

Appendix B

RF Test Data for 5.2G WLAN (Conducted Measurement)

Product Name: 4G LTE Wireless Gateway

Trade Mark: **GL·iNet**

Test Model: GL-X750V2C4

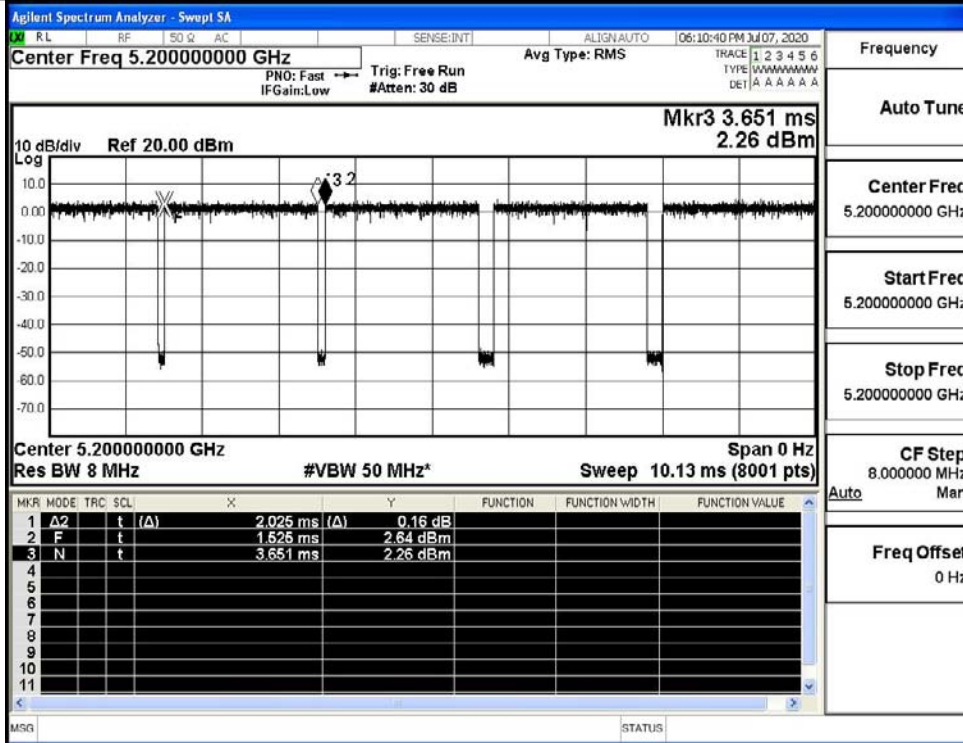
Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 23.1 ° C |
| Relative Humidity: | 54.2% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | Qu Xin |
| Supervised by: | Li Huan |

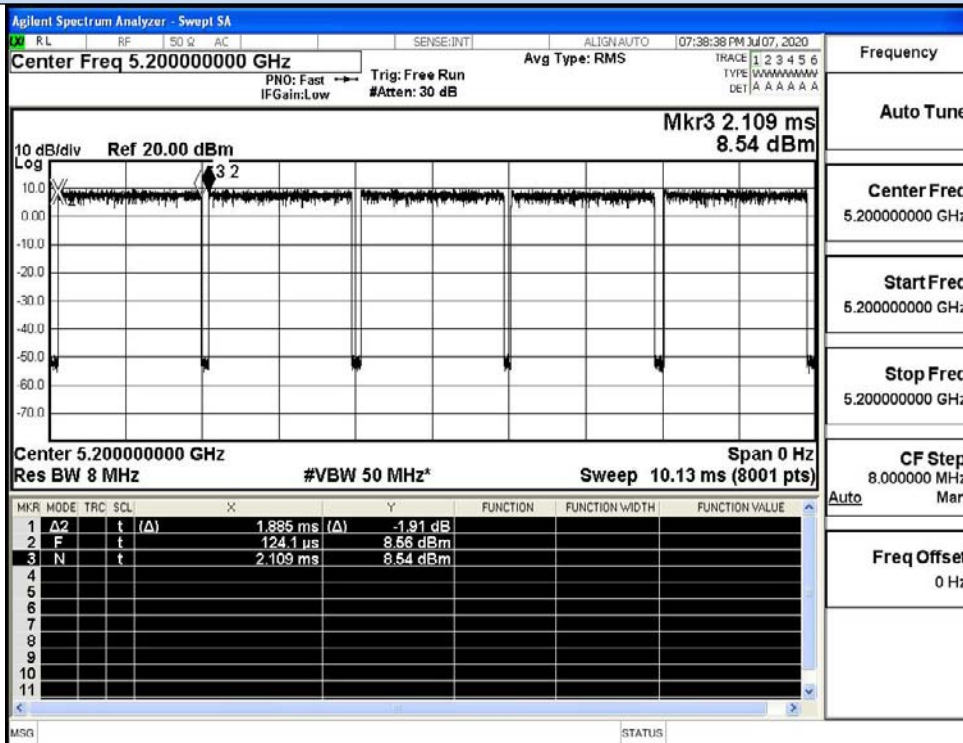
B.1 Duty Cycle

| Test Mode | Test Frequency (MHz) | Duty Cycle (%) | 10log(1/x) Factor (dB) | 1/T Minimum VBW(KHz) |
|-------------|----------------------|----------------|------------------------|----------------------|
| 11A | 5200 | 95.29 | 0.21 | 0.49 |
| 11N20 SISO | 5200 | 94.96 | 0.22 | 0.53 |
| 11N40 SISO | 5190 | 92.07 | 0.36 | 1.08 |
| 11AC20 SISO | 5200 | 93.98 | 0.27 | 0.53 |
| 11AC40 SISO | 5190 | 92.82 | 0.32 | 1.07 |
| 11AC80 SISO | 5210 | 47.83 | 3.20 | 14.35 |

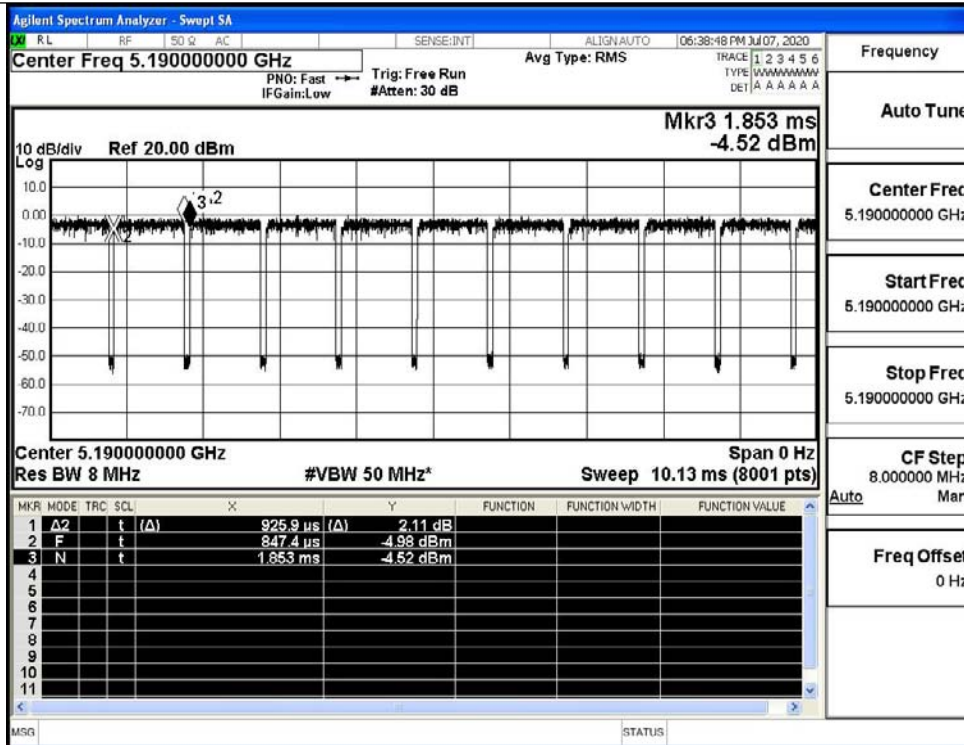
On Time and Duty Cycle



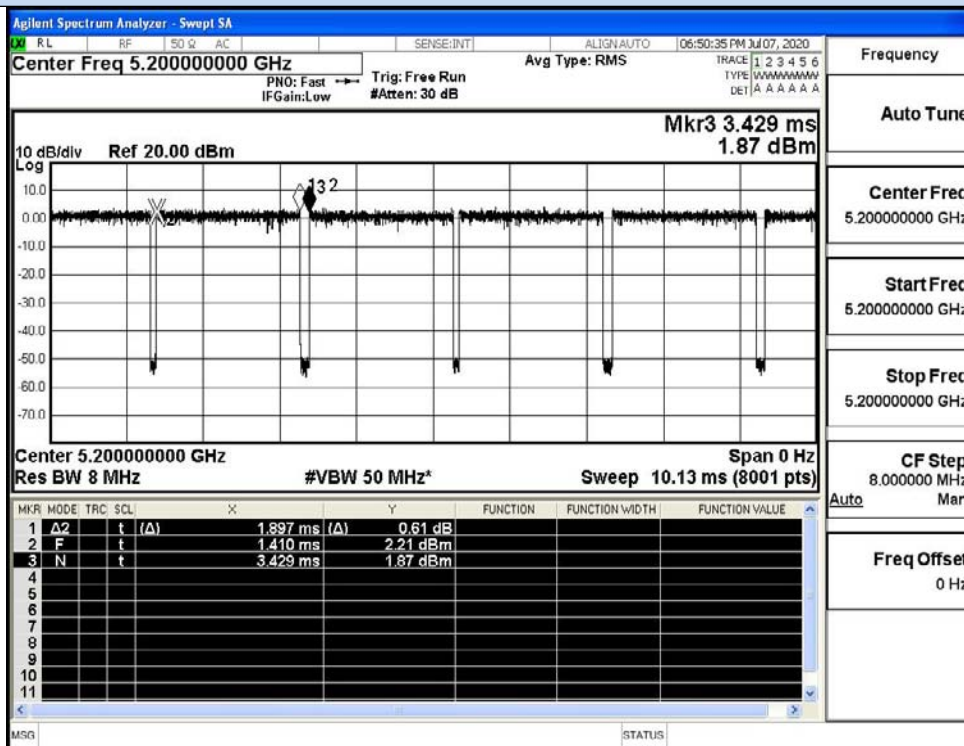
IEEE 802.11a



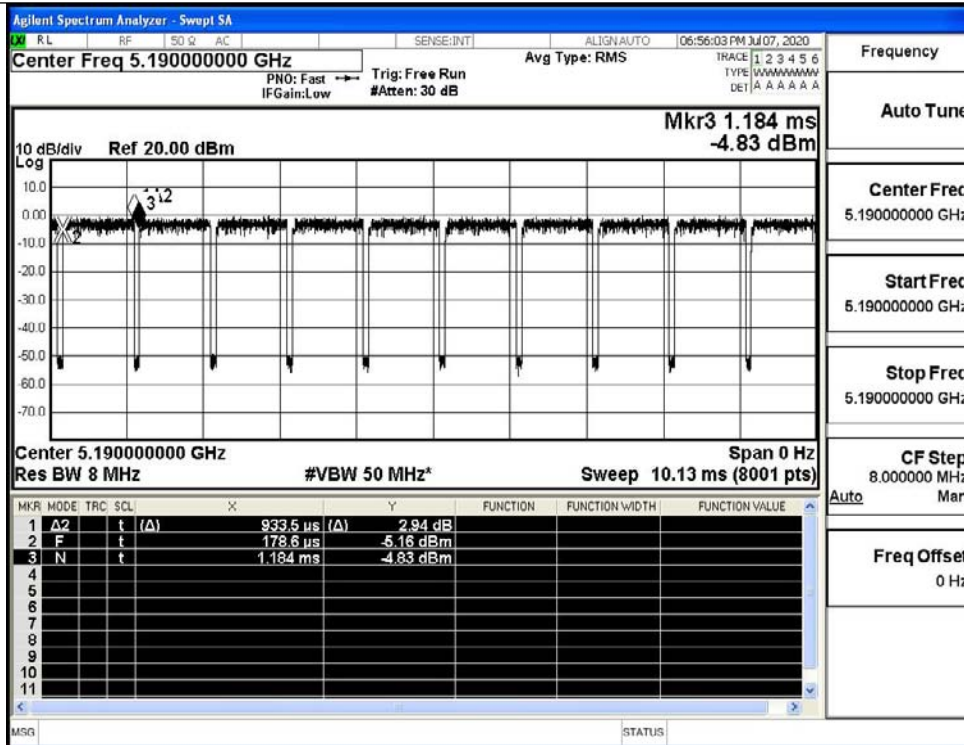
IEEE 802.11n HT20



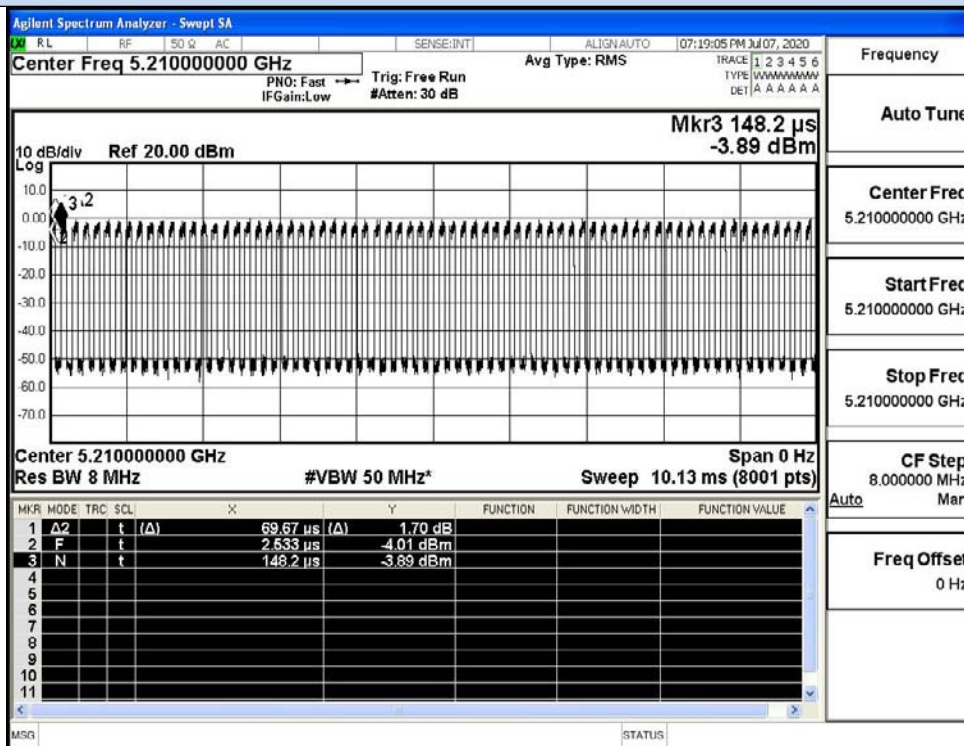
IEEE 802.11n HT40



IEEE 802.11AC20



IEEE 802.11 AC40



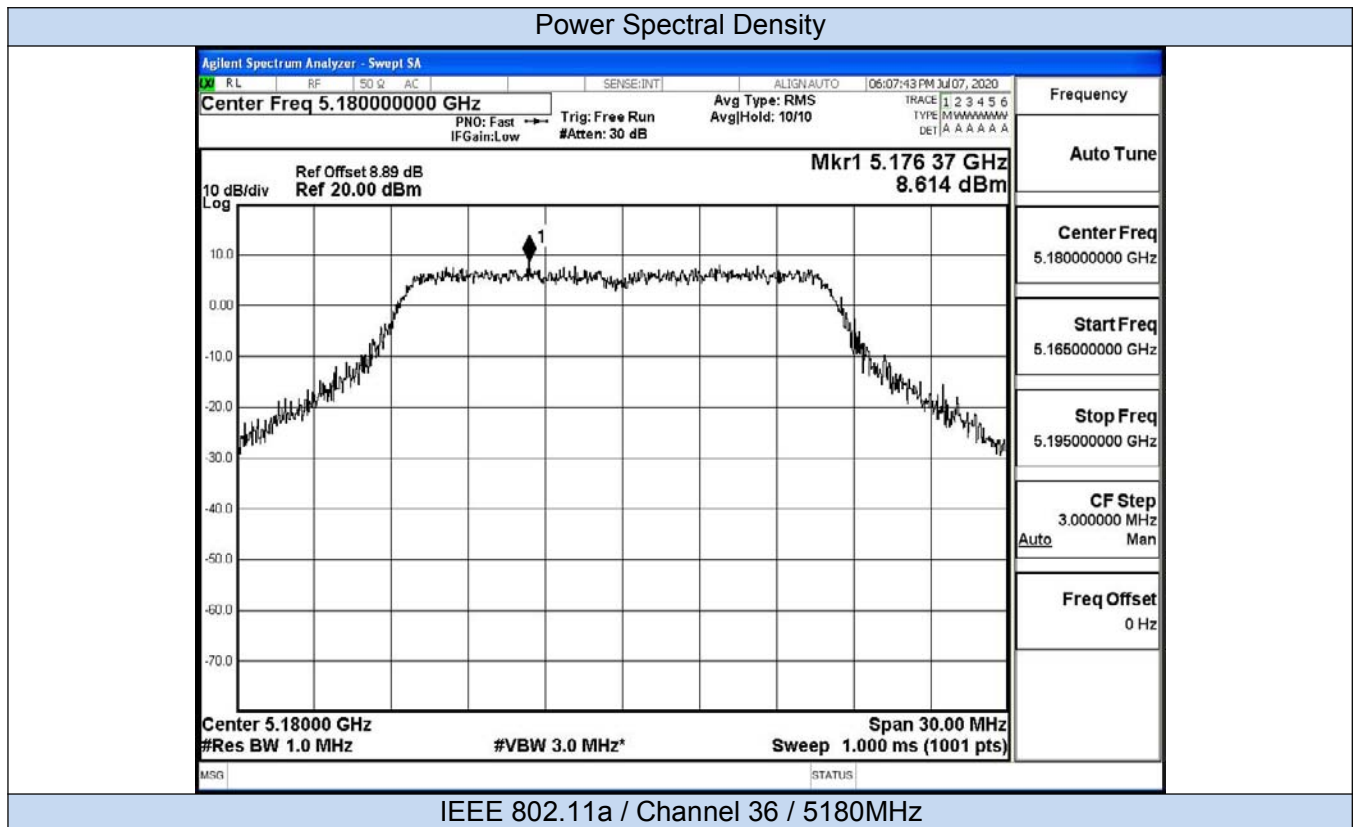
IEEE 802.11AC80

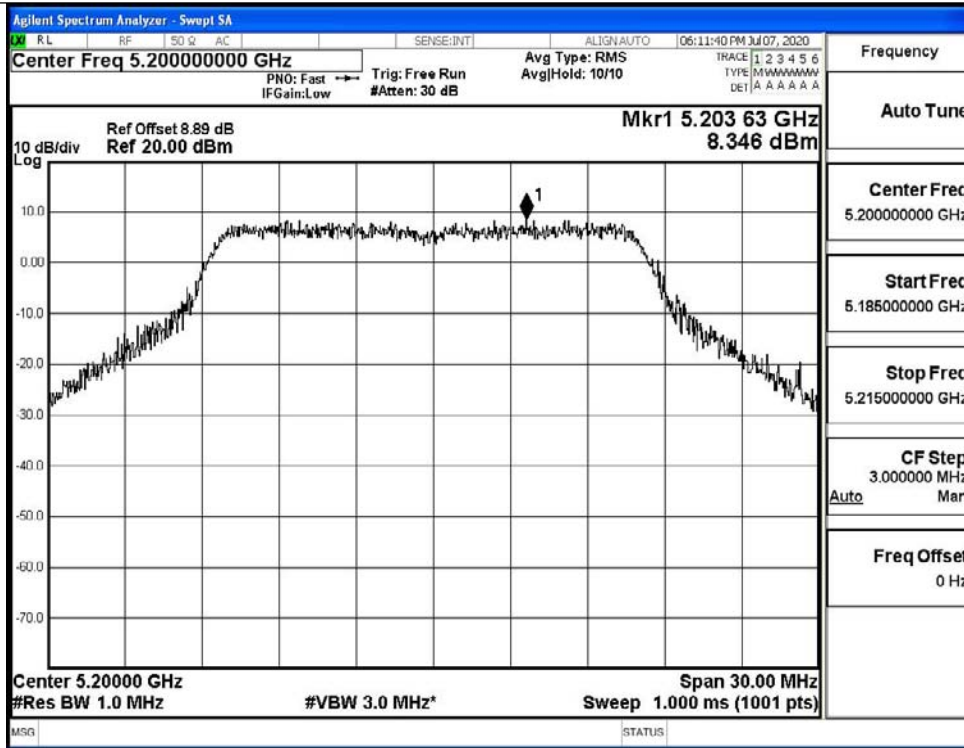
B.2 Maximum Conduct Output Power

| Test Mode | Channel | Frequency (MHz) | AVG Conducted Power (dBm) | Duty Cycle Factor (dB) | Report Conducted Power (dBm) | Limit (dBm) | Verdict |
|-------------|---------|-----------------|---------------------------|------------------------|------------------------------|-------------|---------|
| 11A | 36 | 5180 | 18.23 | 0.35 | 18.58 | 24 | Pass |
| | 40 | 5200 | 18.64 | 0.21 | 18.85 | | Pass |
| | 48 | 5240 | 19.45 | 0.35 | 19.8 | | Pass |
| 11N20 SISO | 36 | 5180 | 18.33 | 0.21 | 18.54 | 24 | Pass |
| | 40 | 5200 | 16.72 | 0.22 | 16.94 | | Pass |
| | 48 | 5240 | 18.72 | 0.22 | 18.94 | | Pass |
| 11N40 SISO | 38 | 5190 | 17.82 | 0.36 | 18.18 | 24 | Pass |
| | 46 | 5230 | 18.5 | 0.33 | 18.83 | | Pass |
| 11AC20 SISO | 36 | 5180 | 17.93 | 0.17 | 18.1 | 24 | Pass |
| | 40 | 5200 | 18.32 | 0.27 | 18.59 | | Pass |
| | 48 | 5240 | 18.91 | 0.17 | 19.08 | | Pass |
| 11AC40 SISO | 38 | 5190 | 17.83 | 0.32 | 18.15 | 24 | Pass |
| | 46 | 5230 | 18.38 | 0.31 | 18.69 | | Pass |
| 11AC80 SISO | 42 | 5210 | 17.09 | 3.2 | 20.29 | 24 | Pass |

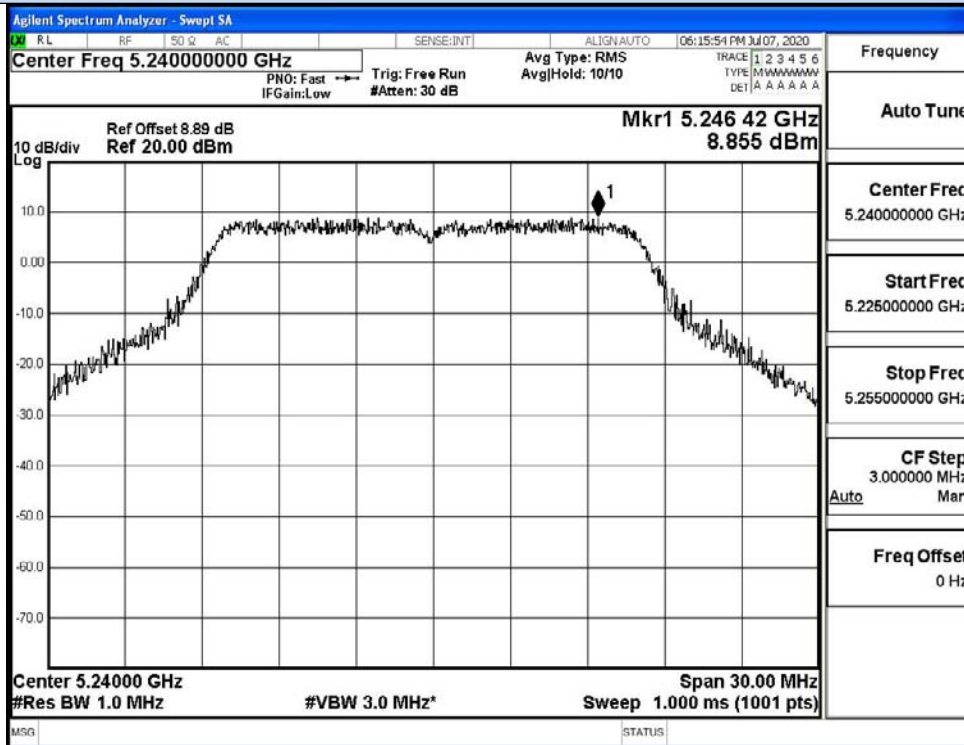
B.3 Power Spectral Density

| Test Mode | Channel | Frequency (MHz) | Power Density (dBm/MHz) | Duty Cycle Factor (dB) | Report Power Density (dBm/MHz) | Limit (dBm/MHz) | Verdict |
|-------------|---------|-----------------|-------------------------|------------------------|--------------------------------|-----------------|---------|
| 11A | 36 | 5180 | 8.61 | 0.35 | 8.96 | 11 | Pass |
| | 40 | 5200 | 8.35 | 0.21 | 8.56 | | Pass |
| | 48 | 5240 | 8.86 | 0.35 | 9.21 | | Pass |
| 11N20 SISO | 36 | 5180 | 8.10 | 0.21 | 8.31 | 11 | Pass |
| | 40 | 5200 | 6.53 | 0.22 | 6.75 | | Pass |
| | 48 | 5240 | 9.50 | 0.22 | 9.72 | | Pass |
| 11N40 SISO | 38 | 5190 | 4.24 | 0.36 | 4.60 | 11 | Pass |
| | 46 | 5230 | 5.02 | 0.33 | 5.35 | | Pass |
| 11AC20 SISO | 36 | 5180 | 7.23 | 0.17 | 7.40 | 11 | Pass |
| | 40 | 5200 | 7.64 | 0.27 | 7.91 | | Pass |
| | 48 | 5240 | 8.19 | 0.17 | 8.36 | | Pass |
| 11AC40 SISO | 38 | 5190 | 4.61 | 0.32 | 4.93 | 11 | Pass |
| | 46 | 5230 | 5.15 | 0.31 | 5.46 | | Pass |
| 11AC80 SISO | 42 | 5210 | 5.62 | 3.2 | 8.82 | 11 | Pass |



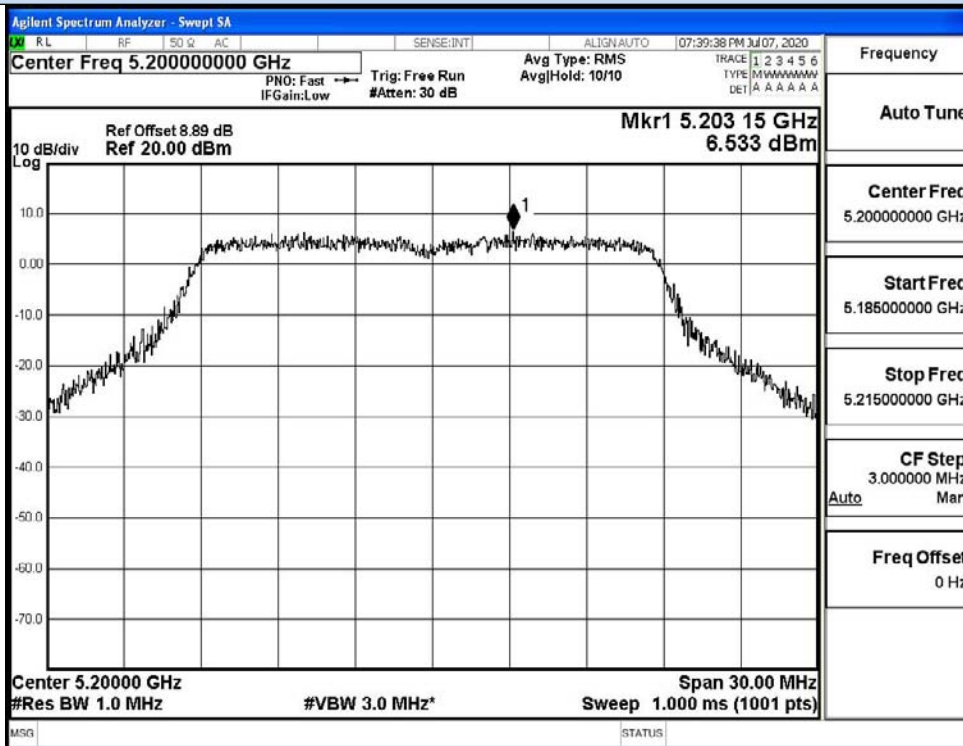
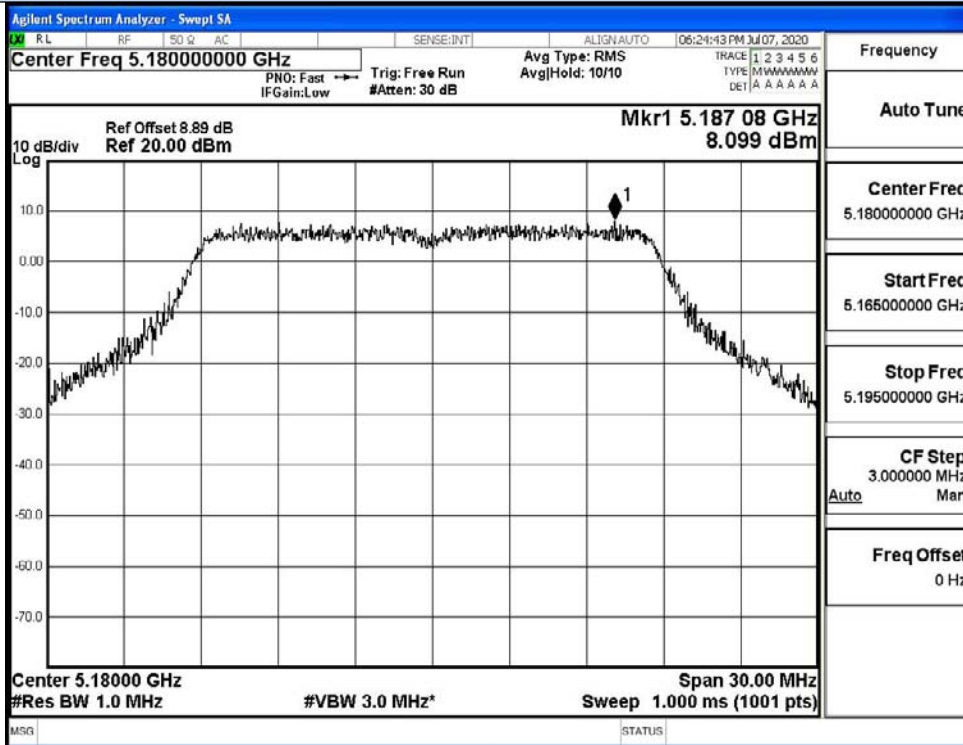


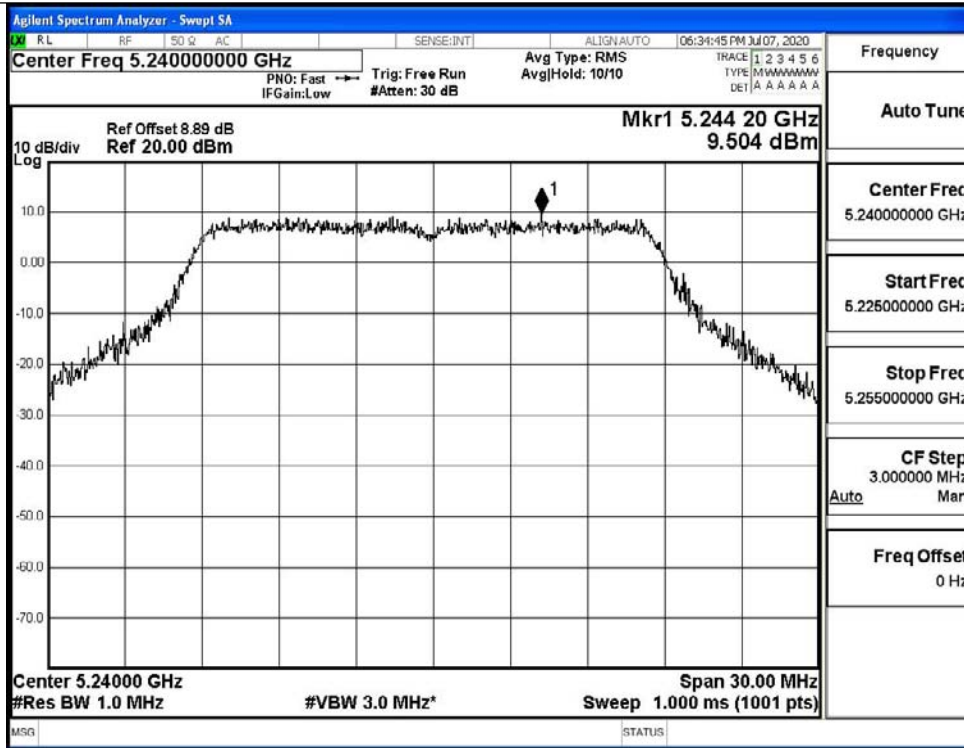
IEEE 802.11na / Channel 40 / 5200MHz



IEEE 802.11na / Channel 48 / 5240MHz

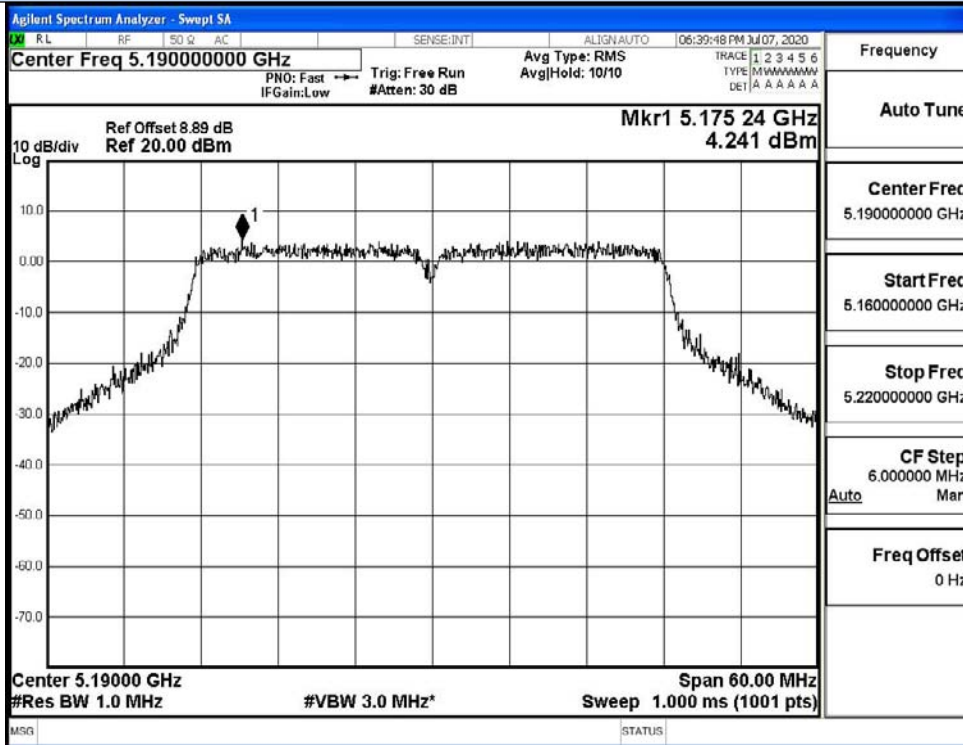
Power Spectral Density



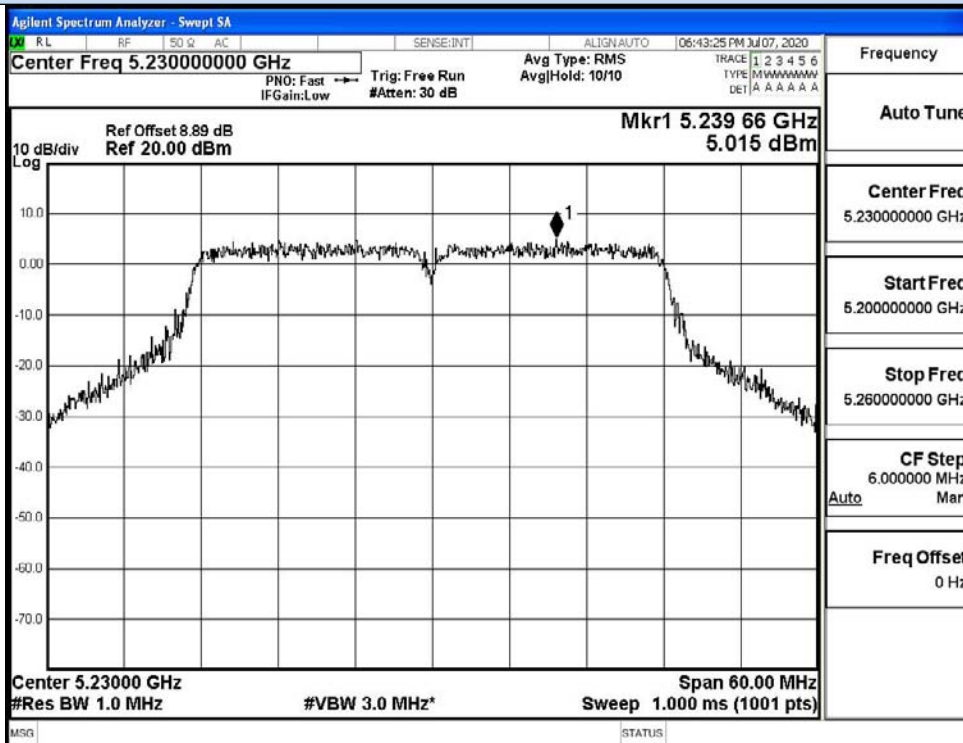


IEEE 802.11n20 / Channel 48 / 5240MHz

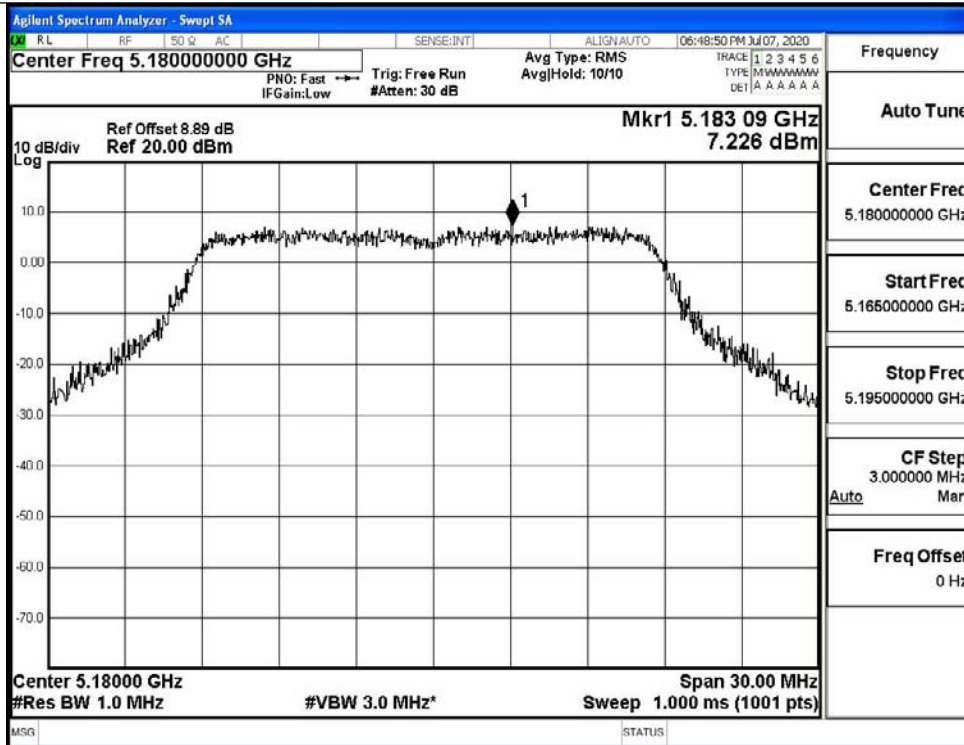
Power Spectral Density



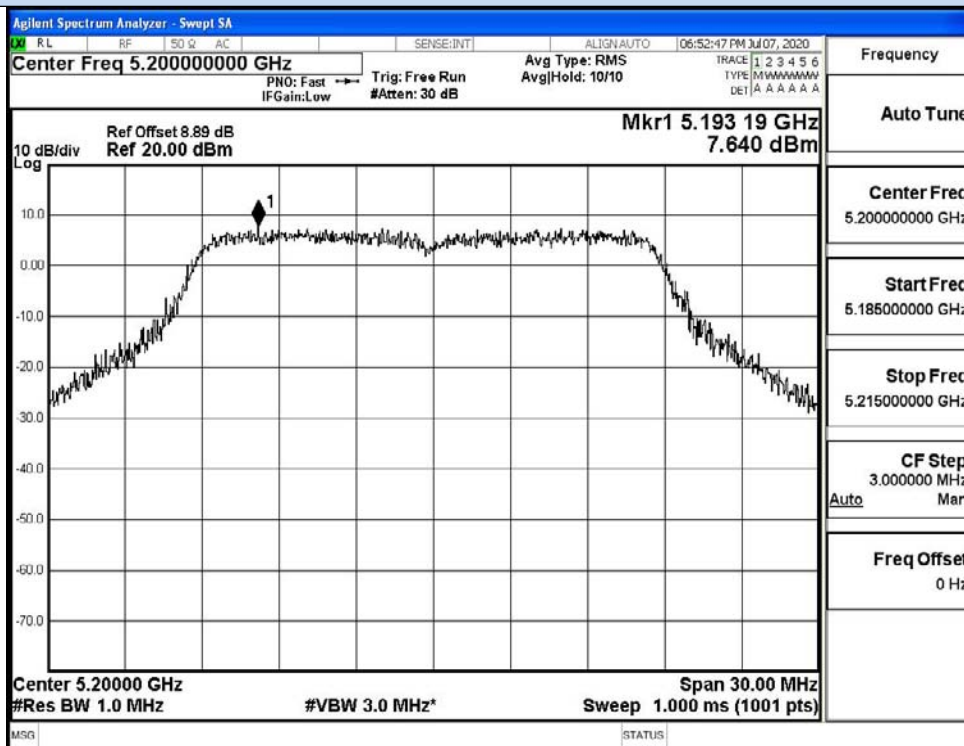
IEEE 802.11n40 / Channel 38 / 5190MHz



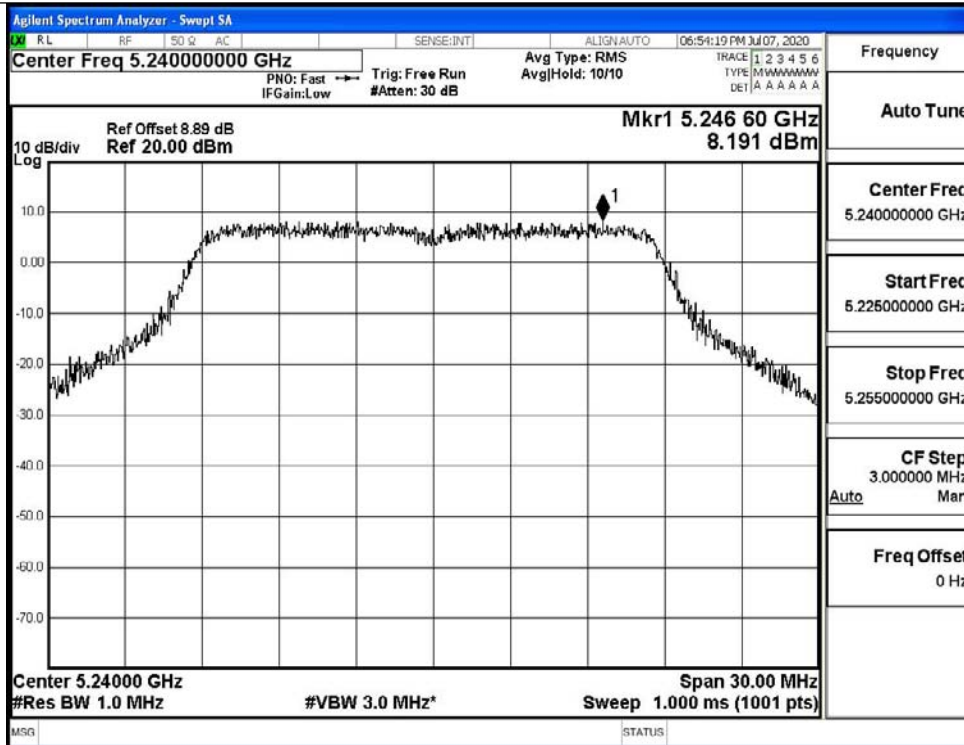
IEEE 802.11n40 / Channel 46 / 5230MHz



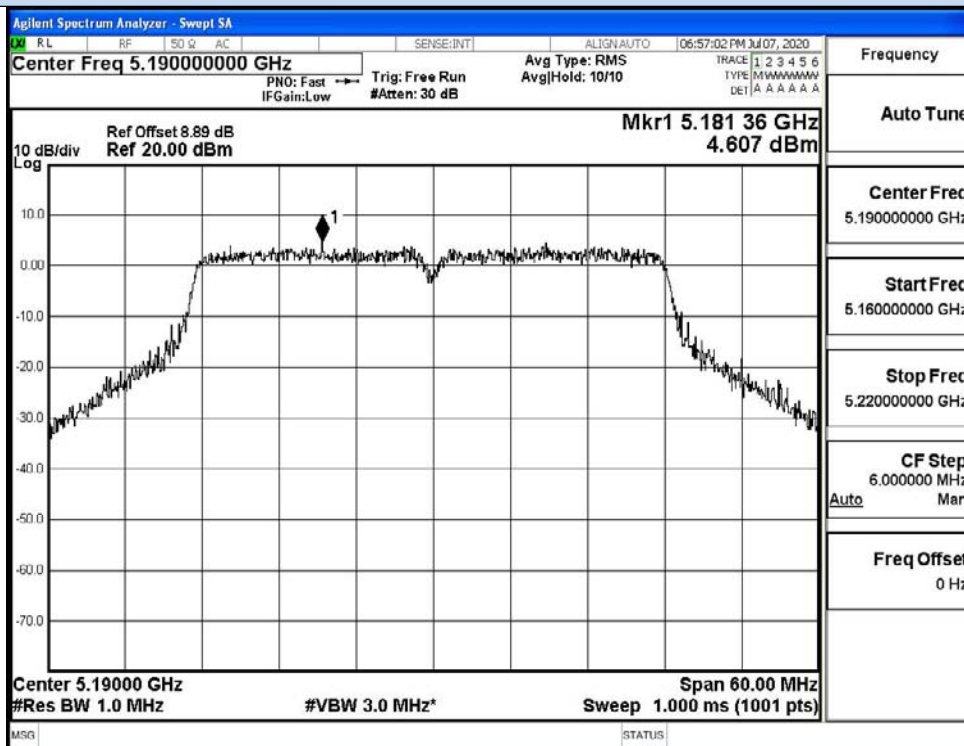
IEEE 802.11ac20 / Channel 36 / 5180MHz



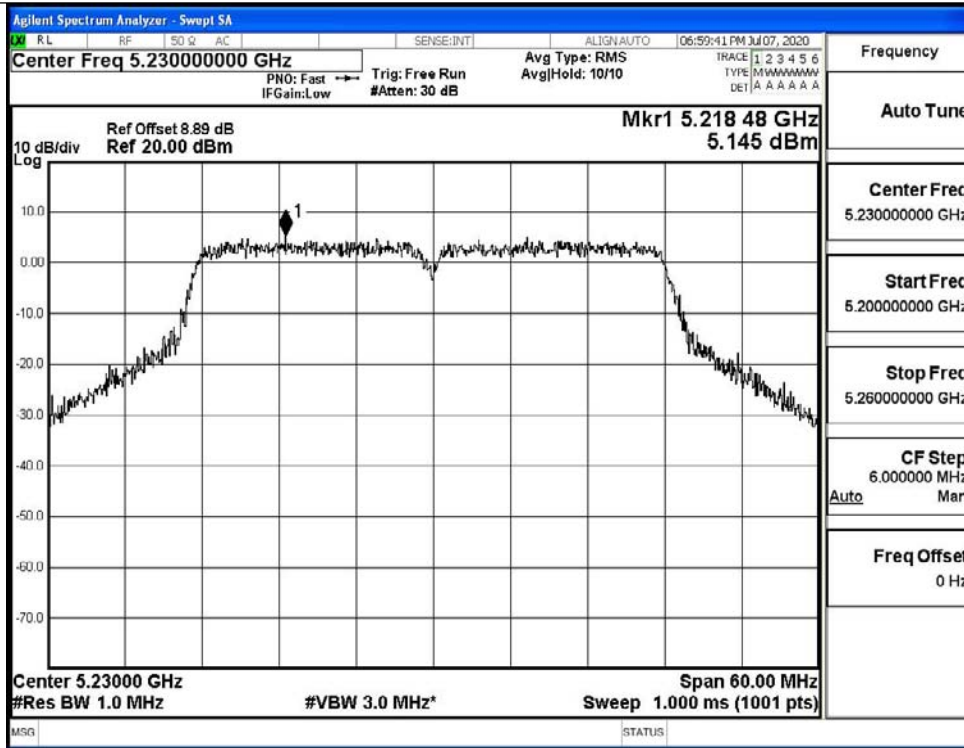
IEEE 802.11ac20 / Channel 40 / 5200MHz



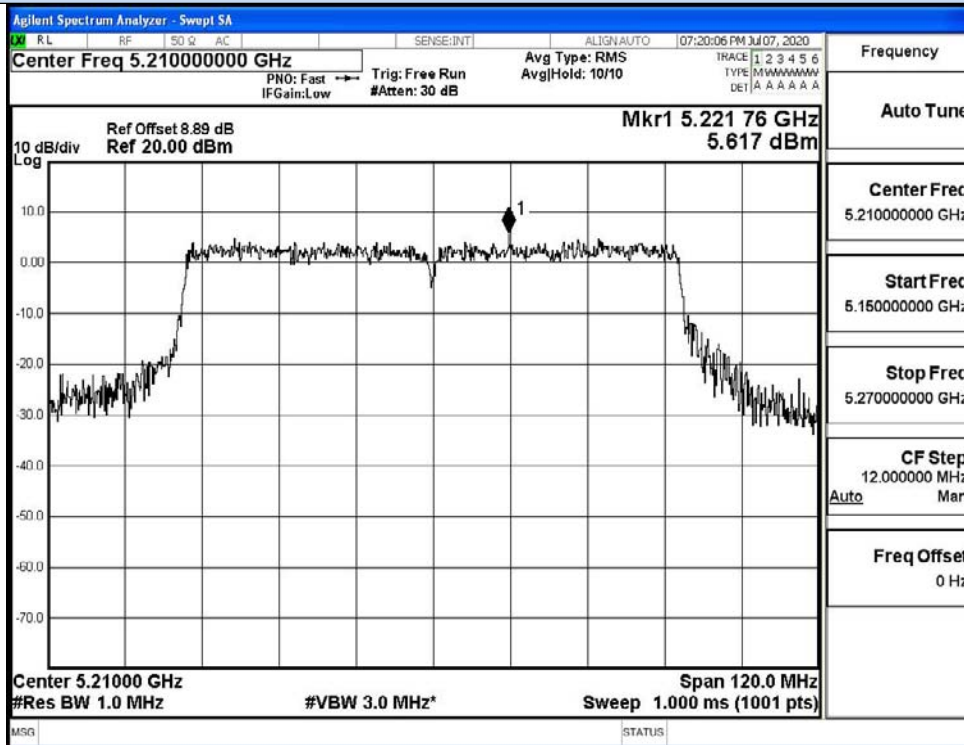
IEEE 802.11ac20 / Channel 48 / 5240MHz



IEEE 802.11ac40 / Channel 38 / 5190MHz



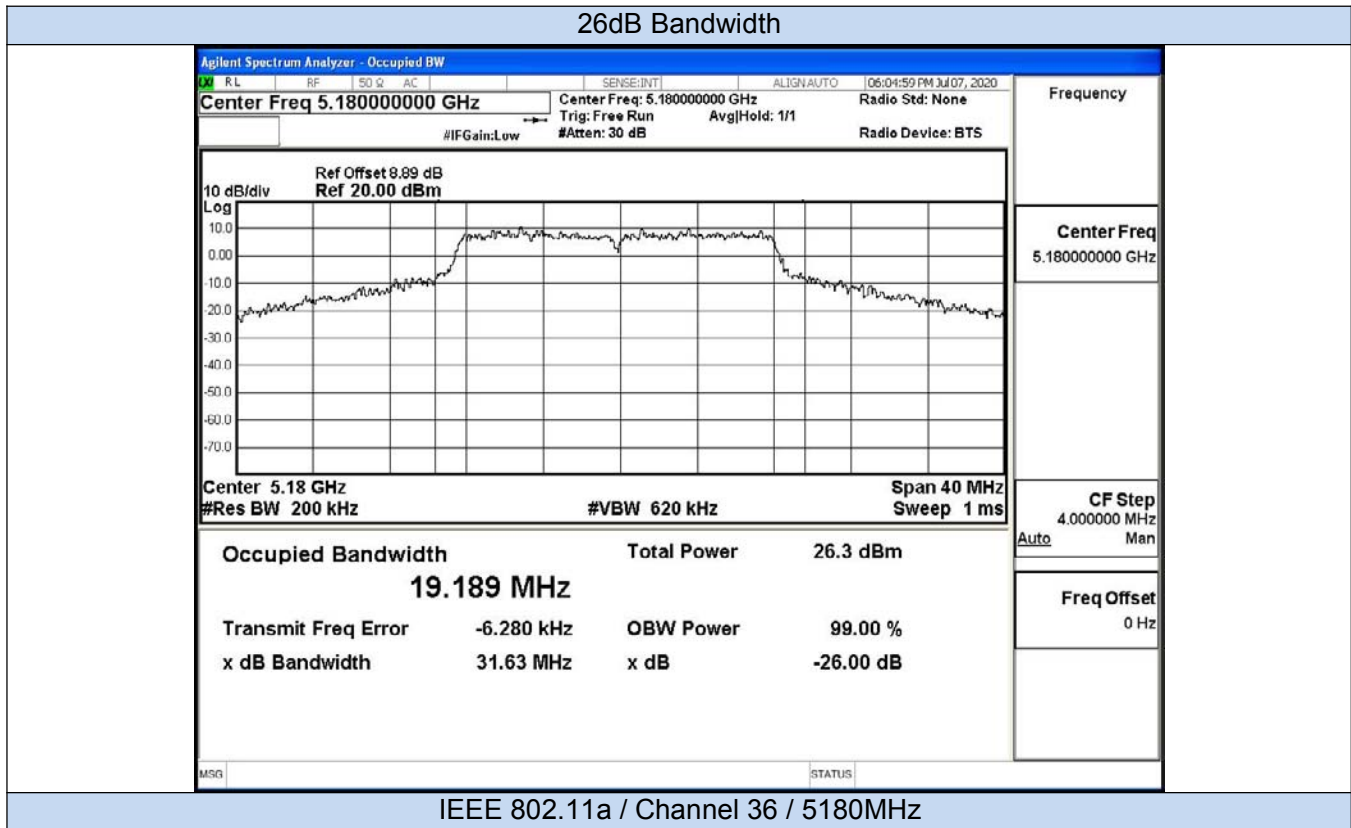
IEEE 802.11ac40 / Channel 46 / 5230MHz

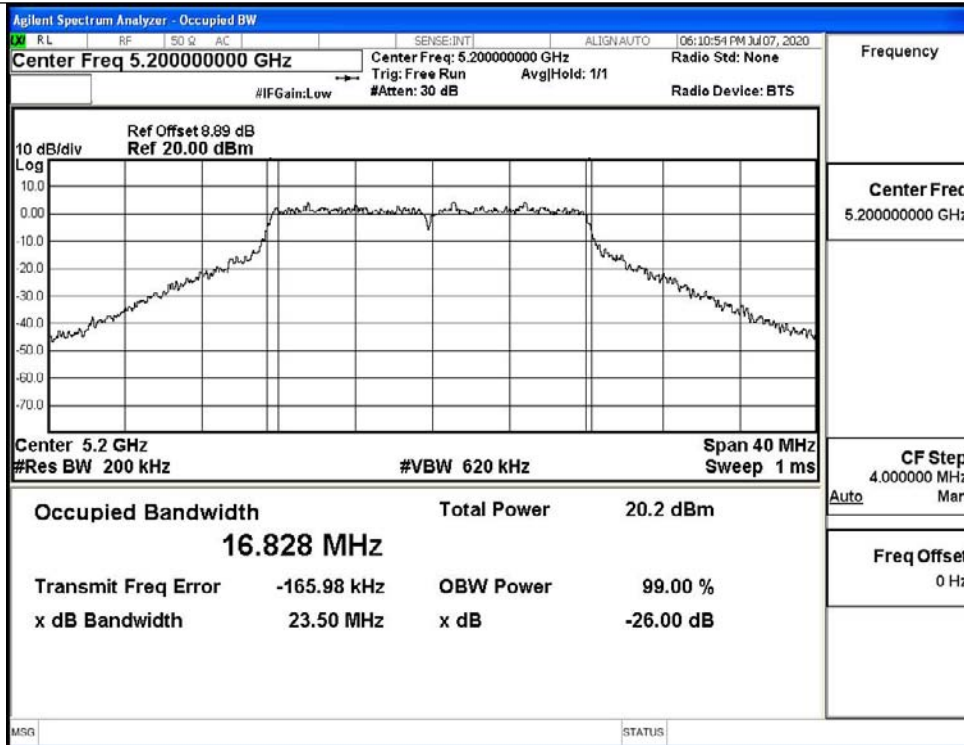


IEEE 802.11ac80 / Channel 42 / 5210MHz

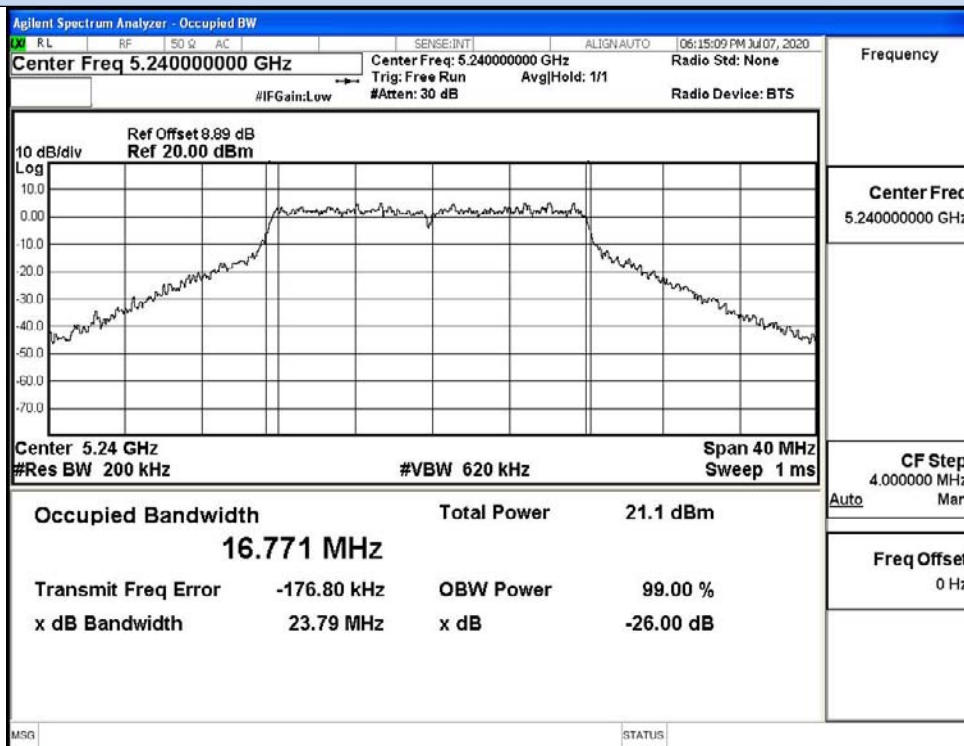
B.4 Emission Bandwidth

| Test Mode | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Limit (MHz) | Verdict |
|-------------|---------|-----------------|----------------------|-------------|---------|
| 11A | 36 | 5180 | 31.63 | No Limit | Pass |
| | 40 | 5200 | 23.50 | | Pass |
| | 48 | 5240 | 23.79 | | Pass |
| 11N20 SISO | 36 | 5180 | 24.24 | No Limit | Pass |
| | 40 | 5200 | 23.97 | | Pass |
| | 48 | 5240 | 24.95 | | Pass |
| 11N40 SISO | 38 | 5190 | 48.26 | No Limit | Pass |
| | 46 | 5230 | 47.29 | | Pass |
| 11AC20 SISO | 36 | 5180 | 23.58 | No Limi | Pass |
| | 40 | 5200 | 24.81 | | Pass |
| | 48 | 5240 | 24.54 | | Pass |
| 11AC40 SISO | 38 | 5190 | 47.77 | No Limi | Pass |
| | 46 | 5230 | 48.06 | | Pass |
| 11AC80 SISO | 42 | 5210 | 95.50 | No Limi | Pass |



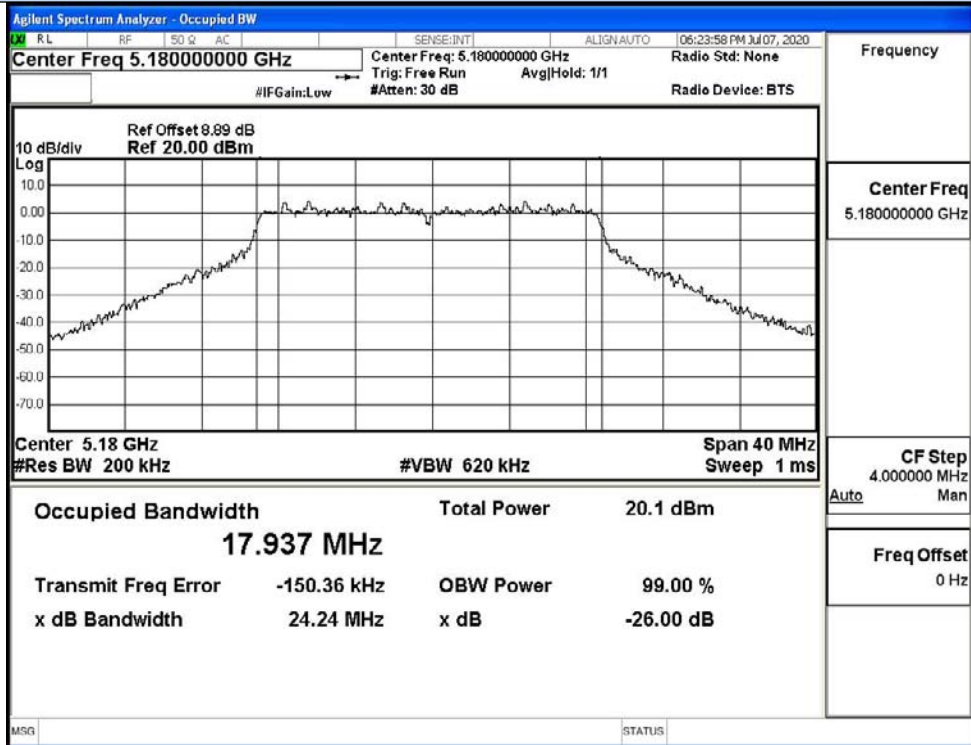


IEEE 802.11a / Channel 40 / 5200MHz

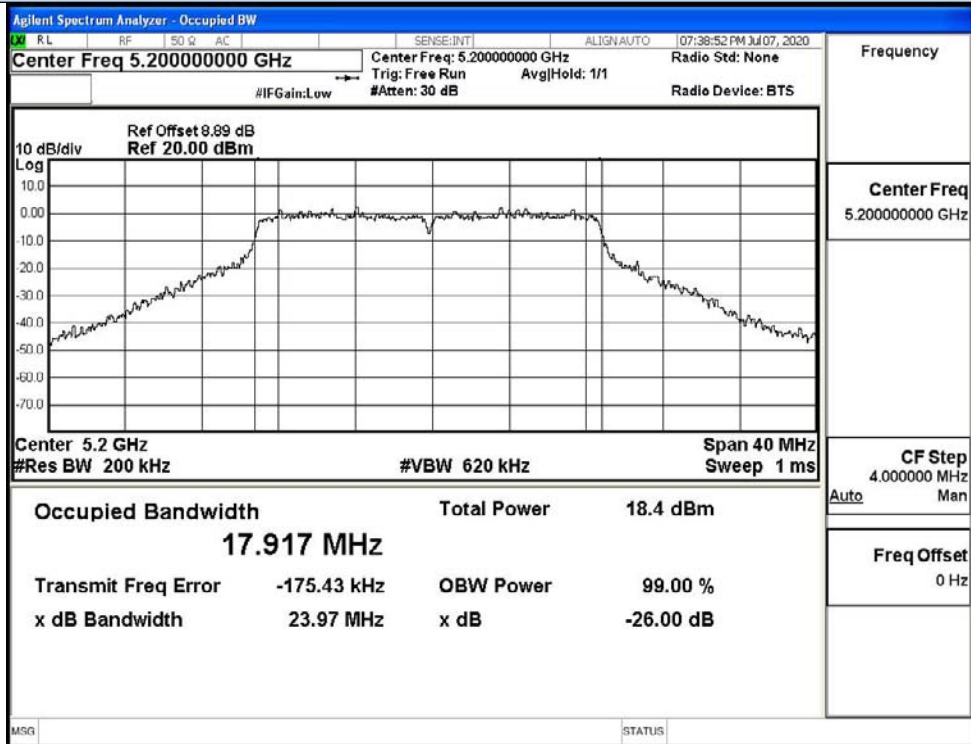


IEEE 802.11a / Channel 48 / 5240MHz

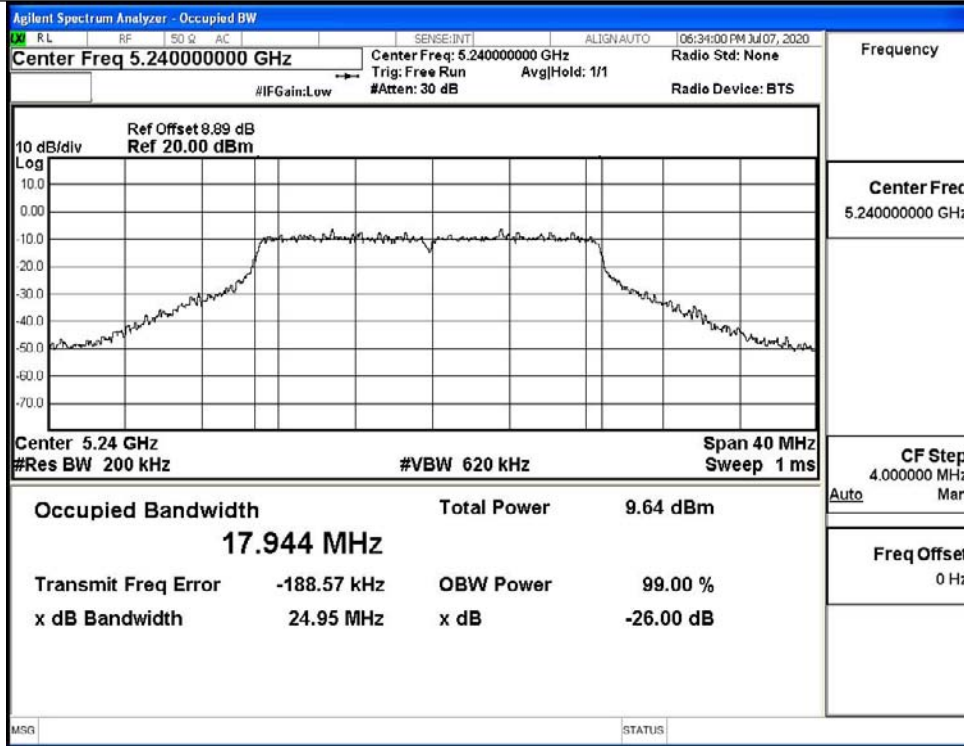
26dB Bandwidth



IEEE 802.11n20 / Channel 36 / 5180MHz

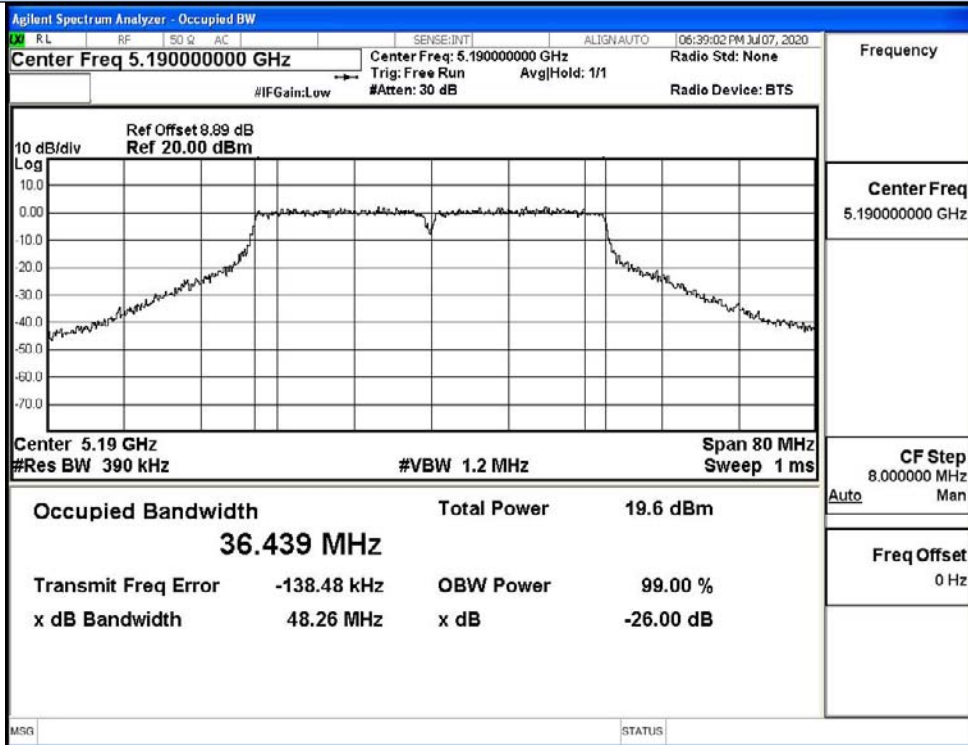


IEEE 802.11n20 / Channel 40 / 5200MHz

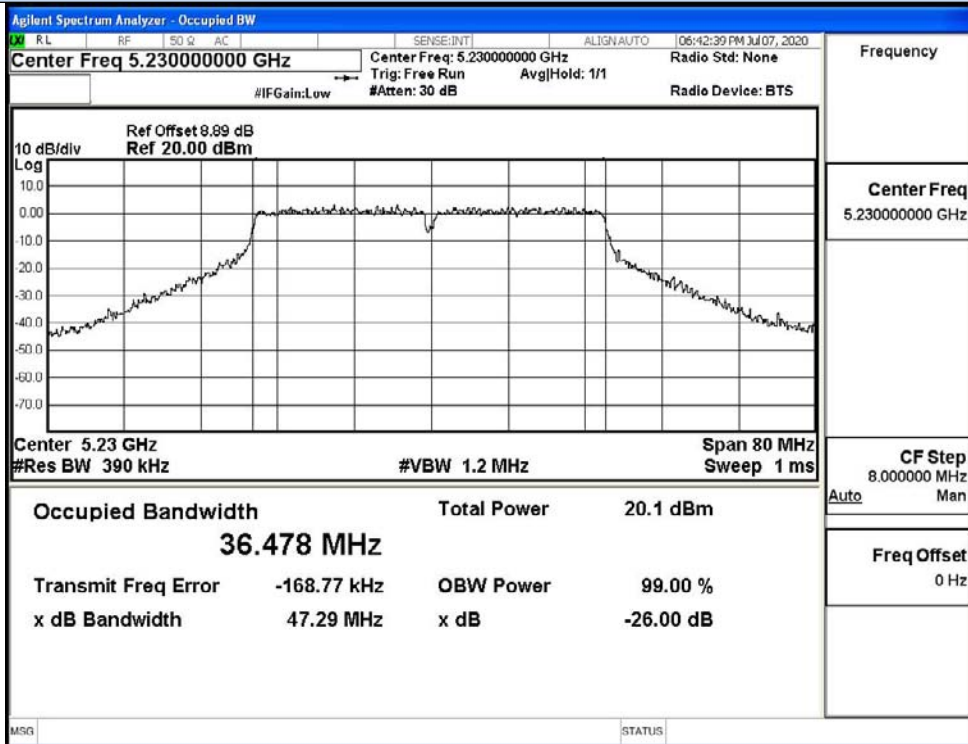


IEEE 802.11n20 / Channel 48 / 5240MHz

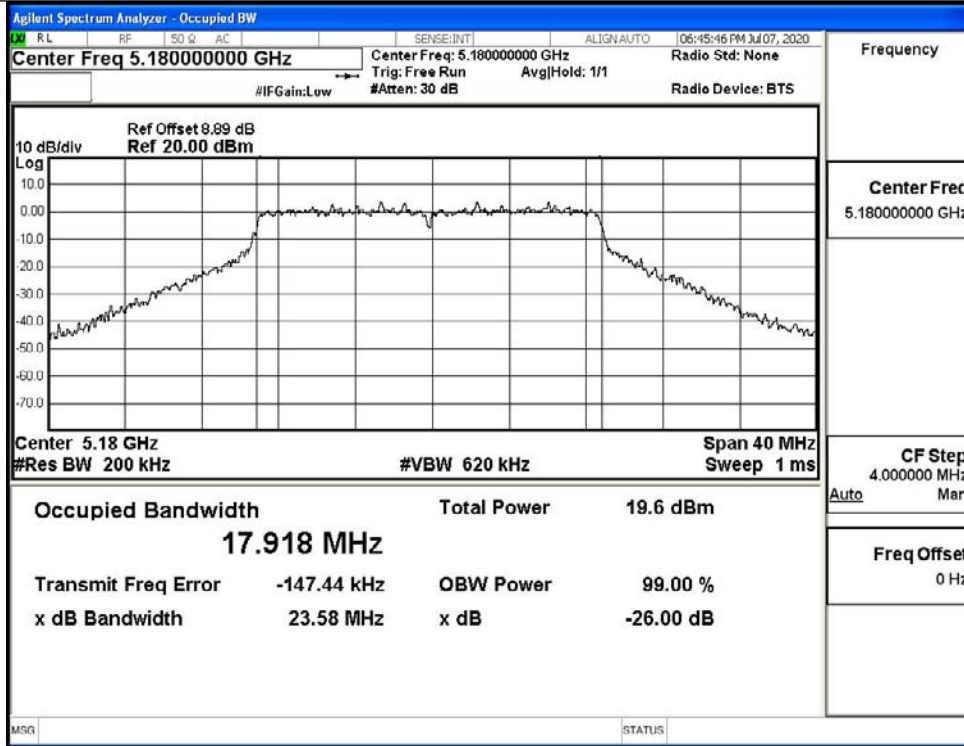
26dB Bandwidth



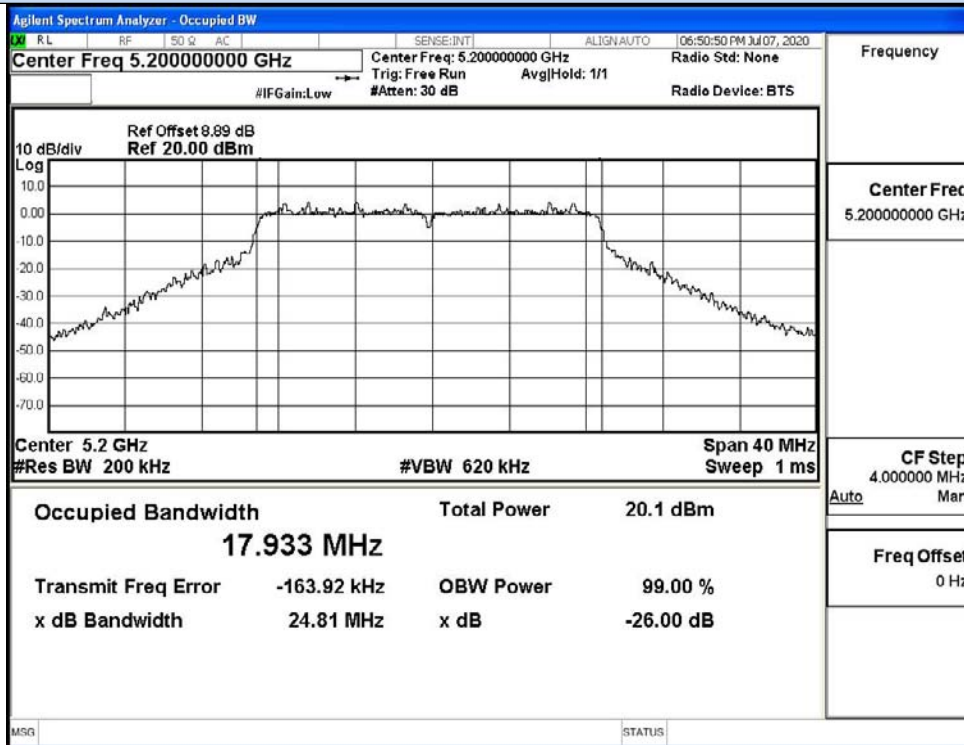
IEEE 802.11n40 / Channel 38 / 5190MHz



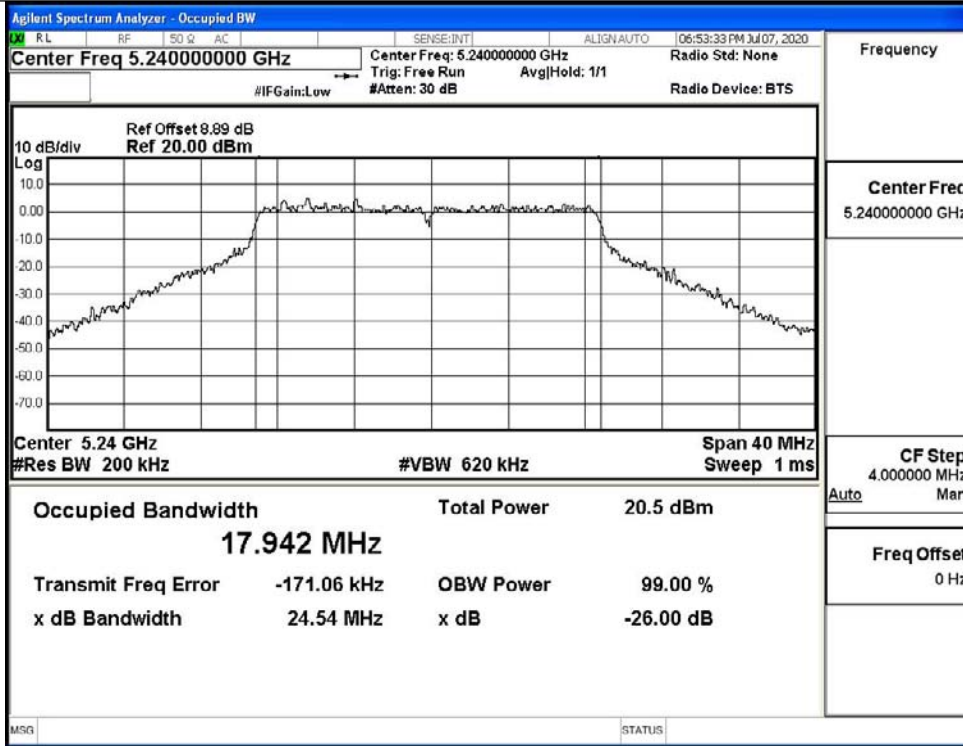
IEEE 802.11n40 / Channel 46 / 5230MHz



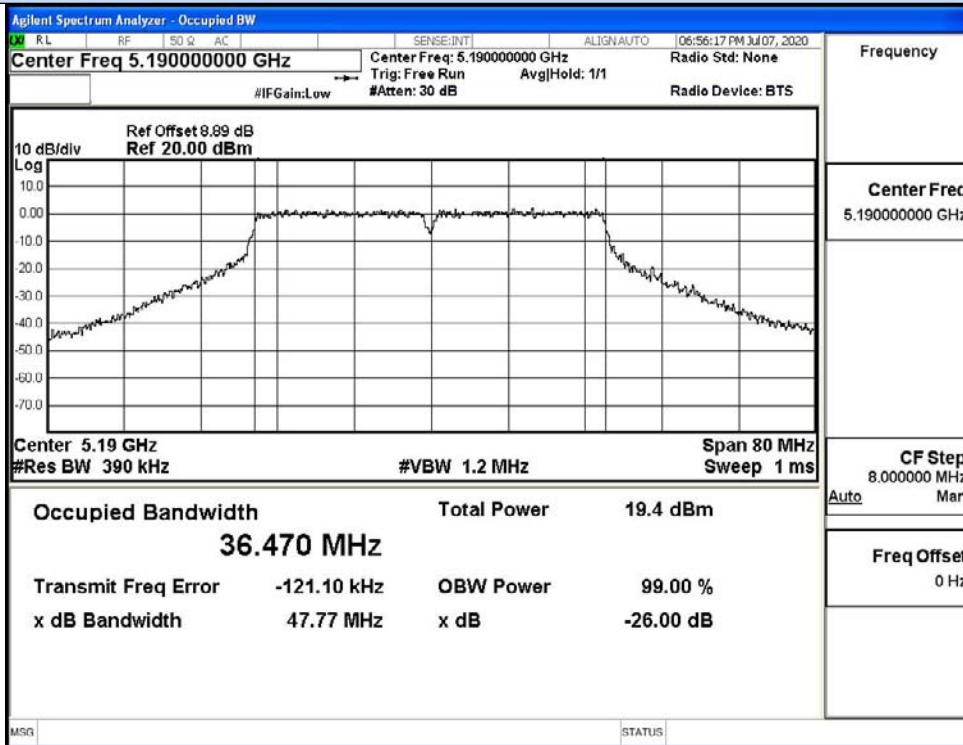
IEEE 802.11ac20 / Channel 36 / 5180MHz



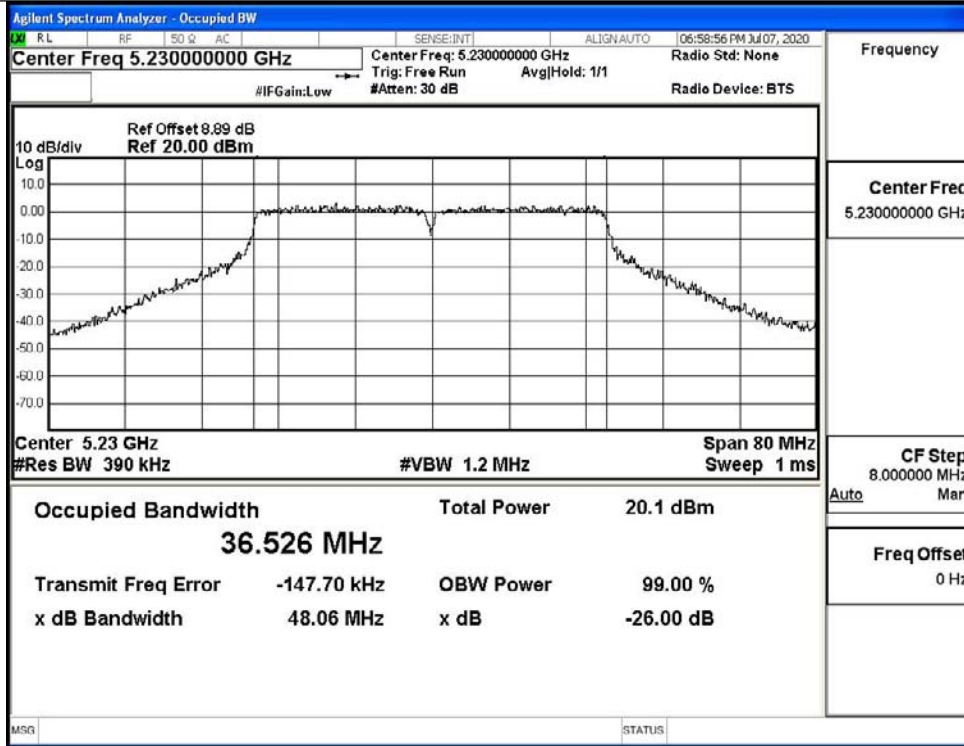
IEEE 802.11ac20 / Channel 40 / 5200MHz



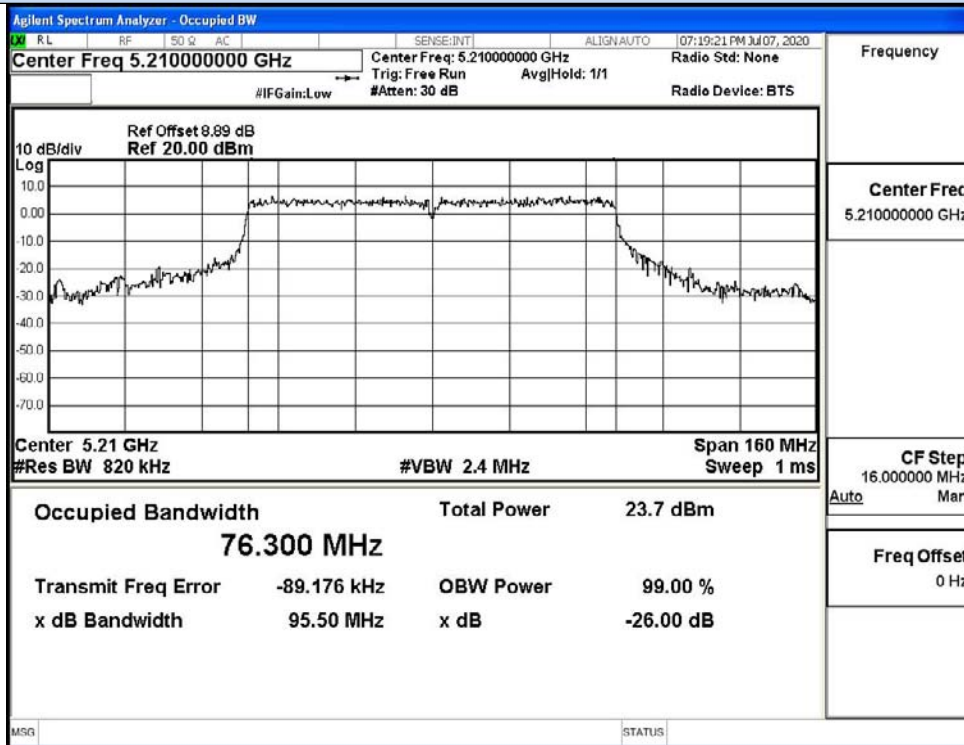
IEEE 802.11ac20 / Channel 48 / 5240MHz



IEEE 802.11ac40 / Channel 38 / 5190MHz



IEEE 802.11ac40 / Channel 46 / 5230MHz

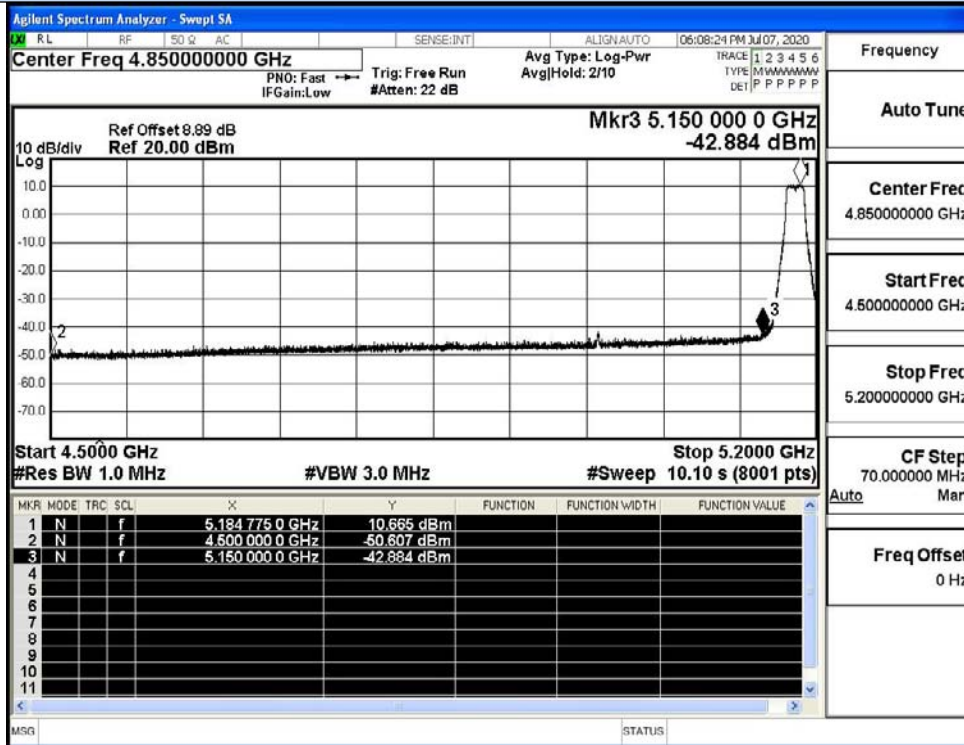


IEEE 802.11ac80 / Channel 42 / 5210MHz

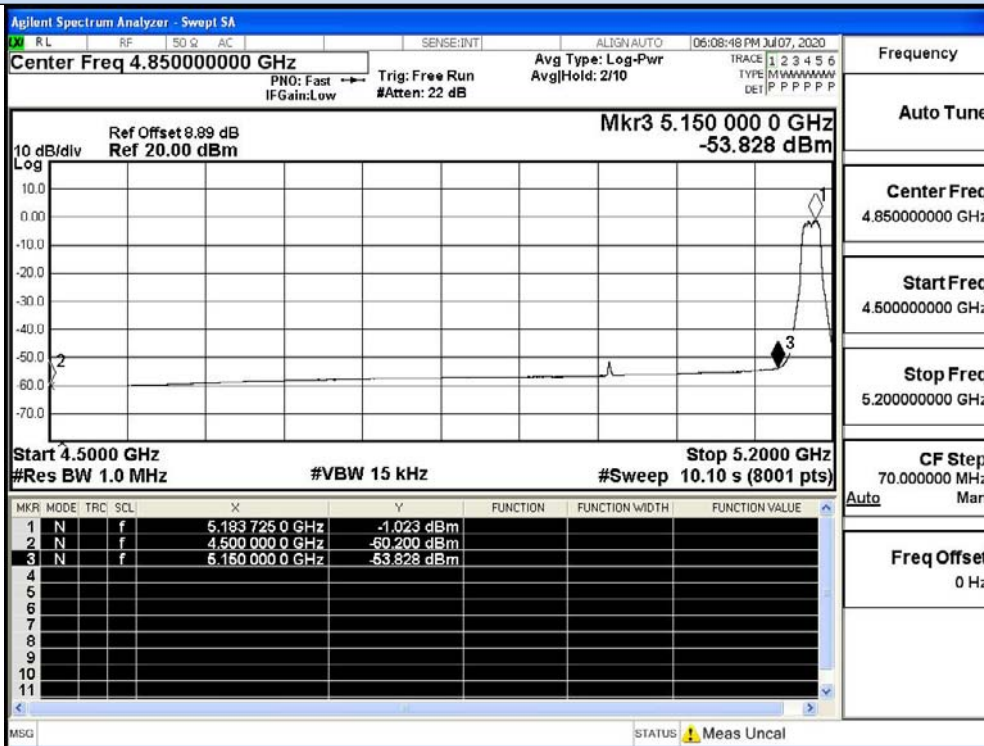
B.5 Undesirable Emissions Measurement

| Test Mode | Channel | Frequency (MHz) | Conducted Power (dBm) | Antenna Gain (dBi) | Ground Reflection Factor (dB) | Covert Radiated E Level At 3m (dBuV/m) | Detector | Limit (dBuV/m) | Verdict |
|------------------------|---------|-----------------|-----------------------|--------------------|-------------------------------|----------------------------------------|----------|----------------|---------|
| 11A | 36 | 4500.0 | -50.61 | 6.00 | 0 | 50.62 | Peak | 68.20 | Pass |
| | | 4500.0 | -60.20 | 6.00 | 0 | 41.03 | Average | 54.00 | Pass |
| | | 5150.0 | -42.88 | 6.00 | 0 | 58.35 | Peak | 68.20 | Pass |
| | 48 | 5150.0 | -53.83 | 6.00 | 0 | 47.40 | Average | 54.00 | Pass |
| | | 5350.0 | -44.07 | 6.00 | 0 | 57.16 | Peak | 68.20 | Pass |
| | | 5350.0 | -55.38 | 6.00 | 0 | 45.85 | Average | 54.00 | Pass |
| | | 5460.0 | -44.84 | 6.00 | 0 | 56.39 | Peak | 68.20 | Pass |
| 11N2 0 SISO | 36 | 5460.0 | -55.65 | 6.00 | 0 | 45.58 | Average | 54.00 | Pass |
| | | 4500.0 | -50.49 | 6.00 | 0 | 50.74 | Peak | 68.20 | Pass |
| | | 4500.0 | -60.16 | 6.00 | 0 | 41.07 | Average | 54.00 | Pass |
| | | 5150.0 | -42.85 | 6.00 | 0 | 58.38 | Peak | 68.20 | Pass |
| | 48 | 5150.0 | -53.57 | 6.00 | 0 | 47.66 | Average | 54.00 | Pass |
| | | 5350.0 | -44.93 | 6.00 | 0 | 56.30 | Peak | 68.20 | Pass |
| | | 5350.0 | -55.39 | 6.00 | 0 | 45.84 | Average | 54.00 | Pass |
| 11N4 0 SISO | 38 | 5460.0 | -45.52 | 6.00 | 0 | 55.71 | Peak | 68.20 | Pass |
| | | 5460.0 | -55.66 | 6.00 | 0 | 45.57 | Average | 54.00 | Pass |
| | | 4500.0 | -50.01 | 6.00 | 0 | 51.22 | Peak | 68.20 | Pass |
| | | 4500.0 | -59.67 | 6.00 | 0 | 41.56 | Average | 54.00 | Pass |
| | 46 | 5150.0 | -40.38 | 6.00 | 0 | 60.85 | Peak | 68.20 | Pass |
| | | 5150.0 | -51.07 | 6.00 | 0 | 50.16 | Average | 54.00 | Pass |
| | | 5350.0 | -45.59 | 6.00 | 0 | 55.64 | Peak | 68.20 | Pass |
| 11A C20 SIS O | 36 | 5350.0 | -56.05 | 6.00 | 0 | 45.18 | Average | 54.00 | Pass |
| | | 5460.0 | -46.34 | 6.00 | 0 | 54.89 | Peak | 68.20 | Pass |
| | | 5460.0 | -56.57 | 6.00 | 0 | 44.66 | Average | 54.00 | Pass |
| | | 4500.0 | -50.55 | 6.00 | 0 | 50.68 | Peak | 68.20 | Pass |
| | 48 | 4500.0 | -59.64 | 6.00 | 0 | 41.59 | Average | 54.00 | Pass |
| | | 5150.0 | -43.88 | 6.00 | 0 | 57.35 | Peak | 68.20 | Pass |
| | | 5150.0 | -53.71 | 6.00 | 0 | 47.52 | Average | 54.00 | Pass |
| 11A C40 SIS O | 38 | 4500.0 | -50.70 | 6.00 | 0 | 50.53 | Peak | 68.20 | Pass |
| | | 4500.0 | -60.26 | 6.00 | 0 | 40.97 | Average | 54.00 | Pass |
| | | 5150.0 | -40.20 | 6.00 | 0 | 61.03 | Peak | 68.20 | Pass |
| | | 5150.0 | -51.27 | 6.00 | 0 | 49.96 | Average | 54.00 | Pass |
| | 46 | 5350.0 | -44.52 | 6.00 | 0 | 56.71 | Peak | 68.20 | Pass |
| | | 5350.0 | -55.19 | 6.00 | 0 | 46.04 | Average | 54.00 | Pass |
| | | 5460.0 | -45.25 | 6.00 | 0 | 55.98 | Peak | 68.20 | Pass |
| 11A C80 SIS O | 42 | 5460.0 | -55.42 | 6.00 | 0 | 45.81 | Average | 54.00 | Pass |
| | | 4500.0 | -49.62 | 6.00 | 0 | 51.61 | Peak | 68.20 | Pass |
| | | 4500.0 | -60.32 | 6.00 | 0 | 40.91 | Average | 54.00 | Pass |
| | | 5150.0 | -25.19 | 6.00 | 0 | 76.04 | Peak | 68.20 | Pass |
| | | 5150.0 | -51.06 | 6.00 | 0 | 50.17 | Average | 54.00 | Pass |
| | | 5350.0 | -43.29 | 6.00 | 0 | 57.94 | Peak | 68.20 | Pass |
| | | 5350.0 | -55.90 | 6.00 | 0 | 45.33 | Average | 54.00 | Pass |
| 11A C80 SIS O | 42 | 5460.0 | -44.43 | 6.00 | 0 | 56.80 | Peak | 68.20 | Pass |
| | | 5460.0 | -56.44 | 6.00 | 0 | 44.79 | Average | 54.00 | Pass |
| | | 5460.0 | -56.44 | 6.00 | 0 | 44.79 | Average | 54.00 | Pass |

Undesirable Emissions Measurement

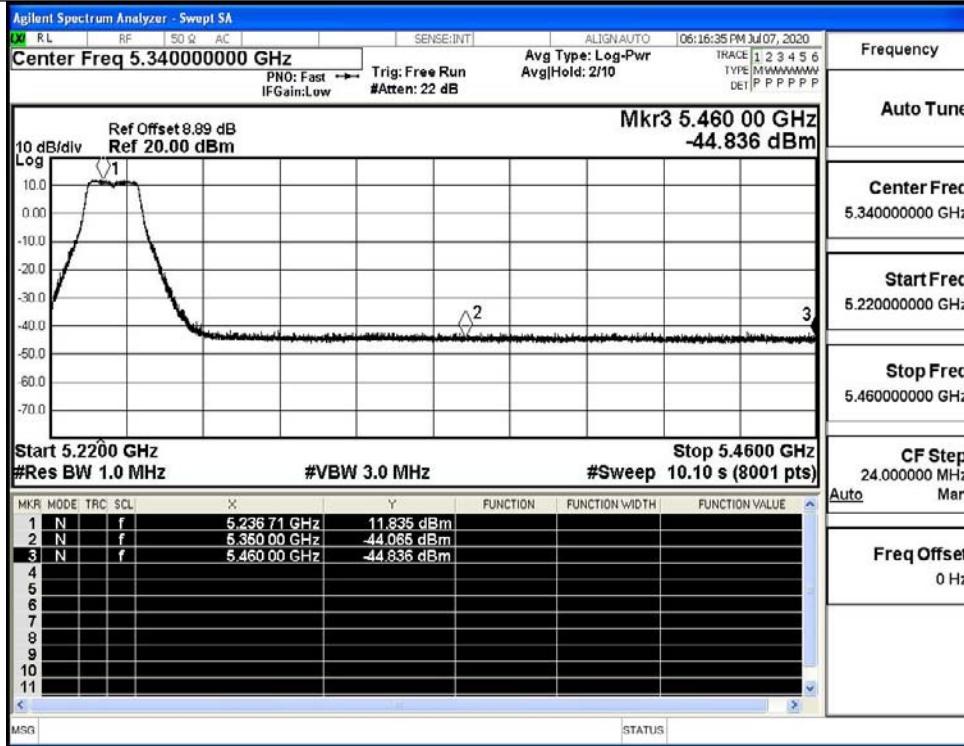


IEEE 802.11a / Channel 36 / 5180MHz / Peak

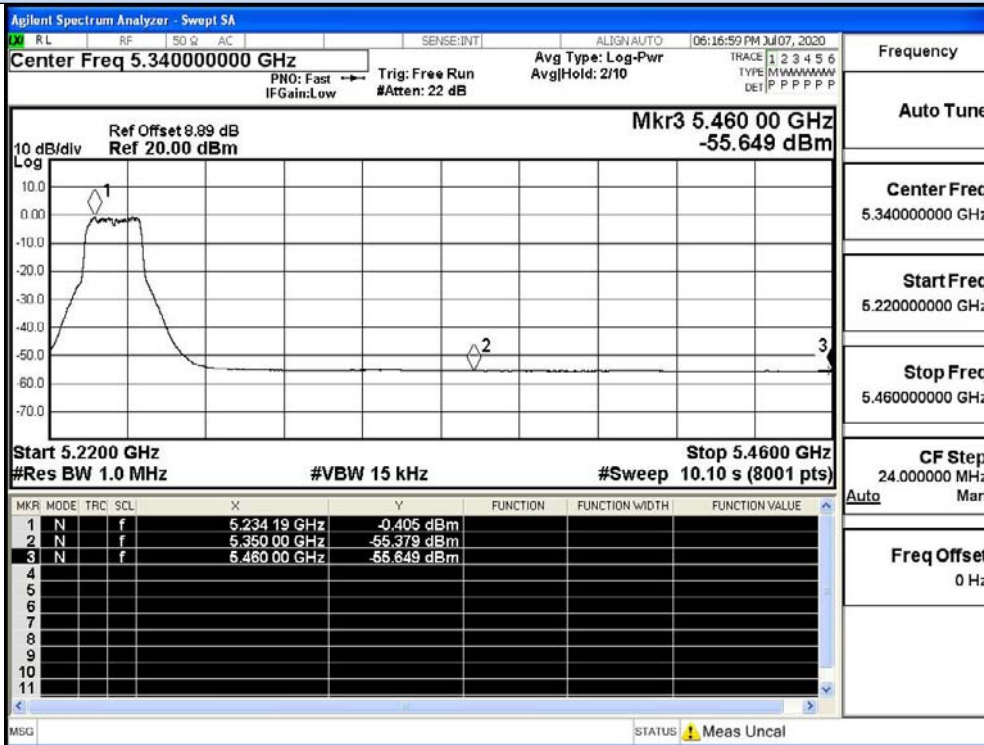


IEEE 802.11a / Channel 36 / 5180MHz / Average

Undesirable Emissions Measurement

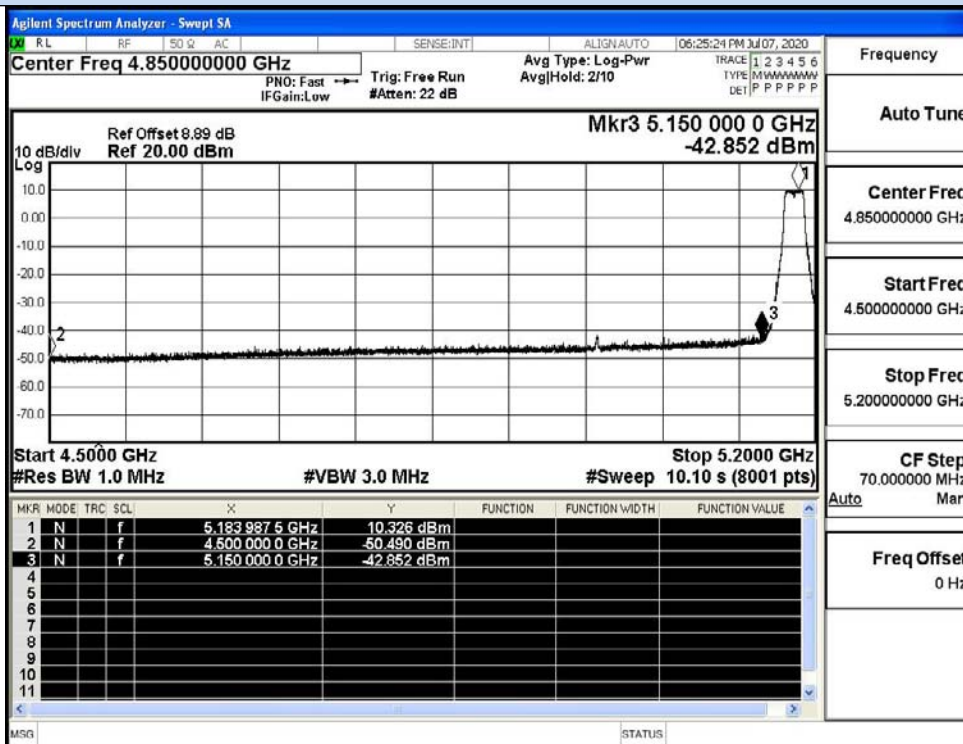


IEEE 802.11a / Channel 48 / 5240MHz / Peak

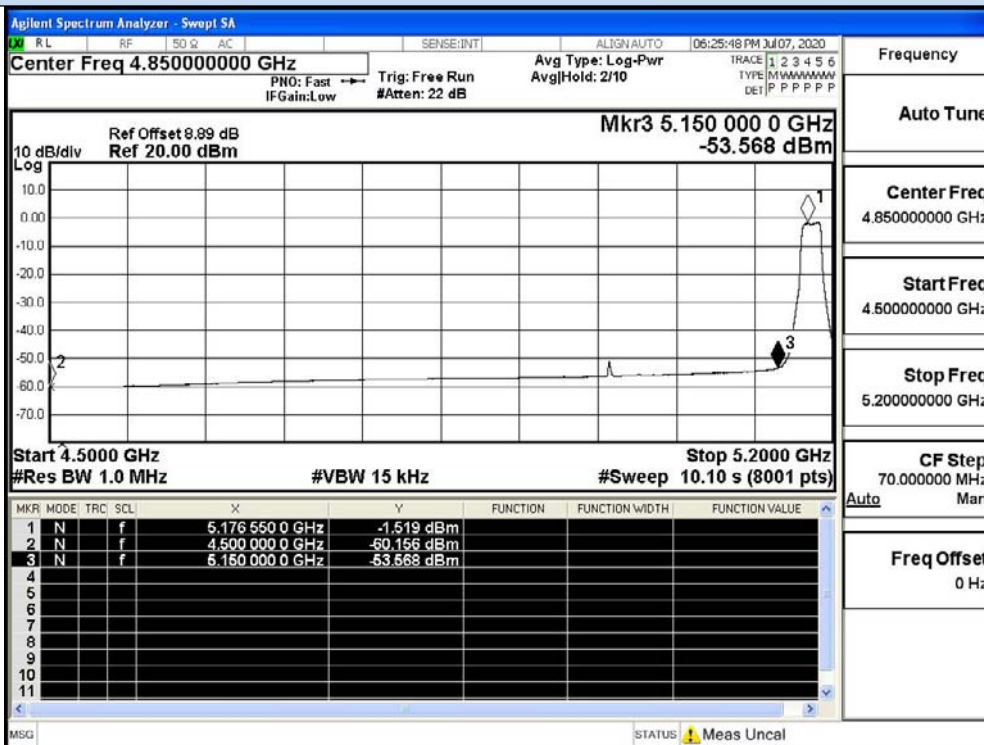


IEEE 802.11a / Channel 48 / 5240MHz / Average

Undesirable Emissions Measurement

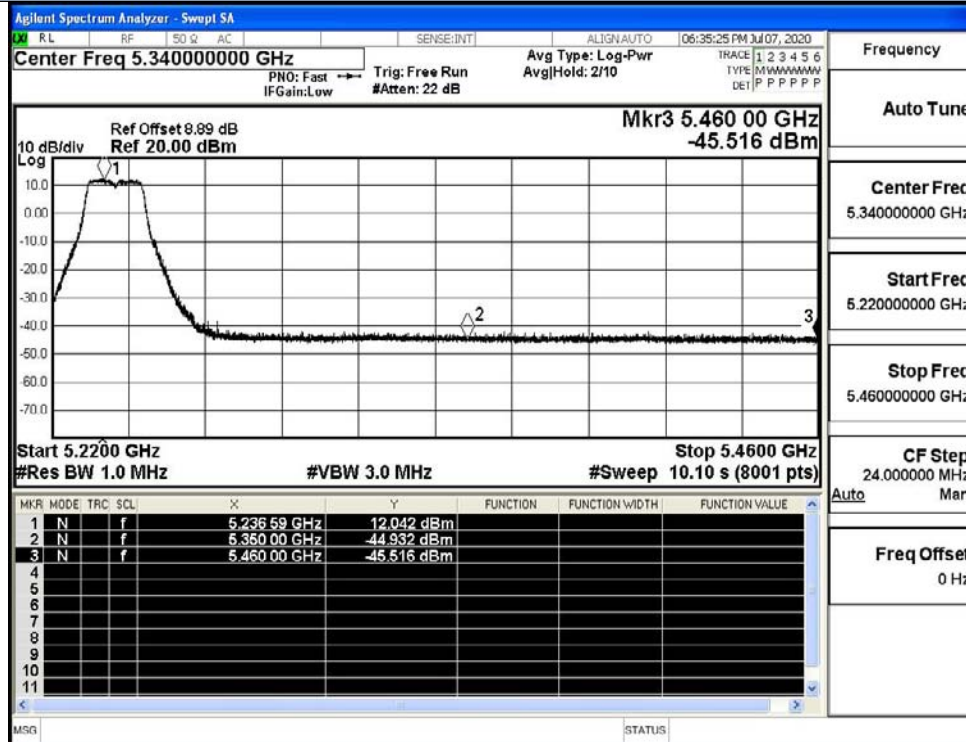


IEEE 802.11n20 / Channel 36 / 5180MHz / Peak

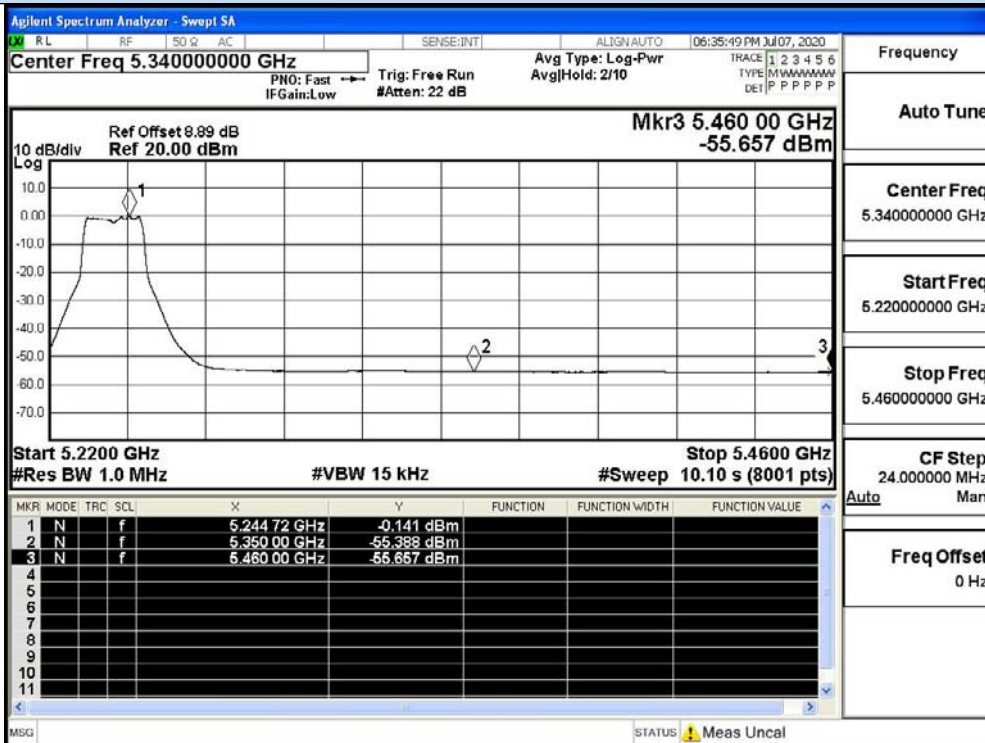


IEEE 802.11n20 / Channel 36 / 5180MHz / Average

Undesirable Emissions Measurement

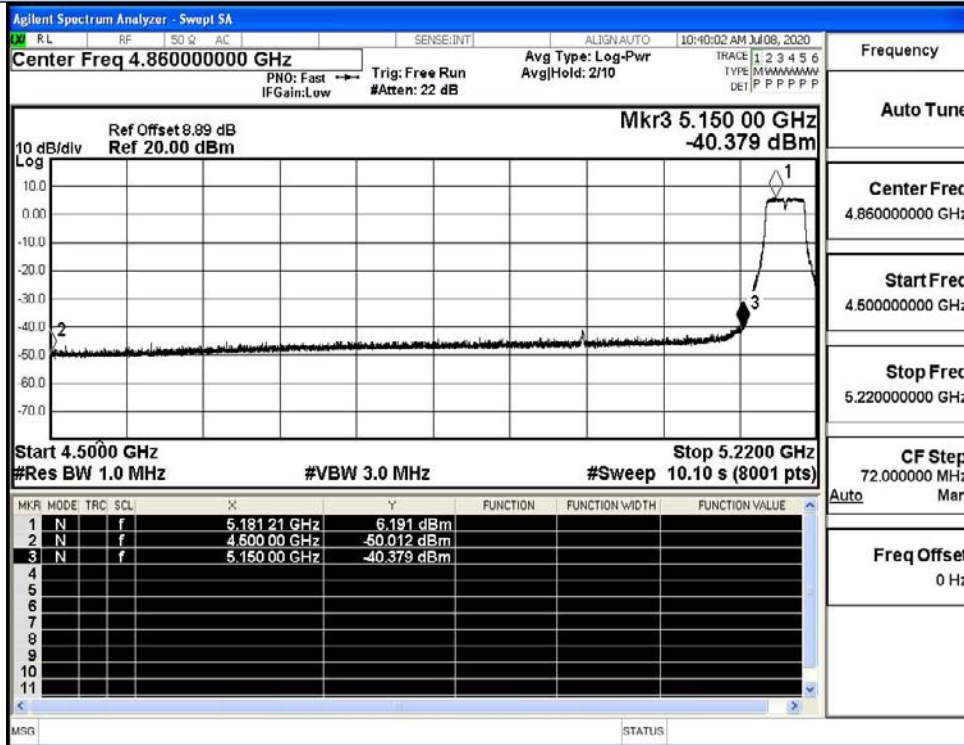


IEEE 802.11n20 / Channel 48 / 5240MHz / Peak

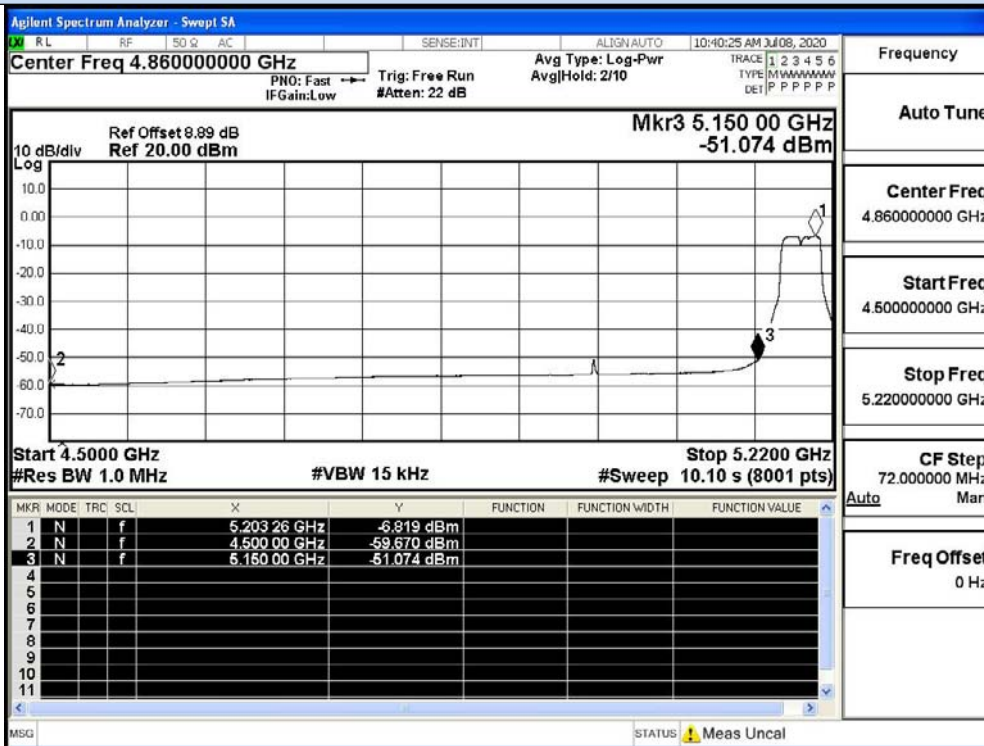


IEEE 802.11n20 / Channel 48 / 5240MHz / Average

Undesirable Emissions Measurement

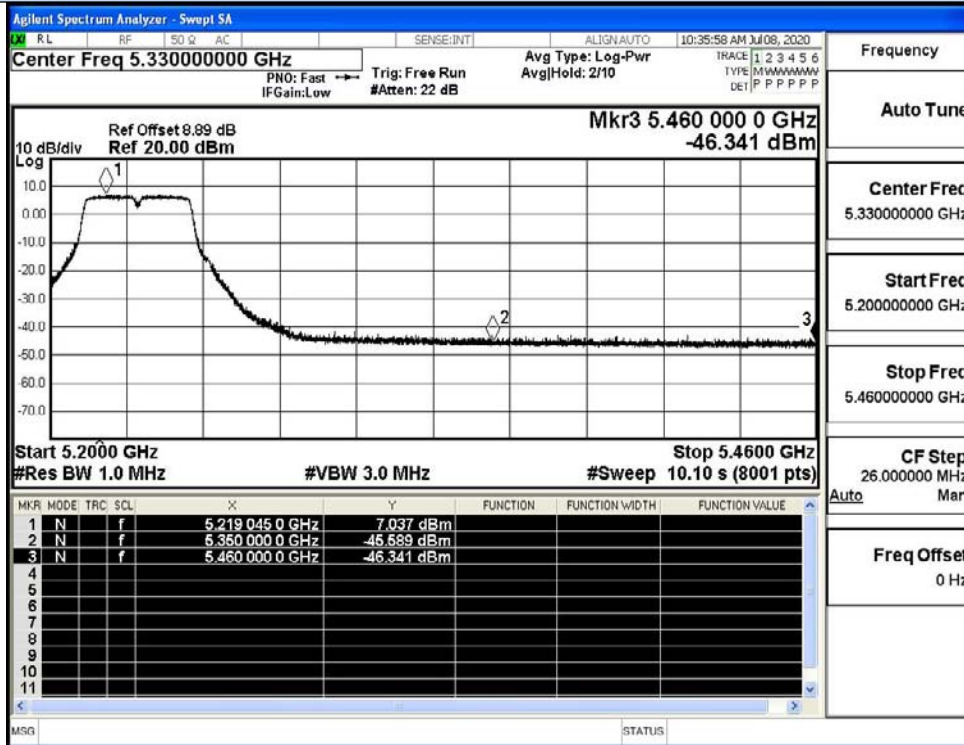


IEEE 802.11n40 / Channel 38 / 5190MHz / Peak

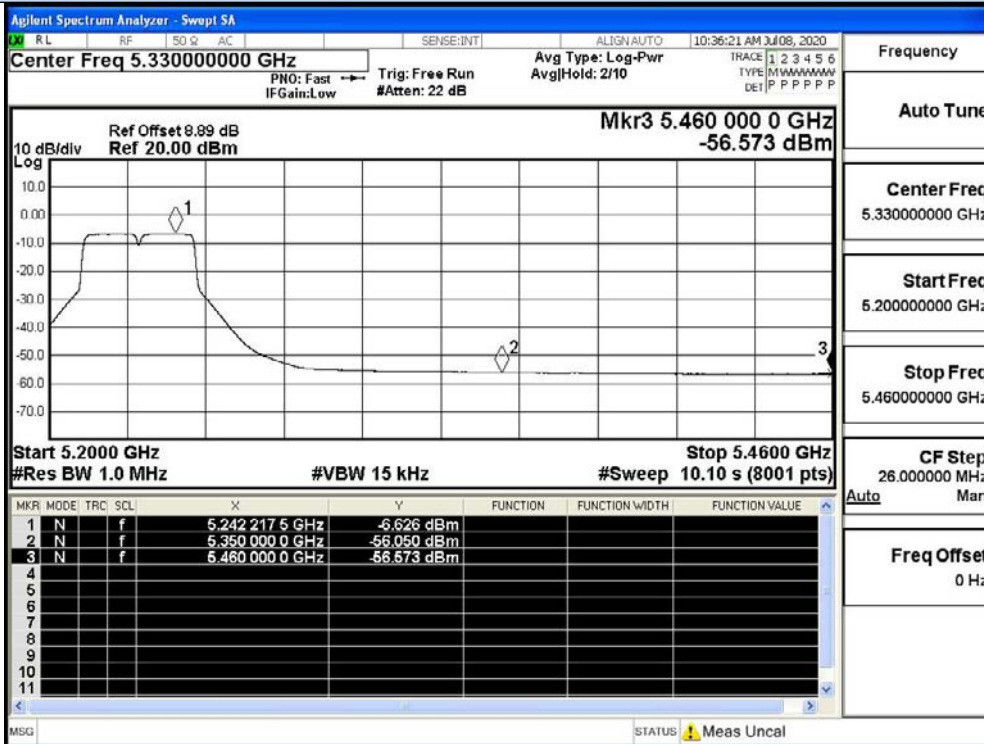


IEEE 802.11n40 / Channel 38 / 5190MHz / Average

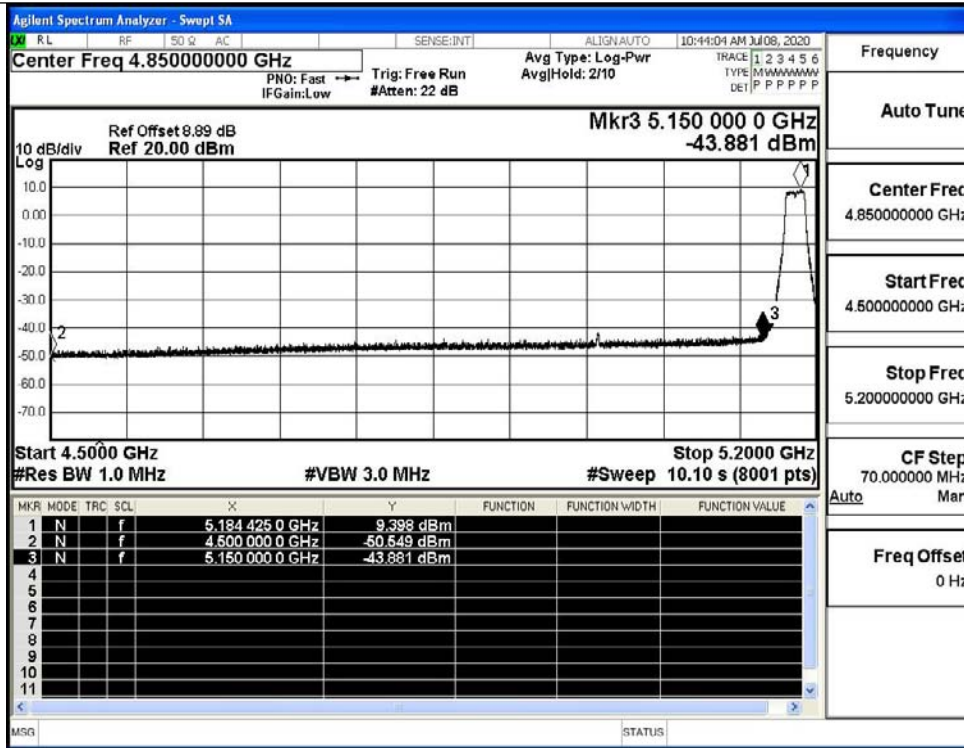
Undesirable Emissions Measurement



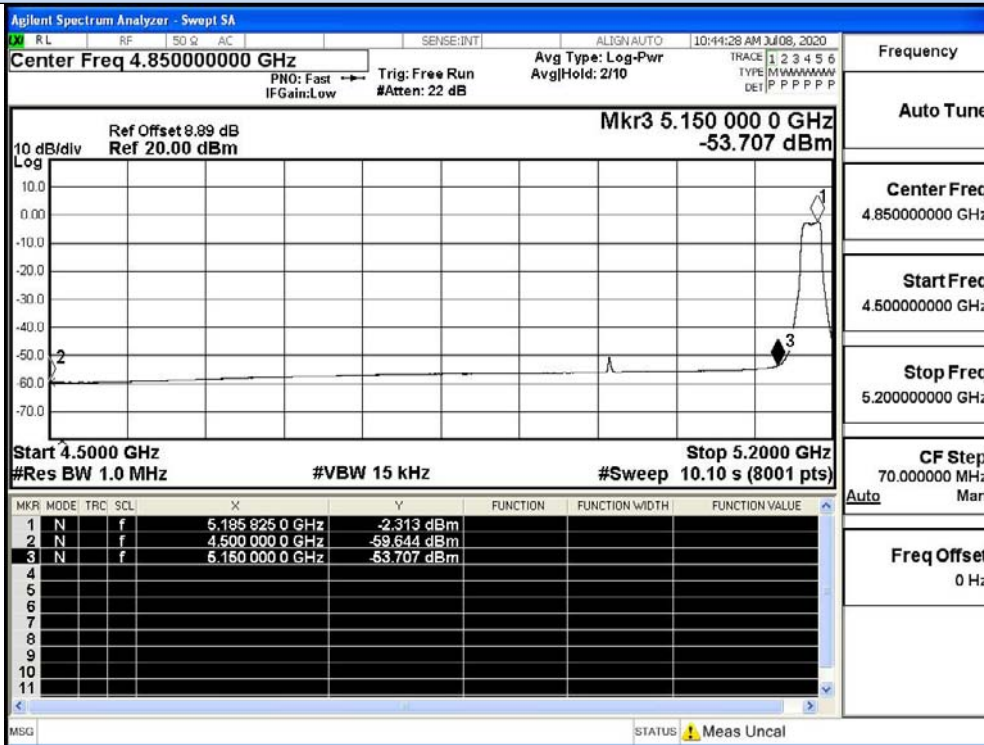
IEEE 802.11n40 / Channel 46 / 5230MHz / Peak



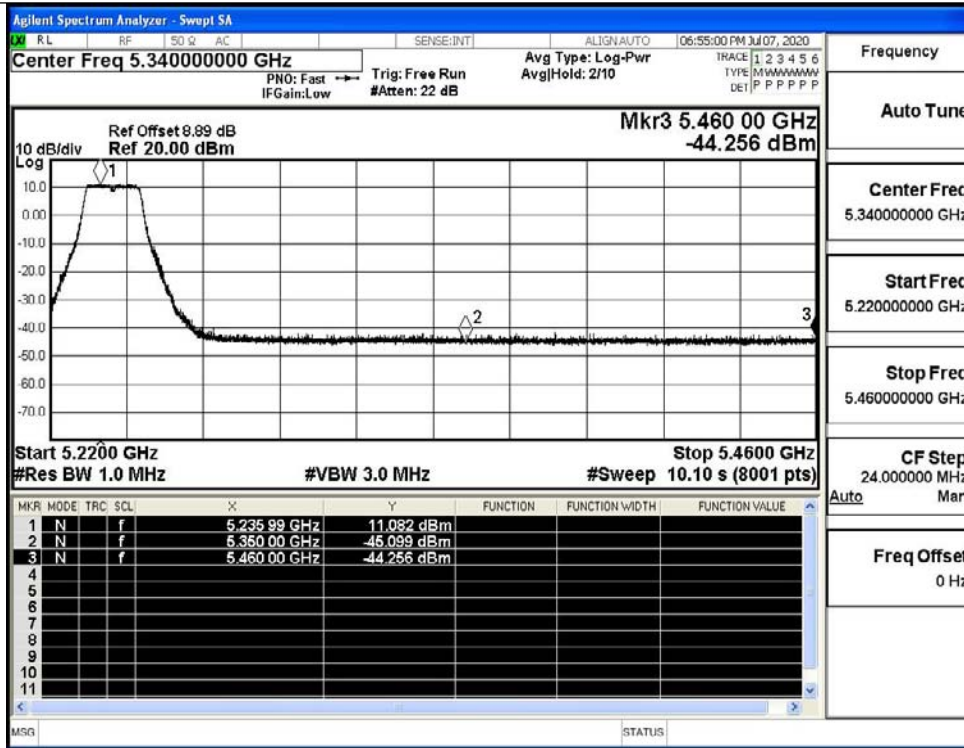
IEEE 802.11n40 / Channel 46 / 5230MHz / Average



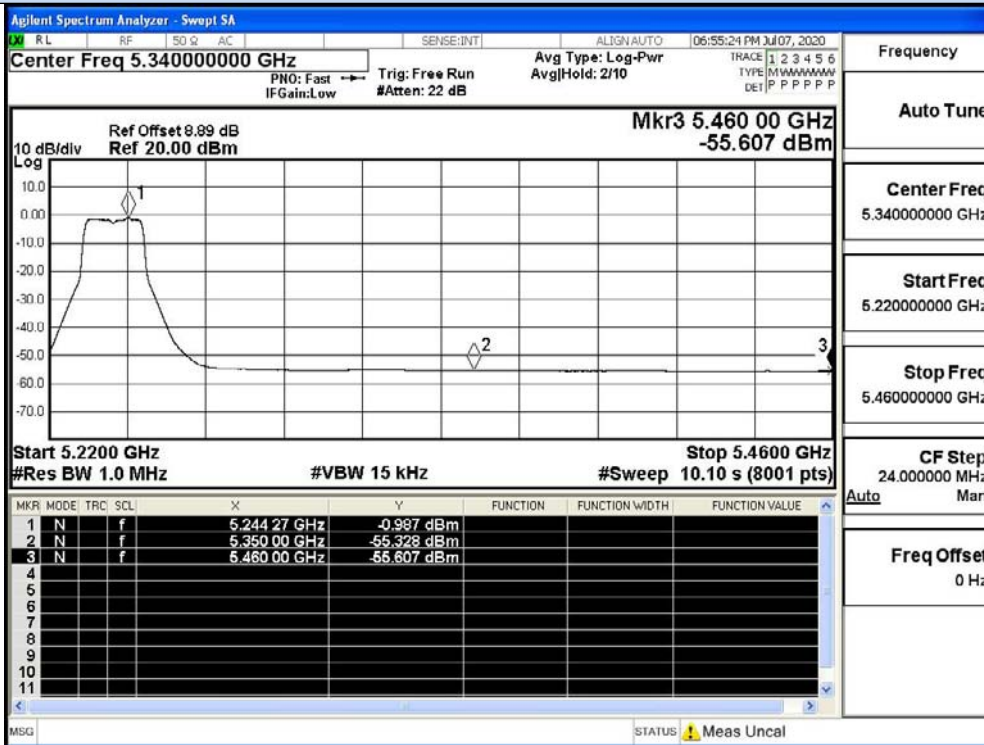
IEEE 802.11ac20 / Channel 36 / 5180MHz / Peak



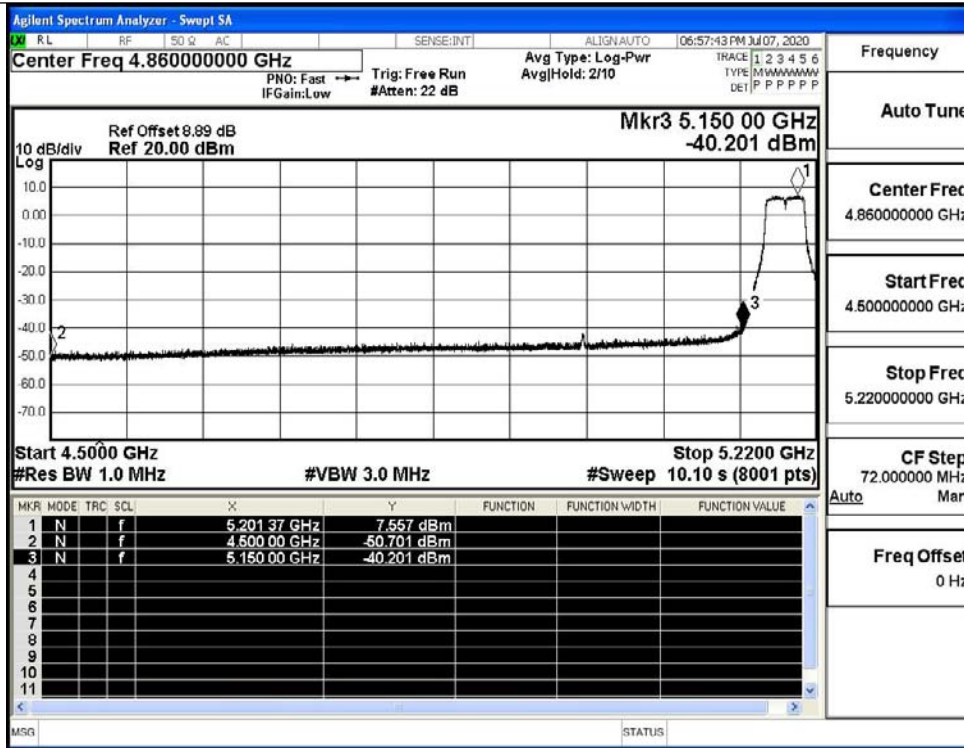
IEEE 802.11ac20 / Channel 36 / 5180MHz / Average



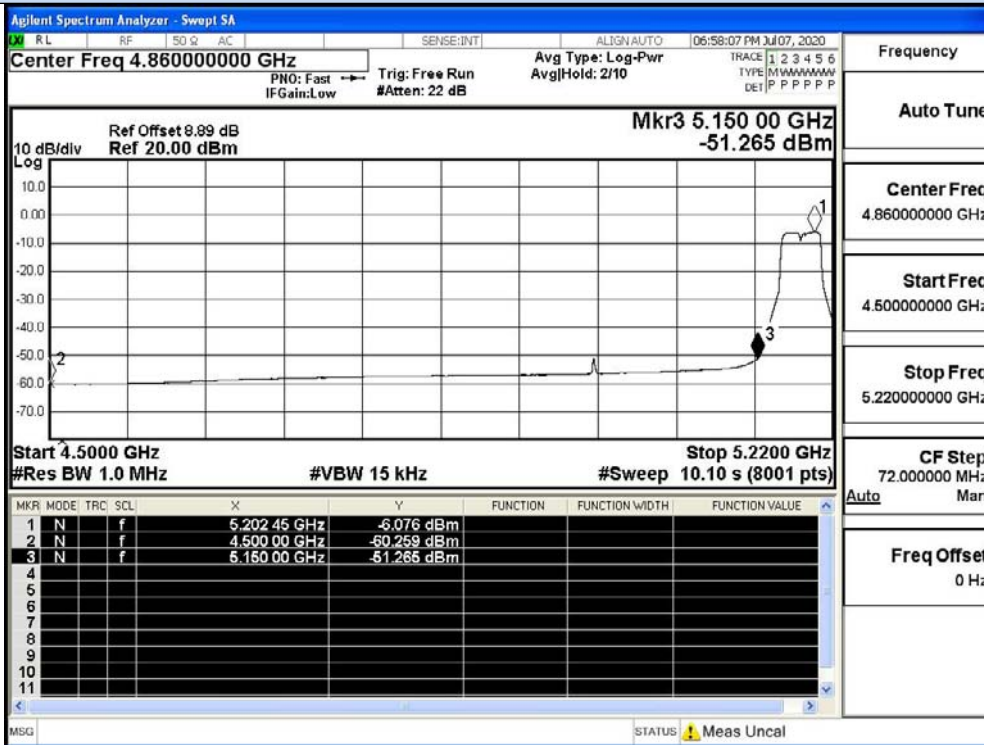
IEEE 802.11ac20 / Channel 48 / 5240MHz / Peak



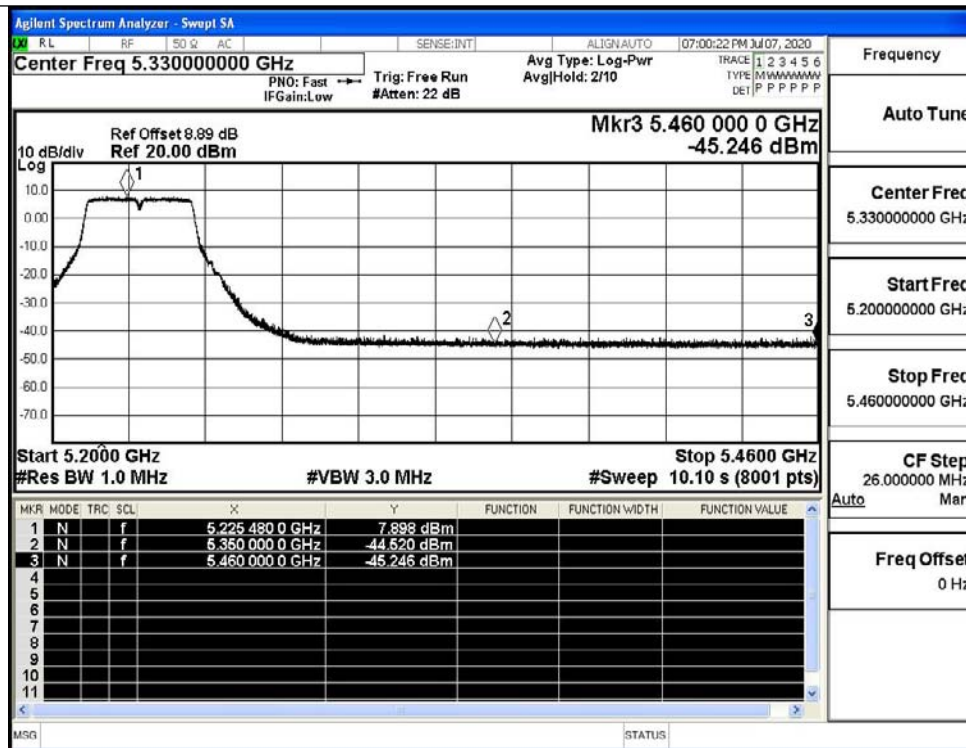
IEEE 802.11ac20 / Channel 48 / 5240MHz / Average



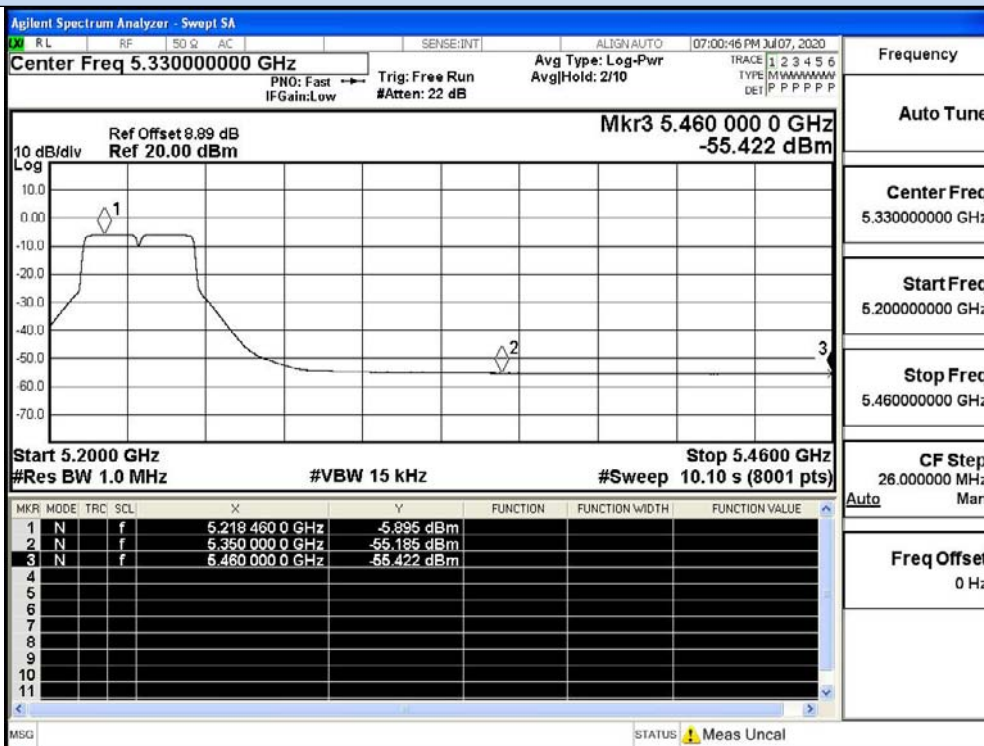
IEEE 802.11ac40 / Channel 38/ 5190MHz / Peak



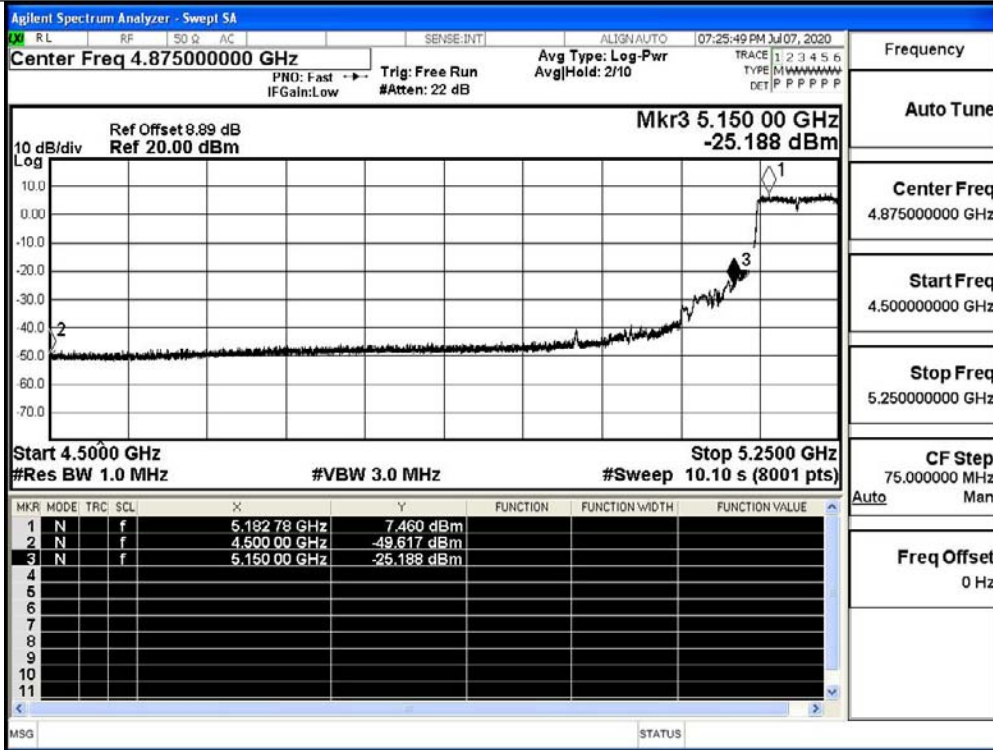
IEEE 802.11ac40 / Channel 38 / 5190MHz / Average



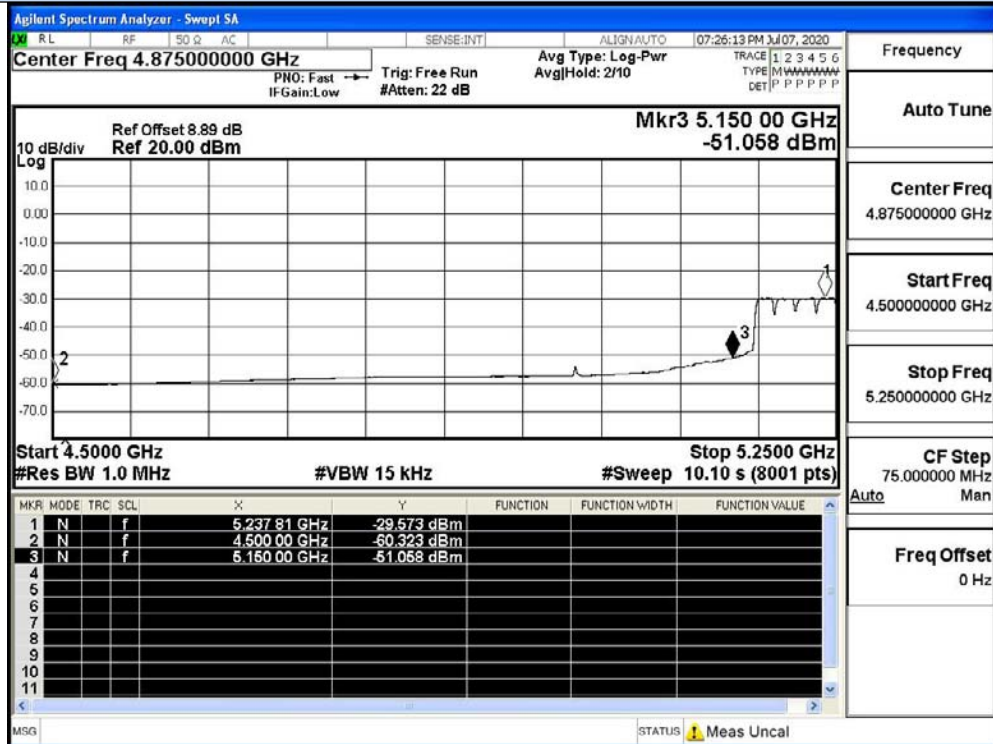
IEEE 802.11ac40 / Channel 46/ 5230MHz / Peak



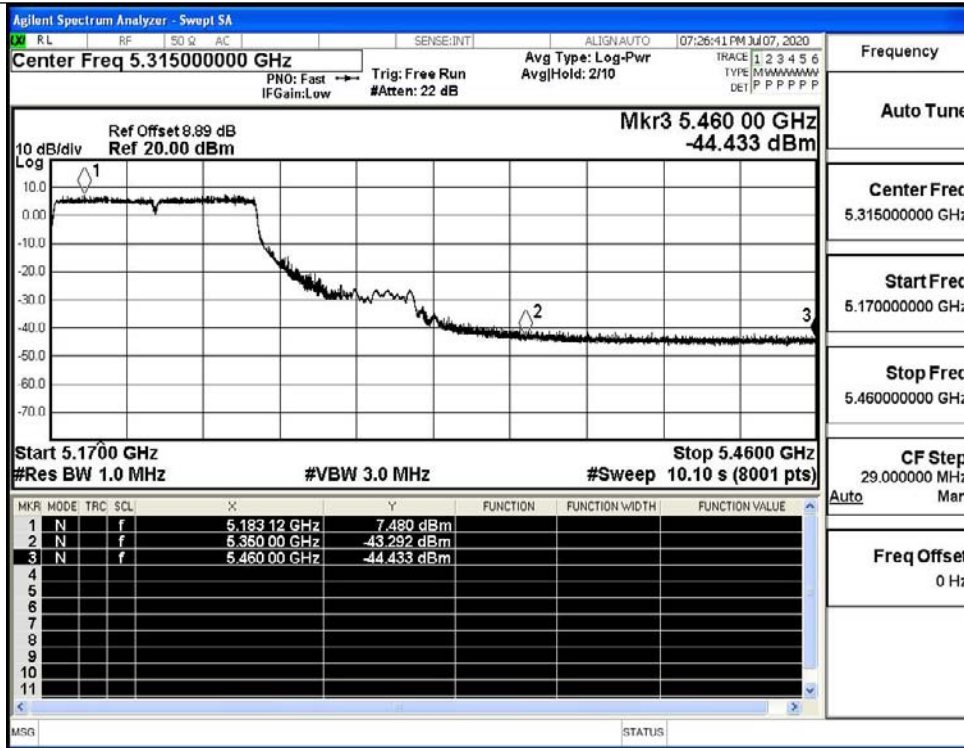
IEEE 802.11ac40 / Channel 46 / 5230MHz / Average



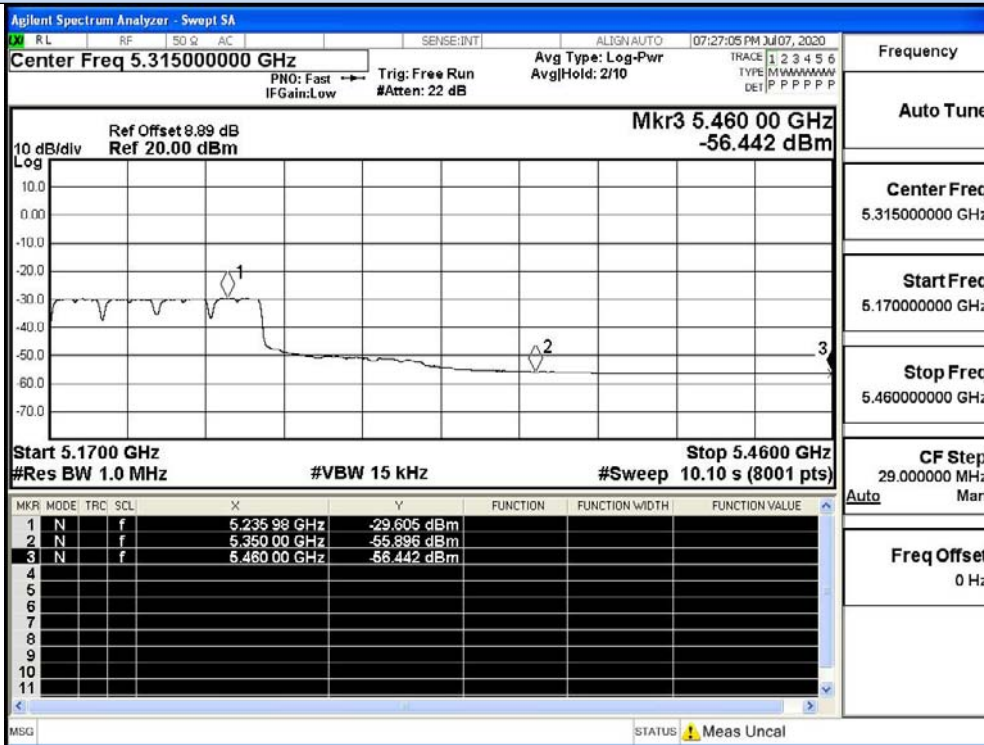
IEEE 802.11ac80 / Channel 42 / 5210MHz / Peak



IEEE 802.11ac80 / Channel 42 / 5210MHz / Average



IEEE 802.11ac80 / Channel 42/ 5210MHz / Peak



IEEE 802.11ac80 / Channel 42 / 5210MHz / Average