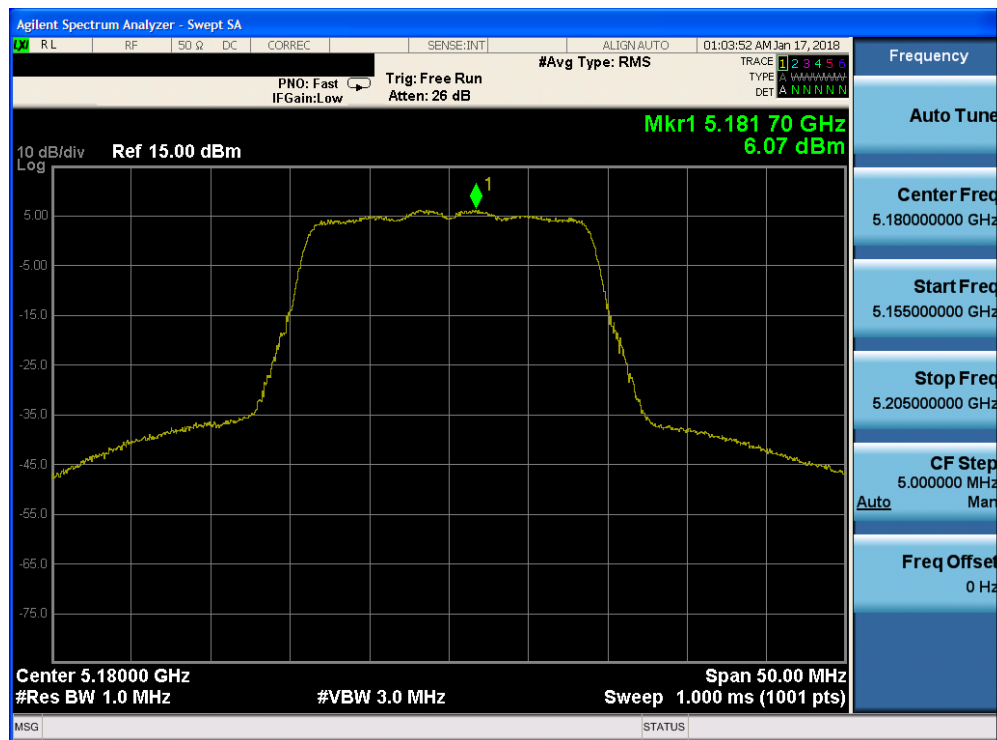


Plot 7-130. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 1) – Ch. 40)

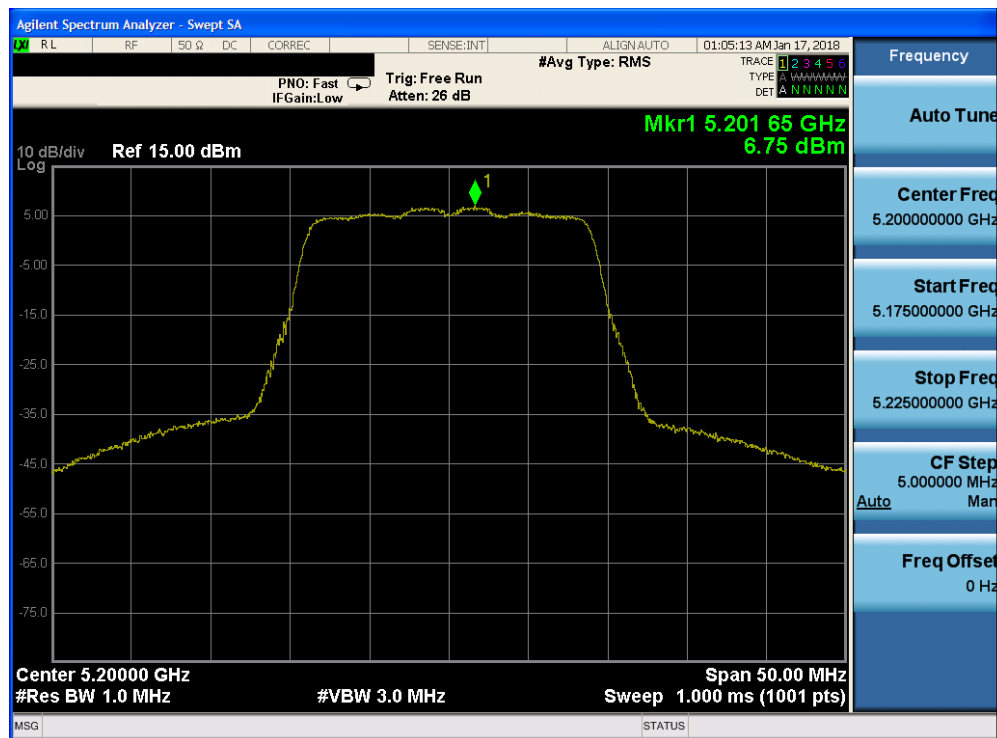


Plot 7-131. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 1) – Ch. 48)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 99 of 298 |

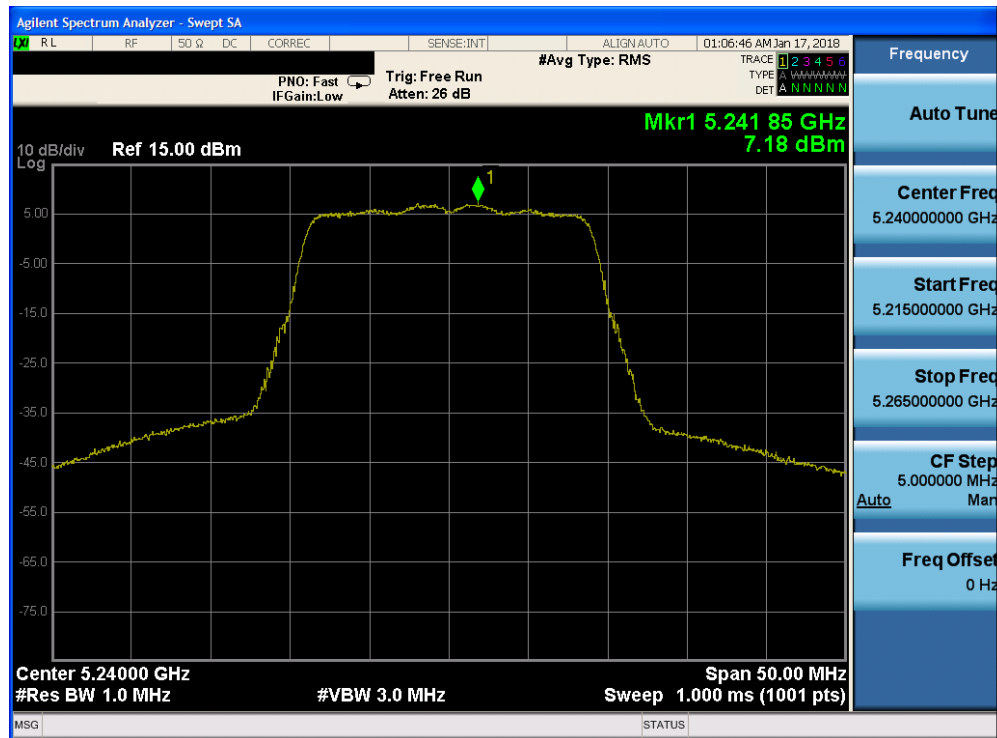


Plot 7-132. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 1) – Ch. 36)

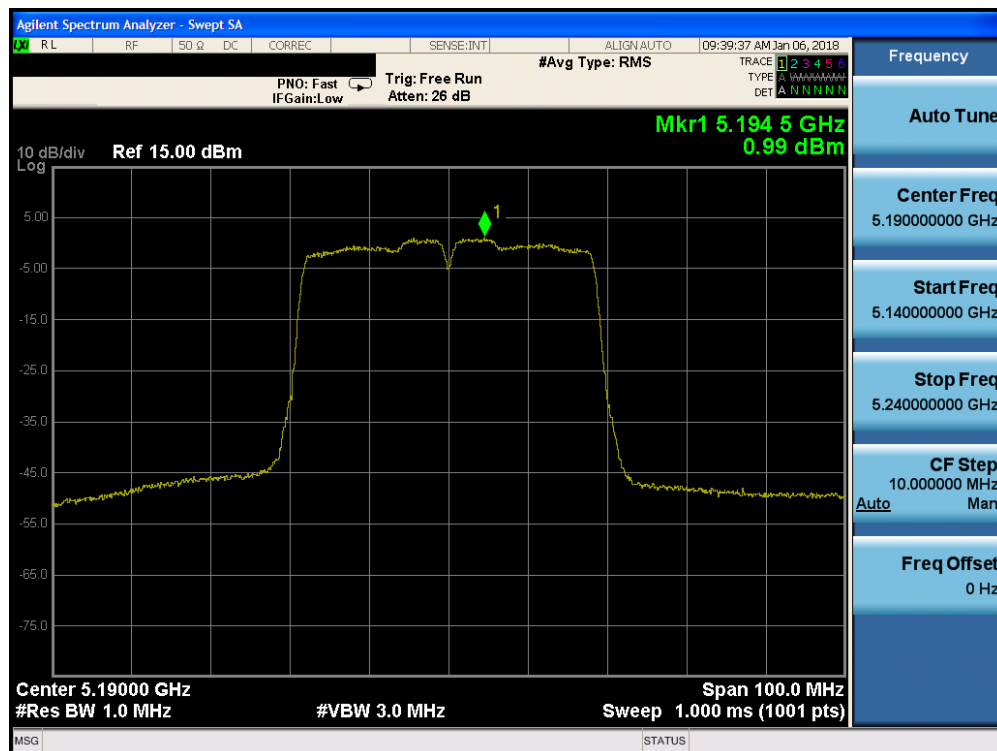


Plot 7-133. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 1) – Ch. 40)

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 100 of 298 |

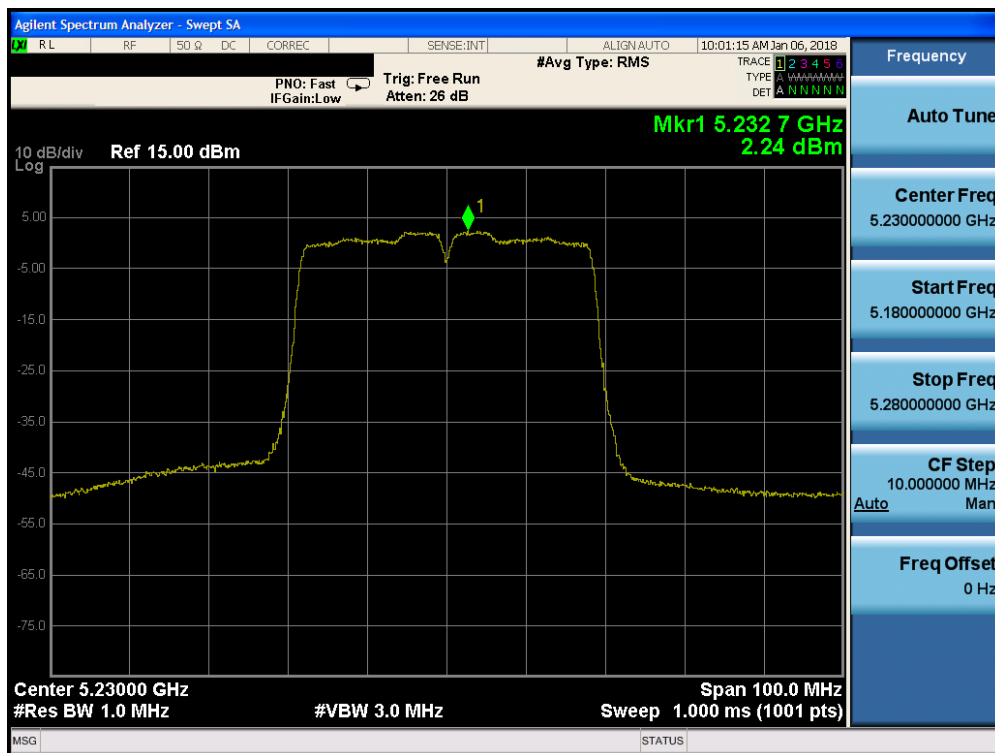


Plot 7-134. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 1) – Ch. 48)

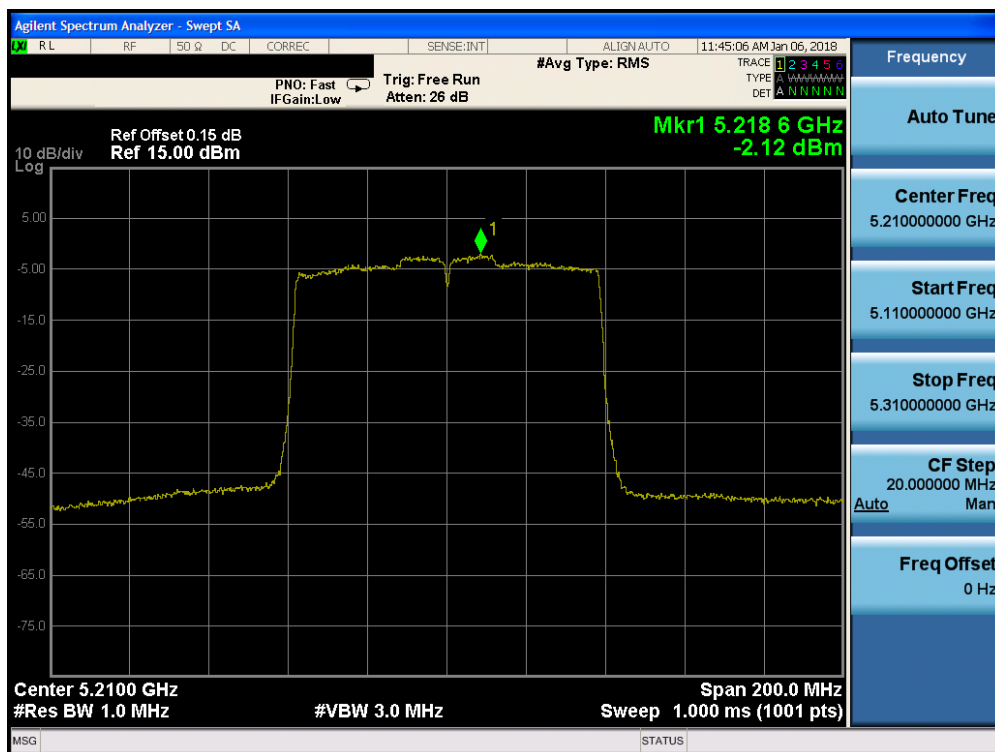


Plot 7-135. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 1) – Ch. 38)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 101 of 298 |

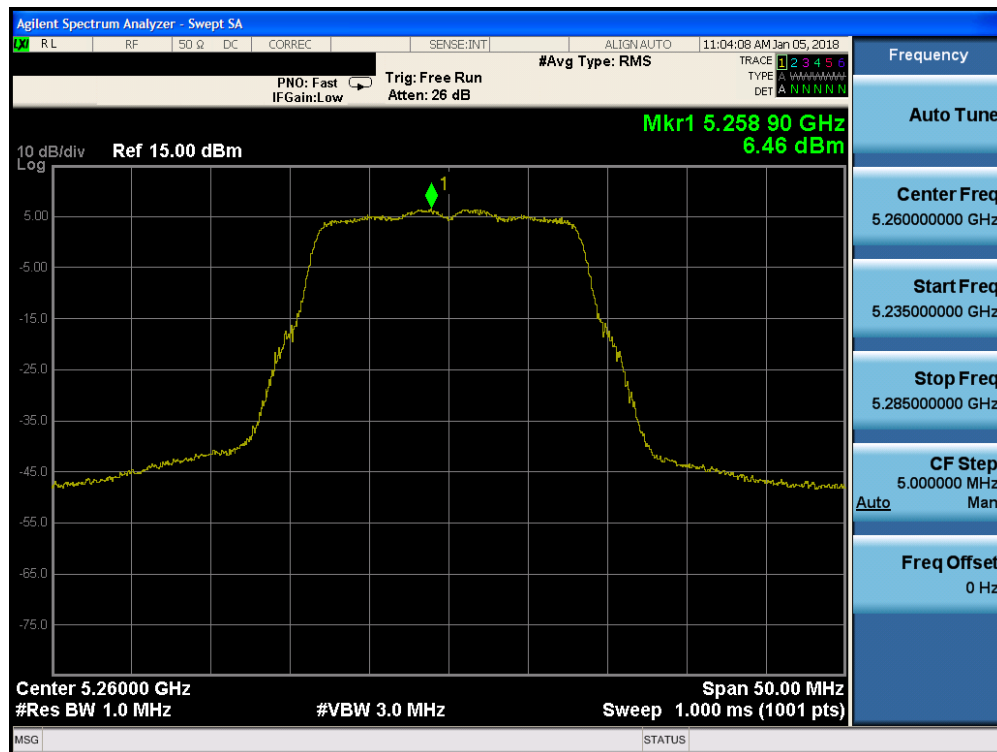


Plot 7-136. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 1) – Ch. 46)

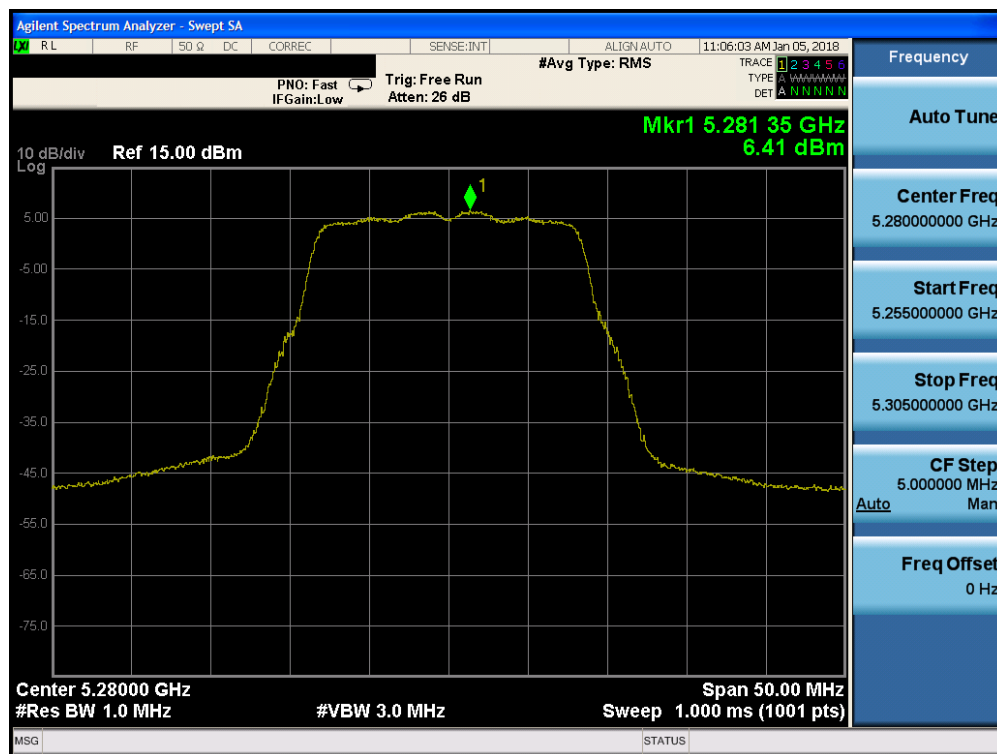


Plot 7-137. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 1) – Ch. 42)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 102 of 298 |

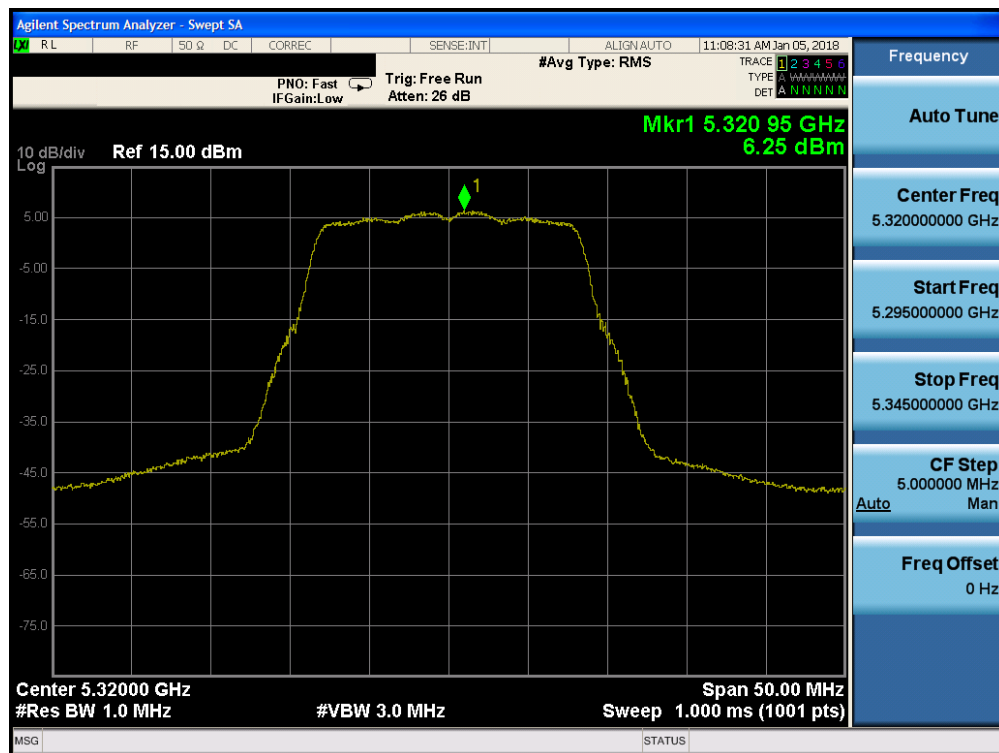


Plot 7-138. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2A) – Ch. 52)

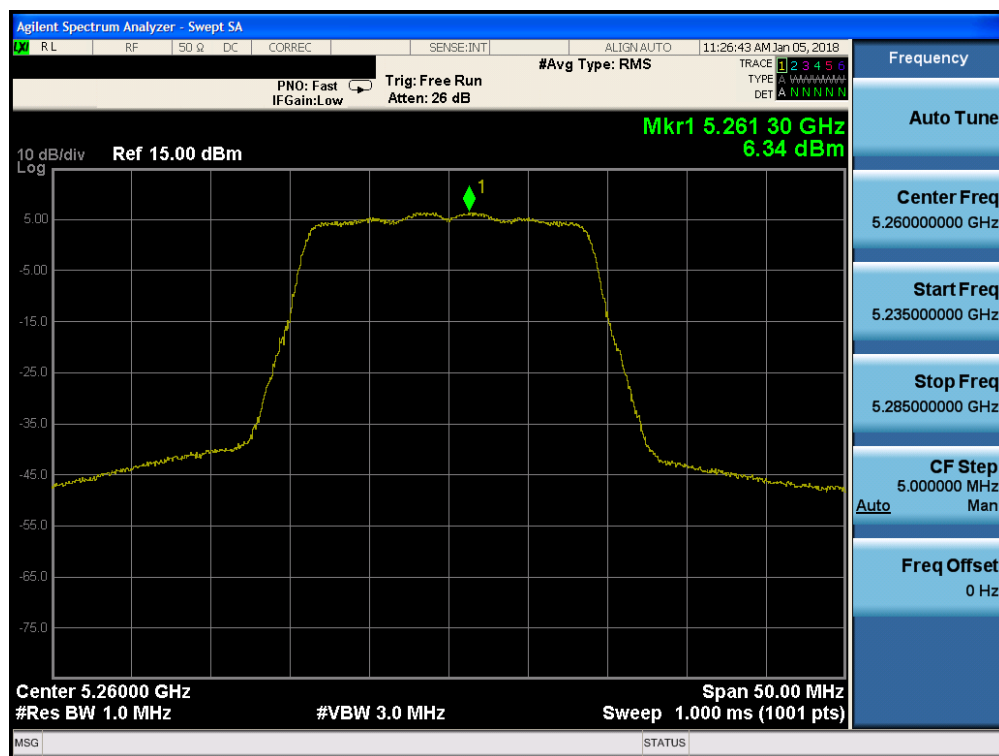


Plot 7-139. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2A) – Ch. 56)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 103 of 298 |

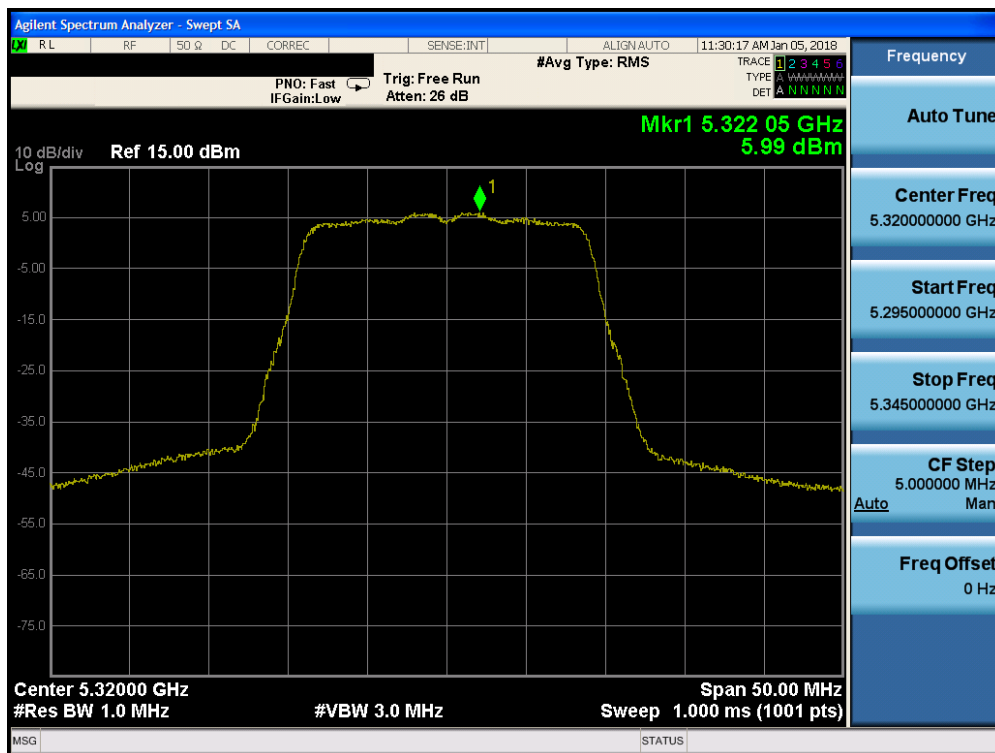


Plot 7-140. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2A) – Ch. 64)

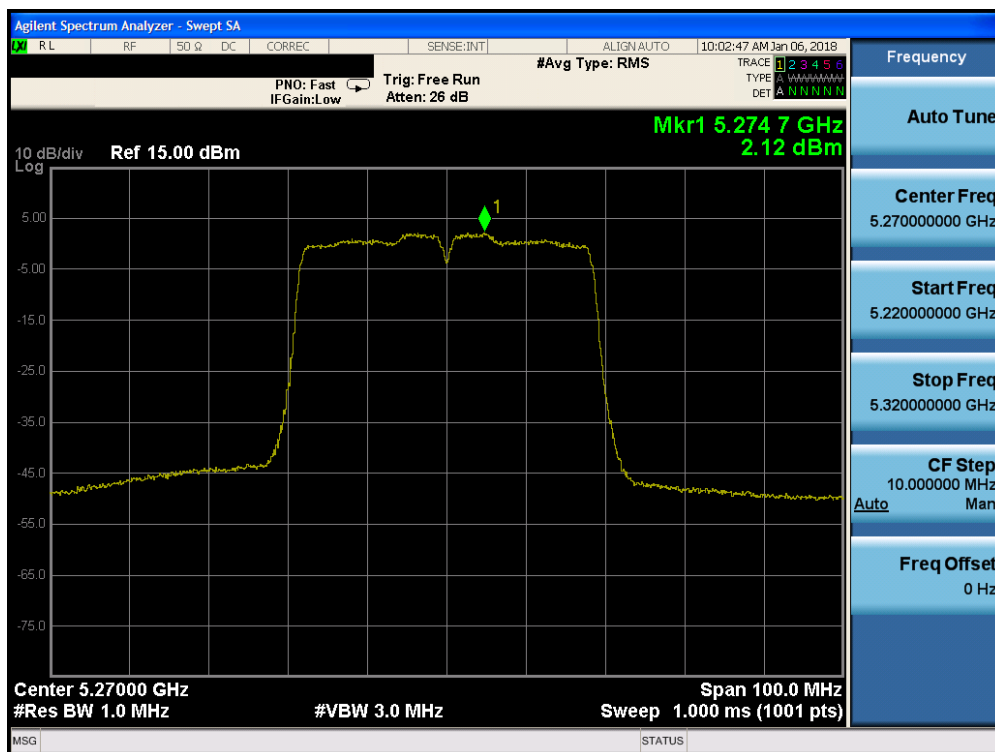


Plot 7-141. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2A) – Ch. 52)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 104 of 298 |

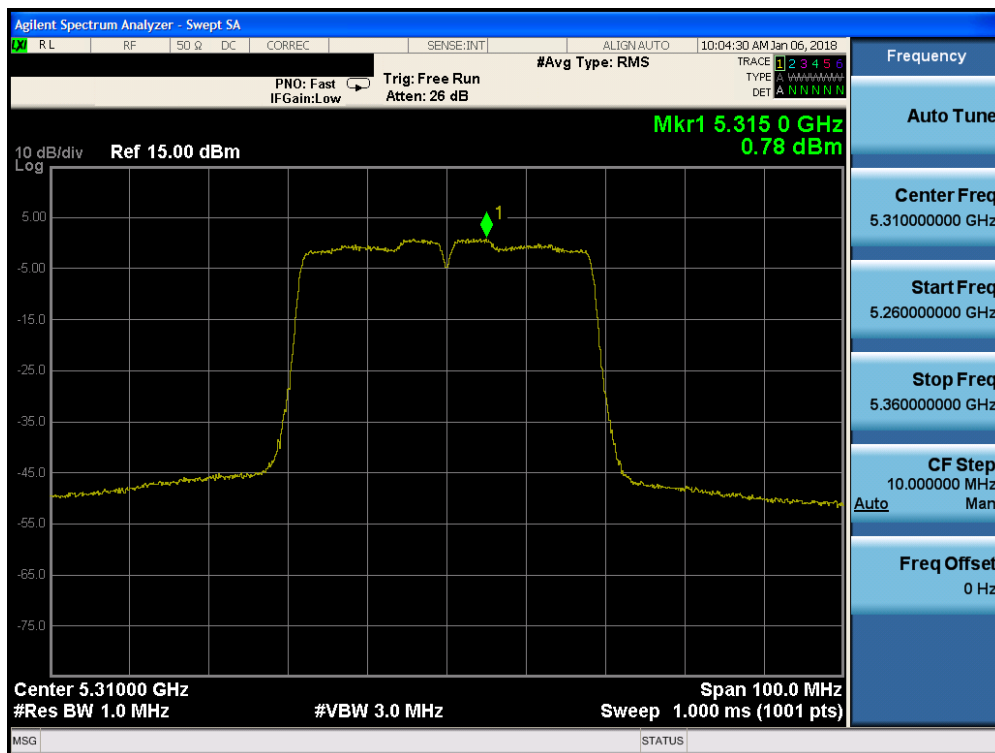


Plot 7-144. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2A) – Ch. 64)

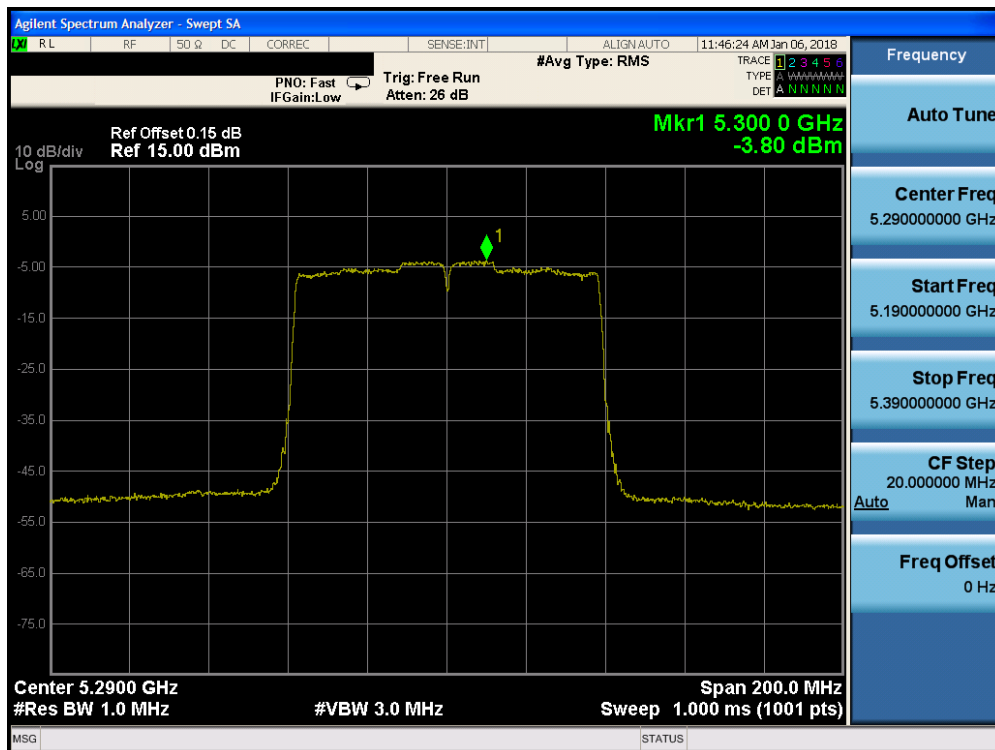


Plot 7-145. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2A) – Ch. 54)

| | | | |
|---|---|-----------------------------------|--|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 106 of 298 |

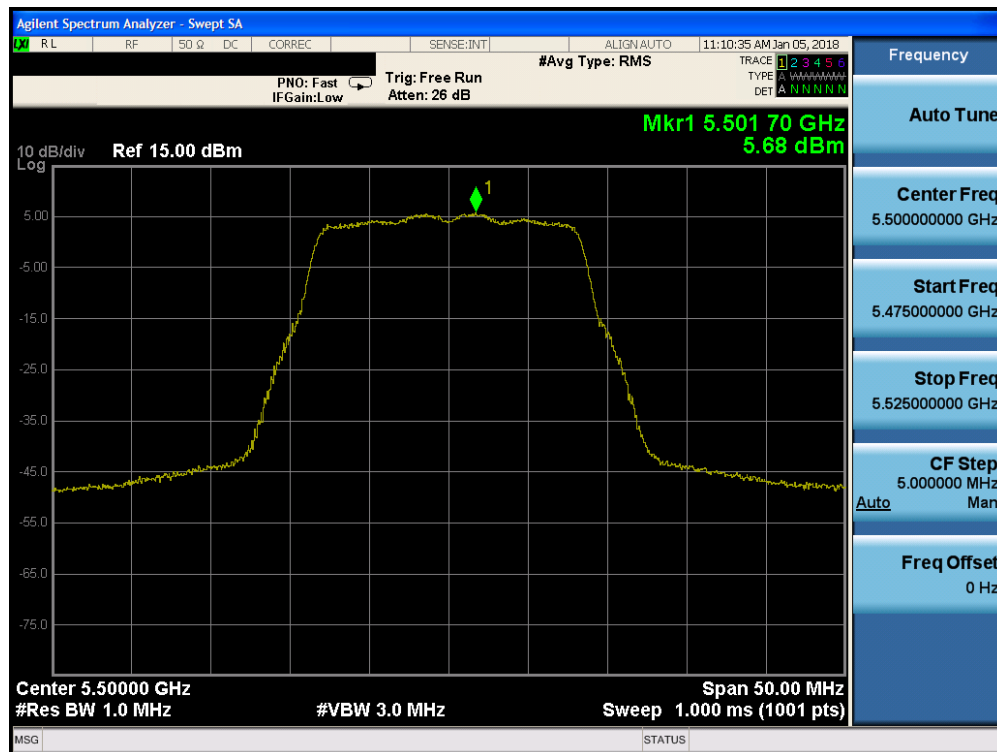


Plot 7-146. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2A) – Ch. 62)

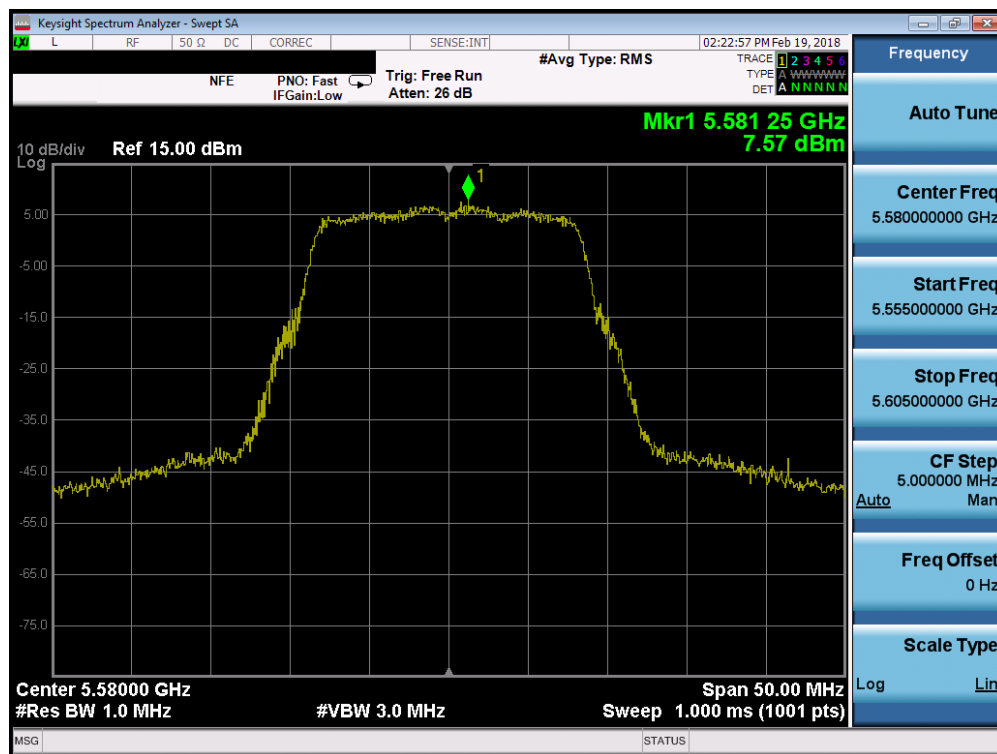


Plot 7-147. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 2A) – Ch. 58)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 107 of 298 |

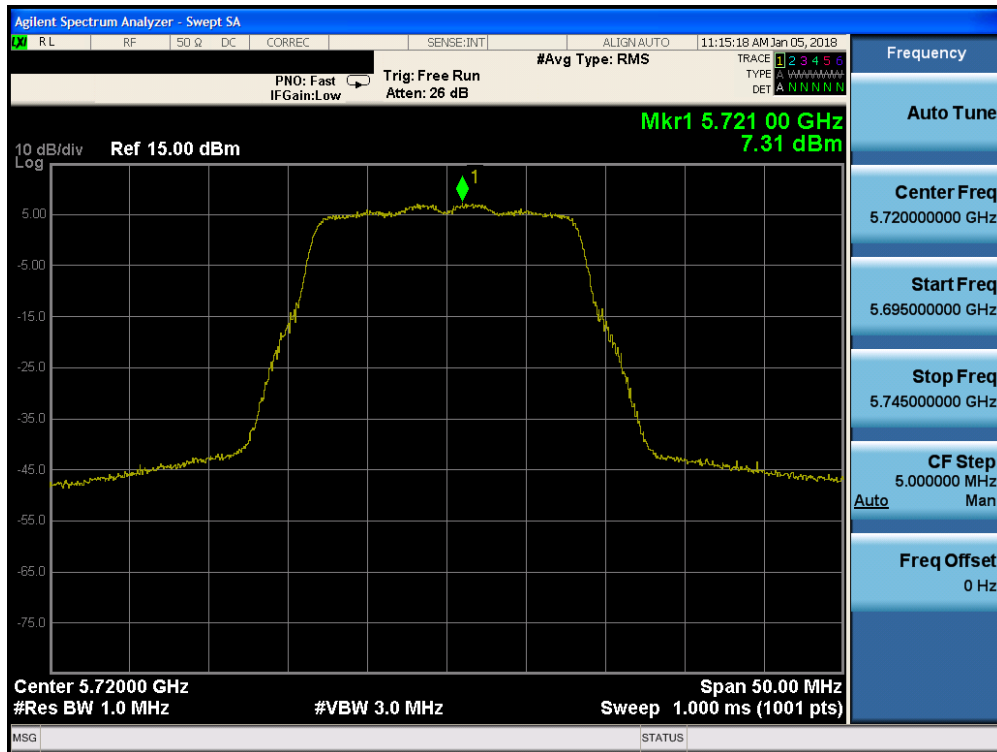


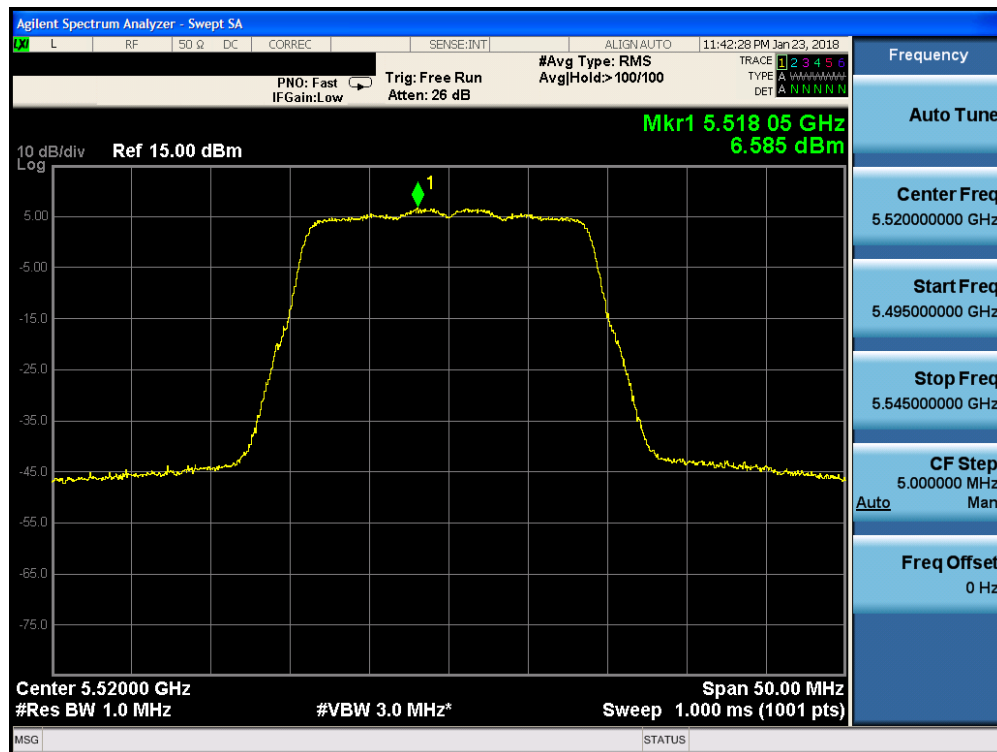
Plot 7-148. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2C) – Ch. 100)



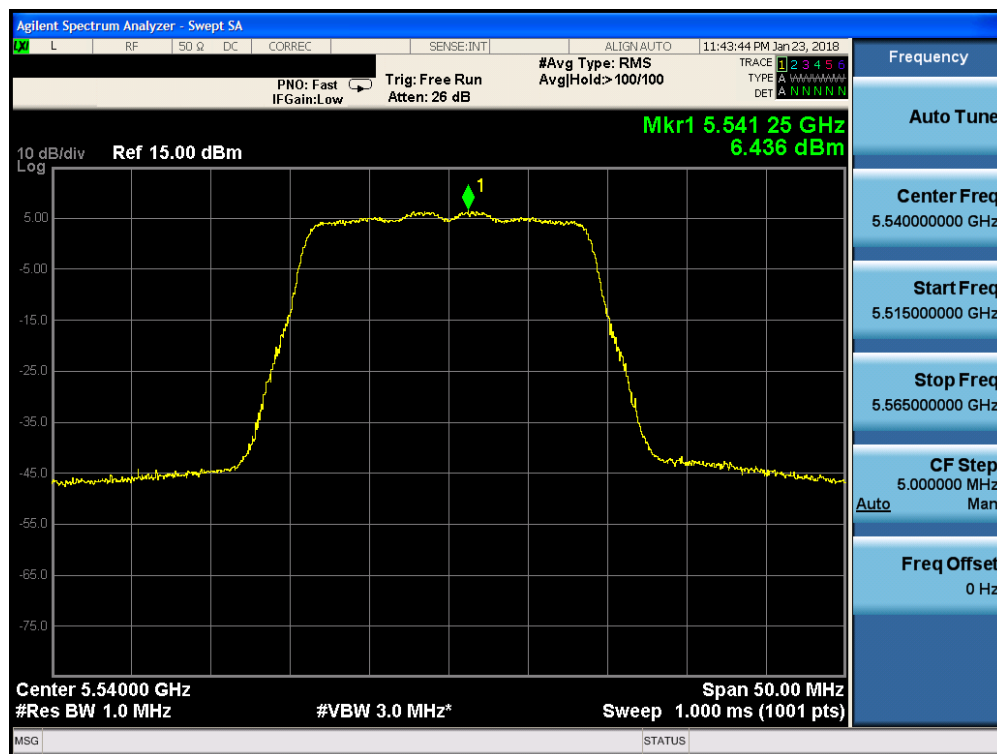
Plot 7-149. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2C) – Ch. 116)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 108 of 298 |



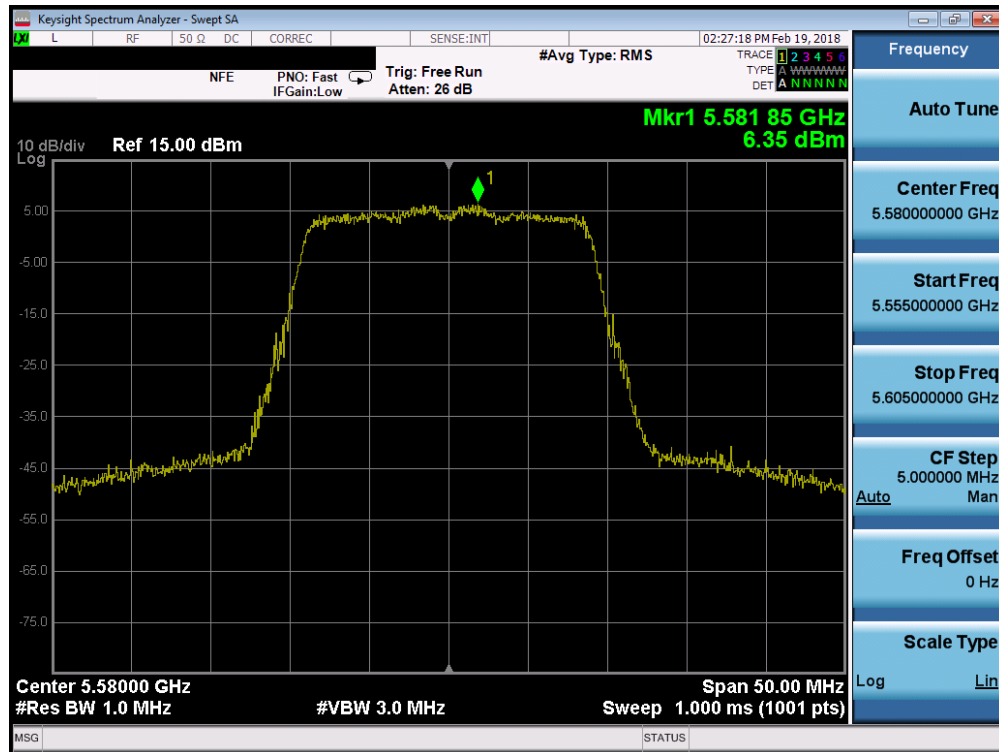


Plot 7-152. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) – Ch. 104)

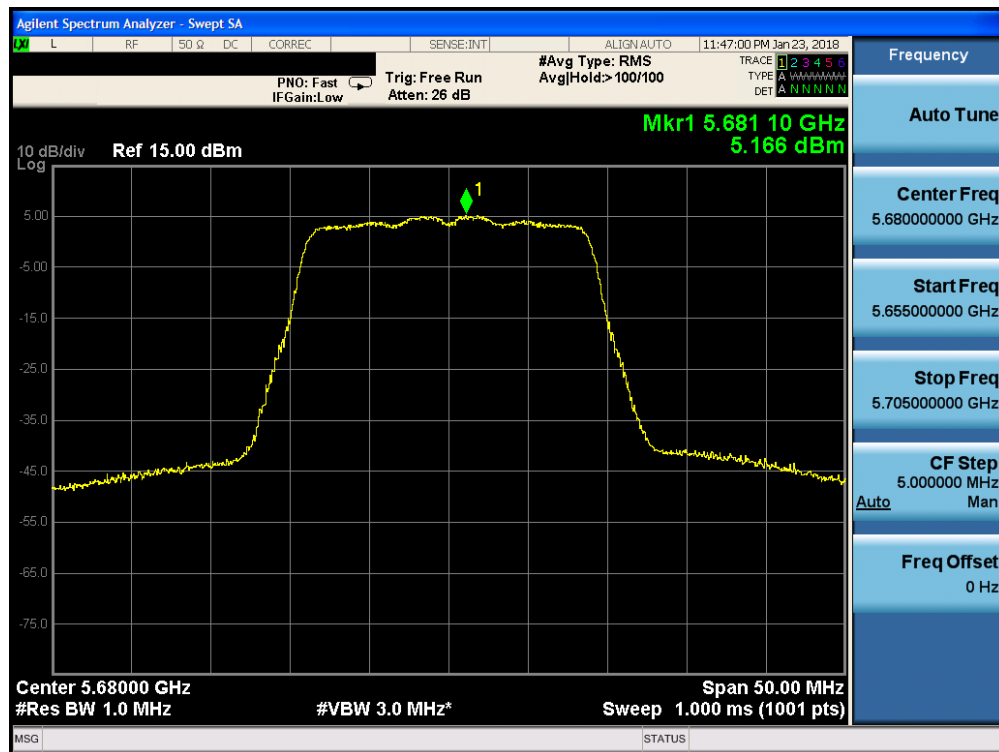


Plot 7-153. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) – Ch. 108)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 110 of 298 |

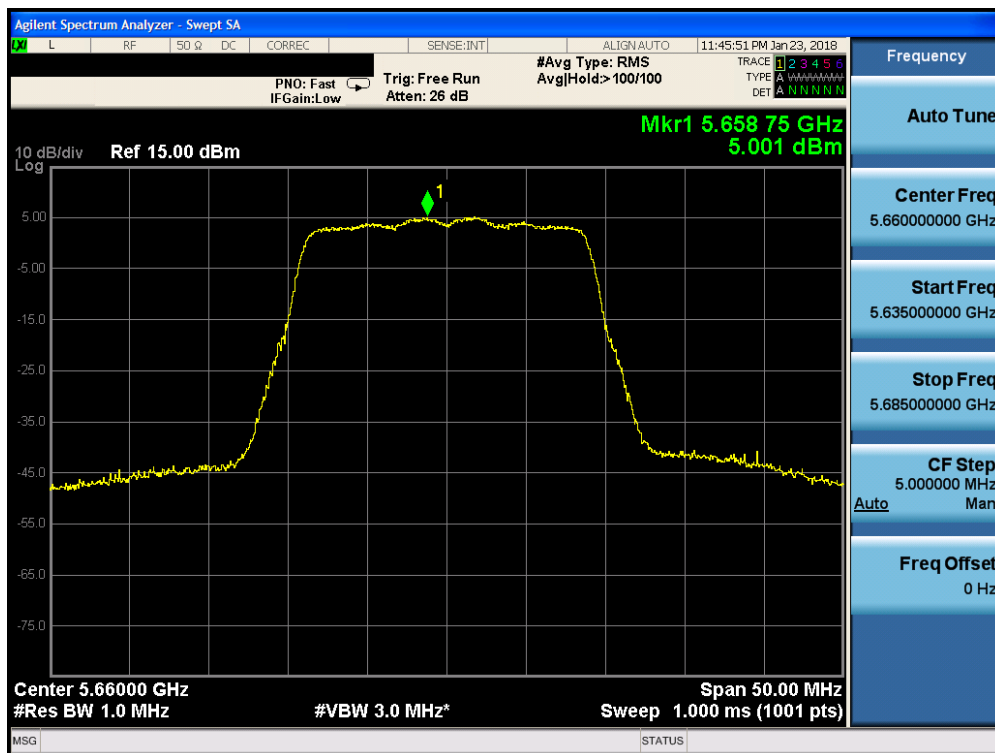


Plot 7-154. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) – Ch. 116)

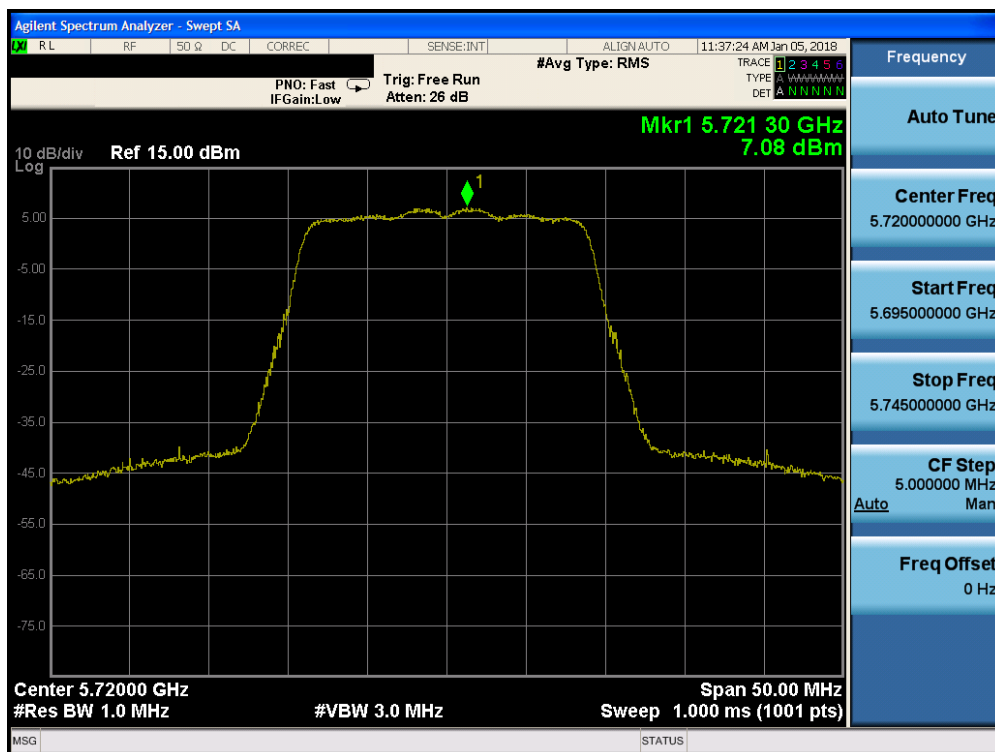


Plot 7-155. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) – Ch. 132)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 111 of 298 |

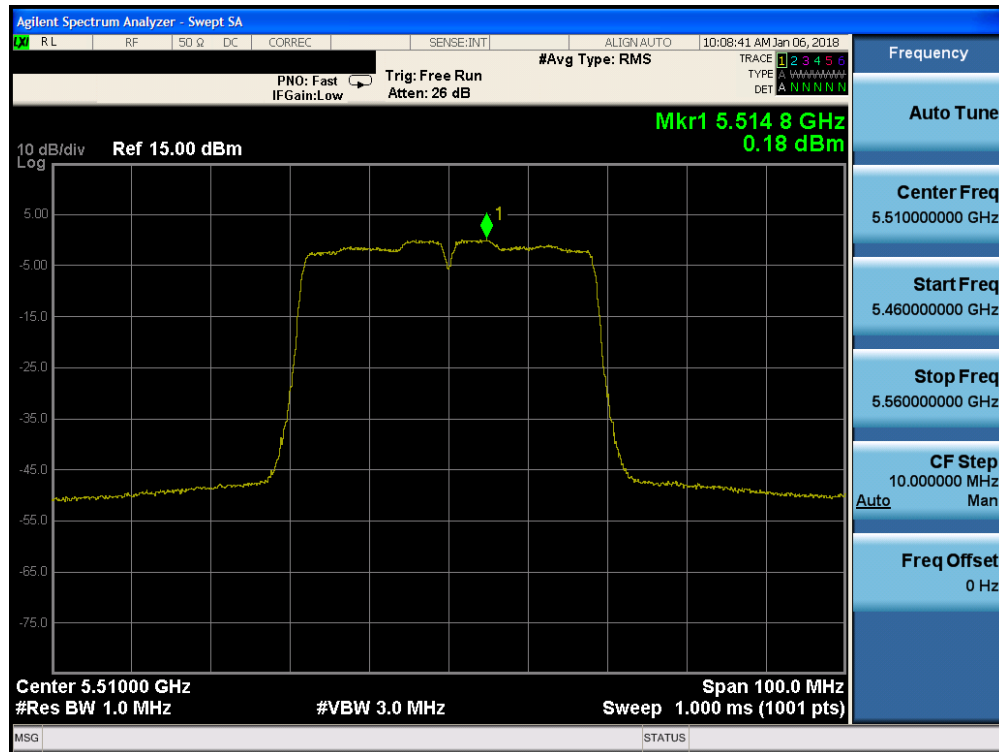


Plot 7-156. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) – Ch. 136)

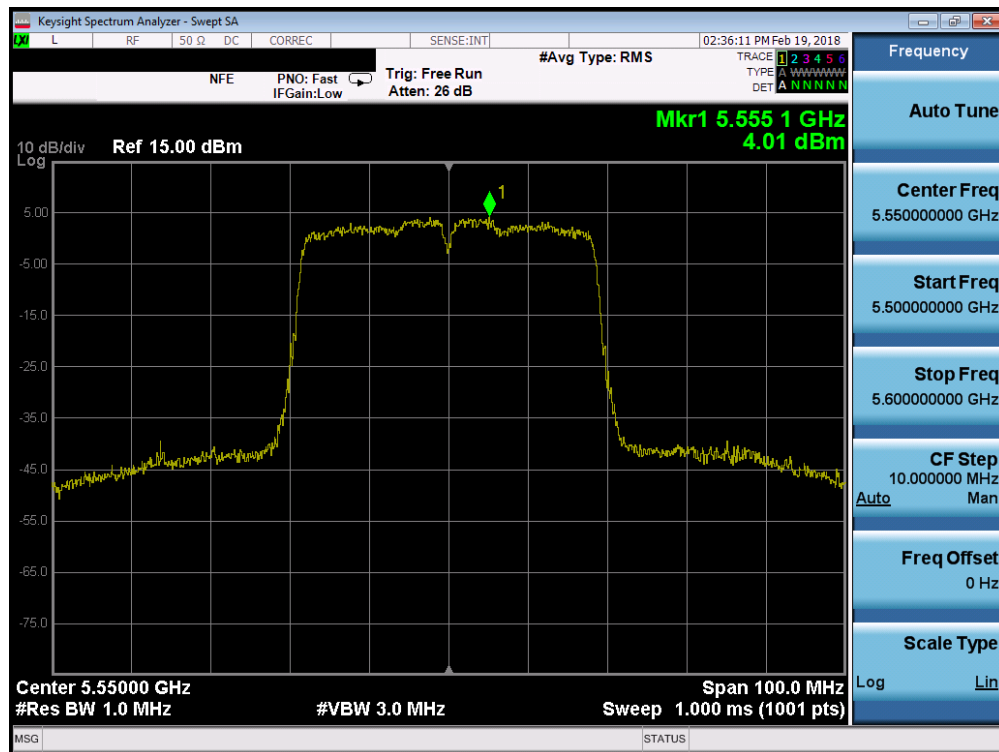


Plot 7-157. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) – Ch. 144)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 112 of 298 |

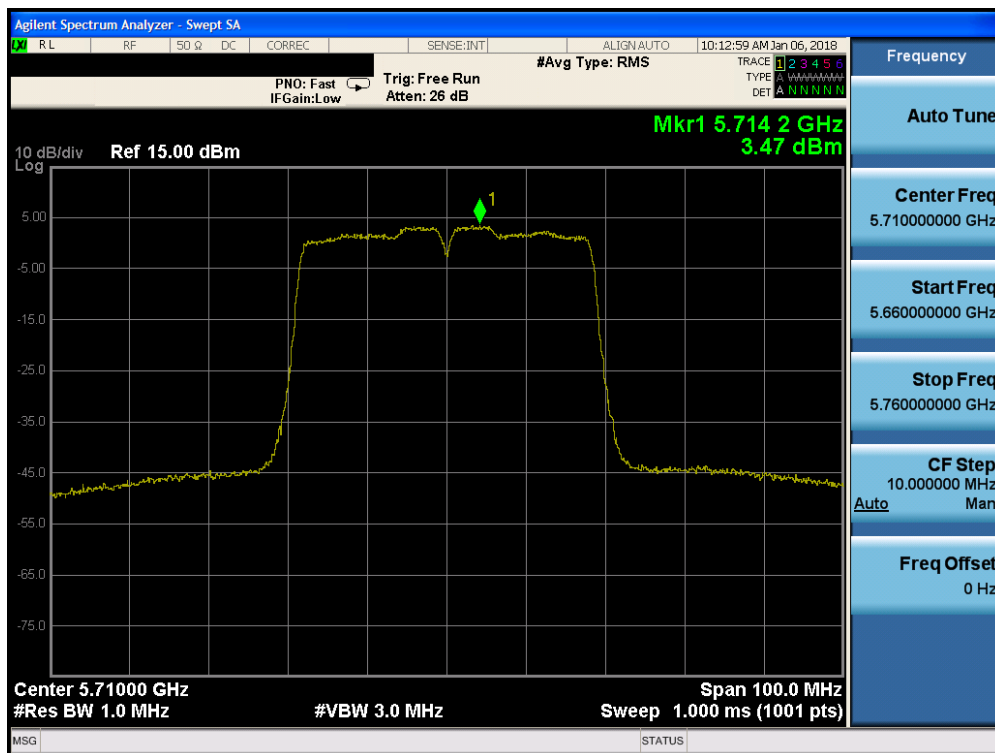


Plot 7-158. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2C) – Ch. 102)

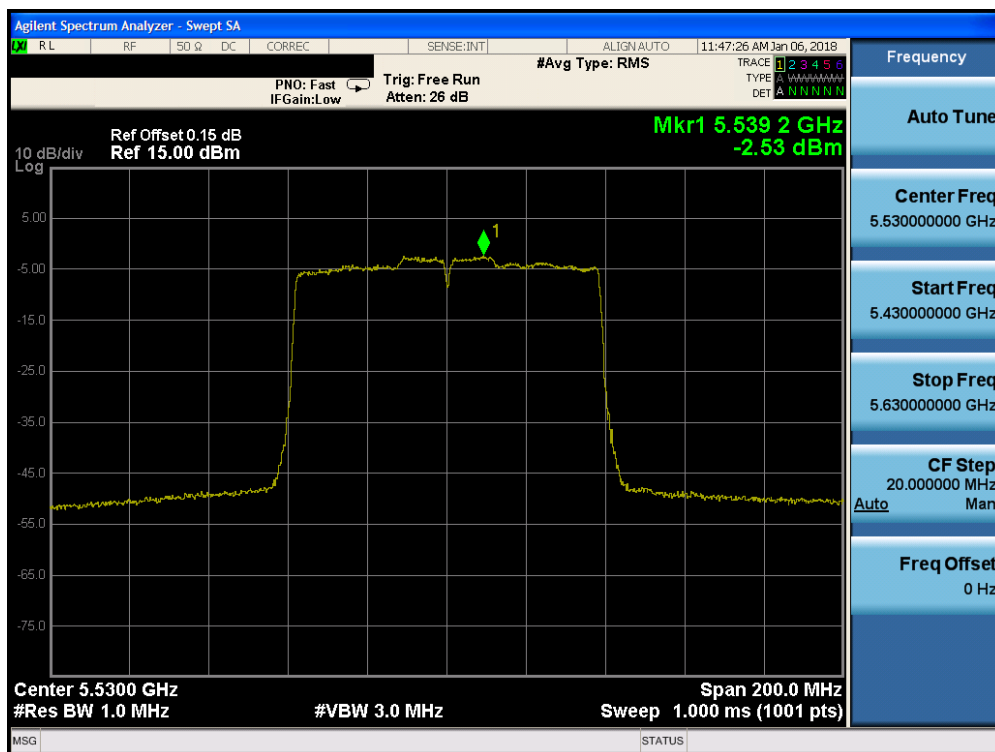


Plot 7-159. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2C) – Ch. 110)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 113 of 298 |

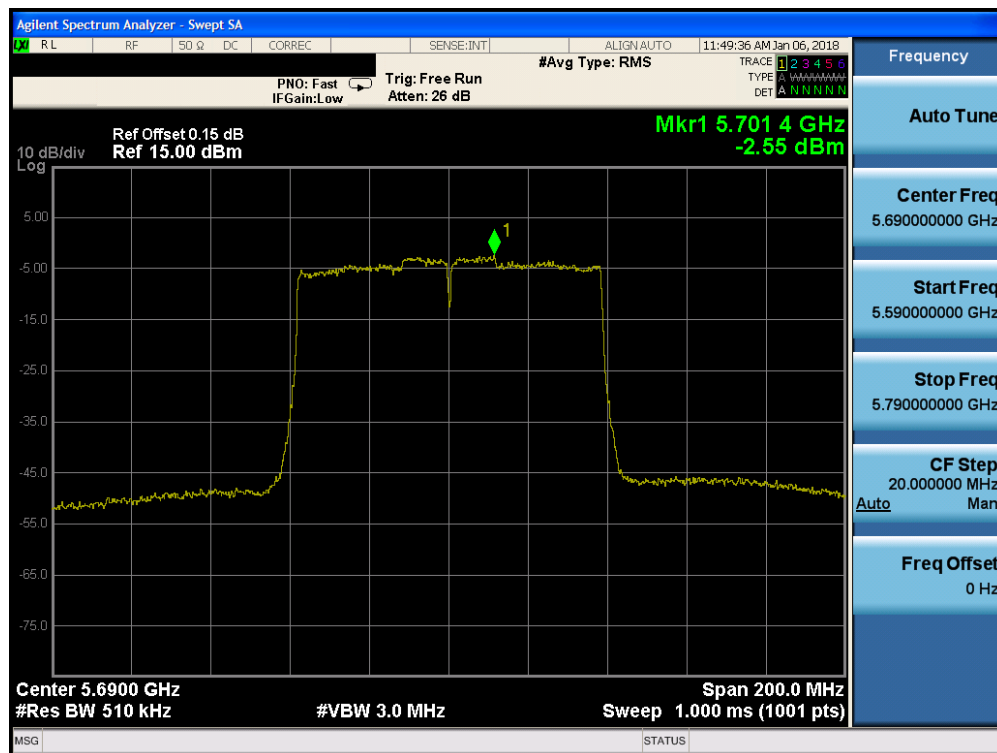


Plot 7-160. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2C) – Ch. 142)



Plot 7-161. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 2C) – Ch. 106)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 114 of 298 |



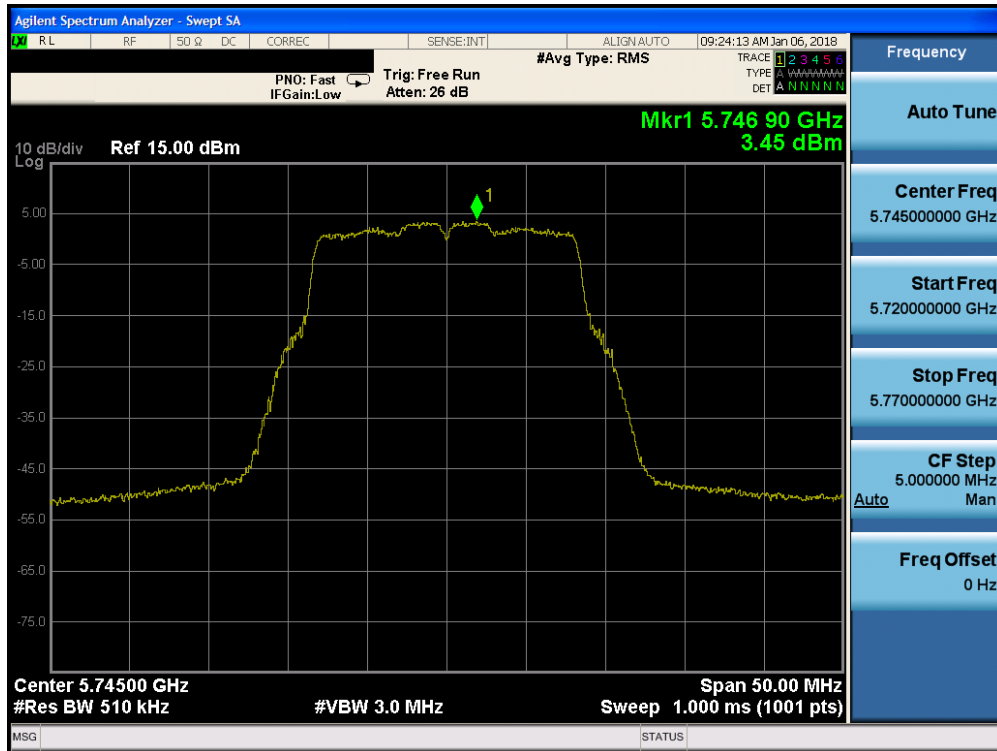
Plot 7-162. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 2C) – Ch. 138)

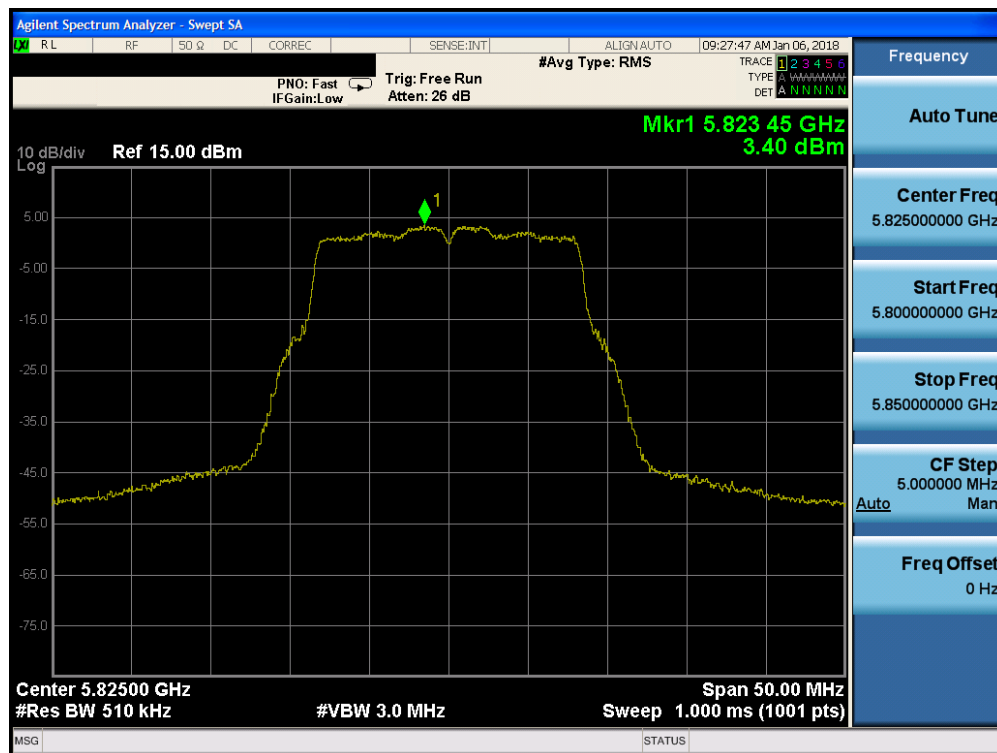
| | | | |
|---|---|--|--|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 115 of 298 |

| | Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured Power Density [dBm] | Max Permissible Power Density [dBm/500kHz] | Margin [dB] |
|--------|-----------------|-------------|-------------|------------------|------------------------------|--|-------------|
| Band 3 | 5745 | 149 | a | 6 | 3.45 | 30.0 | -26.55 |
| | 5785 | 157 | a | 6 | 3.87 | 30.0 | -26.13 |
| | 5825 | 165 | a | 6 | 3.40 | 30.0 | -26.60 |
| | 5745 | 149 | n (20MHz) | 6.5/7.2 (MCS0) | 4.07 | 30.0 | -25.93 |
| | 5785 | 157 | n (20MHz) | 6.5/7.2 (MCS0) | 3.62 | 30.0 | -26.38 |
| | 5825 | 165 | n (20MHz) | 6.5/7.2 (MCS0) | 3.29 | 30.0 | -26.71 |
| | 5755 | 151 | n (40MHz) | 13.5/15 (MCS0) | -0.54 | 30.0 | -30.54 |
| | 5795 | 159 | n (40MHz) | 13.5/15 (MCS0) | -0.97 | 30.0 | -30.97 |
| | 5775 | 155 | ac (80MHz) | 29.3/32.5 (MCS0) | 0.24 | 30.0 | -29.76 |

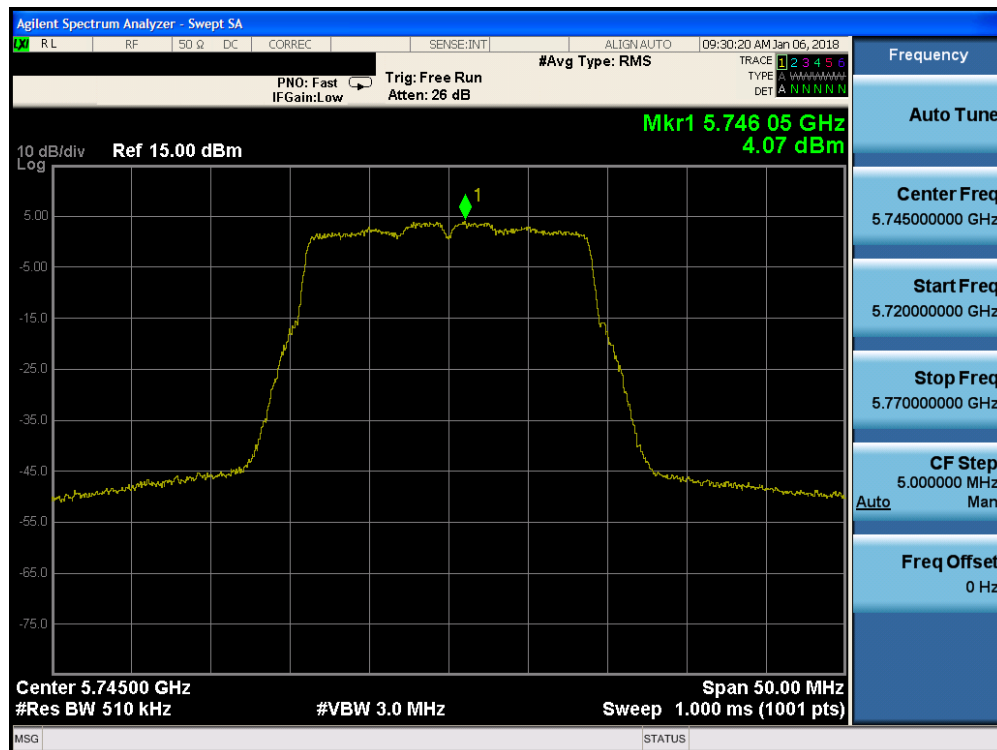
Table 7-28. Band 3 Conducted Power Spectral Density Measurements SISO ANT1

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 116 of 298 |



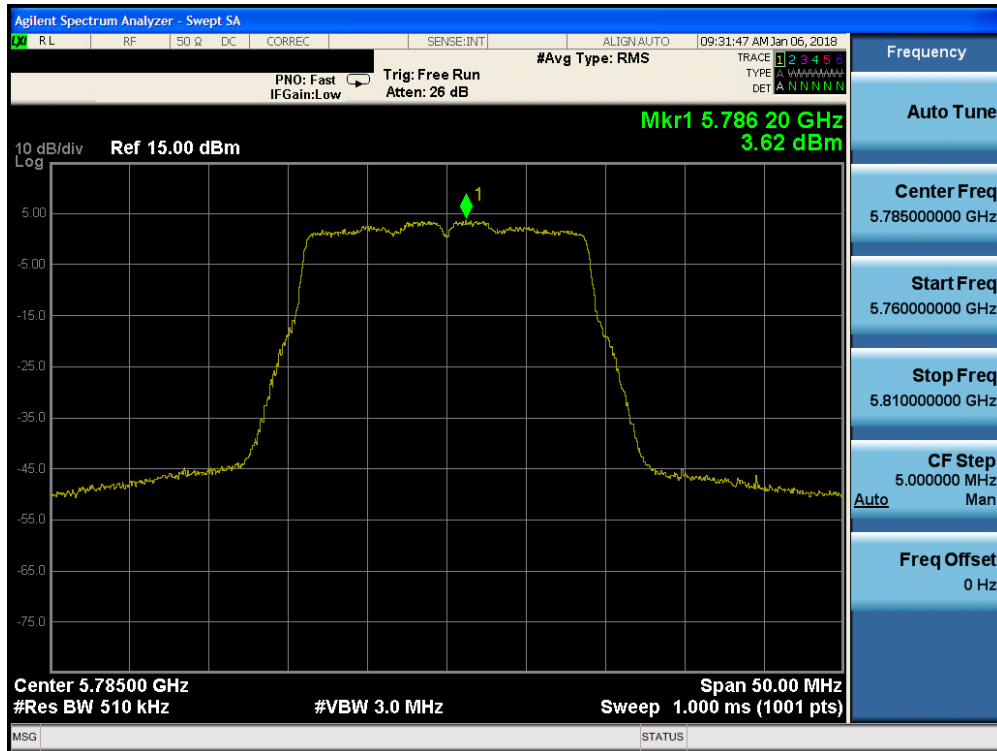


Plot 7-165. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 3) – Ch. 165)

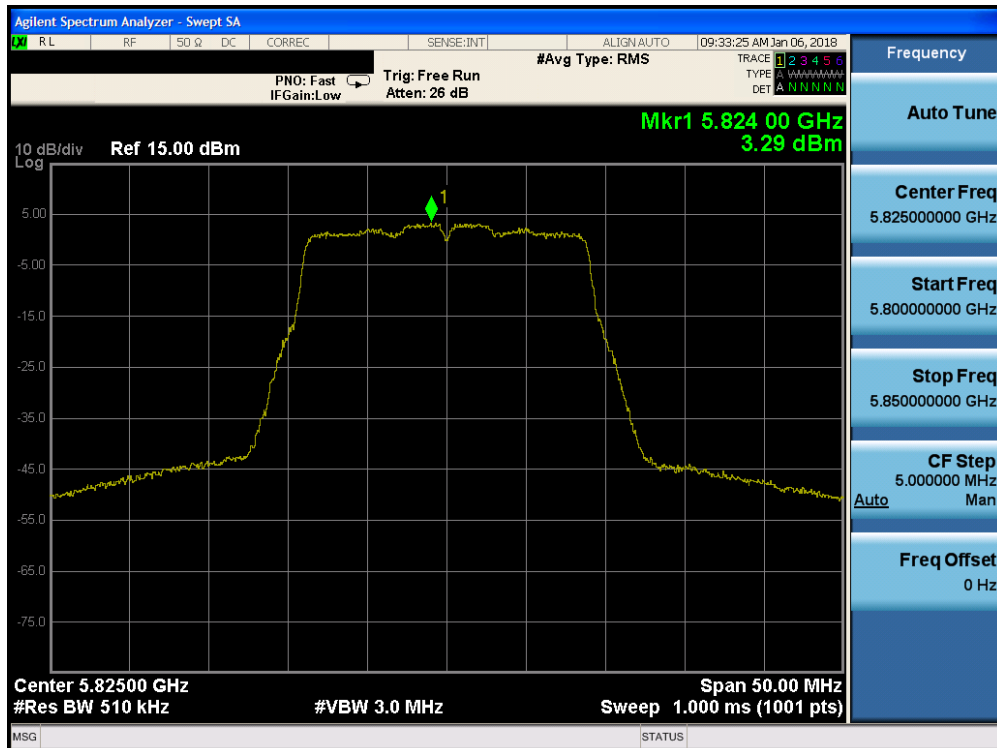


Plot 7-166. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 3) – Ch. 149)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 118 of 298 |

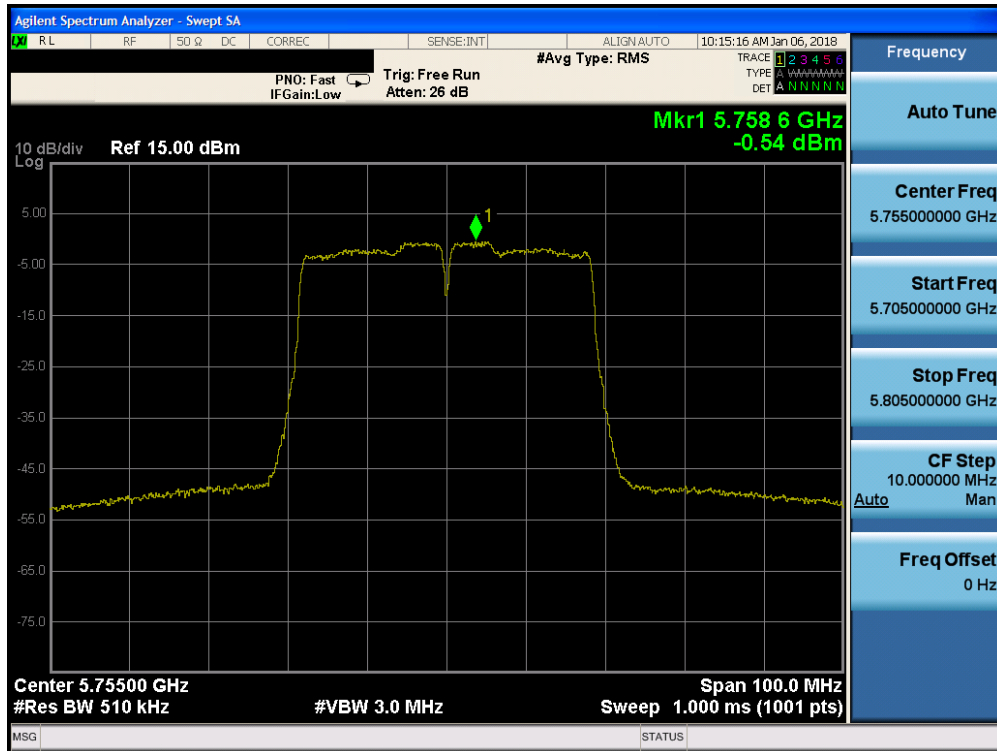


Plot 7-167. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 3) – Ch. 157)

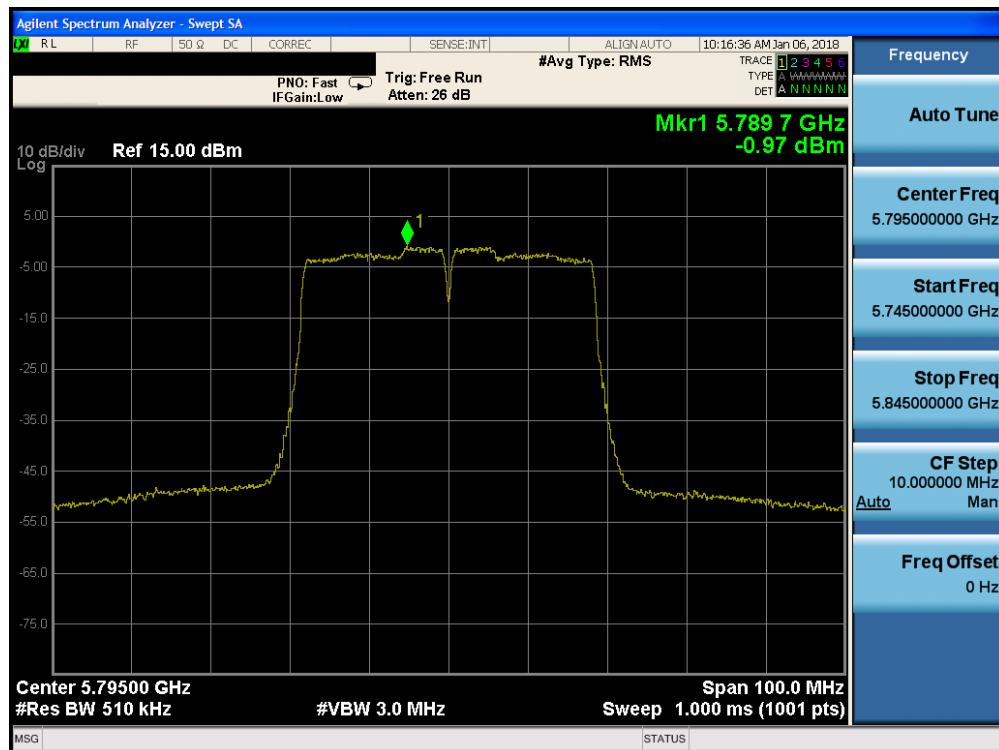


Plot 7-168. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 3) – Ch. 165)

| | | | |
|---|---|-----------------------------------|--|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 119 of 298 |

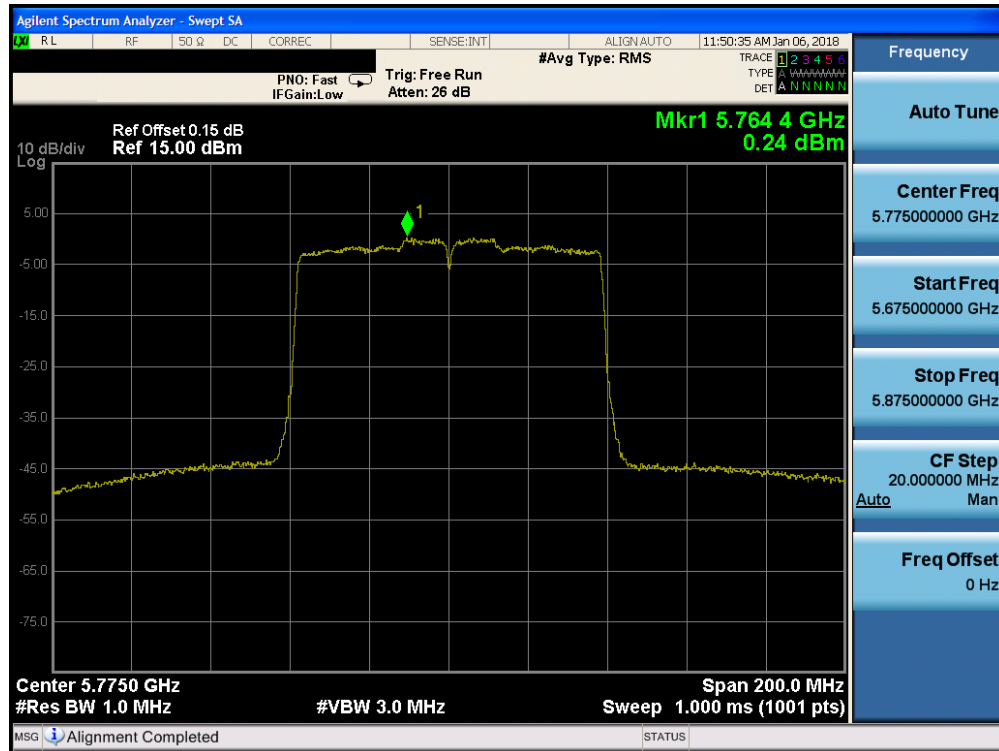


Plot 7-169. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 3) – Ch. 151)



Plot 7-170. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 3) – Ch. 159)

| | | | |
|---|---|-----------------------------------|--|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 120 of 298 |



Plot 7-171. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 3) – Ch. 155)

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 121 of 298 |

Antenna-2 Power Spectral Density Measurements

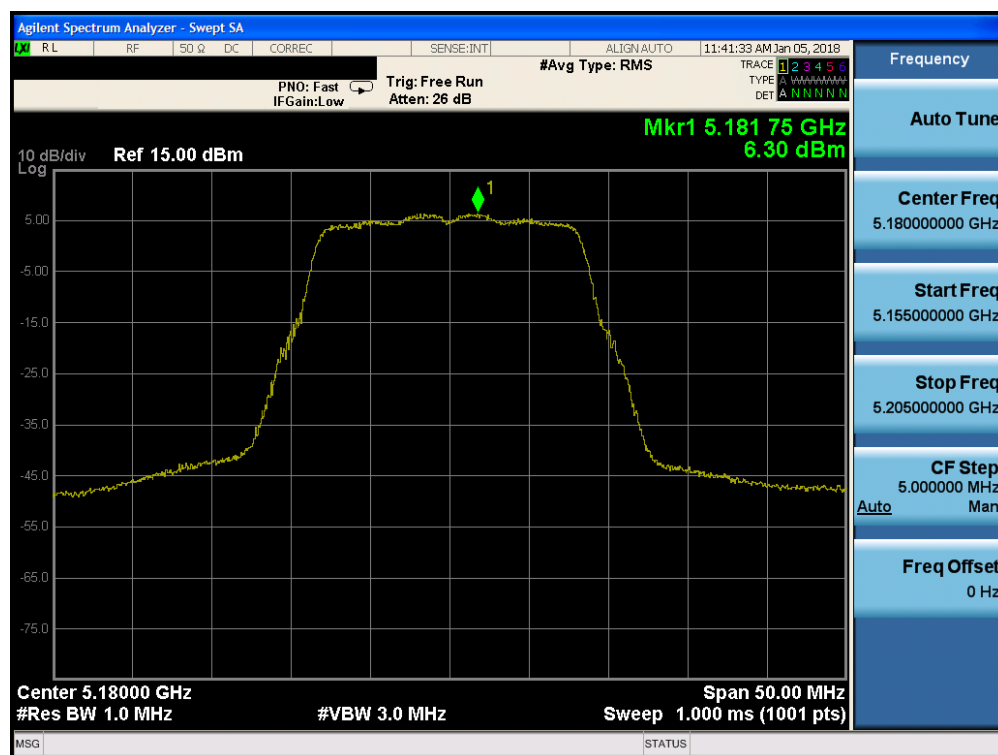
| | Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured Power Density [dBm] | Antenna Gain [dBi] | Max Power Density [dBm/MHz] | Margin [dB] |
|---------|-----------------|-------------|-------------|------------------|------------------------------|--------------------|-----------------------------|-------------|
| Band 1 | 5180 | 36 | a | 6 | 6.30 | 2.6 | 11.0 | -4.70 |
| | 5200 | 40 | a | 6 | 7.10 | 2.6 | 11.0 | -3.91 |
| | 5240 | 48 | a | 6 | 7.17 | 2.6 | 11.0 | -3.84 |
| | 5180 | 36 | n (20MHz) | 6.5/7.2 (MCS0) | 6.07 | 2.6 | 11.0 | -4.93 |
| | 5200 | 40 | n (20MHz) | 6.5/7.2 (MCS0) | 6.56 | 2.6 | 11.0 | -4.44 |
| | 5240 | 48 | n (20MHz) | 6.5/7.2 (MCS0) | 7.09 | 2.6 | 11.0 | -3.91 |
| | 5190 | 38 | n (40MHz) | 13.5/15 (MCS0) | 0.42 | 2.6 | 11.0 | -10.58 |
| | 5230 | 46 | n (40MHz) | 13.5/15 (MCS0) | 2.62 | 2.6 | 11.0 | -8.38 |
| | 5210 | 42 | ac (80MHz) | 29.3/32.5 (MCS0) | -2.86 | 2.6 | 11.0 | -13.86 |
| Band 2A | 5260 | 52 | a | 6 | 7.45 | 2.8 | 11.0 | -3.55 |
| | 5280 | 56 | a | 6 | 7.30 | 2.8 | 11.0 | -3.70 |
| | 5320 | 64 | a | 6 | 6.39 | 2.8 | 11.0 | -4.61 |
| | 5260 | 52 | n (20MHz) | 6.5/7.2 (MCS0) | 7.21 | 2.8 | 11.0 | -3.79 |
| | 5280 | 56 | n (20MHz) | 6.5/7.2 (MCS0) | 7.30 | 2.8 | 11.0 | -3.70 |
| | 5320 | 64 | n (20MHz) | 6.5/7.2 (MCS0) | 6.18 | 2.8 | 11.0 | -4.82 |
| | 5270 | 54 | n (40MHz) | 13.5/15 (MCS0) | 3.13 | 2.8 | 11.0 | -7.87 |
| | 5310 | 62 | n (40MHz) | 13.5/15 (MCS0) | 0.83 | 2.8 | 11.0 | -10.17 |
| | 5290 | 58 | ac (80MHz) | 29.3/32.5 (MCS0) | -3.76 | 2.8 | 11.0 | -14.76 |
| Band 2C | 5500 | 100 | a | 6 | 5.53 | 3.2 | 11.0 | -5.47 |
| | 5580 | 116 | a | 6 | 5.73 | 3.2 | 11.0 | -5.27 |
| | 5720 | 144 | a | 6 | 6.13 | 3.2 | 11.0 | -4.87 |
| | 5500 | 100 | n (20MHz) | 6.5/7.2 (MCS0) | 5.55 | 3.2 | 11.0 | -5.46 |
| | 5580 | 116 | n (20MHz) | 6.5/7.2 (MCS0) | 5.75 | 3.2 | 11.0 | -5.25 |
| | 5680 | 136 | n (20MHz) | 6.5/7.2 (MCS0) | 5.10 | 3.2 | 11.0 | -5.90 |
| | 5720 | 144 | n (20MHz) | 6.5/7.2 (MCS0) | 5.78 | 3.2 | 11.0 | -5.22 |
| | 5510 | 102 | n (40MHz) | 13.5/15 (MCS0) | 0.01 | 3.2 | 11.0 | -10.99 |
| | 5550 | 110 | n (40MHz) | 13.5/15 (MCS0) | 3.89 | 3.2 | 11.0 | -7.11 |
| | 5710 | 142 | n (40MHz) | 13.5/15 (MCS0) | 2.22 | 3.2 | 11.0 | -8.78 |
| | 5530 | 106 | ac (80MHz) | 29.3/32.5 (MCS0) | -2.68 | 3.2 | 11.0 | -13.68 |
| | 5690 | 138 | ac (80MHz) | 29.3/32.5 (MCS0) | -3.70 | 3.2 | 11.0 | -14.70 |

Table 7-29. Conducted Power Spectral Density Measurements SISO ANT2

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 122 of 298 |

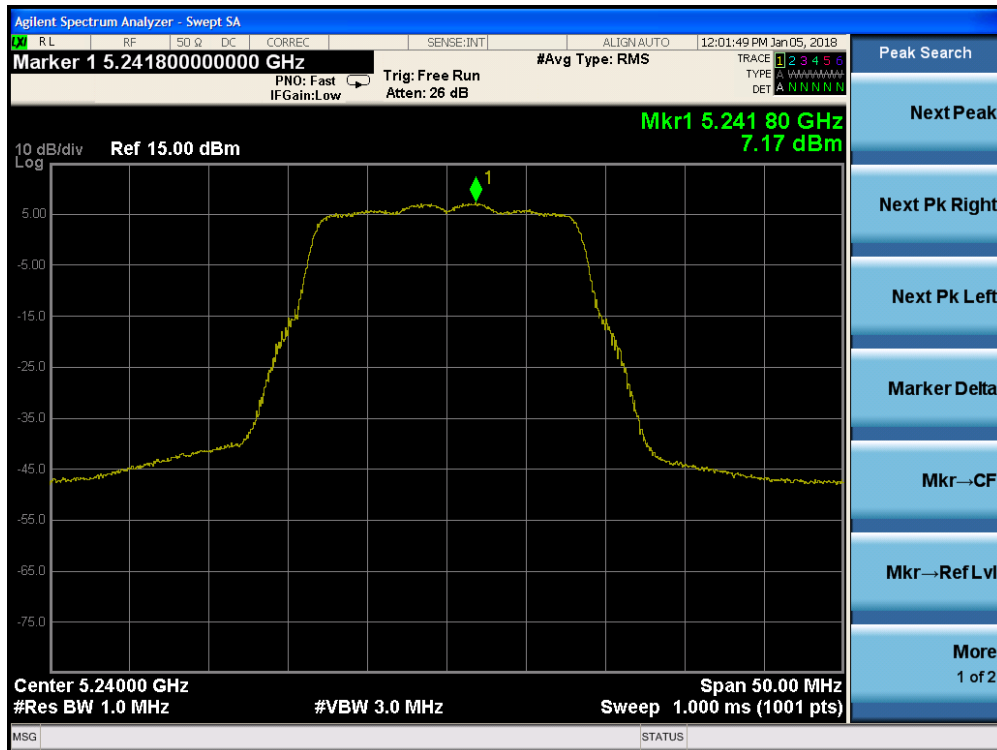
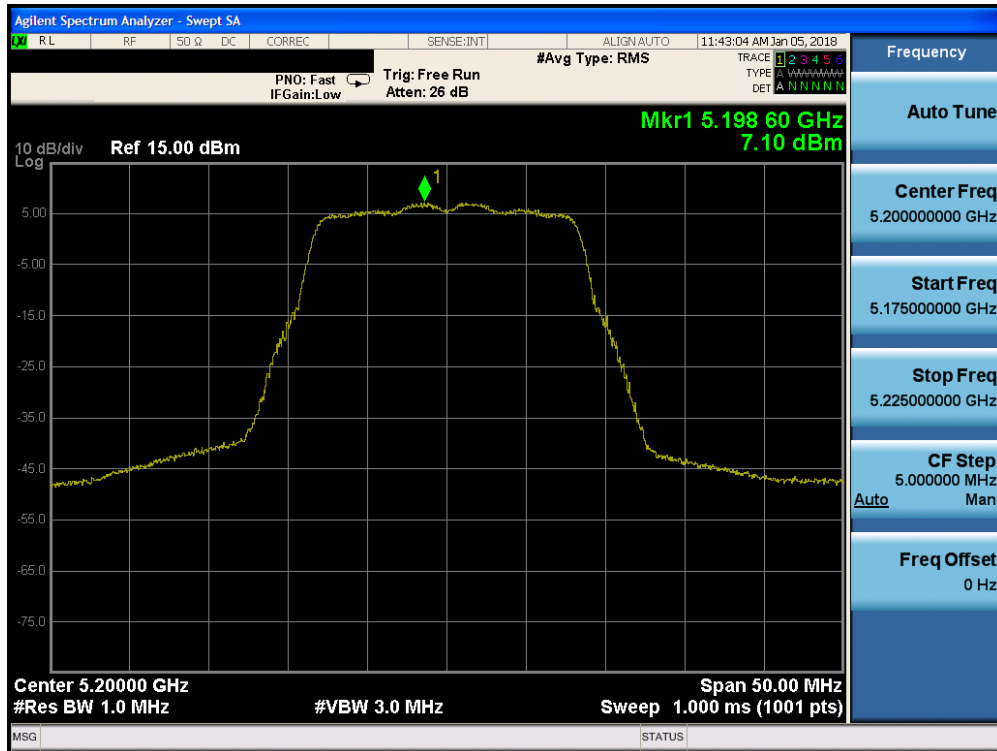
| | Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured Power Density [dBm] | Antenna Gain [dBi] | e.i.r.p. Power Density [dBm/MH] | Max e.i.r.p. Power Density Limit [dBm/MHz] | e.i.r.p. Power Density Margin |
|--------|-----------------|-------------|-------------|------------------|------------------------------|--------------------|---------------------------------|--|-------------------------------|
| Band 1 | 5180 | 36 | a | 6 | 6.30 | 1.3 | 7.57 | 10.0 | -2.43 |
| | 5200 | 40 | a | 6 | 7.10 | 1.3 | 8.37 | 10.0 | -1.64 |
| | 5240 | 48 | a | 6 | 7.17 | 1.3 | 8.44 | 10.0 | -1.57 |
| | 5180 | 36 | n (20MHz) | 6.5/7.2 (MCS0) | 6.07 | 1.3 | 7.34 | 10.0 | -2.66 |
| | 5200 | 40 | n (20MHz) | 6.5/7.2 (MCS0) | 6.56 | 1.3 | 7.83 | 10.0 | -2.17 |
| | 5240 | 48 | n (20MHz) | 6.5/7.2 (MCS0) | 7.09 | 1.3 | 8.36 | 10.0 | -1.64 |
| | 5190 | 38 | n (40MHz) | 13.5/15 (MCS0) | 0.42 | 1.3 | 1.69 | 10.0 | -8.31 |
| | 5230 | 46 | n (40MHz) | 13.5/15 (MCS0) | 2.62 | 1.3 | 3.89 | 10.0 | -6.11 |
| | 5210 | 42 | ac (80MHz) | 29.3/32.5 (MCS0) | -2.86 | 1.3 | -1.59 | 10.0 | -11.59 |

Table 7-30. Band 1 e.i.r.p. Power Spectral Density Measurements SISO ANT2 (RSS-247)

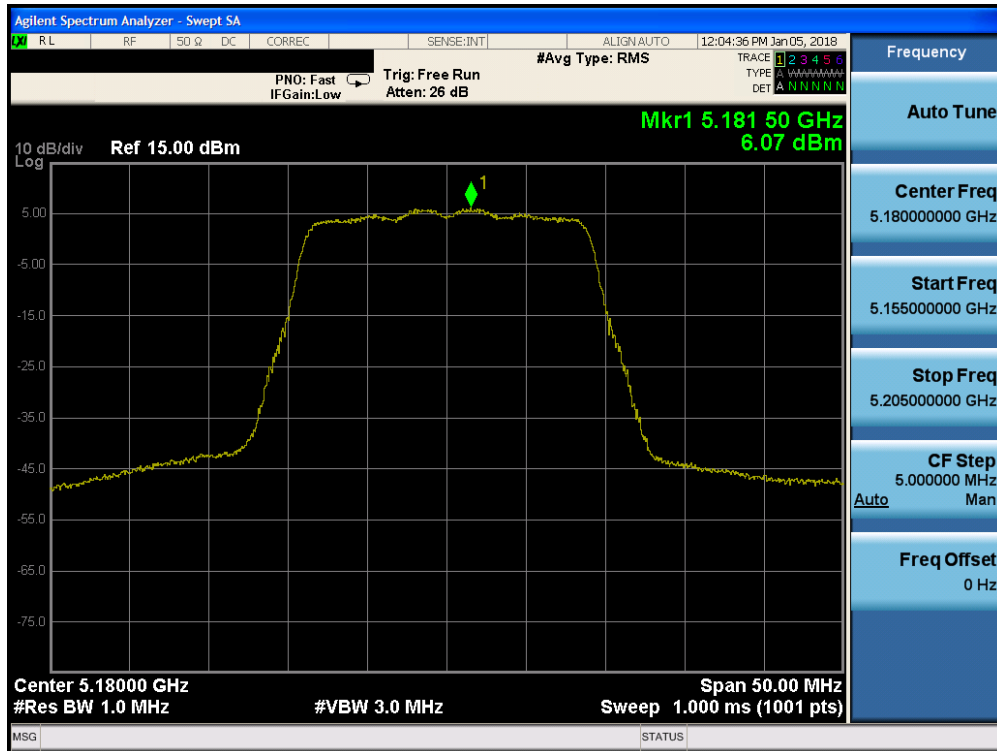


Plot 7-172. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 1) – Ch. 36)

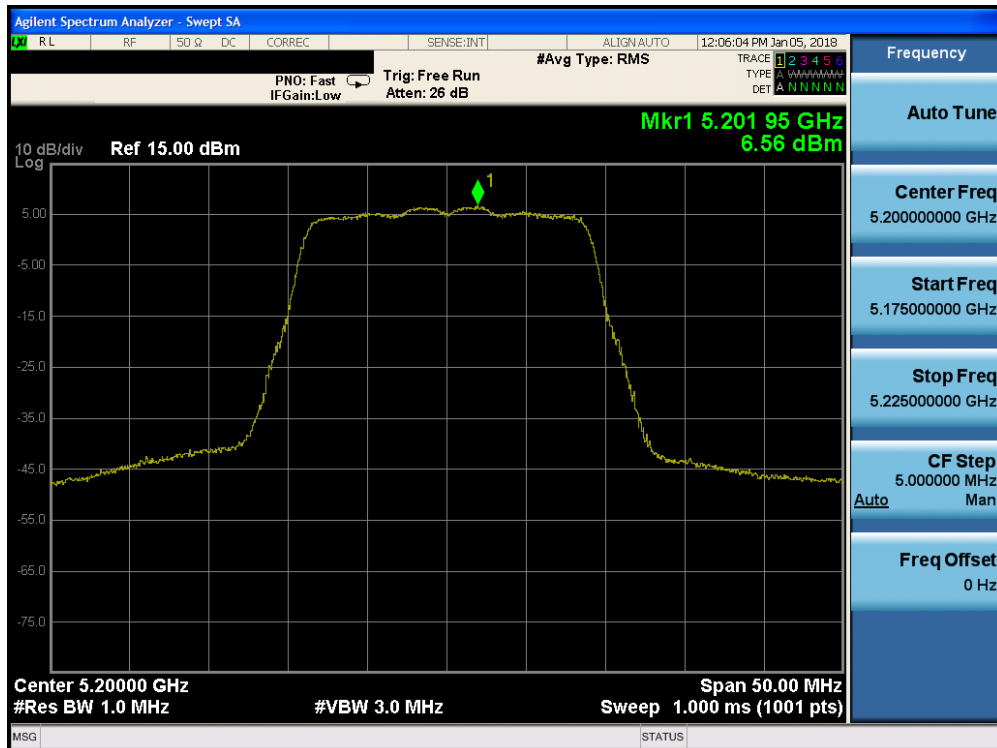
| | | | |
|--|--|----------------------------|---------------------------------|
| FCC ID: BCGA1893 | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 123 of 298 |



| | | | |
|---|---|-----------------------------------|--|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 124 of 298 |

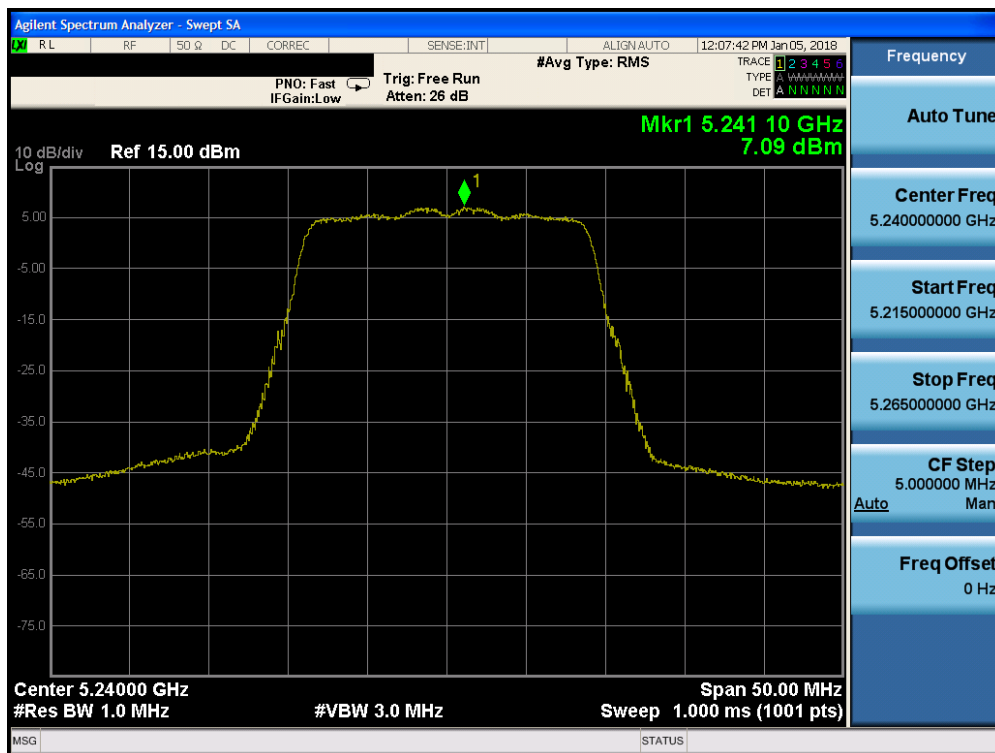


Plot 7-175. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 1) – Ch. 36)

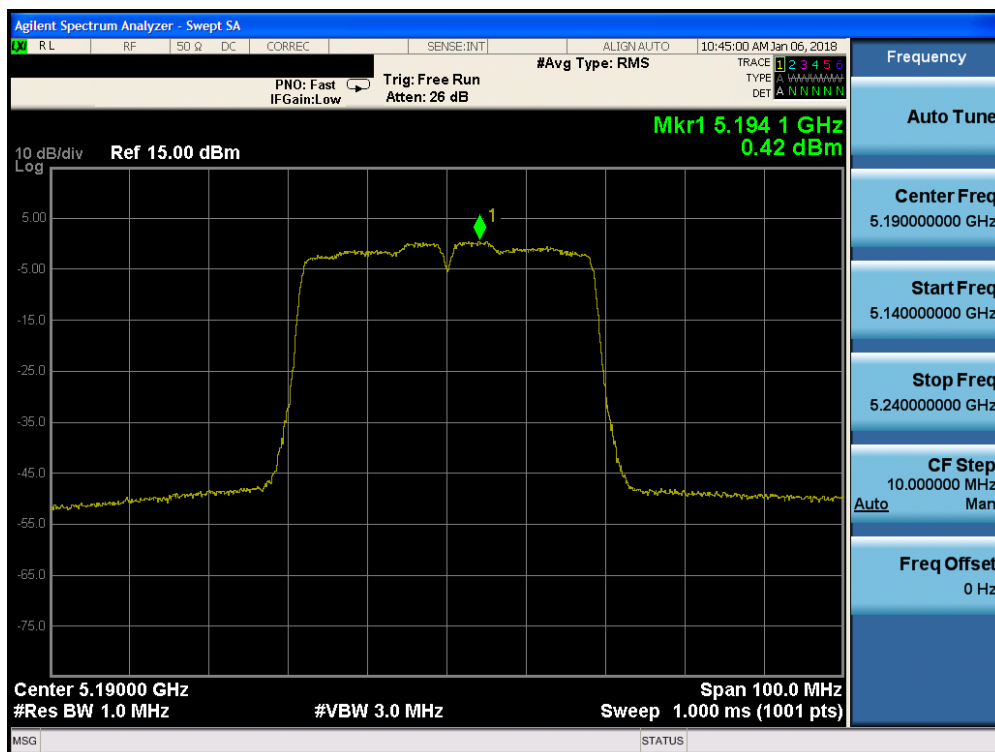


Plot 7-176. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 1) – Ch. 40)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 125 of 298 |

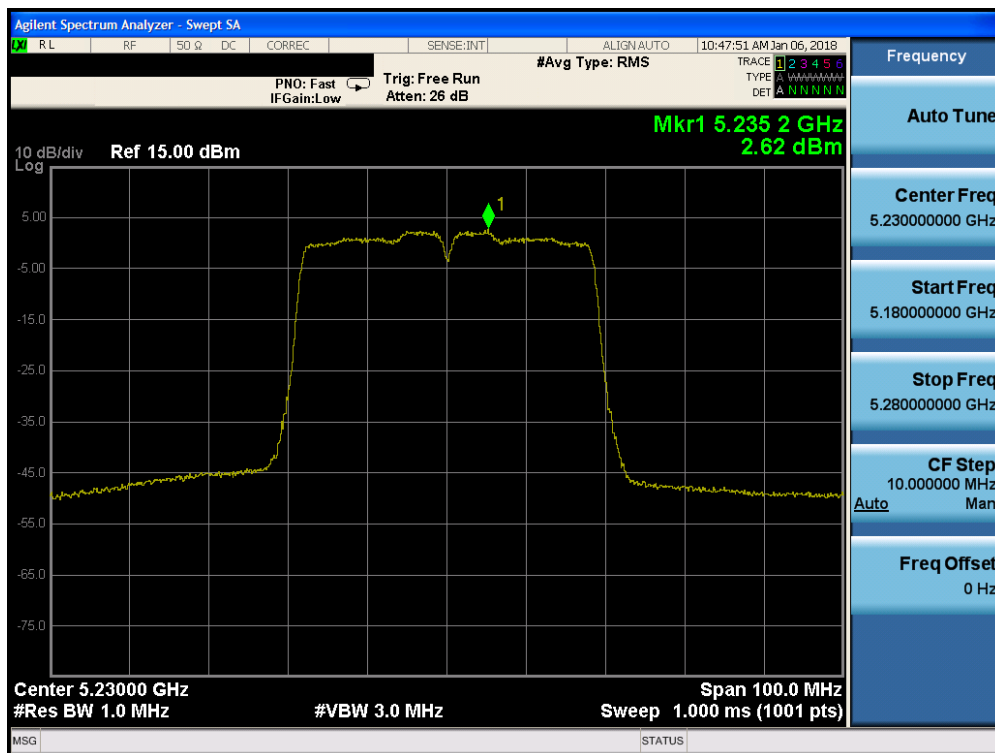


Plot 7-177. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 1) – Ch. 48)

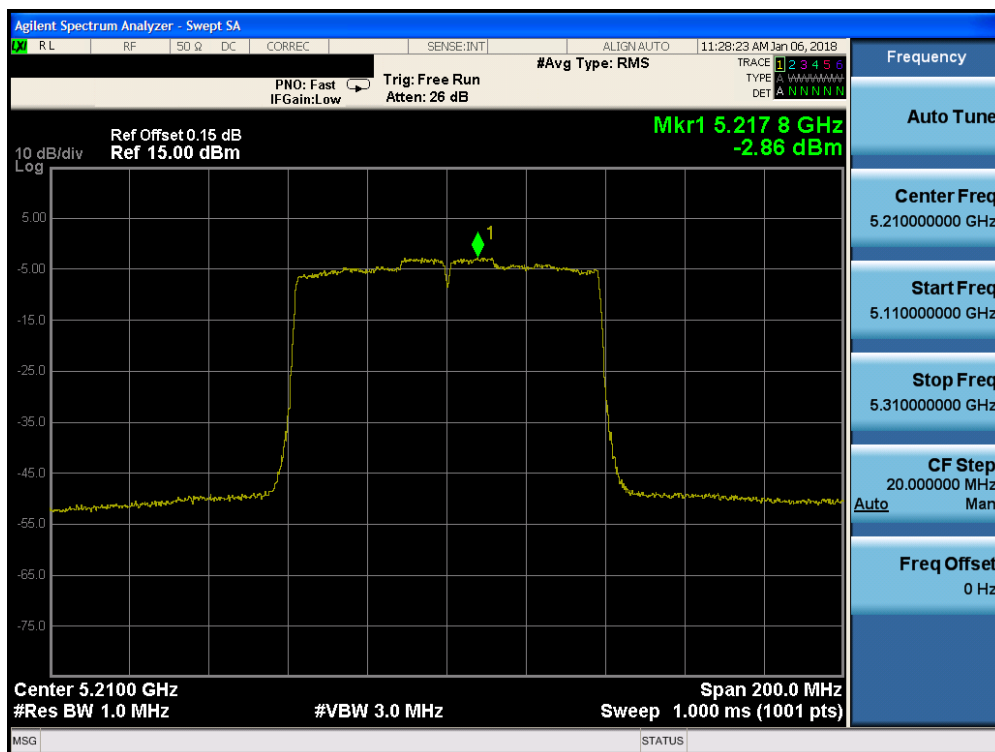


Plot 7-178. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 1) – Ch. 38)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 126 of 298 |

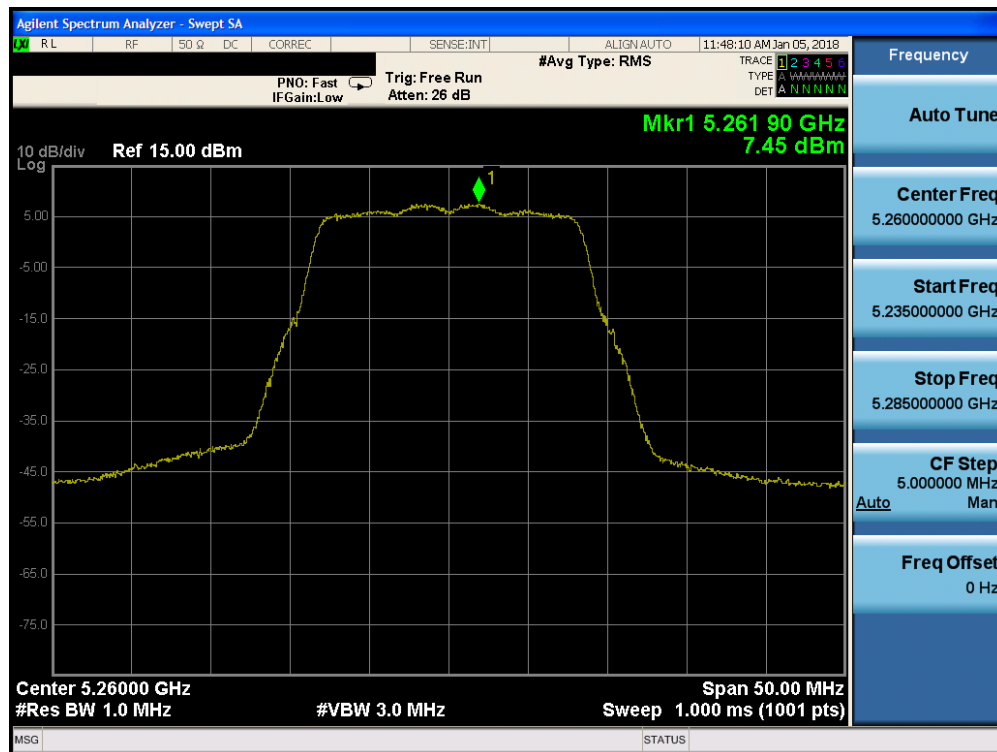


Plot 7-179. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 1) – Ch. 46)

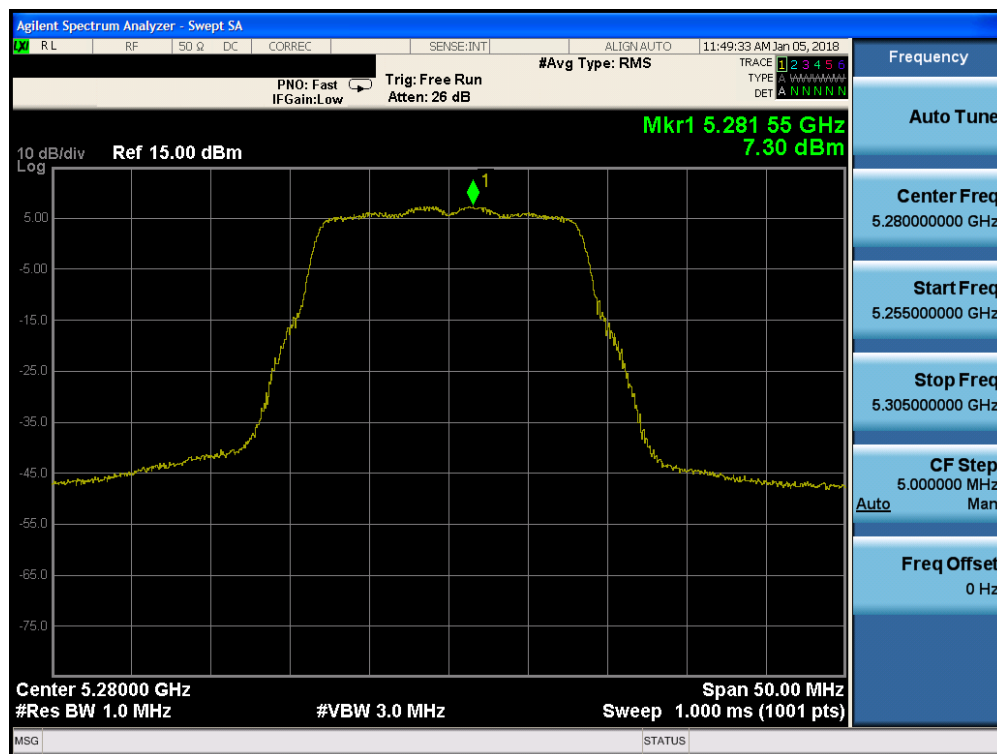


Plot 7-180. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 1) – Ch. 42)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 127 of 298 |

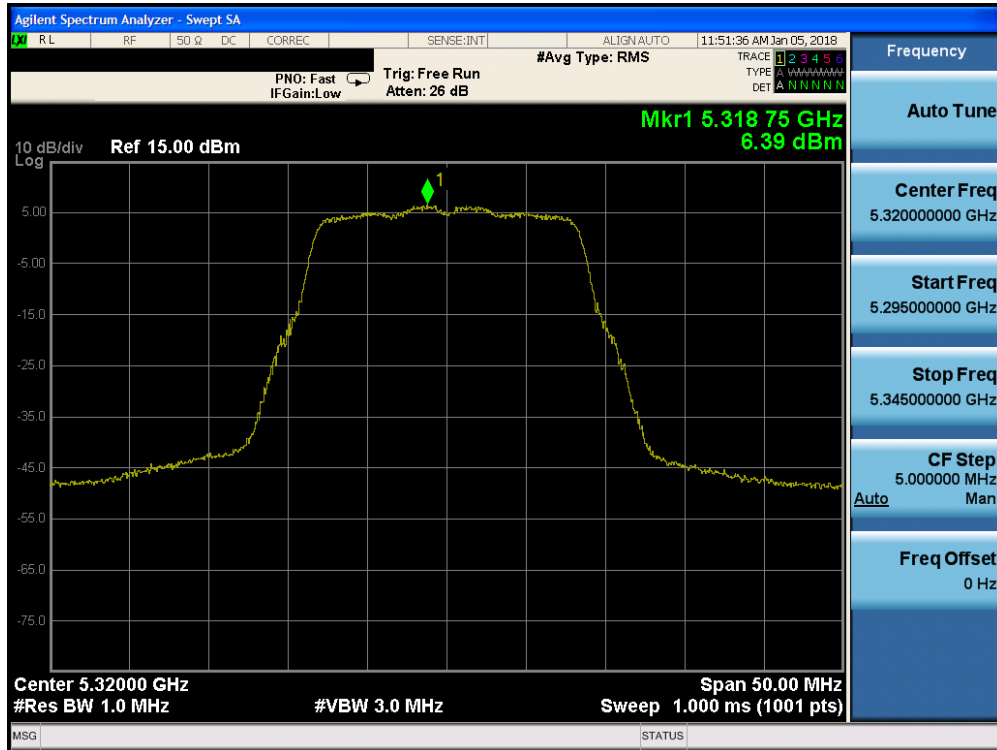


Plot 7-181. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2A) – Ch. 52)

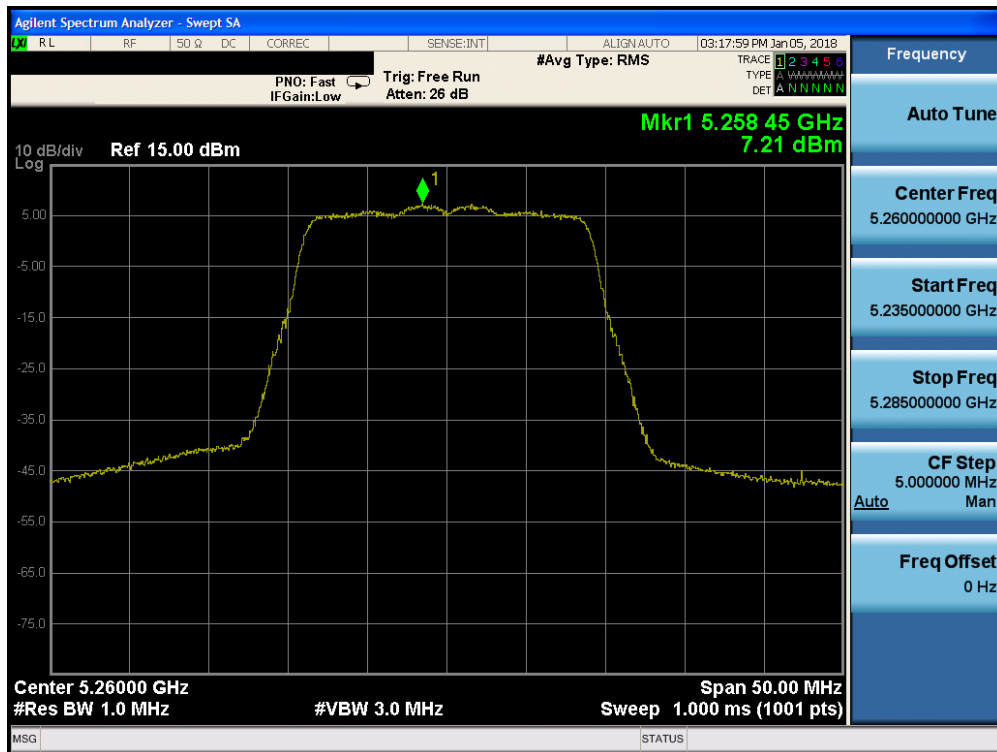


Plot 7-182. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2A) – Ch. 56)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 128 of 298 |

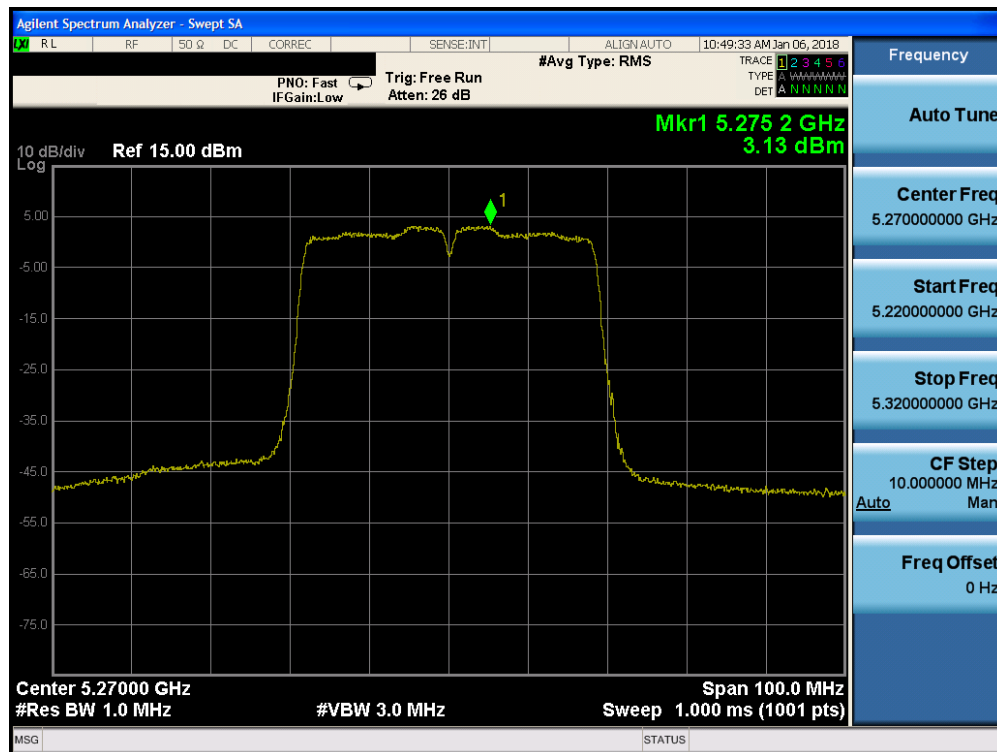


Plot 7-183. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2A) – Ch. 64)

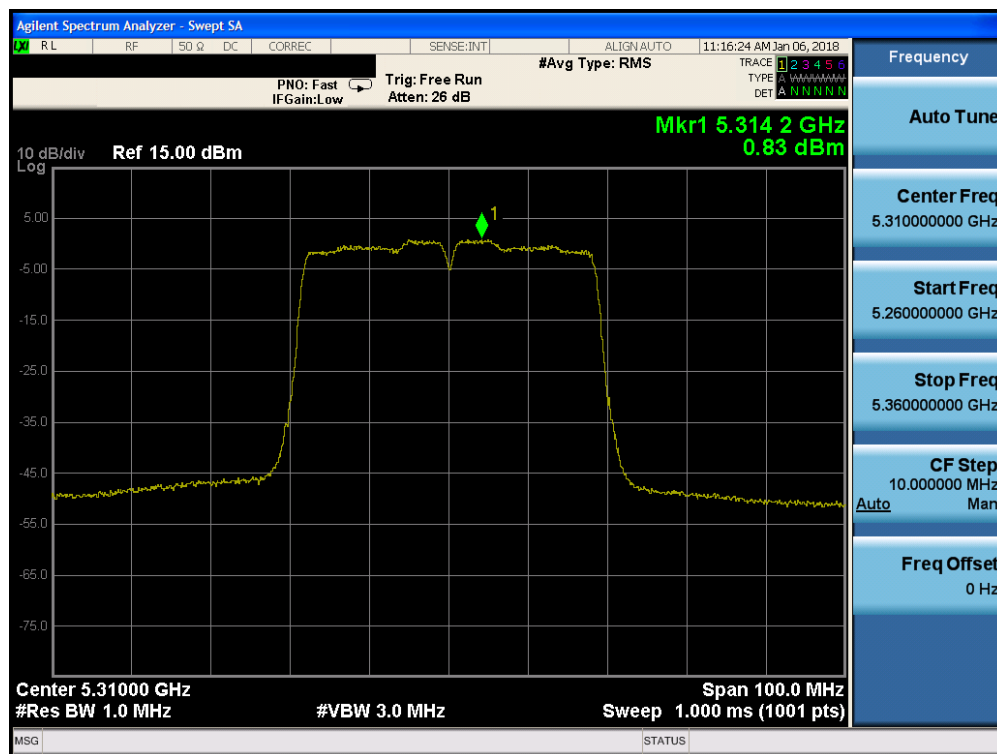


Plot 7-184. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2A) – Ch. 52)

| | | | |
|--|--|----------------------------|---------------------------------|
| FCC ID: BCGA1893 | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 129 of 298 |

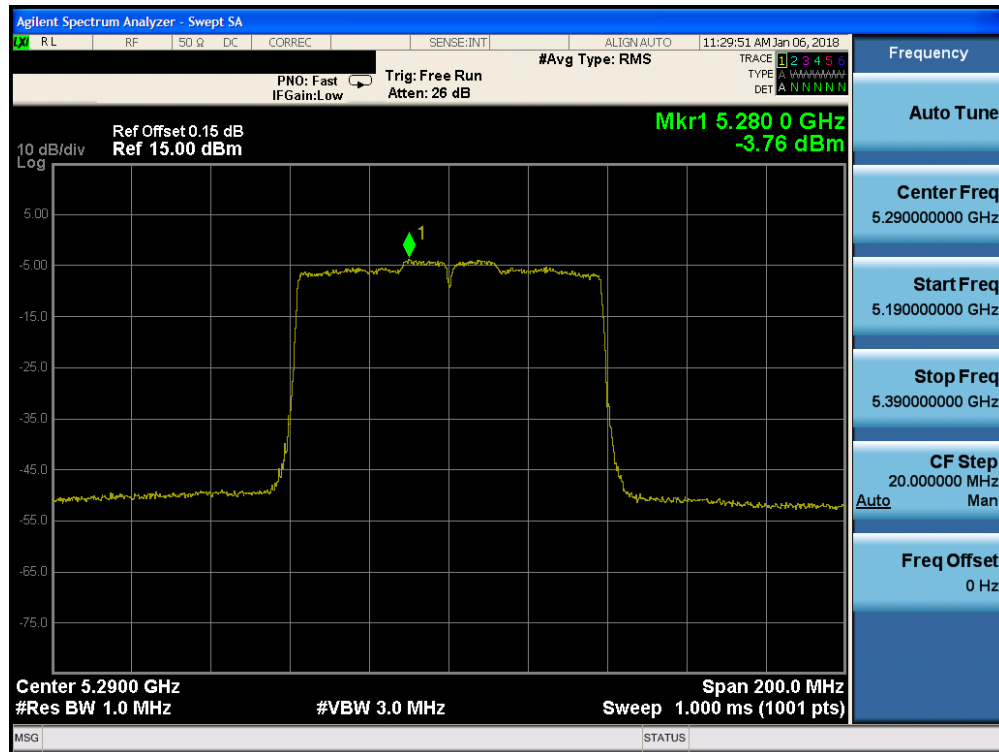


Plot 7-187. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2A) – Ch. 54)

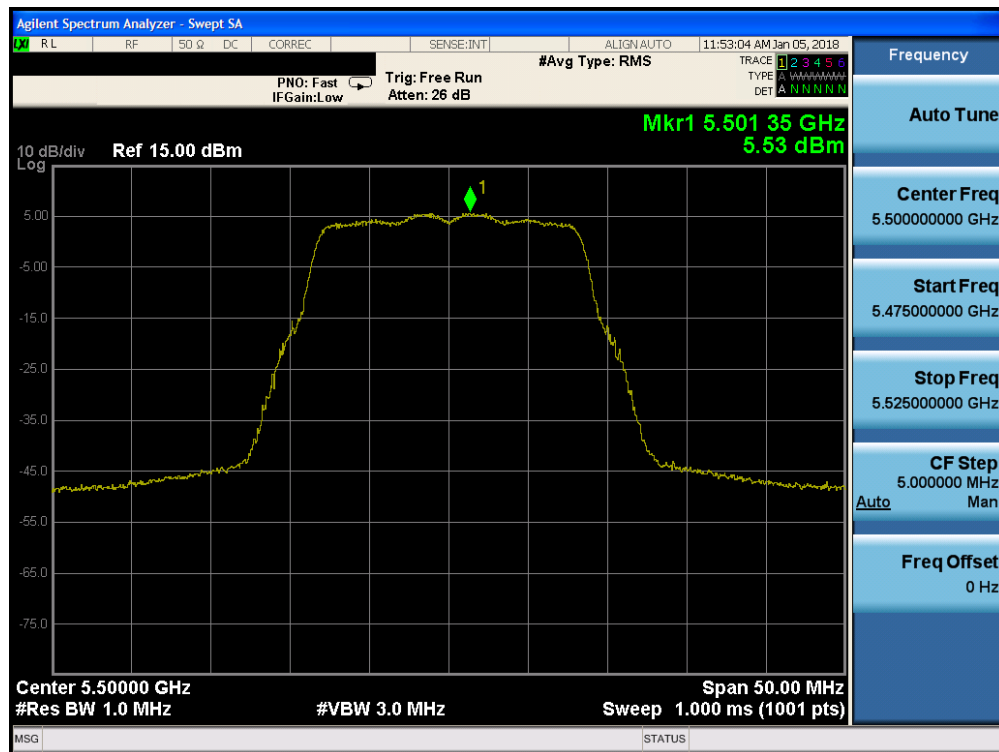


Plot 7-188. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2A) – Ch. 62)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 131 of 298 |

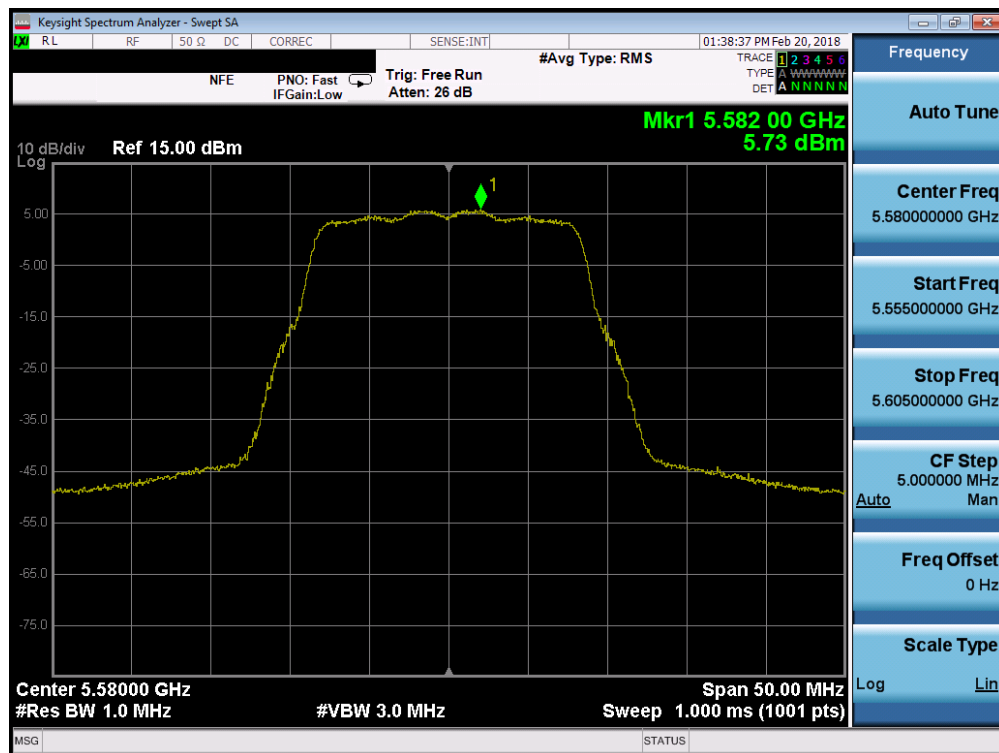


Plot 7-189. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 2A) – Ch. 58)

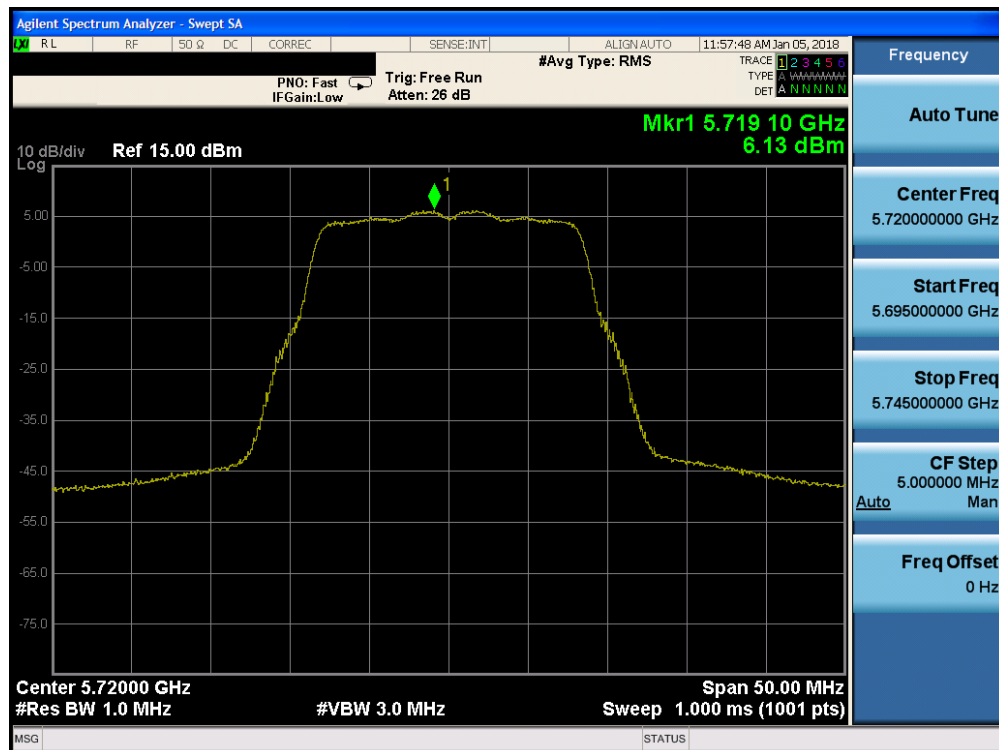


Plot 7-190. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2C) – Ch. 100)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 132 of 298 |

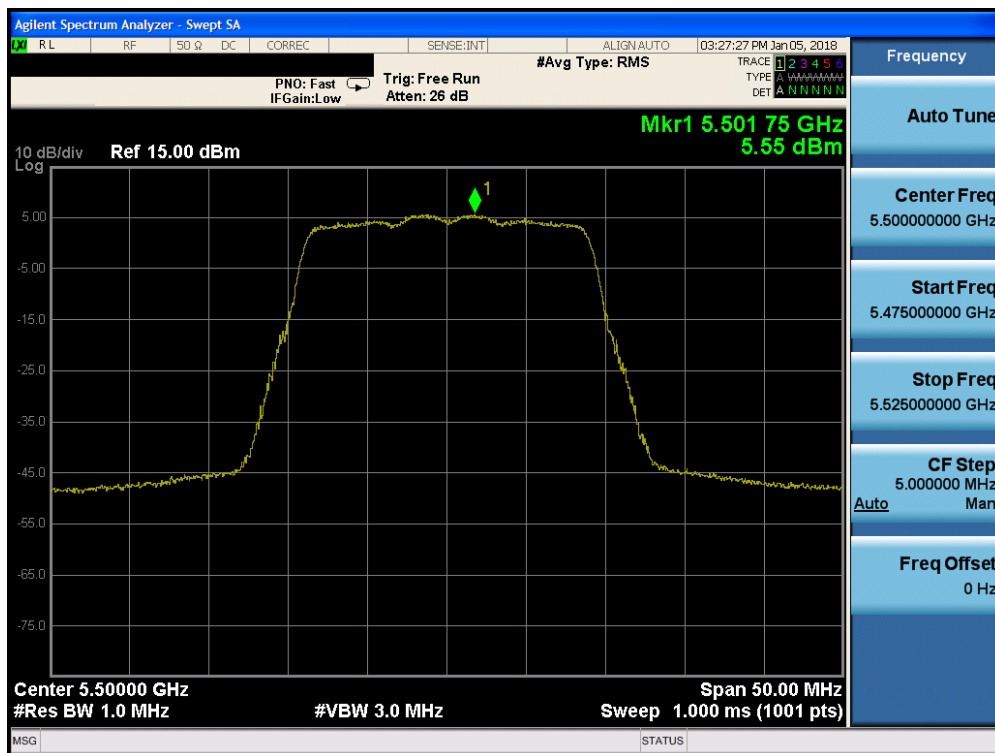


Plot 7-191. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2C) – Ch. 116)

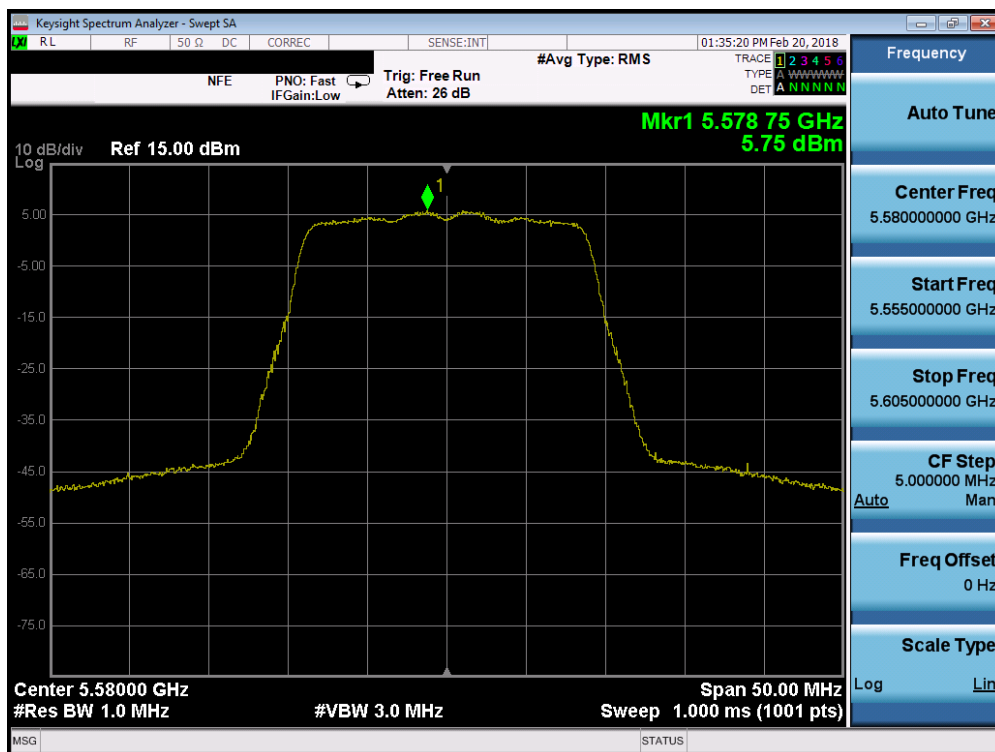


Plot 7-192. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2C) – Ch. 144)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 133 of 298 |

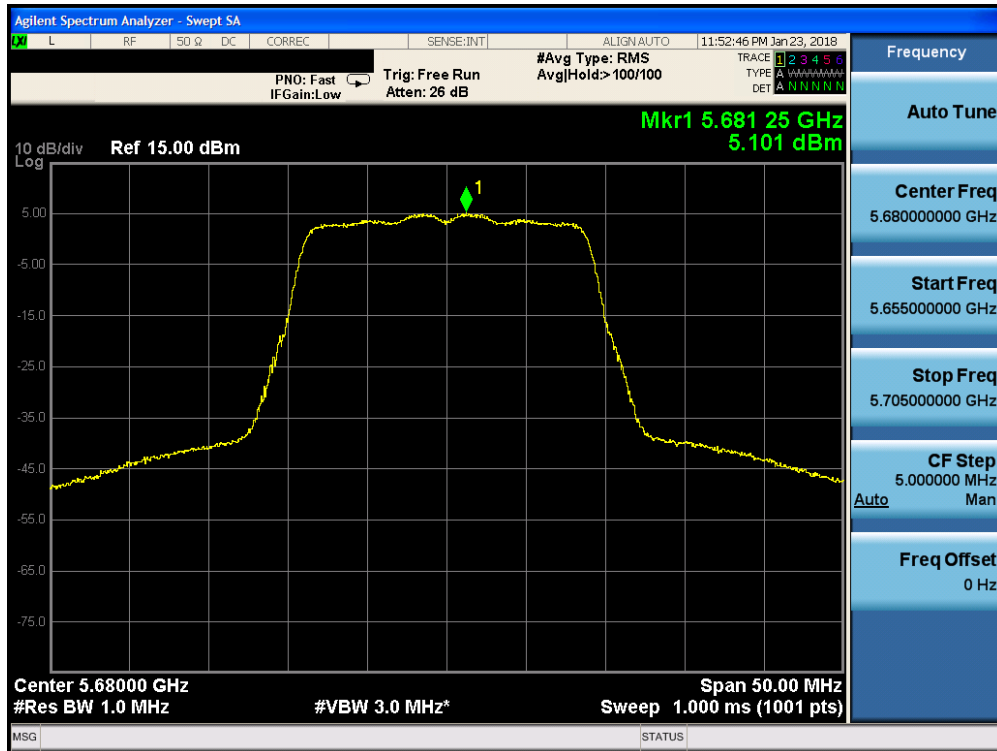


Plot 7-193. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) – Ch. 100)

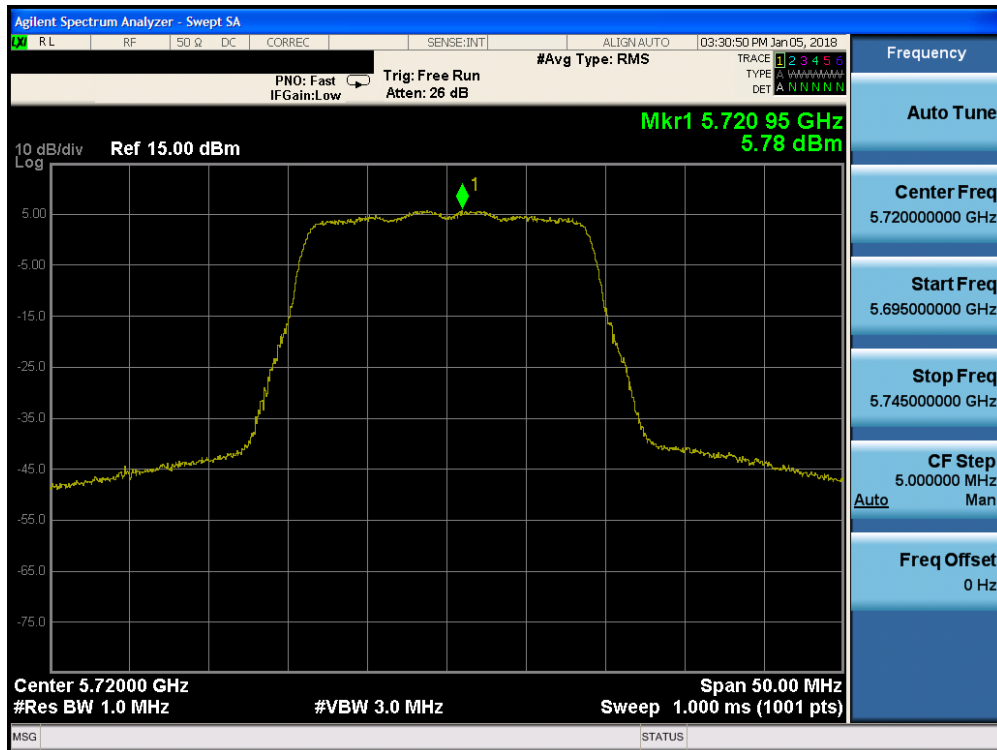


Plot 7-194. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) – Ch. 116)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 134 of 298 |

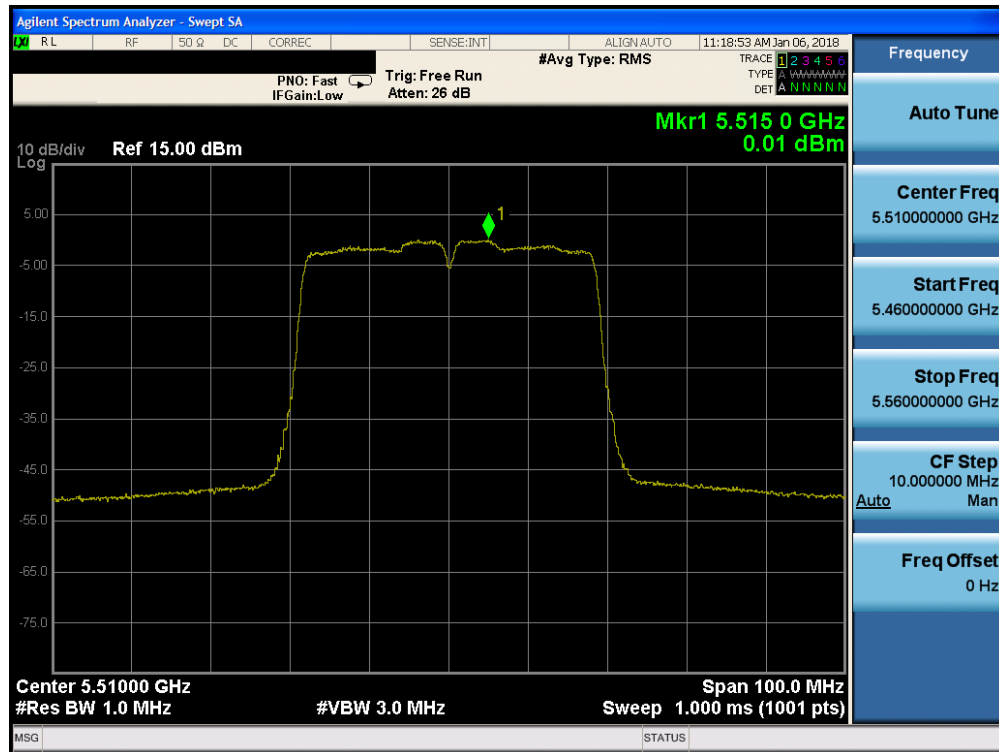


Plot 7-195. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) – Ch. 136)

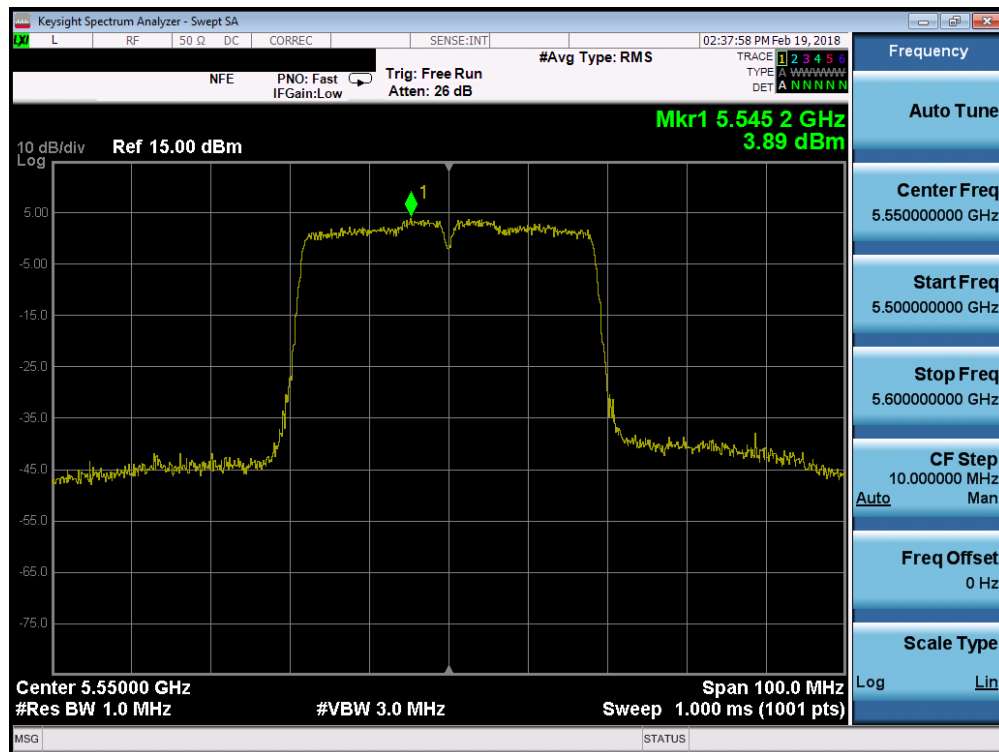


Plot 7-196. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) – Ch. 144)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 135 of 298 |

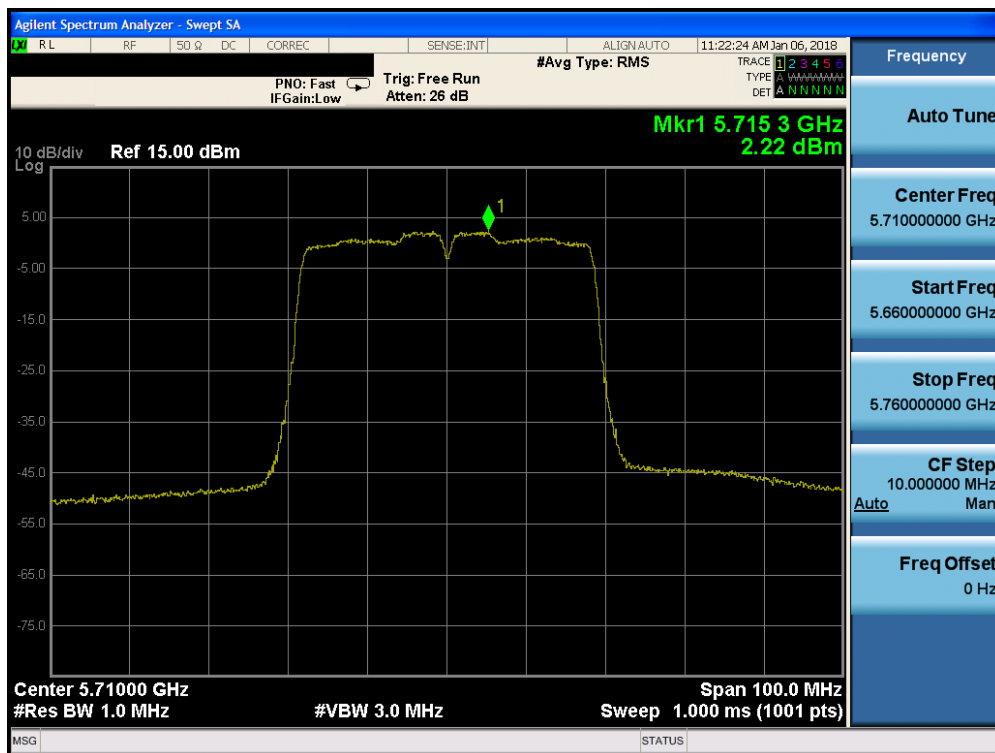


Plot 7-197. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2C) – Ch. 102)

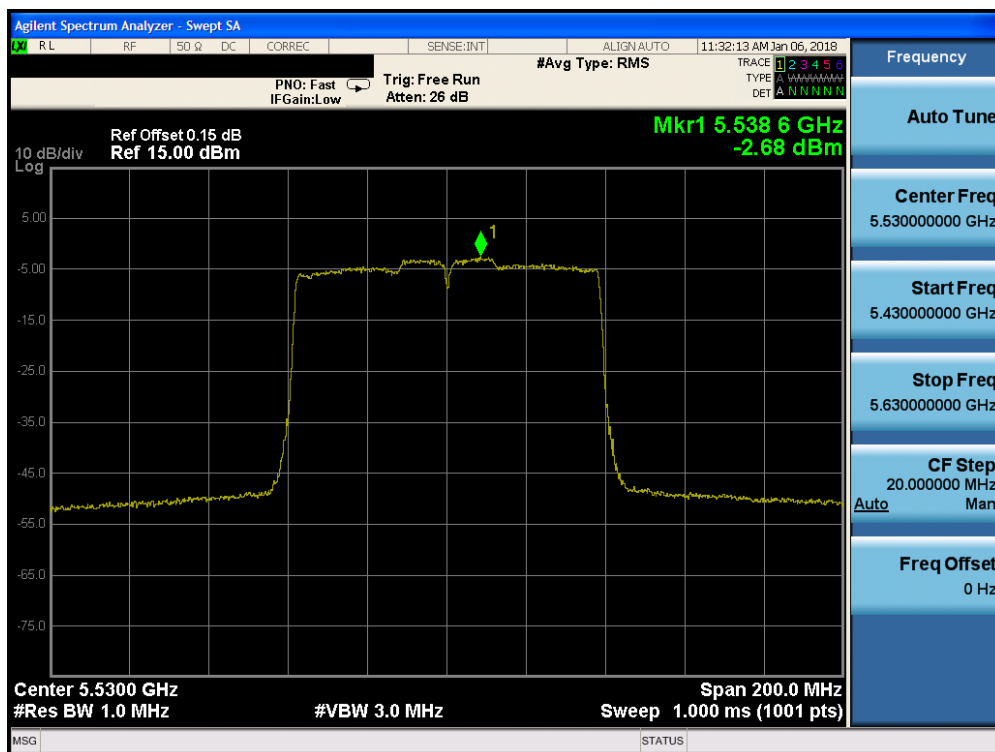


Plot 7-198. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2C) – Ch. 110)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 136 of 298 |

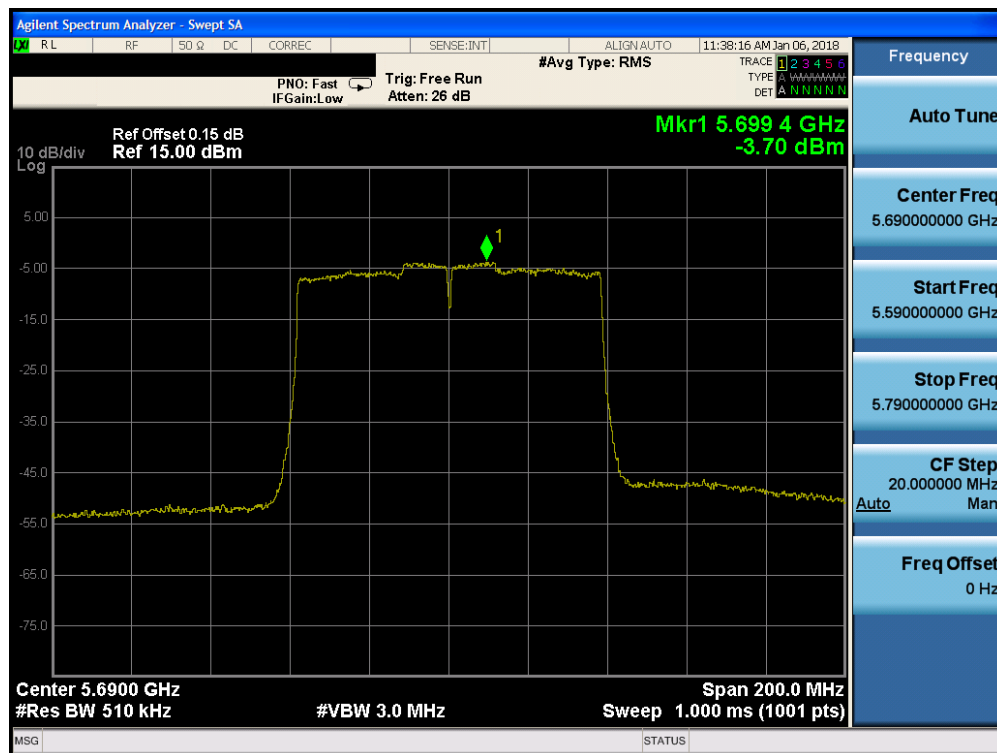


Plot 7-199. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2C) – Ch. 142)



Plot 7-200. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 2C) – Ch. 106)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 137 of 298 |

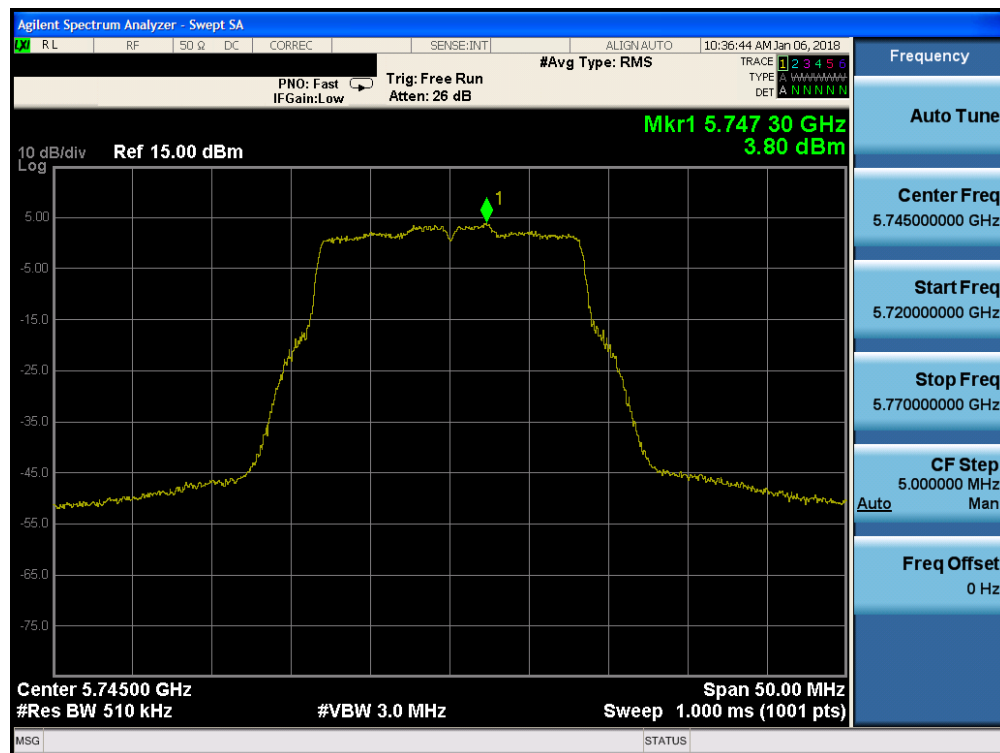


Plot 7-201. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 2C) – Ch. 138)

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 138 of 298 |

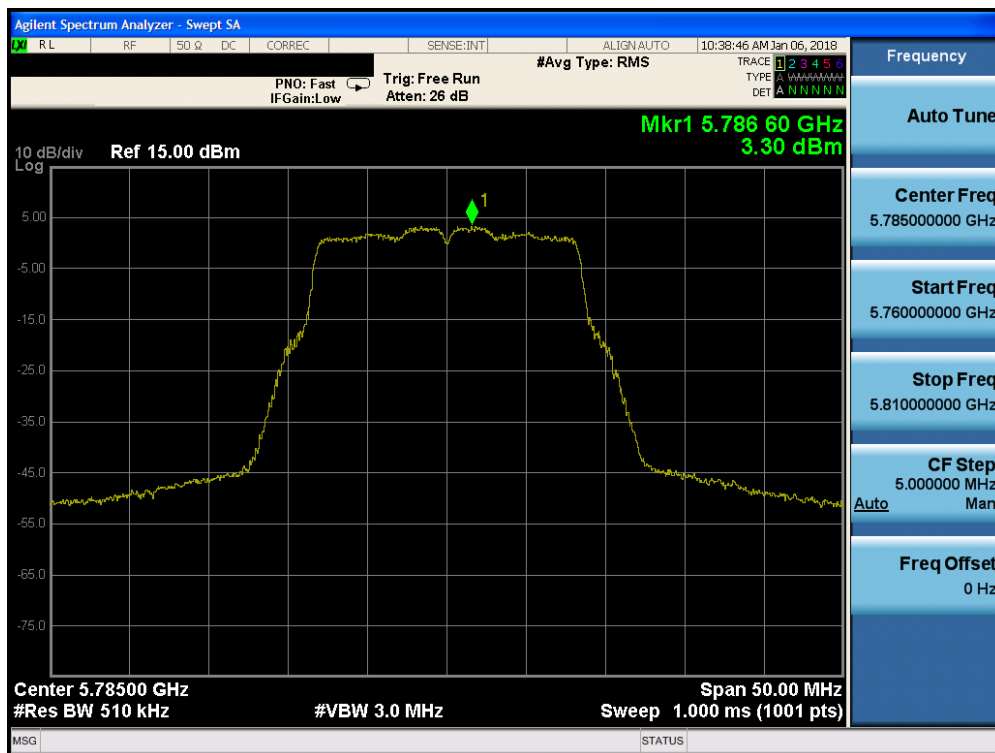
| | Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Measured Power Density [dBm] | Max Permissible Power Density [dBm/500kHz] | Margin [dB] |
|---------------|-----------------|-------------|-------------|------------------|------------------------------|--|-------------|
| Band 3 | 5745 | 149 | a | 6 | 3.80 | 30.0 | -26.20 |
| | 5785 | 157 | a | 6 | 3.30 | 30.0 | -26.70 |
| | 5825 | 165 | a | 6 | 3.46 | 30.0 | -26.54 |
| | 5745 | 149 | n (20MHz) | 6.5/7.2 (MCS0) | 3.16 | 30.0 | -26.84 |
| | 5785 | 157 | n (20MHz) | 6.5/7.2 (MCS0) | 2.81 | 30.0 | -27.19 |
| | 5825 | 165 | n (20MHz) | 6.5/7.2 (MCS0) | 3.01 | 30.0 | -26.99 |
| | 5755 | 151 | n (40MHz) | 13.5/15 (MCS0) | -0.58 | 30.0 | -30.58 |
| | 5795 | 159 | n (40MHz) | 13.5/15 (MCS0) | -0.35 | 30.0 | -30.35 |
| | 5775 | 155 | ac (80MHz) | 29.3/32.5 (MCS0) | -0.75 | 30.0 | -30.75 |

Table 7-31. Band 3 Conducted Power Spectral Density Measurements SISO ANT2

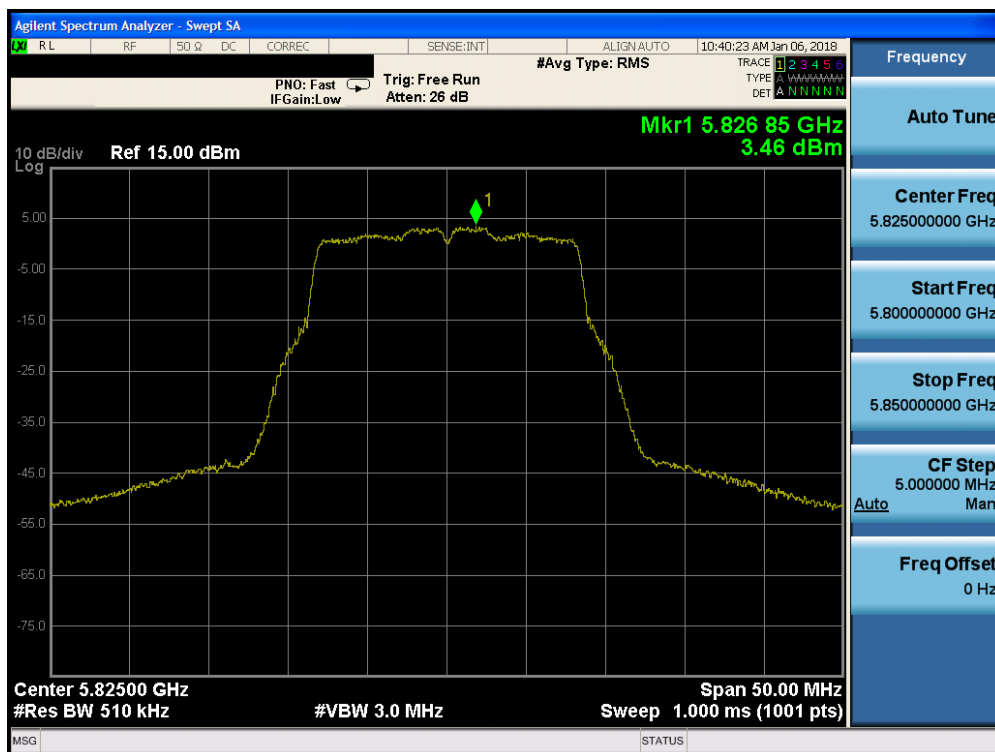


Plot 7-202. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 3) – Ch. 149)

| | | | | |
|--|---|---|--|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | | Page 139 of 298 |

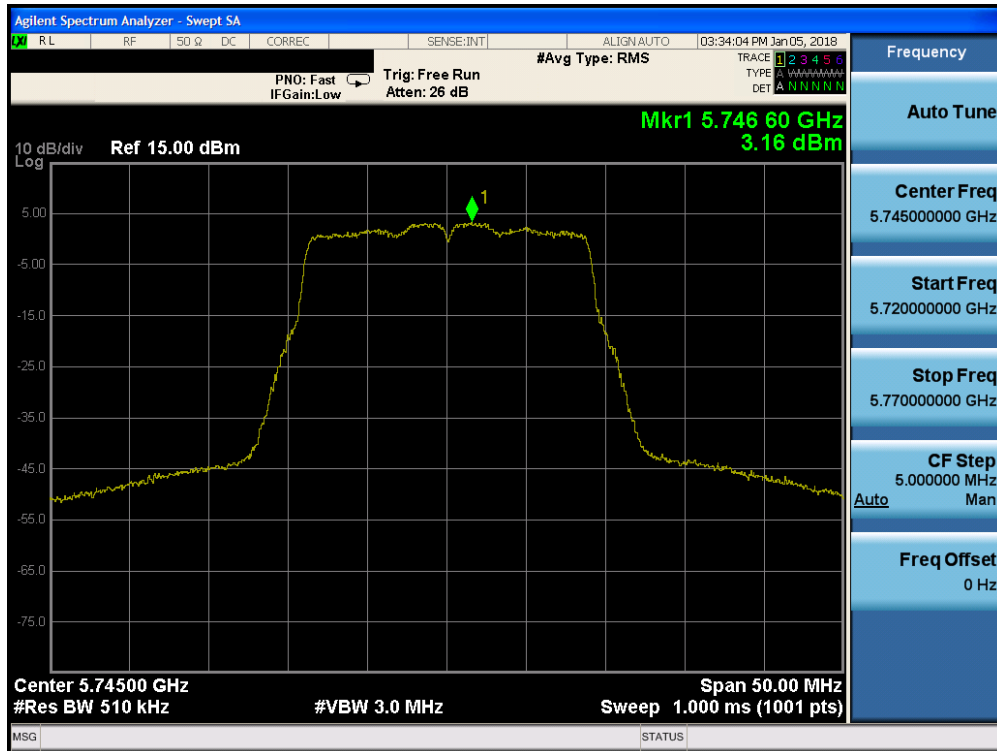


Plot 7-203. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 3) – Ch. 157)

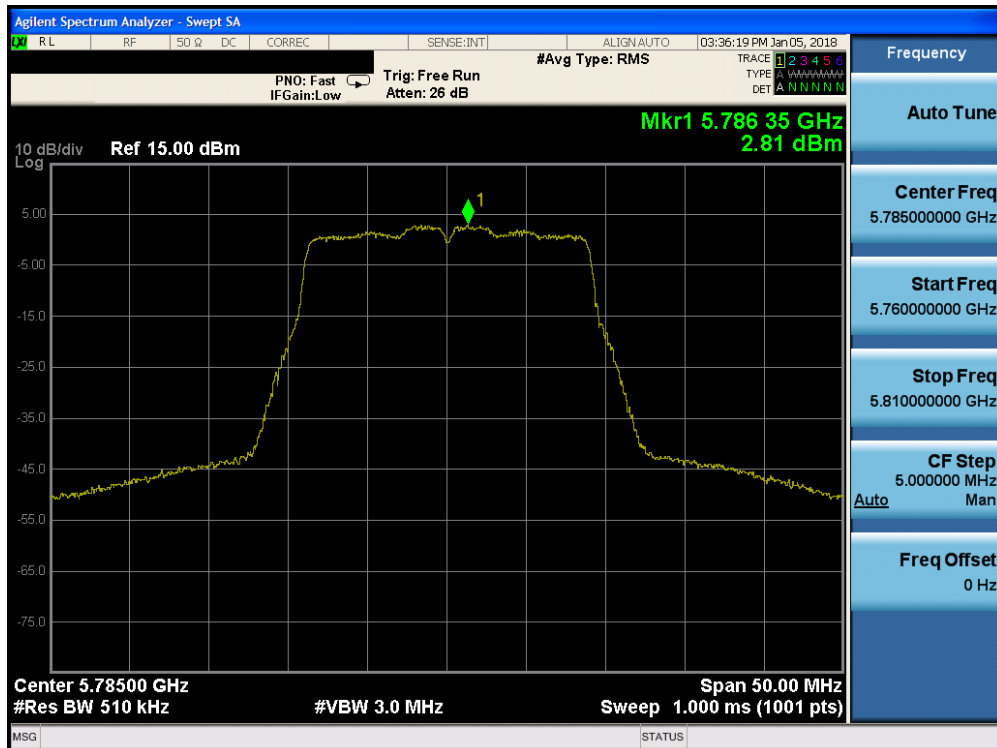


Plot 7-204. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 3) – Ch. 165)

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 140 of 298 |

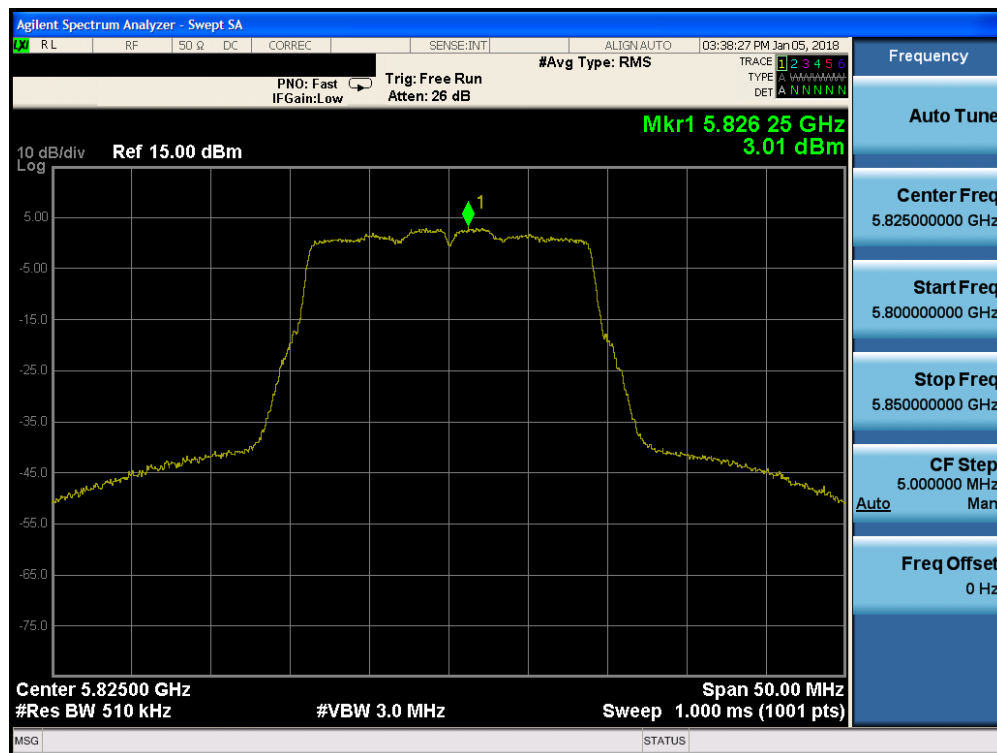


Plot 7-205. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 149)

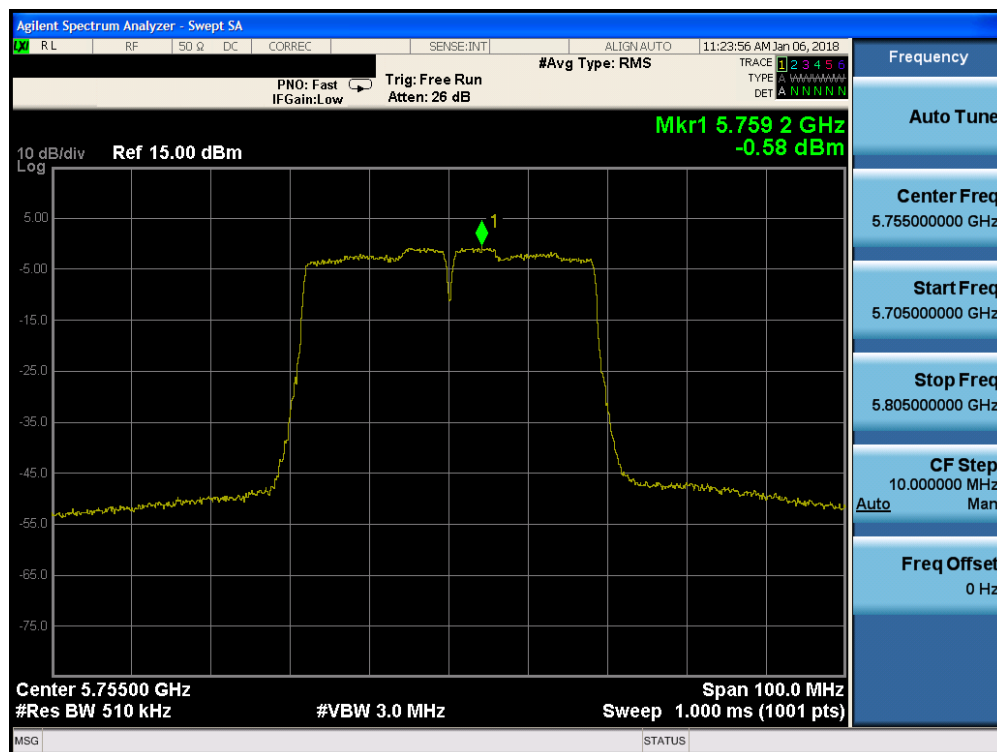


Plot 7-206. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 157)

| | | | |
|---|---|-----------------------------------|--|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 141 of 298 |

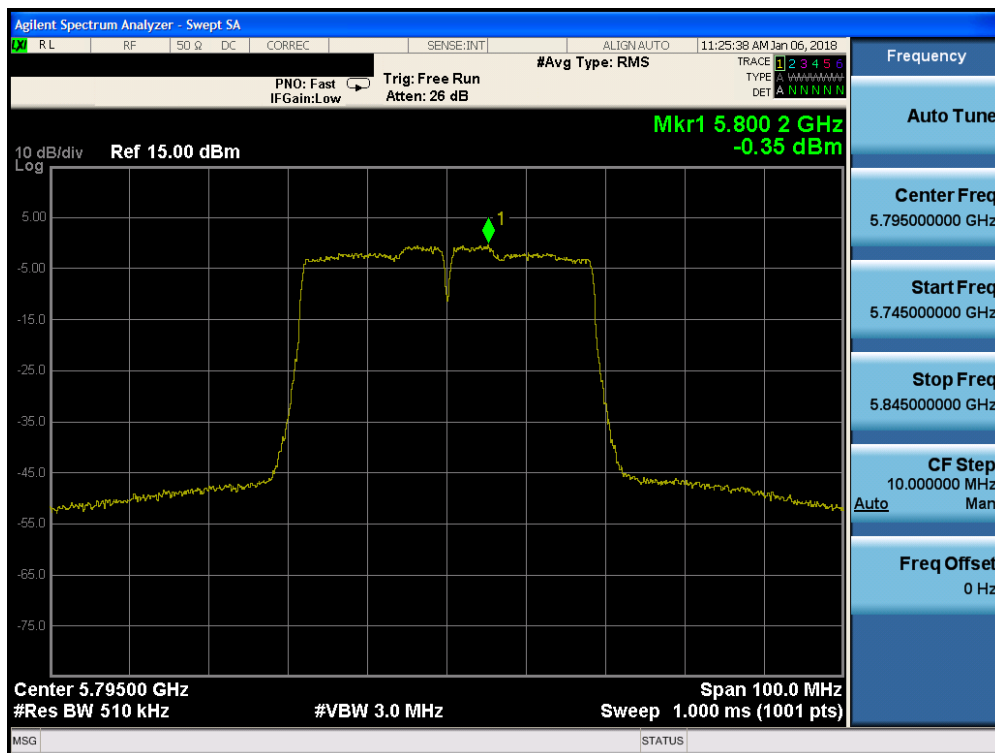


Plot 7-207. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 165)

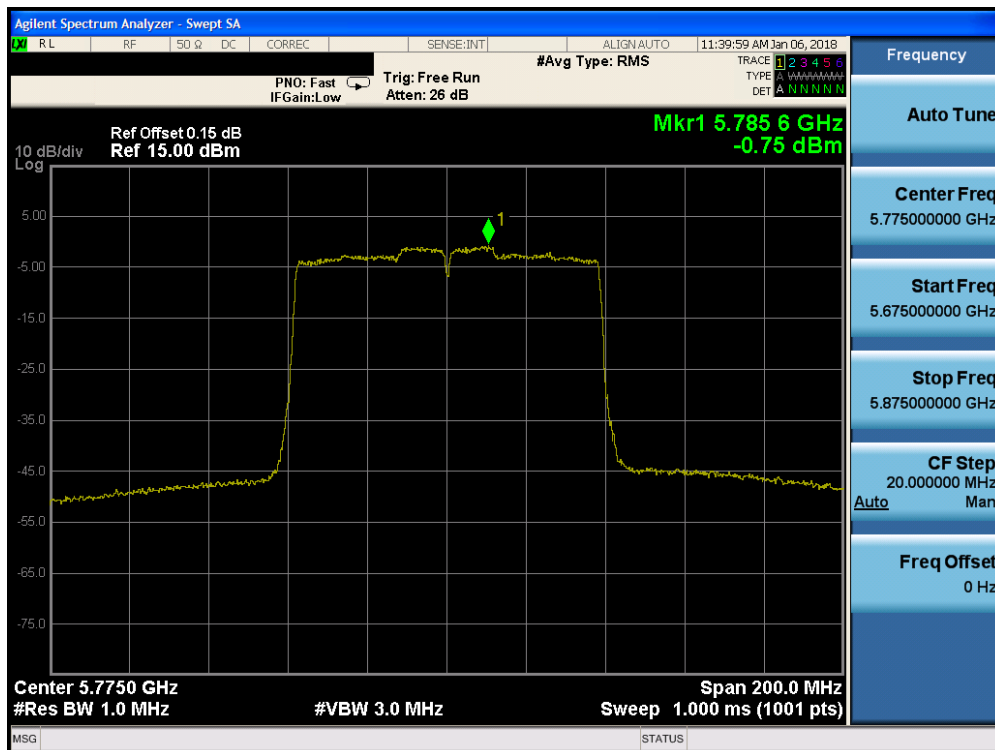


Plot 7-208. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) – Ch. 151)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 142 of 298 |



Plot 7-209. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) – Ch. 159)



Plot 7-210. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 3) – Ch. 155)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 143 of 298 |

Summed MIMO Power Spectral Density Measurements

| | Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Antenna-1 Power Density [dBm] | Antenna-2 Power Density [dBm] | Summed MIMO Power Density [dBm] | Max Power Density [dBm/MHz] | Margin [dB] |
|---------|-----------------|-------------|-------------|------------------|-------------------------------|-------------------------------|---------------------------------|-----------------------------|-------------|
| Band 1 | 5180 | 36 | n (20MHz) | 6.5/7.2 (MCS0) | 1.99 | 1.94 | 4.98 | 11.0 | -6.02 |
| | 5200 | 40 | n (20MHz) | 6.5/7.2 (MCS0) | 1.93 | 1.78 | 4.87 | 11.0 | -6.13 |
| | 5220 | 44 | n (20MHz) | 6.5/7.2 (MCS0) | 1.25 | 1.82 | 4.55 | 11.0 | -6.45 |
| | 5240 | 48 | n (20MHz) | 6.5/7.2 (MCS0) | 2.00 | 1.79 | 4.91 | 11.0 | -6.09 |
| | 5190 | 38 | n (40MHz) | 13.5/15 (MCS0) | 0.87 | 1.01 | 3.95 | 11.0 | -7.05 |
| | 5230 | 46 | n (40MHz) | 13.5/15 (MCS0) | 1.89 | 1.92 | 4.92 | 11.0 | -6.08 |
| | 5210 | 42 | ac (80MHz) | 29.3/32.5 (MCS0) | -3.14 | -2.79 | 0.05 | 11.0 | -10.95 |
| Band 2A | 5260 | 52 | n (20MHz) | 6.5/7.2 (MCS0) | 5.88 | 7.75 | 9.92 | 11.0 | -1.08 |
| | 5280 | 56 | n (20MHz) | 6.5/7.2 (MCS0) | 6.37 | 7.50 | 9.98 | 11.0 | -1.02 |
| | 5300 | 60 | n (20MHz) | 6.5/7.2 (MCS0) | 5.73 | 6.63 | 9.21 | 11.0 | -1.79 |
| | 5320 | 64 | n (20MHz) | 6.5/7.2 (MCS0) | 4.45 | 5.51 | 8.03 | 11.0 | -2.97 |
| | 5270 | 54 | n (40MHz) | 13.5/15 (MCS0) | 2.28 | 4.40 | 6.48 | 11.0 | -4.52 |
| | 5310 | 62 | n (40MHz) | 13.5/15 (MCS0) | 0.49 | 1.40 | 3.98 | 11.0 | -7.02 |
| | 5290 | 58 | ac (80MHz) | 29.3/32.5 (MCS0) | -5.10 | -3.72 | -1.35 | 11.0 | -12.35 |
| Band 2C | 5500 | 100 | n (20MHz) | 6.5/7.2 (MCS0) | 5.19 | 5.54 | 8.38 | 10.7 | -2.31 |
| | 5520 | 104 | n (20MHz) | 6.5/7.2 (MCS0) | 5.06 | 5.28 | 8.18 | 10.7 | -2.51 |
| | 5540 | 108 | n (20MHz) | 6.5/7.2 (MCS0) | 5.29 | 5.04 | 8.18 | 10.7 | -2.51 |
| | 5580 | 116 | n (20MHz) | 6.5/7.2 (MCS0) | 5.30 | 5.19 | 8.26 | 10.7 | -2.43 |
| | 5660 | 132 | n (20MHz) | 6.5/7.2 (MCS0) | 3.44 | 3.83 | 6.65 | 10.7 | -4.04 |
| | 5680 | 136 | n (20MHz) | 6.5/7.2 (MCS0) | 3.65 | 3.94 | 6.81 | 10.7 | -3.88 |
| | 5700 | 140 | n (20MHz) | 6.5/7.2 (MCS0) | 2.86 | 3.35 | 6.12 | 10.7 | -4.57 |
| | 5510 | 102 | n (40MHz) | 13.5/15 (MCS0) | -0.09 | 0.45 | 3.20 | 10.7 | -7.49 |
| | 5550 | 110 | n (40MHz) | 13.5/15 (MCS0) | 3.76 | 3.64 | 6.71 | 10.7 | -3.98 |
| | 5670 | 134 | n (40MHz) | 13.5/15 (MCS0) | 1.62 | 1.93 | 4.79 | 10.7 | -5.90 |
| | 5530 | 106 | ac (80MHz) | 29.3/32.5 (MCS0) | -3.71 | -3.18 | -0.42 | 10.7 | -11.11 |
| | 5690 | 138 | ac (80MHz) | 29.3/32.5 (MCS0) | -0.30 | -0.39 | 2.67 | 11.0 | -8.33 |

Table 7-32. Bands 1, 2A, 2C MIMO Conducted Power Spectral Density Measurements

| | Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Antenna-1 Power Density [dBm] | Antenna-2 Power Density [dBm] | Summed MIMO Power Density [dBm] | Antenna Gain [dBi] | e.i.r.p. Power Density [dBm/MHz] | Max e.i.r.p. Power Density Limit [dBm/MHz] | e.i.r.p. Power Density Margin [dB] |
|--------|-----------------|-------------|-------------|------------------|-------------------------------|-------------------------------|---------------------------------|--------------------|----------------------------------|--|------------------------------------|
| Band 1 | 5180 | 36 | n (20MHz) | 6.5/7.2 (MCS0) | 1.99 | 1.94 | 4.98 | 5.0 | 9.97 | 10.0 | -0.03 |
| | 5200 | 40 | n (20MHz) | 6.5/7.2 (MCS0) | 1.93 | 1.78 | 4.87 | 5.0 | 9.86 | 10.0 | -0.14 |
| | 5220 | 44 | n (20MHz) | 6.5/7.2 (MCS0) | 1.25 | 1.82 | 4.55 | 5.0 | 9.55 | 11.0 | -1.45 |
| | 5240 | 48 | n (20MHz) | 6.5/7.2 (MCS0) | 2.00 | 1.79 | 4.91 | 5.0 | 9.90 | 10.0 | -0.10 |
| | 5190 | 38 | n (40MHz) | 13.5/15 (MCS0) | 0.87 | 1.01 | 3.95 | 5.0 | 8.94 | 10.0 | -1.06 |
| | 5230 | 46 | n (40MHz) | 13.5/15 (MCS0) | 1.89 | 1.92 | 4.92 | 5.0 | 9.91 | 10.0 | -0.09 |
| | 5210 | 42 | ac (80MHz) | 29.3/32.5 (MCS0) | -3.14 | -2.79 | 0.05 | 5.0 | 5.04 | 10.0 | -4.96 |

Table 7-33. Band 1 MIMO e.i.r.p. Power Spectral Density Measurements (RSS-247)

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 144 of 298 |

| | Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Antenn-1 Power Density [dBm] | Antenn-2 Power Density [dBm] | Summed MIMO Power Density [dBm] | Max Permissible Power Density [dBm/500kHz] | Margin [dB] |
|--------|-----------------|-------------|-------------|------------------|------------------------------|------------------------------|---------------------------------|--|-------------|
| Band 3 | 5745 | 149 | n (20MHz) | 6.5/7.2 (MCS0) | 3.22 | 3.05 | 6.15 | 30.0 | -23.85 |
| | 5785 | 157 | n (20MHz) | 6.5/7.2 (MCS0) | 3.44 | 2.73 | 6.11 | 30.0 | -23.89 |
| | 5825 | 165 | n (20MHz) | 6.5/7.2 (MCS0) | 2.36 | 2.62 | 5.50 | 30.0 | -24.50 |
| | 5755 | 151 | n (40MHz) | 13.5/15 (MCS0) | 0.07 | -0.74 | 2.70 | 30.0 | -27.30 |
| | 5795 | 159 | n (40MHz) | 13.5/15 (MCS0) | -0.62 | -1.20 | 2.11 | 30.0 | -27.89 |
| | 5775 | 155 | ac (80MHz) | 29.3/32.5 (MCS0) | -0.90 | -0.66 | 2.23 | 30.0 | -27.77 |

Table 7-34. Band 3 MIMO Conducted Power Spectral Density Measurements

Note:

Per ANSI C63.10-2013 Section 14.3.2.2 and KDB 662911 v02r01 Section E)2), the power spectral density at Antenna 1 and Antenna 2 were first measured separately as shown in the section above. The measured values were then summed in linear power units then converted back to dBm.

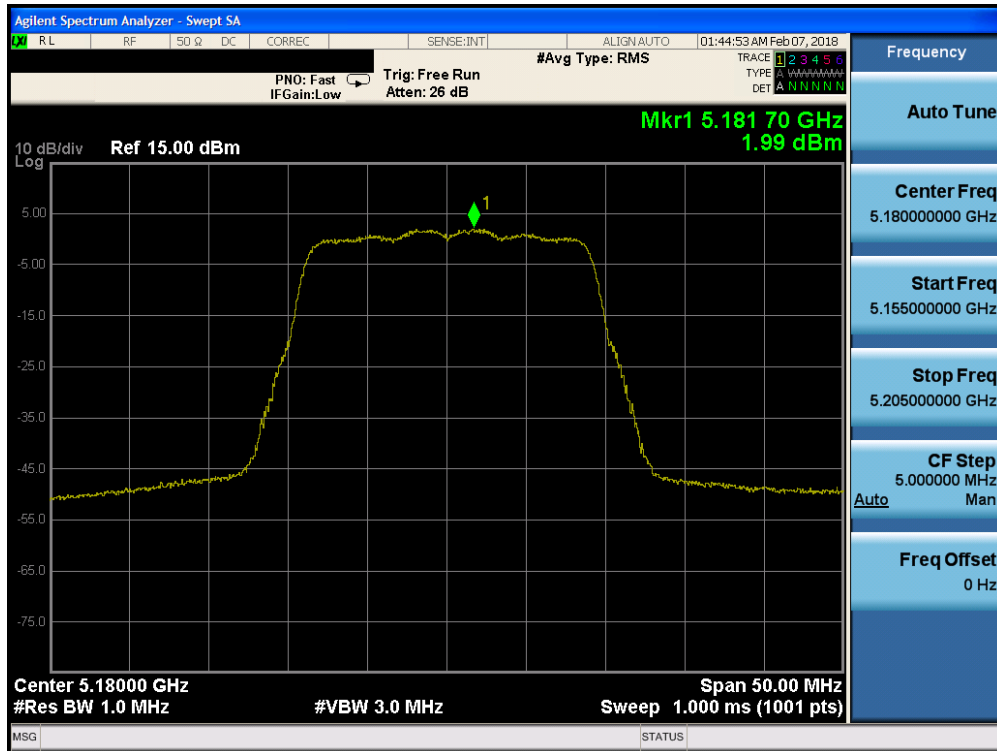
Sample MIMO Calculation:

At 5180MHz the average conducted power spectral density was measured to be 1.99 dBm for Antenna-1 and 1.94 dBm for Antenna-2.

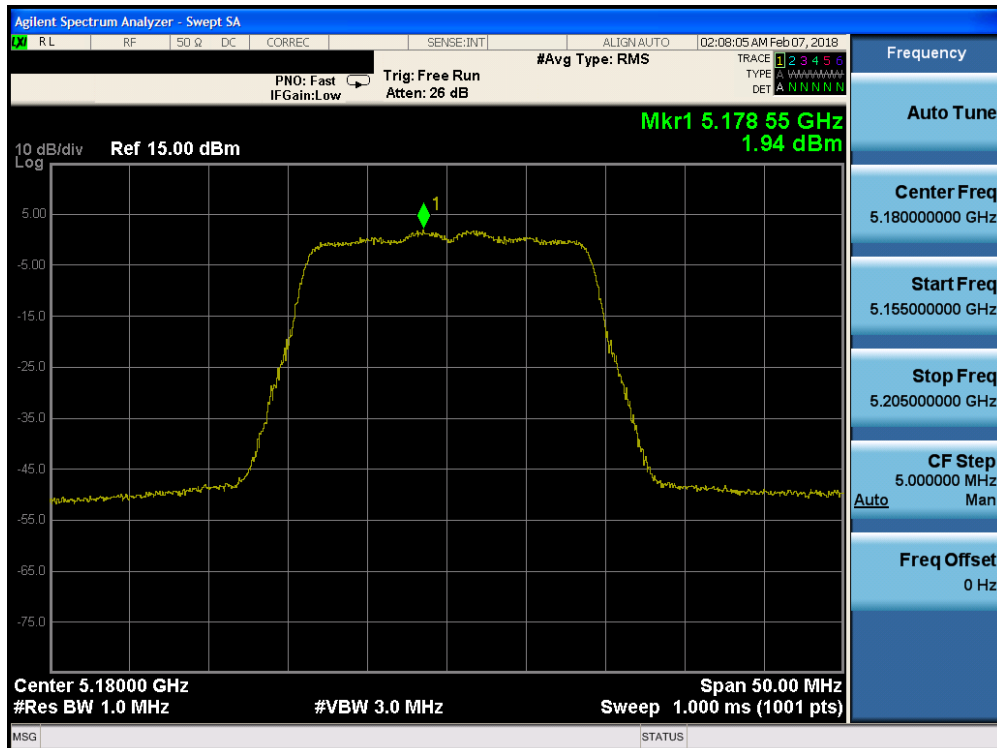
$$\text{Antenna 1} + \text{Antenna 2} = \text{MIMO}$$

$$(1.99 \text{ dBm} + 1.94 \text{ dBm}) = (1.58 \text{ mW} + 1.56 \text{ mW}) = 3.14 \text{ mW} = 4.98 \text{ dBm}$$

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 145 of 298 |

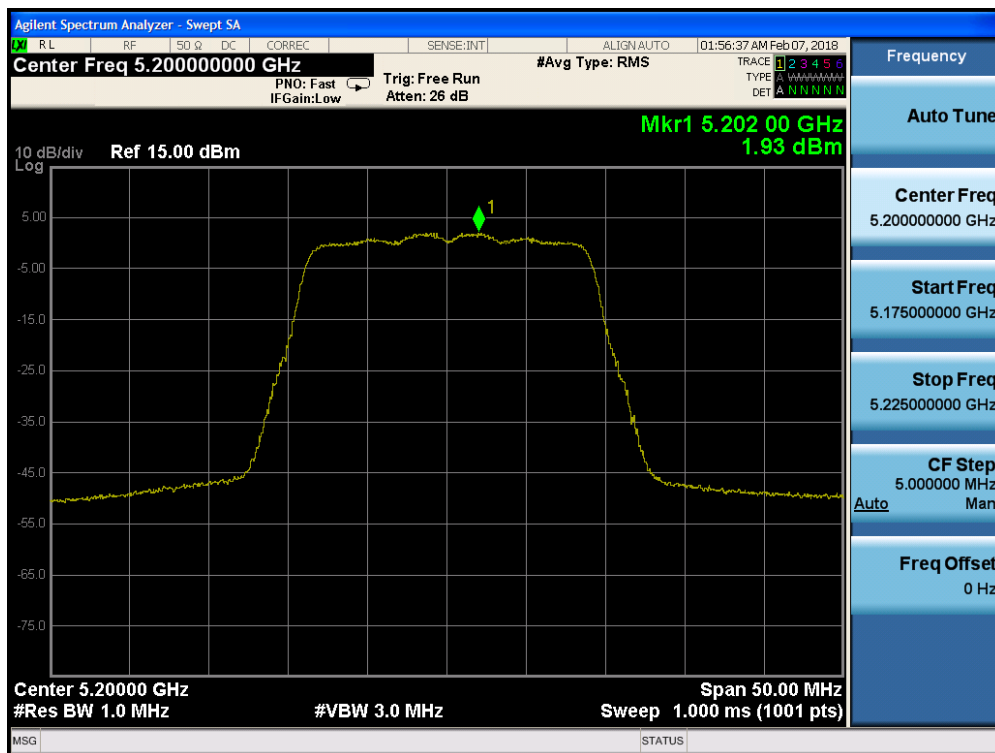


Plot 7-211. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11n (UNII Band 1) – Ch. 36)

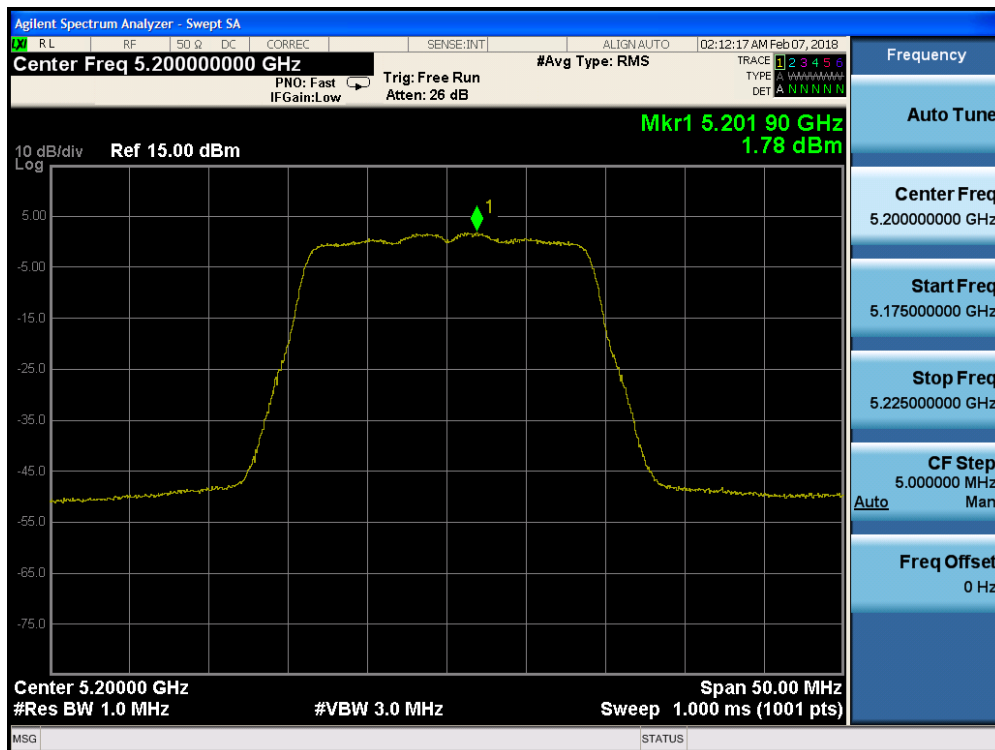


Plot 7-212. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11n (UNII Band 1) – Ch. 36)

| | | | |
|---|---|-----------------------------------|--|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 146 of 298 |

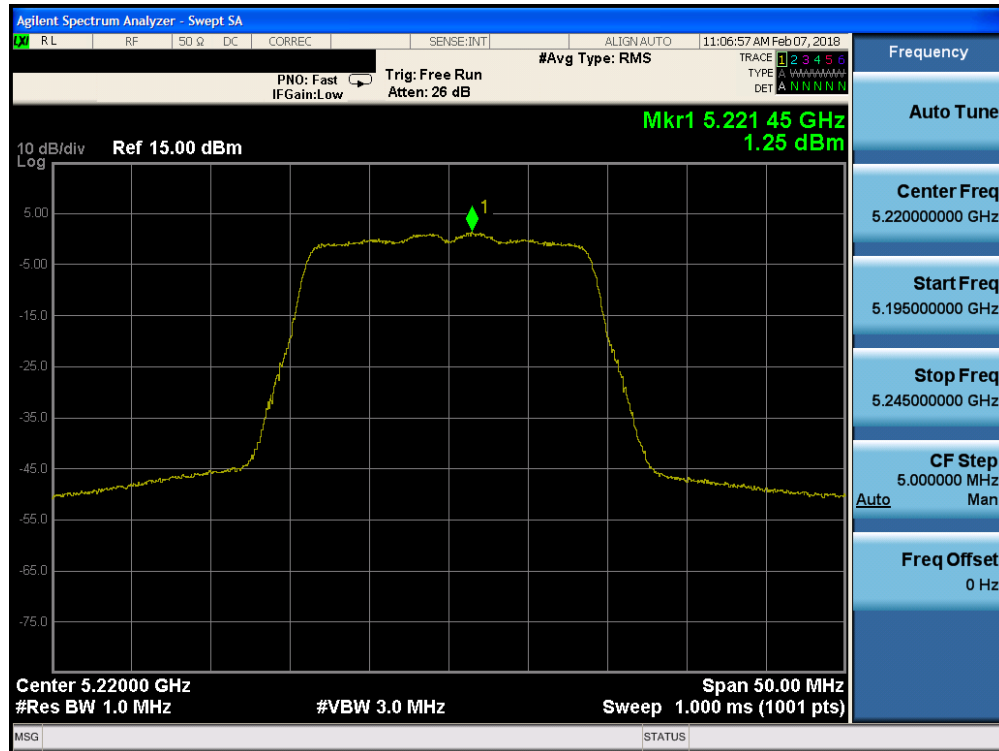


Plot 7-213. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11n (UNII Band 1) – Ch. 40)

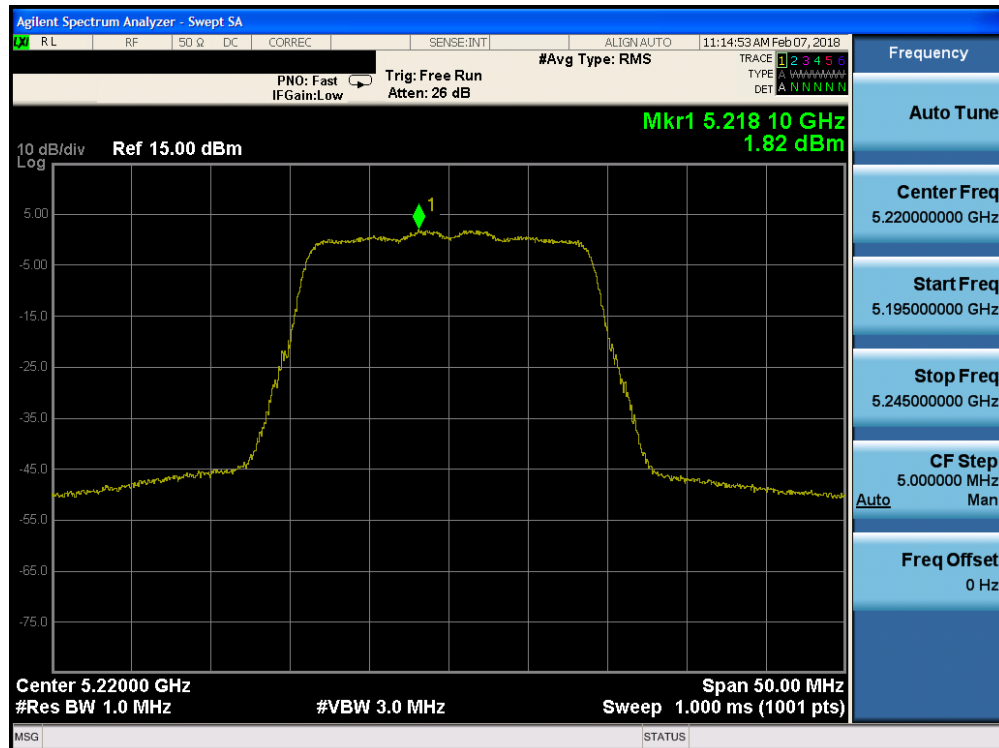


Plot 7-214. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11n (UNII Band 1) – Ch. 40)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 147 of 298 |

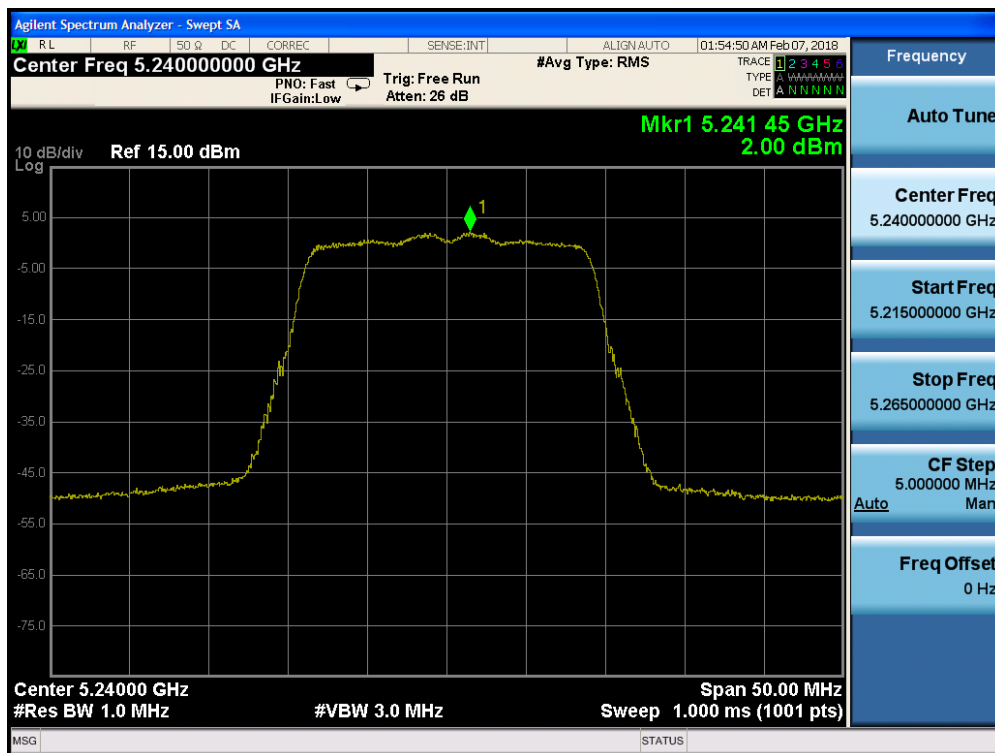


Plot 7-215. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11n (UNII Band 1) – Ch. 44)

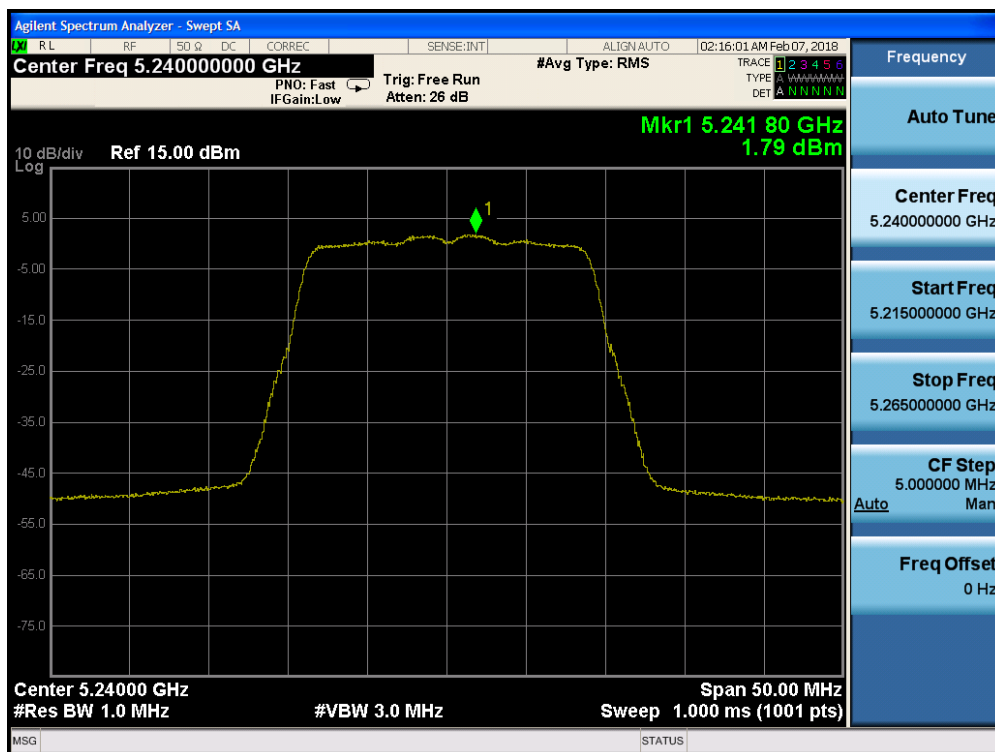


Plot 7-216. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11n (UNII Band 1) – Ch. 44)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 148 of 298 |

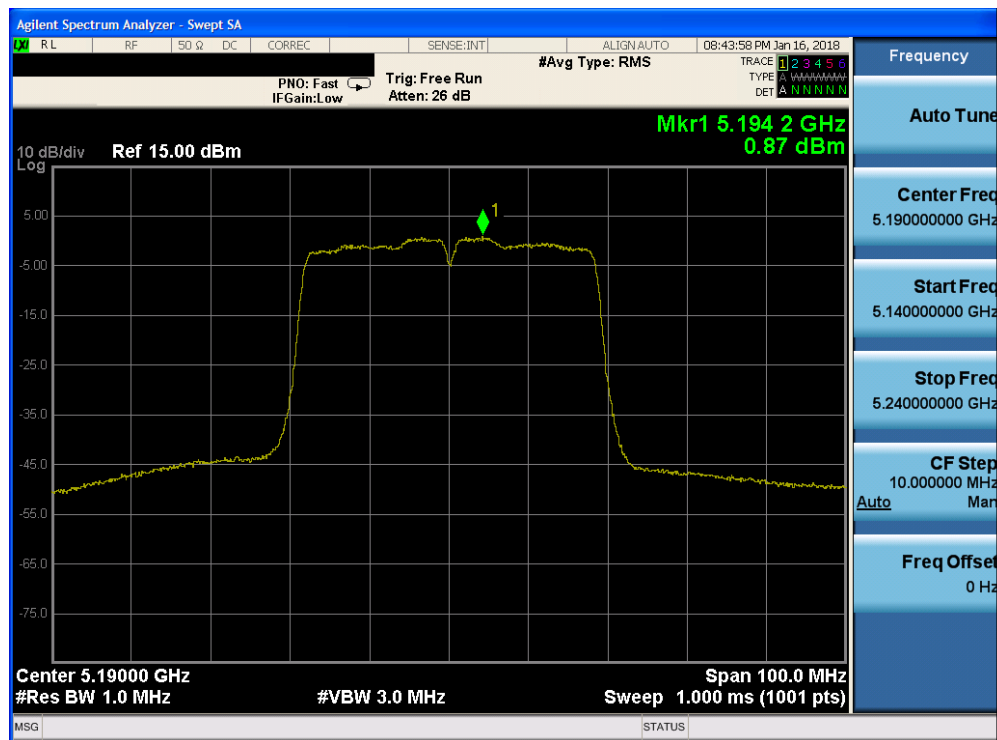


Plot 7-217. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11n (UNII Band 1) – Ch. 48)

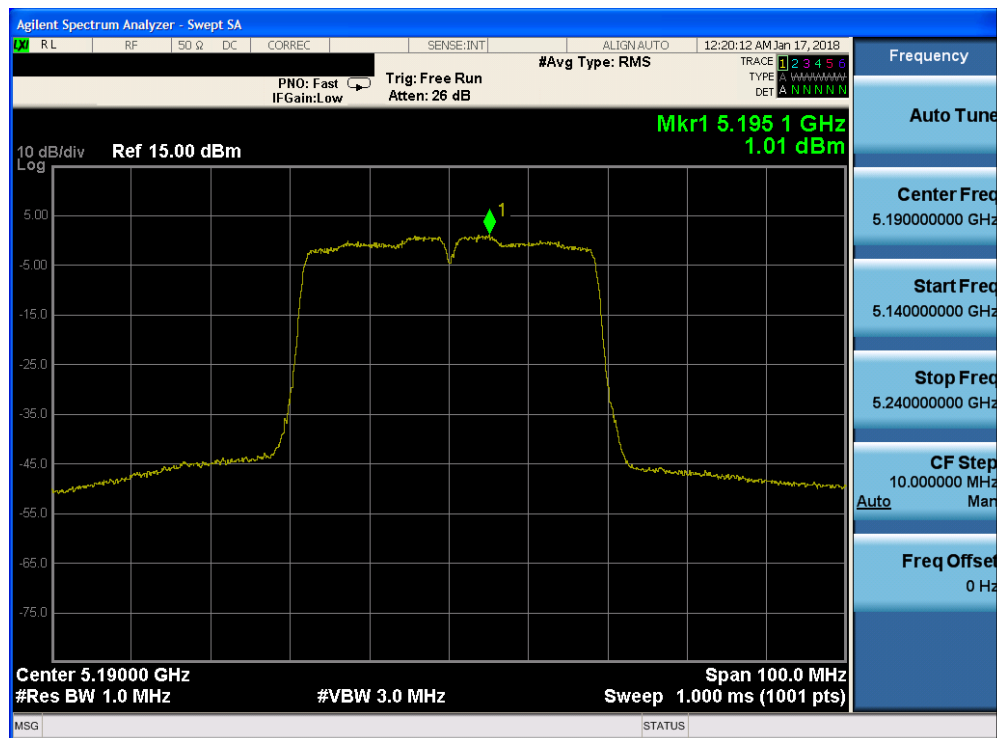


Plot 7-218. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11n (UNII Band 1) – Ch. 48)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 149 of 298 |

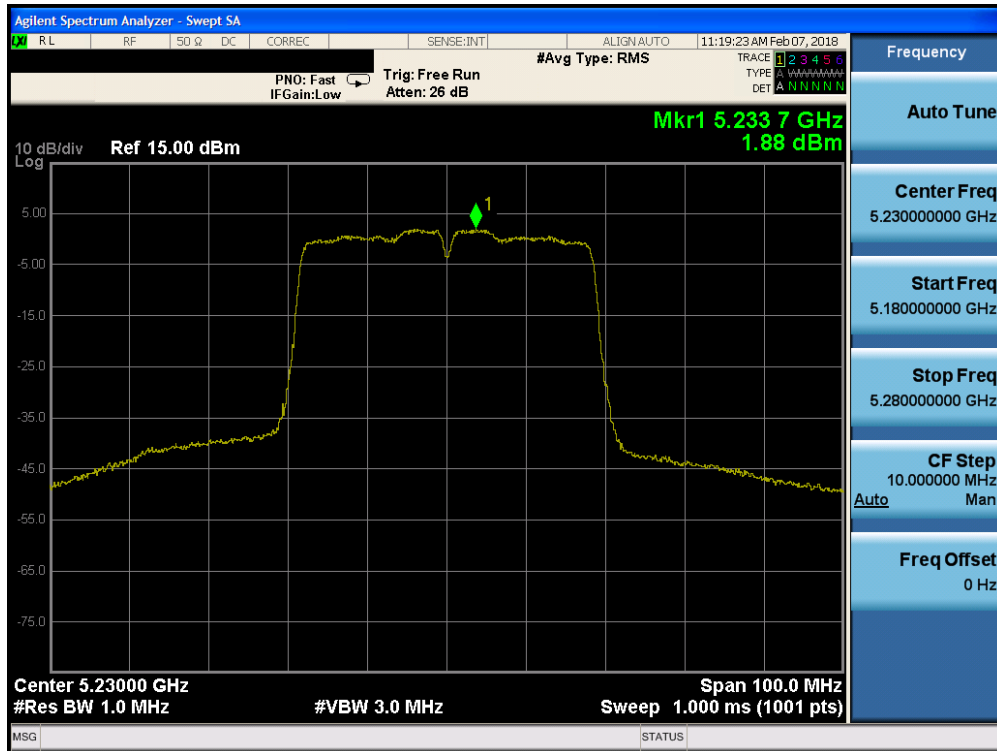


Plot 7-219. Power Spectral Density Plot A MIMO NT1 (40MHz BW 802.11n (UNII Band 1) – Ch. 38)

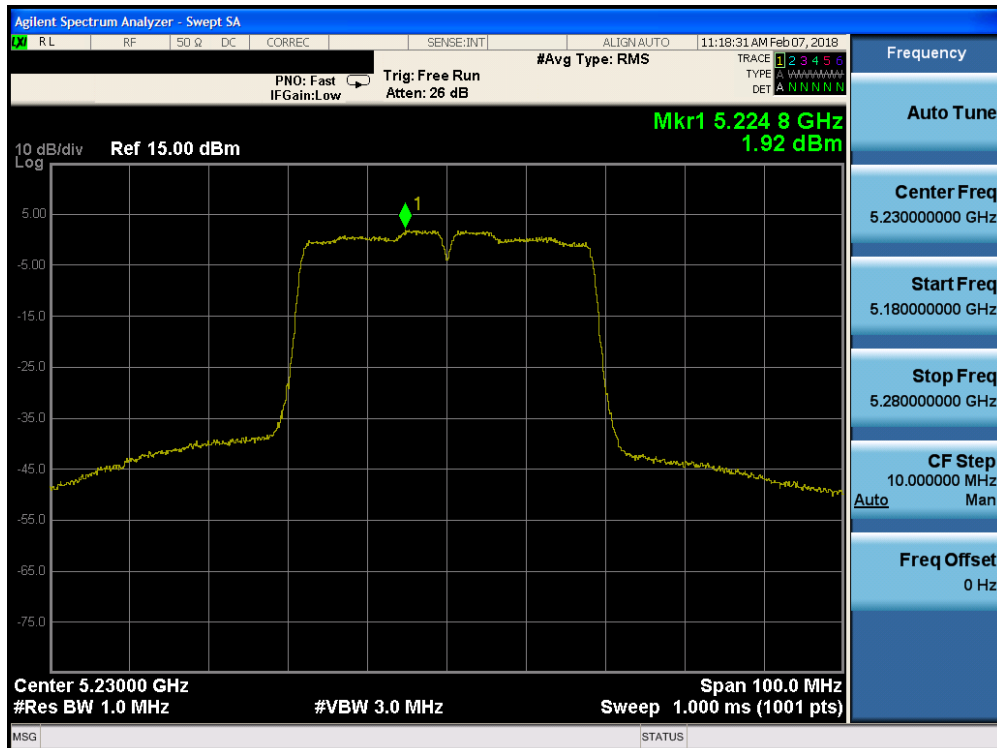


Plot 7-220. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11n (UNII Band 1) – Ch. 38)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 150 of 298 |

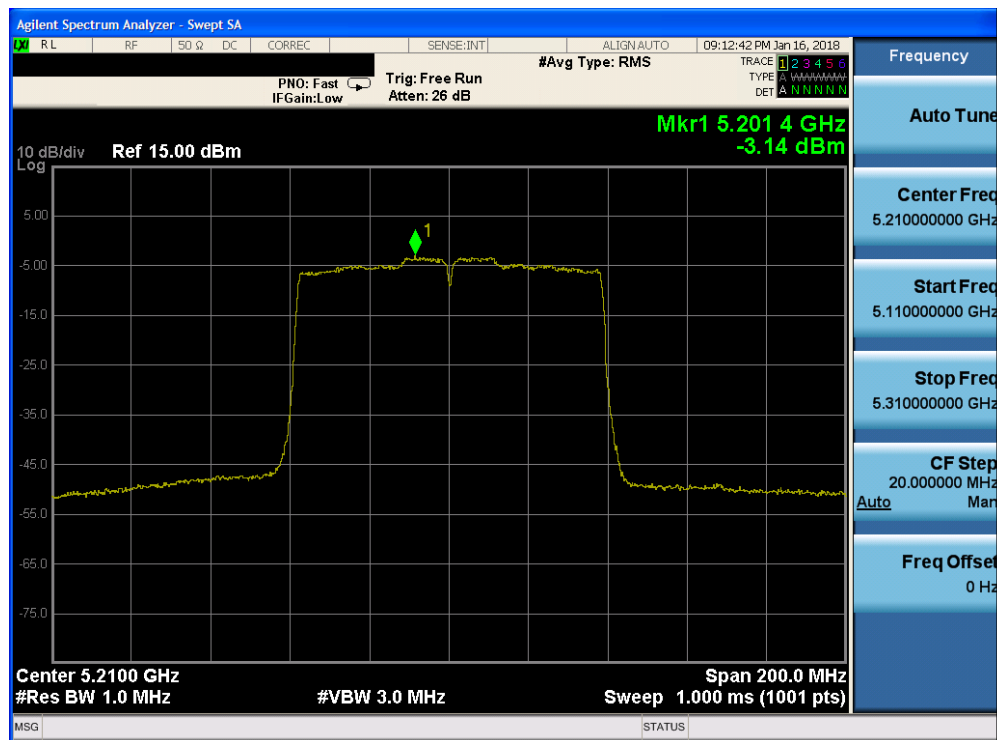


Plot 7-221. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11n (UNII Band 1) – Ch. 46)

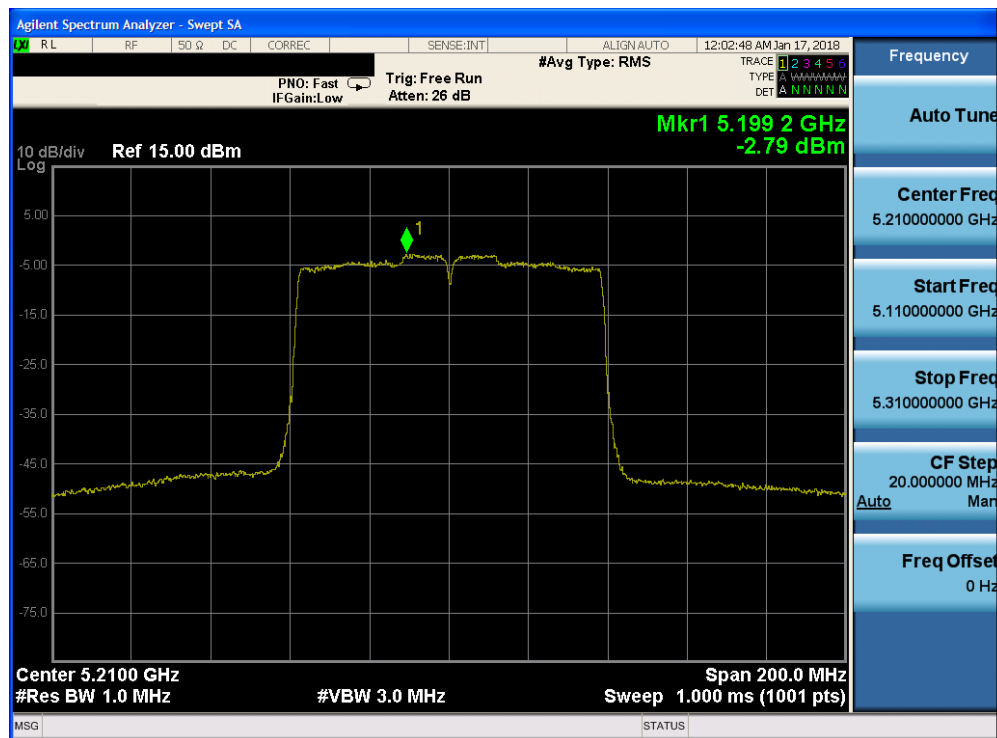


Plot 7-222. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11n (UNII Band 1) – Ch. 46)

| | | | |
|---|---|-----------------------------------|--|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 151 of 298 |

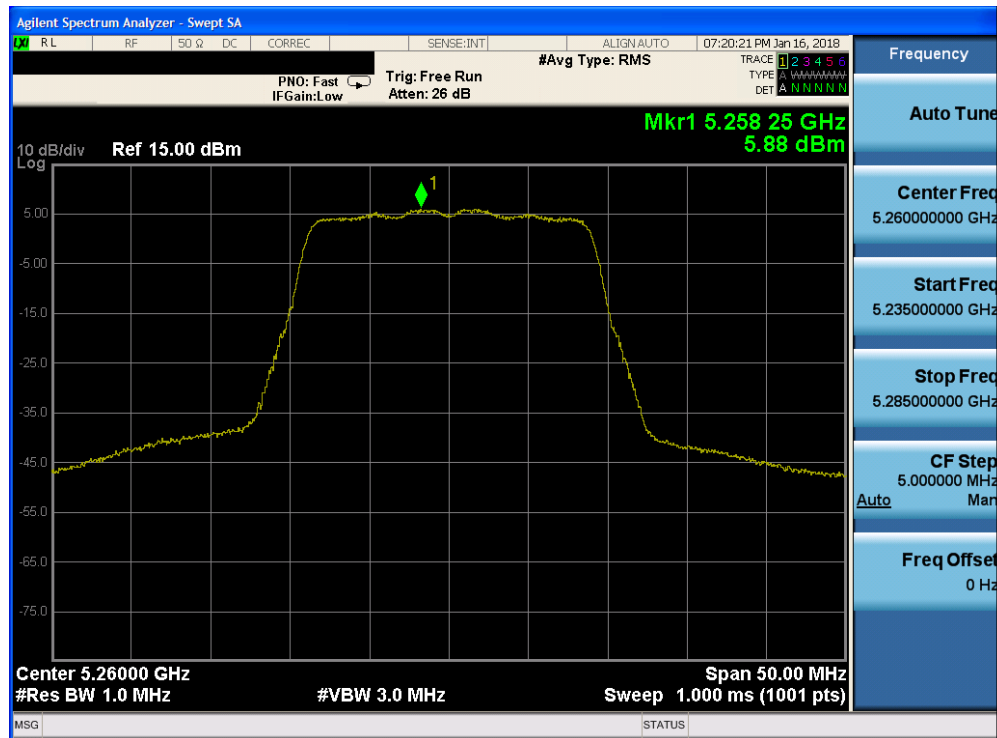


Plot 7-223. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ac (UNII Band 1) – Ch. 42)

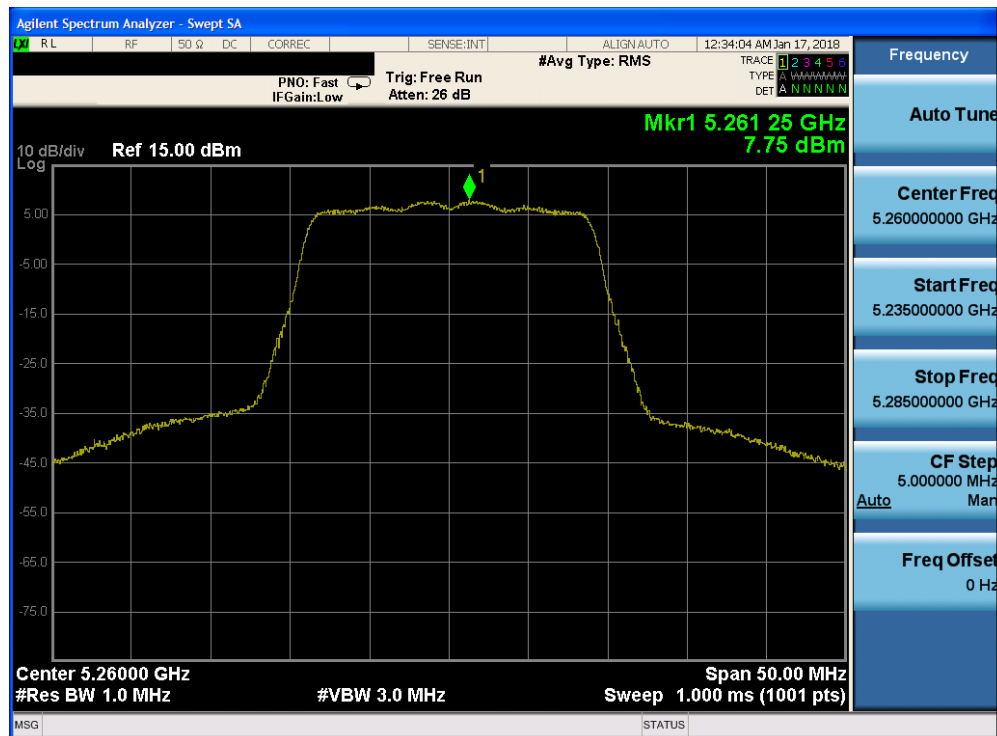


Plot 7-224. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ac (UNII Band 1) – Ch. 42)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 152 of 298 |

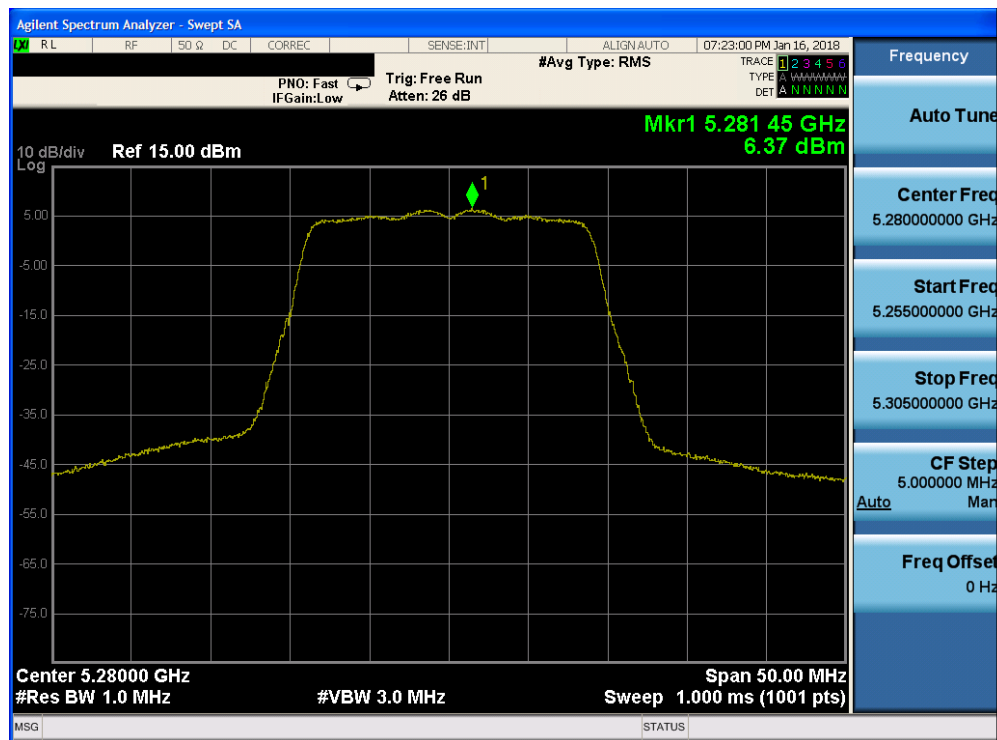


Plot 7-225. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11n (UNII Band 2A) – Ch. 52)

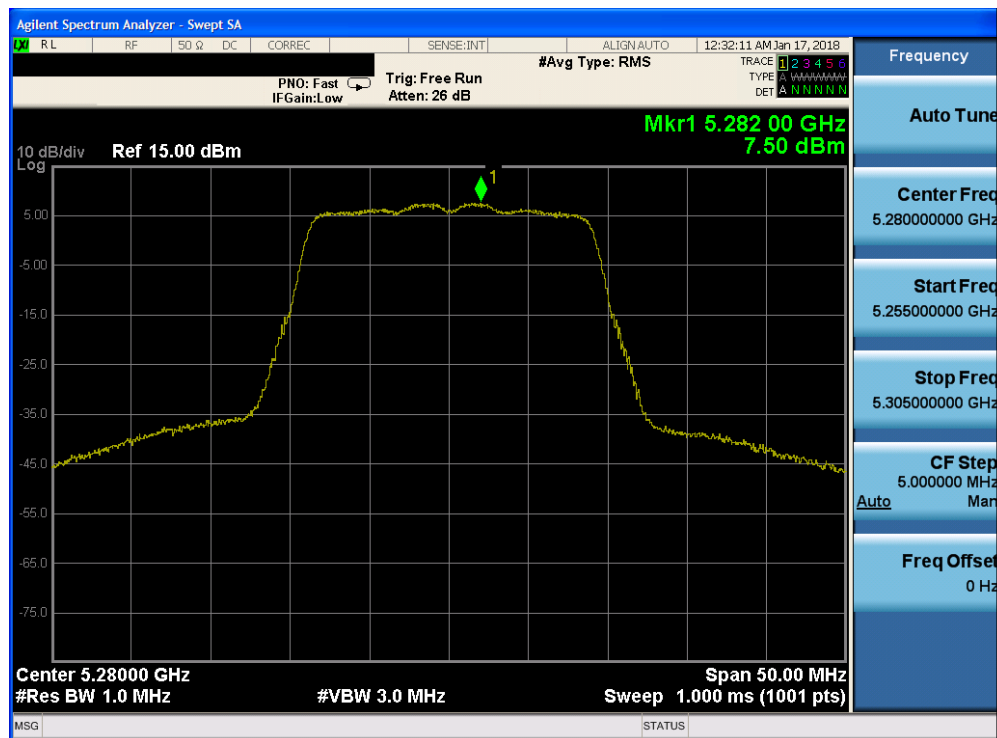


Plot 7-226. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11n (UNII Band 2A) – Ch. 52)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 153 of 298 |

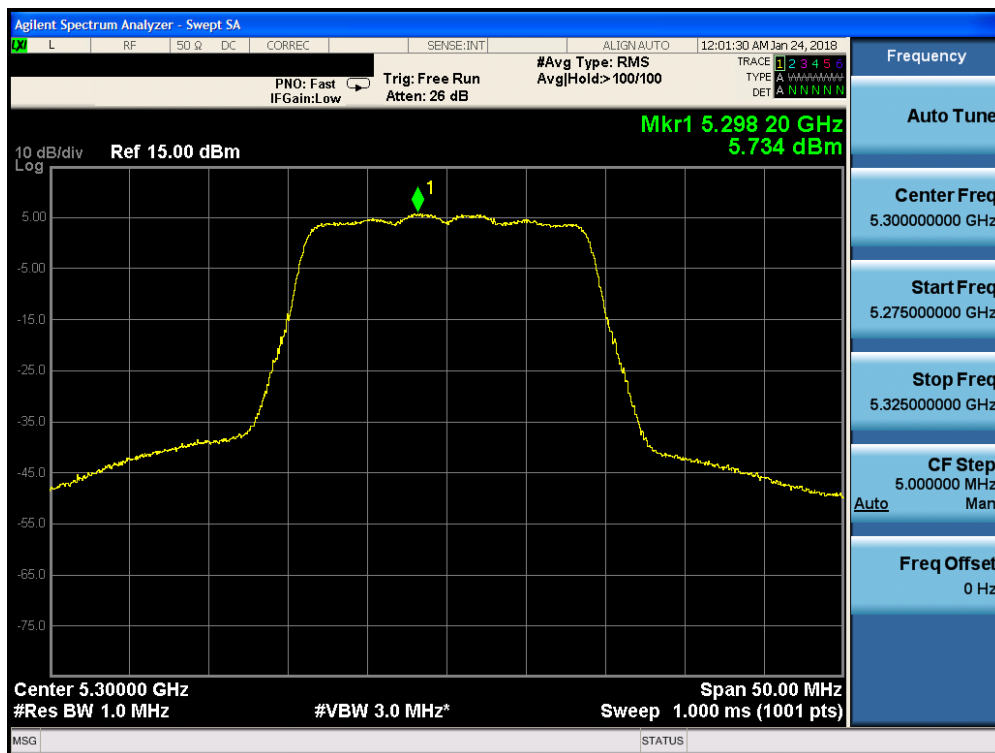


Plot 7-227. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11n (UNII Band 2A) – Ch. 56)

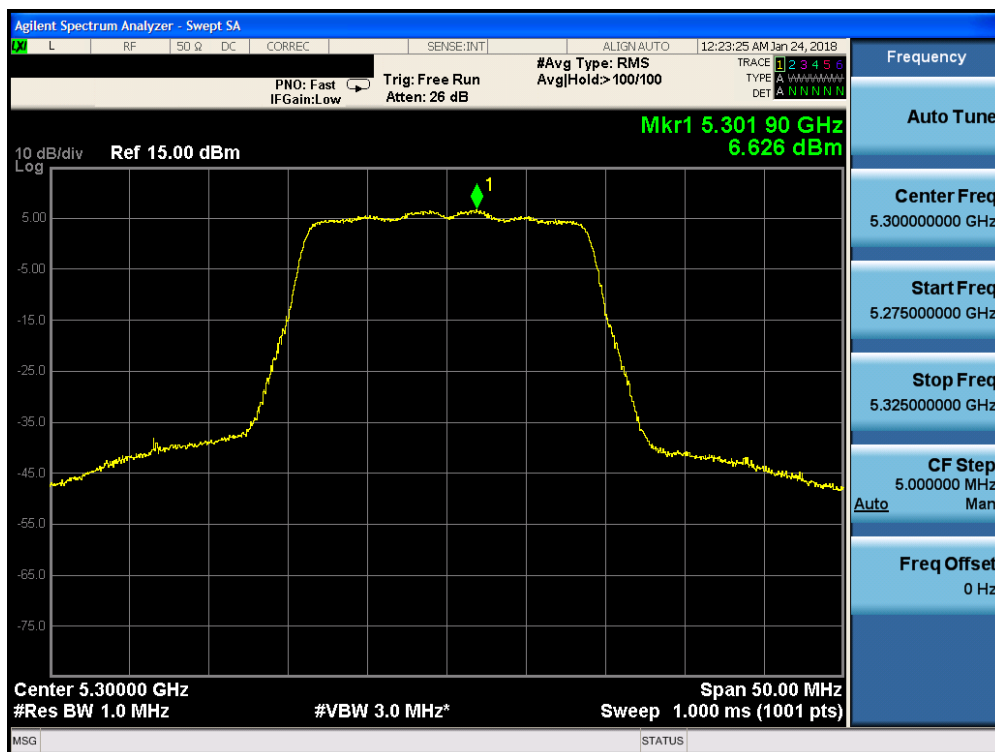


Plot 7-228. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11n (UNII Band 2A) – Ch. 56)

| | | | |
|--|---|----------------------------|---------------------------------|
| FCC ID: BCGA1893 |  MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 154 of 298 |

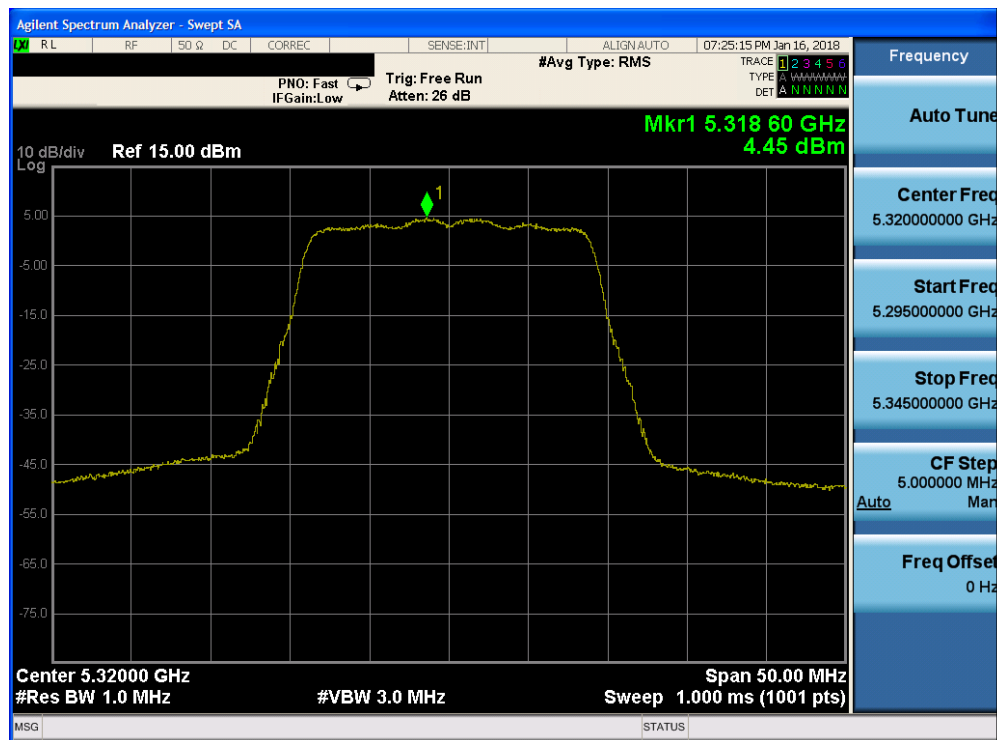


Plot 7-229. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11n (UNII Band 2A) – Ch. 60)

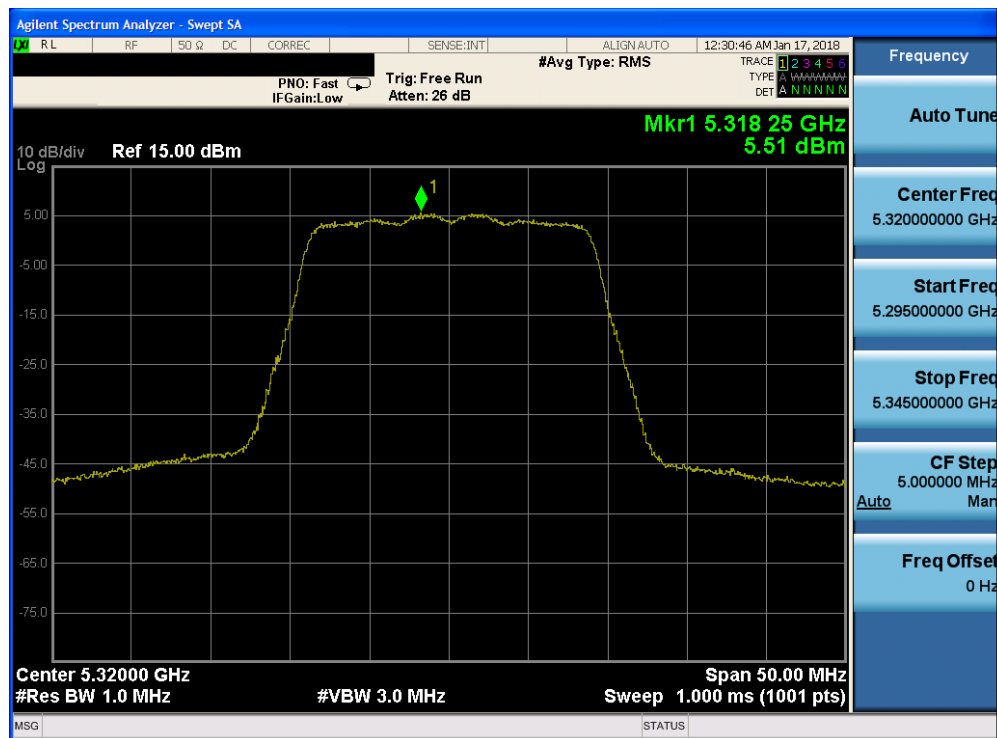


Plot 7-230. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11n (UNII Band 2A) – Ch. 60)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 155 of 298 |



Plot 7-231. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11n (UNII Band 2A) – Ch. 64)



Plot 7-232. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11n (UNII Band 2A) – Ch. 64)

| | | | |
|--|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA1893 | PCTEST ENGINEERING LABORATORY, INC. | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C1710060005-03-R1.BCG | Test Dates: 10/31-2/20/2018 | EUT Type: Tablet Device | Page 156 of 298 |