

## Appendix C

### RF Test Data for 5.2G WLAN (Conducted Measurement)

**Product Name:** NovoConnect Wireless Collaboration System

**Trade Mark:** DELTA, Vivitek

**Test Model:** NC-X900

#### Environmental Conditions

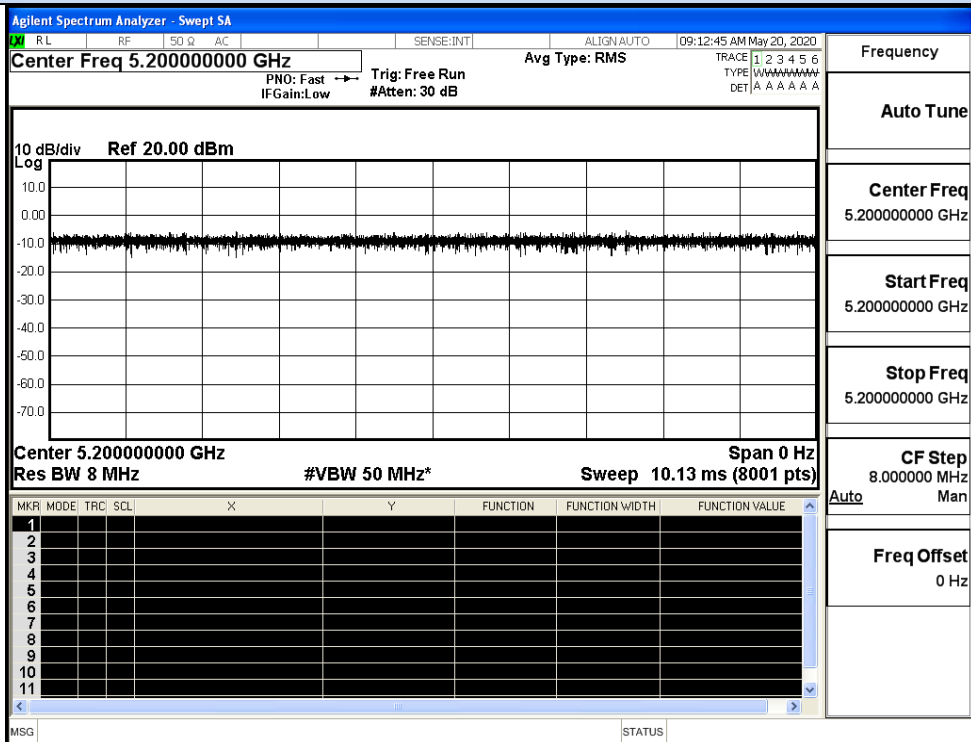
|                    |           |
|--------------------|-----------|
| Temperature:       | 23.8 ° C  |
| Relative Humidity: | 53.7%     |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Li Huan   |
| Supervised by:     | Tom Liu   |

#### C.1 Duty Cycle

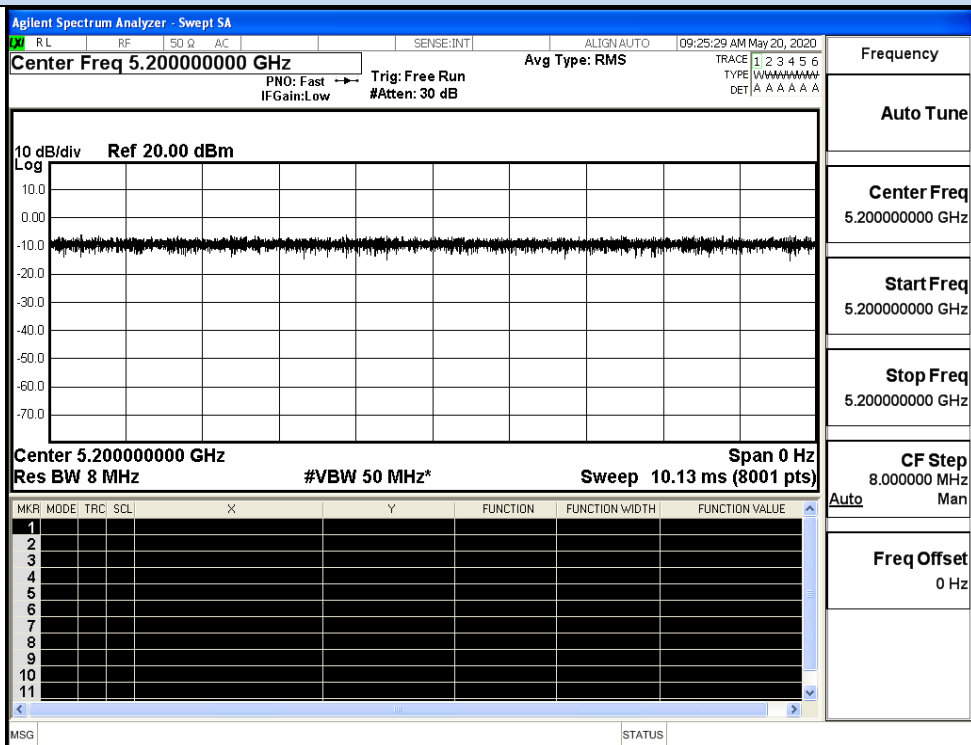
##### Ant0

| Test Mode   | Test Frequency (MHz) | Duty Cycle (%) | 10log(1/x) Factor (dB) | 1/B Minimum VBW(KHz) |
|-------------|----------------------|----------------|------------------------|----------------------|
| 11A         | 5200                 | 100            | 0.00                   | 0.01                 |
| 11N20 SISO  | 5200                 | 100            | 0.00                   | 0.01                 |
| 11N40 SISO  | 5190                 | 100            | 0.00                   | 0.01                 |
| 11AC20 SISO | 5200                 | 100            | 0.00                   | 0.01                 |
| 11AC40 SISO | 5190                 | 100            | 0.00                   | 0.01                 |
| 11AC80 SISO | 5210                 | 100            | 0.00                   | 0.01                 |

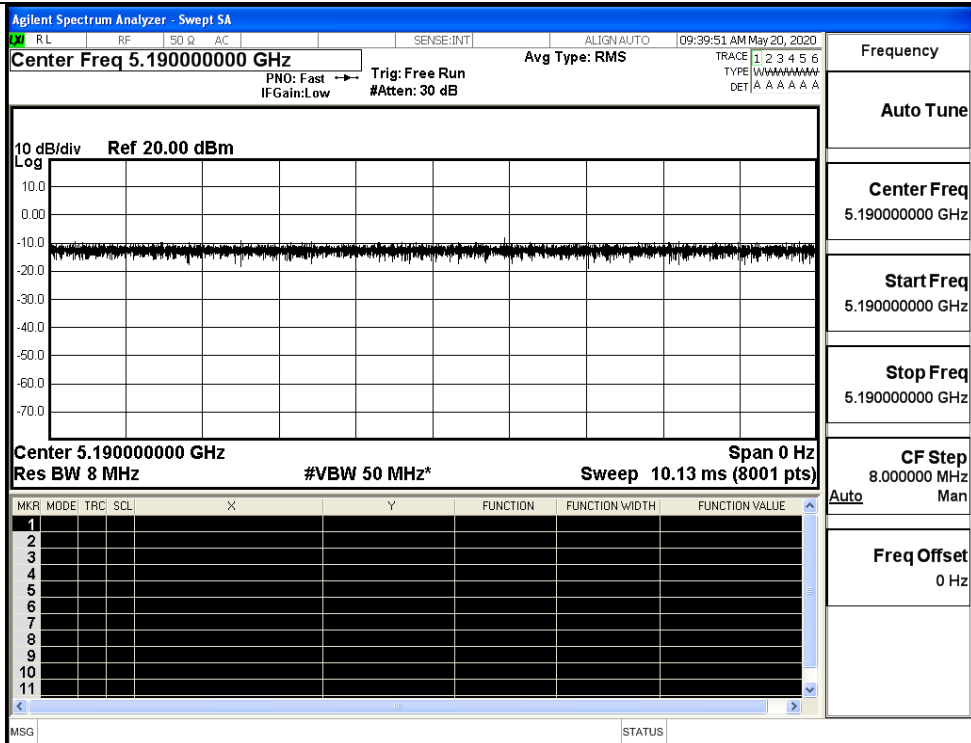
## On Time and Duty Cycle



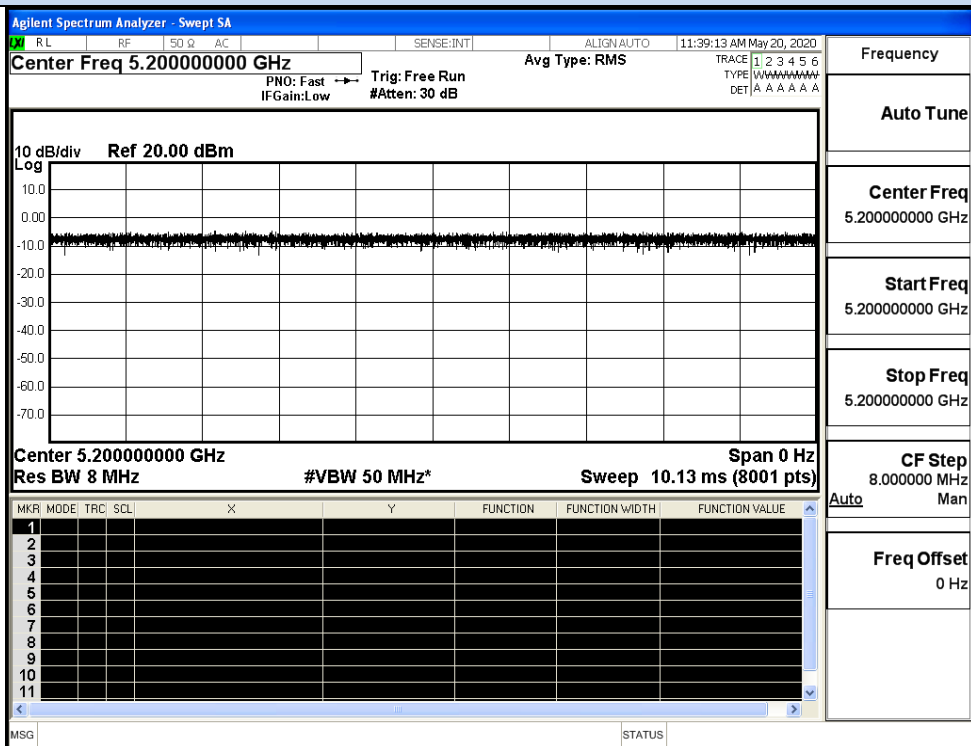
## IEEE 802.11a



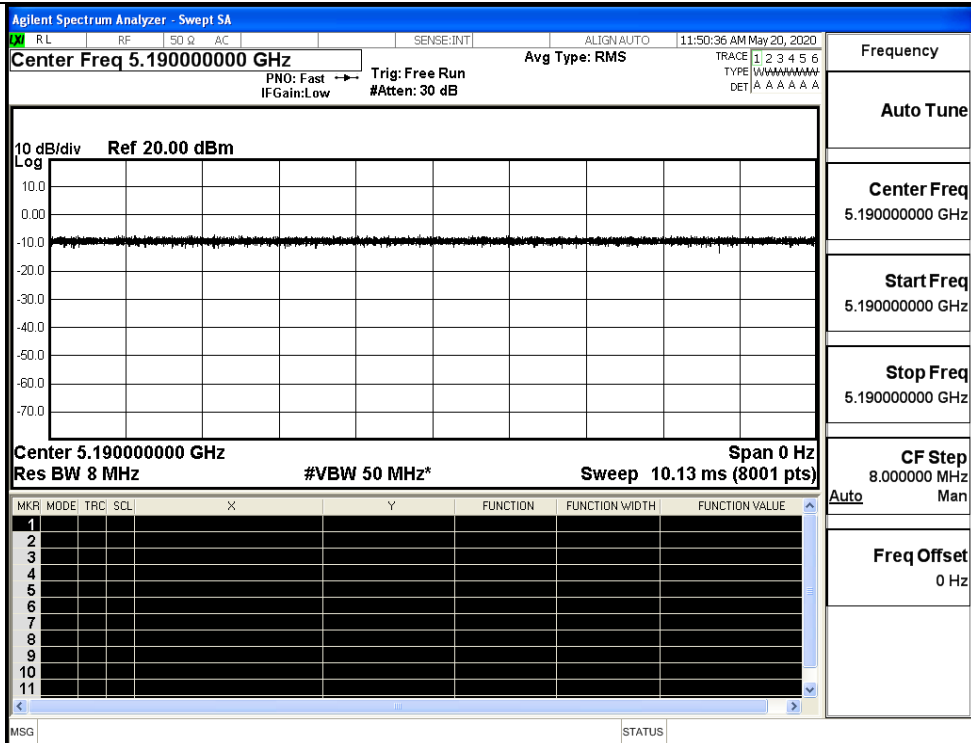
## IEEE 802.11n HT20



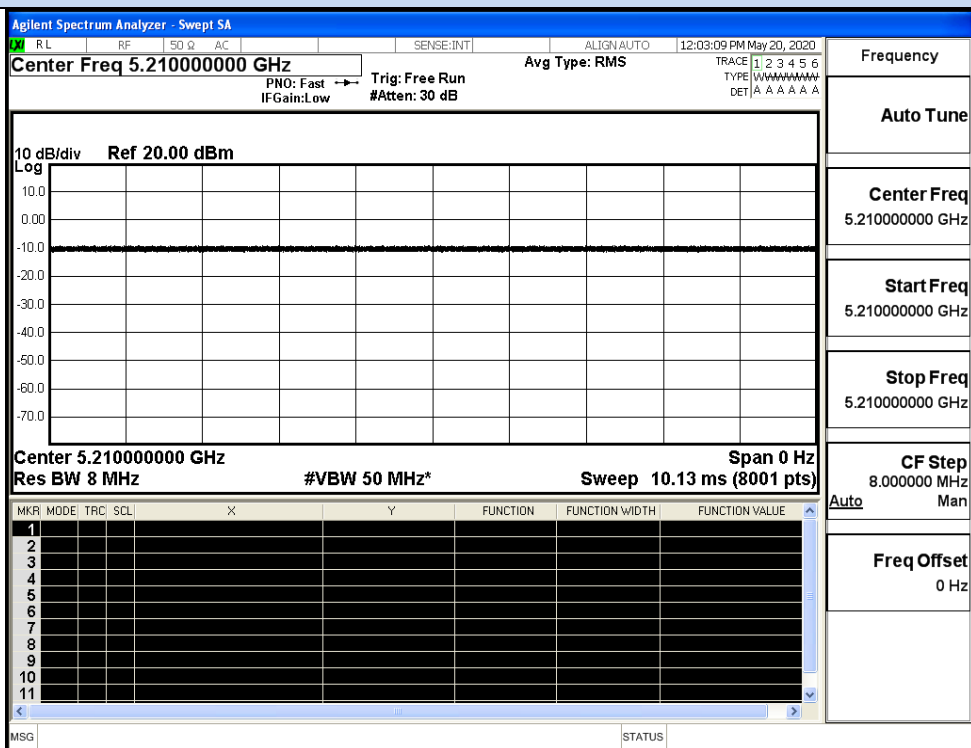
## IEEE 802.11n HT40



## IEEE 802.11AC20



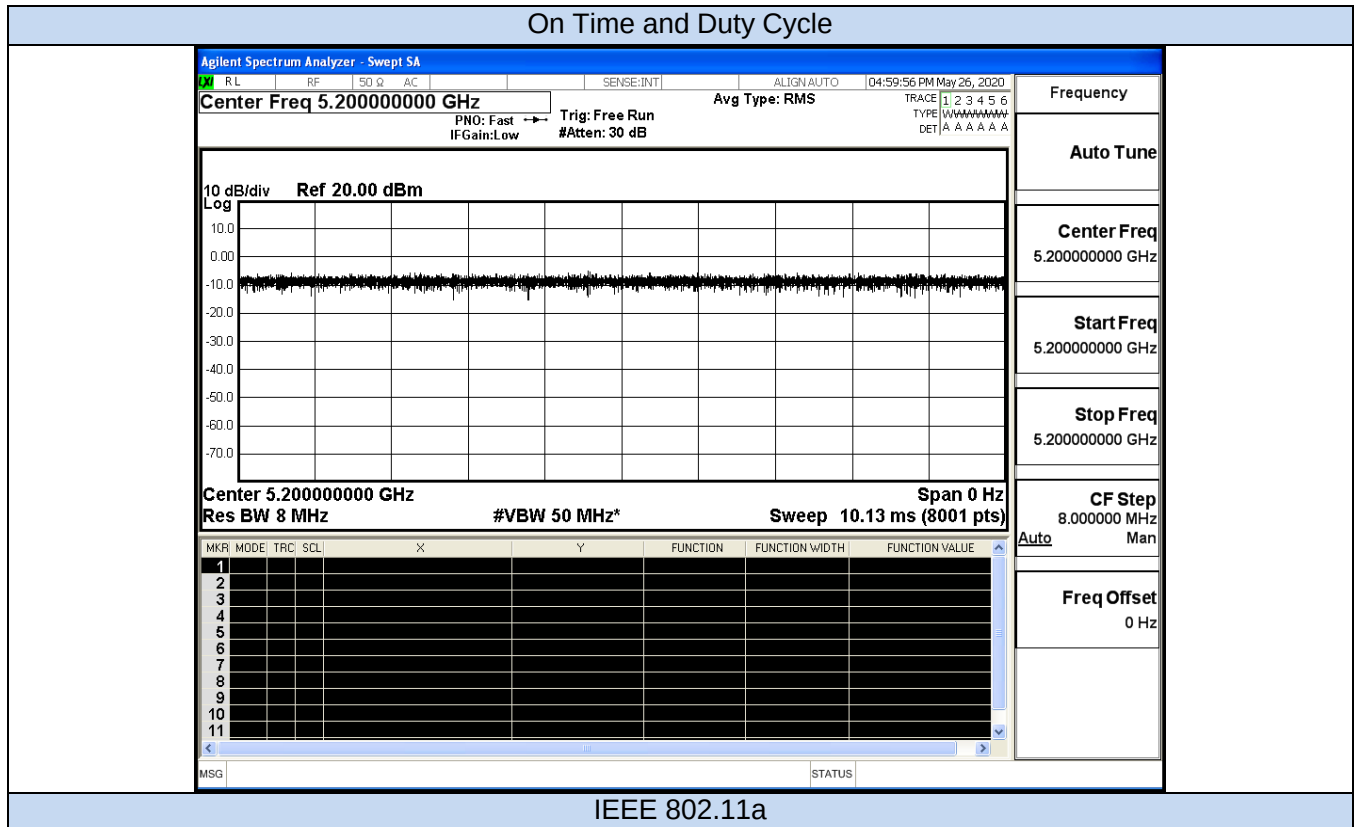
IEEE 802.11 AC40

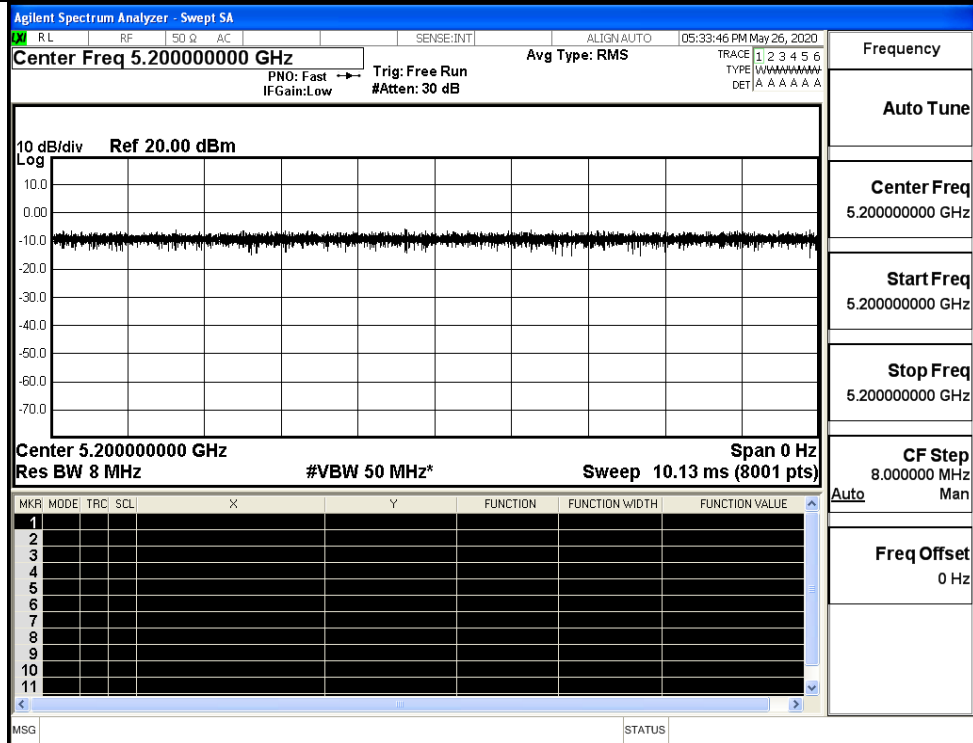


IEEE 802.11AC80

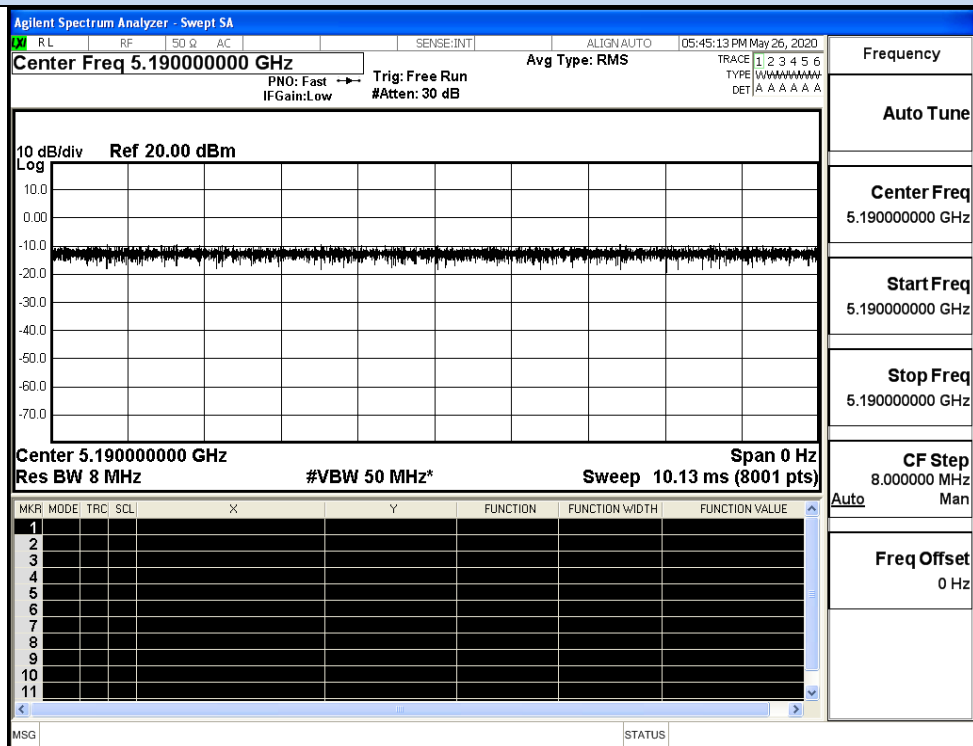
## Ant1

| Test Mode   | Test Frequency (MHz) | Duty Cycle (%) | 10log(1/x) Factor (dB) | 1/B Minimum VBW(KHz) |
|-------------|----------------------|----------------|------------------------|----------------------|
| 11A         | 5200                 | 100            | 0.00                   | 0.01                 |
| 11N20 SISO  | 5200                 | 100            | 0.00                   | 0.01                 |
| 11N40 SISO  | 5190                 | 100            | 0.00                   | 0.01                 |
| 11AC20 SISO | 5200                 | 100            | 0.00                   | 0.01                 |
| 11AC40 SISO | 5190                 | 100            | 0.00                   | 0.01                 |
| 11AC80 SISO | 5210                 | 100            | 0.00                   | 0.01                 |

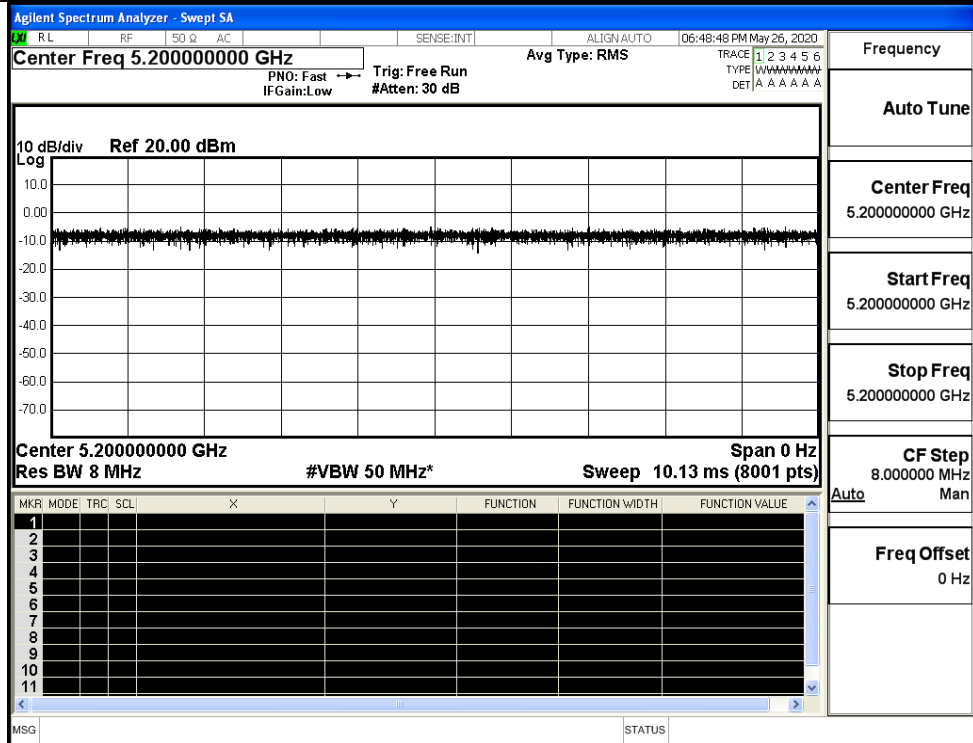




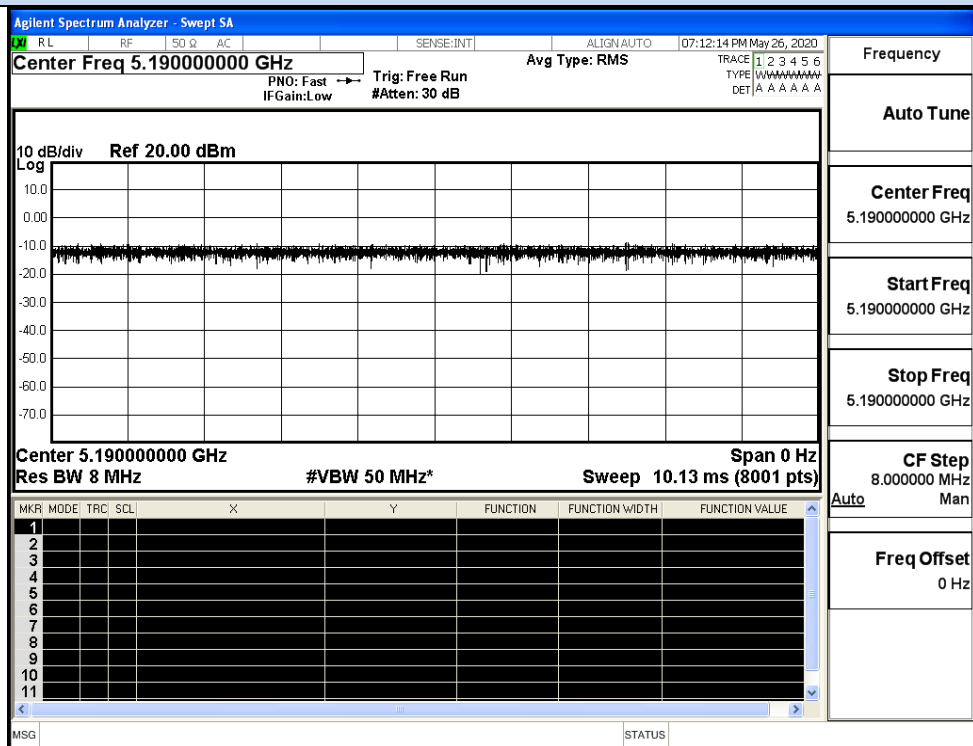
## IEEE 802.11n HT20



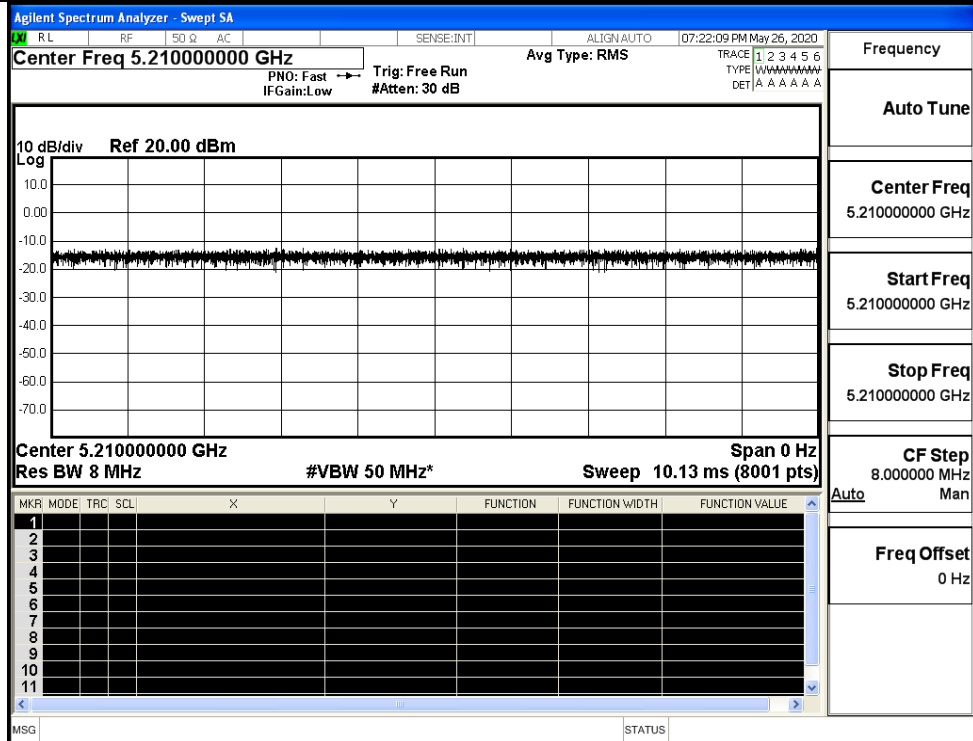
## IEEE 802.11n HT40



IEEE 802.11AC20



IEEE 802.11 AC40



IEEE 802.11AC80



**C.2 Maximum Conduct Output Power****Ant0**

| Test Mode   | Channel | Frequency (MHz) | AVG Conducted Power (dBm) | Duty Cycle Factor(dB) | Report Conducted Power(dBm) | Limit (dBm) | Verdict |
|-------------|---------|-----------------|---------------------------|-----------------------|-----------------------------|-------------|---------|
| 11A         | 36      | 5180            | 5.79                      | 0                     | 5.79                        | 24          | Pass    |
|             | 40      | 5200            | 7.06                      | 0                     | 7.06                        |             | Pass    |
|             | 48      | 5240            | 7.28                      | 0                     | 7.28                        |             | Pass    |
| 11N20 SISO  | 36      | 5180            | 6.76                      | 0                     | 6.76                        | 24          | Pass    |
|             | 40      | 5200            | 6.98                      | 0                     | 6.98                        |             | Pass    |
|             | 48      | 5240            | 6.64                      | 0                     | 6.64                        |             | Pass    |
| 11N40 SISO  | 38      | 5190            | 6.84                      | 0                     | 6.84                        | 24          | Pass    |
|             | 46      | 5230            | 7.21                      | 0                     | 7.21                        |             | Pass    |
| 11AC20 SISO | 36      | 5180            | 6.94                      | 0                     | 6.94                        | 24          | Pass    |
|             | 40      | 5200            | 7.6                       | 0                     | 7.6                         |             | Pass    |
|             | 48      | 5240            | 7.19                      | 0                     | 7.19                        |             | Pass    |
| 11AC40 SISO | 38      | 5190            | 7.45                      | 0                     | 7.45                        | 24          | Pass    |
|             | 46      | 5230            | 6.7                       | 0                     | 6.7                         |             | Pass    |
| 11AC80 SISO | 42      | 5210            | 6.9                       | 0                     | 6.9                         | 24          | Pass    |

**Ant1**

| Test Mode   | Channel | Frequency (MHz) | AVG Conducted Power (dBm) | Duty Cycle Factor(dB) | Report Conducted Power(dBm) | Limit (dBm) | Verdict |
|-------------|---------|-----------------|---------------------------|-----------------------|-----------------------------|-------------|---------|
| 11A         | 36      | 5180            | 6.88                      | 0                     | 6.88                        | 24          | Pass    |
|             | 40      | 5200            | 7.61                      | 0                     | 7.61                        |             | Pass    |
|             | 48      | 5240            | 7.5                       | 0                     | 7.5                         |             | Pass    |
| 11N20 SISO  | 36      | 5180            | 6.86                      | 0                     | 6.86                        | 24          | Pass    |
|             | 40      | 5200            | 7.13                      | 0                     | 7.13                        |             | Pass    |
|             | 48      | 5240            | 7.46                      | 0                     | 7.46                        |             | Pass    |
| 11N40 SISO  | 38      | 5190            | 6.76                      | 0                     | 6.76                        | 24          | Pass    |
|             | 46      | 5230            | 6.83                      | 0                     | 6.83                        |             | Pass    |
| 11AC20 SISO | 36      | 5180            | 7.65                      | 0                     | 7.65                        | 24          | Pass    |
|             | 40      | 5200            | 7.34                      | 0                     | 7.34                        |             | Pass    |
|             | 48      | 5240            | 7.37                      | 0                     | 7.37                        |             | Pass    |
| 11AC40 SISO | 38      | 5190            | 7.17                      | 0                     | 7.17                        | 24          | Pass    |
|             | 46      | 5230            | 7.23                      | 0                     | 7.23                        |             | Pass    |
| 11AC80 SISO | 42      | 5210            | 7.13                      | 0                     | 7.13                        | 24          | Pass    |

**Combined Ant0 and Ant1**

| Test Mode | Channel | Frequency (MHz) | Report Conducted Power (dBm) |       |       | Limit (dBm) |
|-----------|---------|-----------------|------------------------------|-------|-------|-------------|
|           |         |                 | Ant_0                        | Ant_1 | Sum   |             |
| 11N20     | 36      | 5180            | 6.76                         | 6.86  | 9.82  | 24          |
|           | 40      | 5200            | 6.98                         | 7.13  | 10.07 |             |
|           | 48      | 5240            | 6.64                         | 7.46  | 10.08 |             |
| 11N40     | 38      | 5190            | 6.84                         | 6.76  | 9.81  | 24          |
|           | 46      | 5230            | 7.21                         | 6.83  | 10.03 |             |
| 11AC20    | 36      | 5180            | 6.94                         | 7.65  | 10.32 | 24          |
|           | 40      | 5200            | 7.6                          | 7.34  | 10.48 |             |
|           | 48      | 5240            | 7.19                         | 7.37  | 10.29 |             |
| 11AC40    | 38      | 5190            | 7.45                         | 7.17  | 10.32 | 24          |
|           | 46      | 5230            | 6.7                          | 7.23  | 9.98  |             |
| 11AC80    | 42      | 5210            | 6.9                          | 7.13  | 10.03 | 24          |

### C.3 Power Spectral Density

#### Ant0

| 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            | -2.82                   | 0                     | -2.82                          | 11              | Pass    |
|           | 40      | 5200            | -2.88                   | 0                     | -2.88                          |                 | Pass    |
|           | 48      | 5240            | -2.77                   | 0                     | -2.77                          |                 | Pass    |
| 11N20     | 36      | 5180            | -3.33                   | 0                     | -3.33                          | 11              | Pass    |
|           | 40      | 5200            | -2.64                   | 0                     | -2.64                          |                 | Pass    |
|           | 48      | 5240            | -2.56                   | 0                     | -2.56                          |                 | Pass    |
| 11N40     | 38      | 5190            | -5.92                   | 0                     | -5.92                          | 11              | Pass    |
|           | 46      | 5230            | -6.13                   | 0                     | -6.13                          |                 | Pass    |
| 11AC20    | 36      | 5180            | 0.76                    | 0                     | 0.76                           | 11              | Pass    |
|           | 40      | 5200            | 0.86                    | 0                     | 0.86                           |                 | Pass    |
|           | 48      | 5240            | 0.93                    | 0                     | 0.93                           |                 | Pass    |
| 11AC40    | 38      | 5190            | -1.24                   | 0                     | -1.24                          | 11              | Pass    |
|           | 46      | 5230            | -0.72                   | 0                     | -0.72                          |                 | Pass    |
| 11AC80    | 42      | 5210            | -2.39                   | 0                     | -2.39                          | 11              | Pass    |

#### Ant1

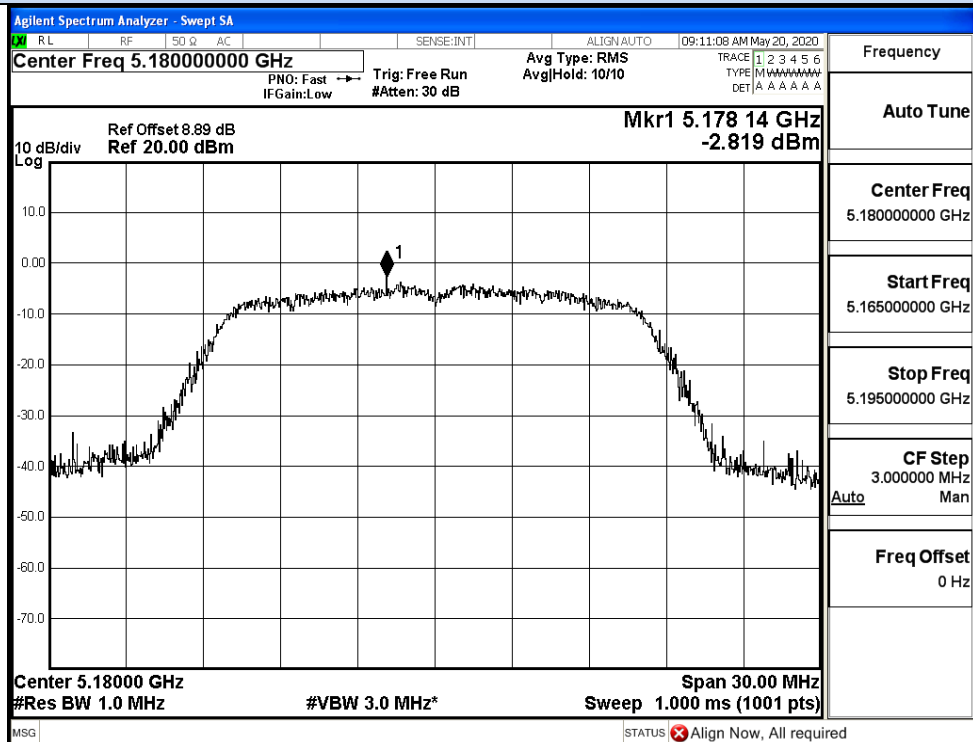
| Test Mode | Channel | Frequency (MHz) | Power Density (dBm/MHz) | Duty Cycle Factor(dB) | Report Power Density (dBm/MHz) | Limit (dBm/MHz) | Verdict |
|-----------|---------|-----------------|-------------------------|-----------------------|--------------------------------|-----------------|---------|
| 11A       | 36      | 5180            | -3.15                   | 0                     | -3.15                          | 11              | Pass    |
|           | 40      | 5200            | -2.27                   | 0                     | -2.27                          |                 | Pass    |
|           | 48      | 5240            | -2.45                   | 0                     | -2.45                          |                 | Pass    |
| 11N20     | 36      | 5180            | -2.96                   | 0                     | -2.96                          | 11              | Pass    |
|           | 40      | 5200            | -2.82                   | 0                     | -2.82                          |                 | Pass    |
|           | 48      | 5240            | -2.34                   | 0                     | -2.34                          |                 | Pass    |
| 11N40     | 38      | 5190            | -6.28                   | 0                     | -6.28                          | 11              | Pass    |
|           | 46      | 5230            | -6.16                   | 0                     | -6.16                          |                 | Pass    |
| 11AC20    | 36      | 5180            | -2.38                   | 0                     | -2.38                          | 11              | Pass    |
|           | 40      | 5200            | -2.65                   | 0                     | -2.65                          |                 | Pass    |
|           | 48      | 5240            | -2.31                   | 0                     | -2.31                          |                 | Pass    |
| 11AC40    | 38      | 5190            | -5.85                   | 0                     | -5.85                          | 11              | Pass    |
|           | 46      | 5230            | -5.79                   | 0                     | -5.79                          |                 | Pass    |
| 11AC80    | 42      | 5210            | -9.22                   | 0                     | -9.22                          | 11              | Pass    |

**Combined Ant0 and Ant1**

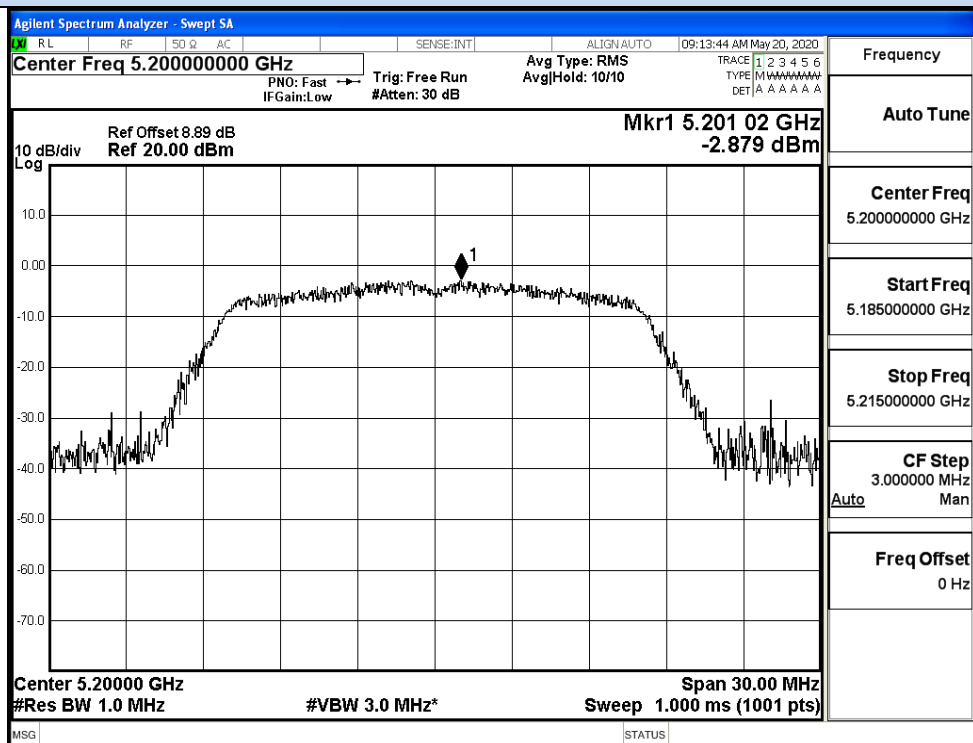
| Test Mode | Channel | Frequency (MHz) | Report Power Density (dBm/MHz) |       |       | Limit (dBm/MHz) |
|-----------|---------|-----------------|--------------------------------|-------|-------|-----------------|
|           |         |                 | Ant_0                          | Ant_1 | Sum   |                 |
| 11N20     | 36      | 5180            | -3.33                          | -2.96 | -0.13 | 10.99           |
|           | 40      | 5200            | -2.64                          | -2.82 | 0.28  |                 |
|           | 48      | 5240            | -2.56                          | -2.34 | 0.56  |                 |
| 11N40     | 38      | 5190            | -5.92                          | -6.28 | -3.09 | 10.99           |
|           | 46      | 5230            | -6.13                          | -6.16 | -3.13 |                 |
| 11AC20    | 36      | 5180            | 0.76                           | -2.38 | 2.48  | 10.99           |
|           | 40      | 5200            | 0.86                           | -2.65 | 2.46  |                 |
|           | 48      | 5240            | 0.93                           | -2.31 | 2.62  |                 |
| 11AC40    | 38      | 5190            | -1.24                          | -5.85 | 0.05  | 10.99           |
|           | 46      | 5230            | -0.72                          | -5.79 | 0.46  |                 |
| 11AC80    | 42      | 5210            | -2.39                          | -9.22 | -1.57 | 10.99           |

## ANT0

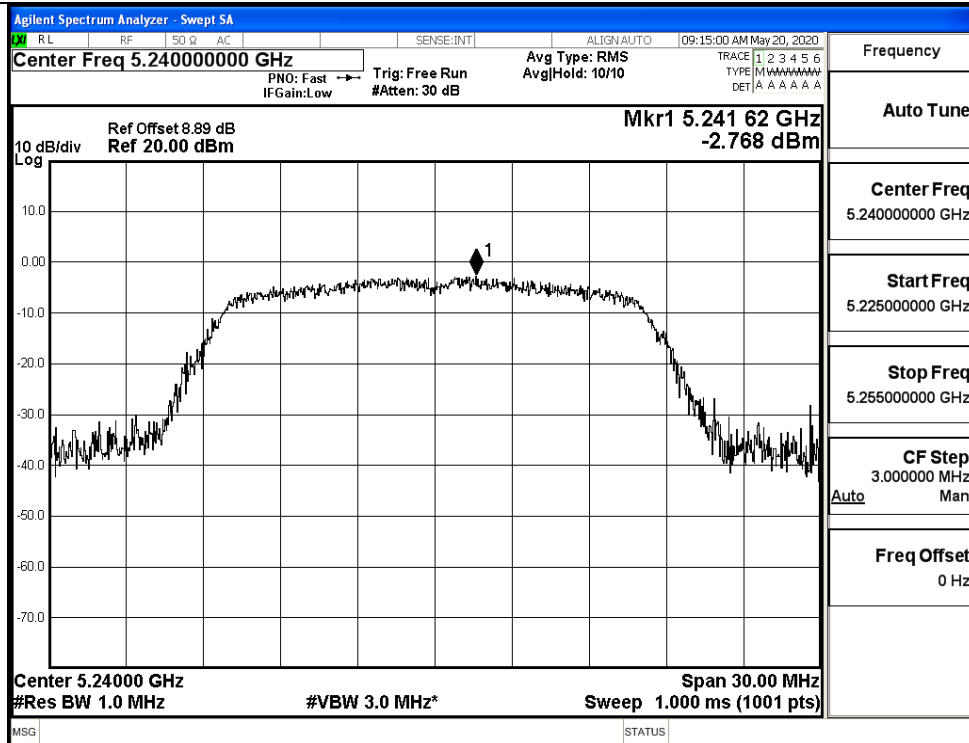
## Power Spectral Density



## IEEE 802.11a / Channel 36 / 5180MHz

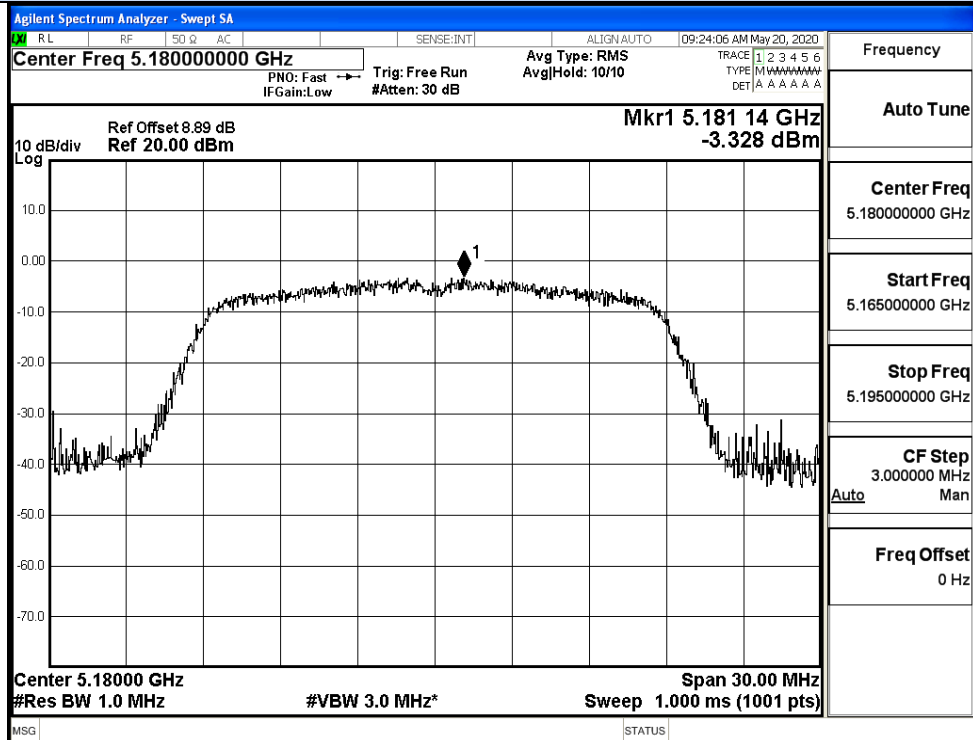


## IEEE 802.11na / Channel 40 / 5200MHz

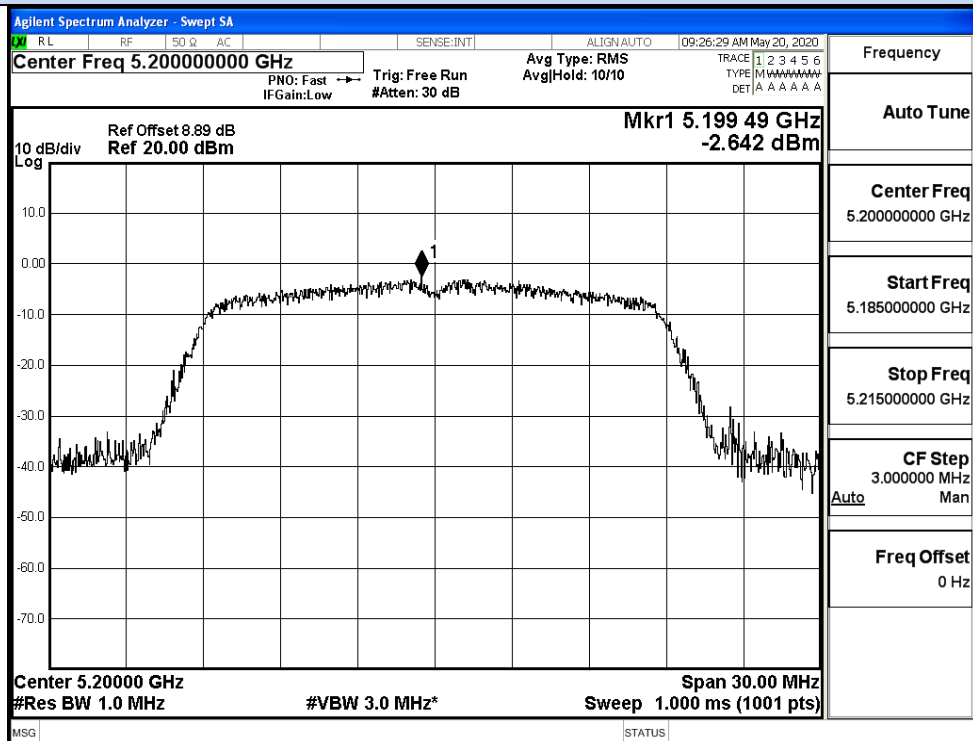


IEEE 802.11na / Channel 48 / 5240MHz

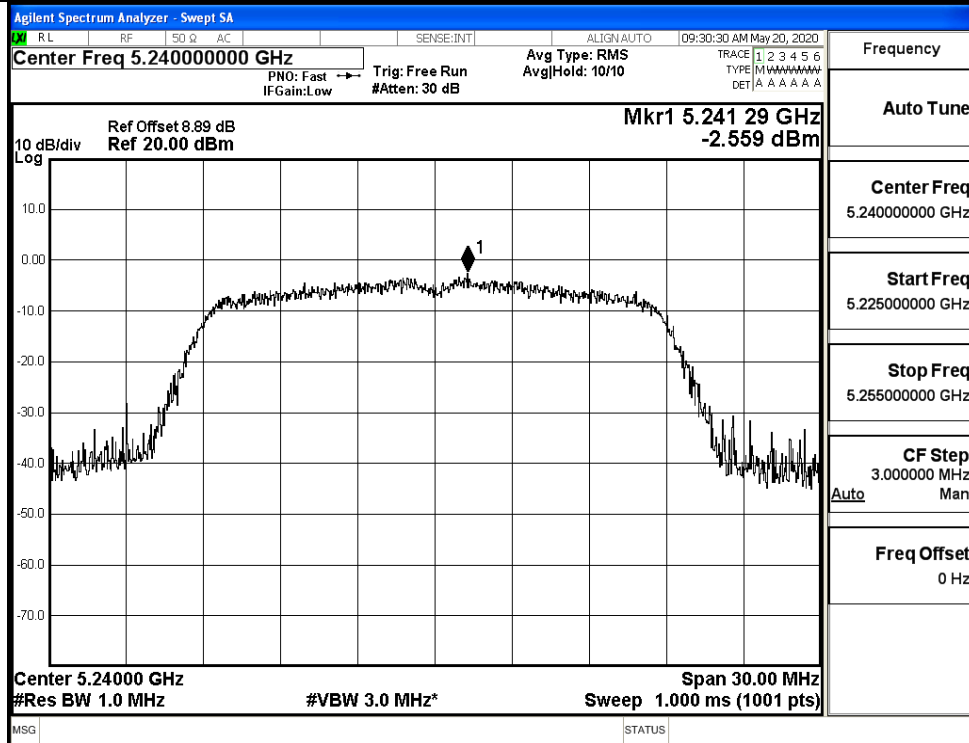
## Power Spectral Density



## IEEE 802.11n20 / Channel 36 / 5180MHz



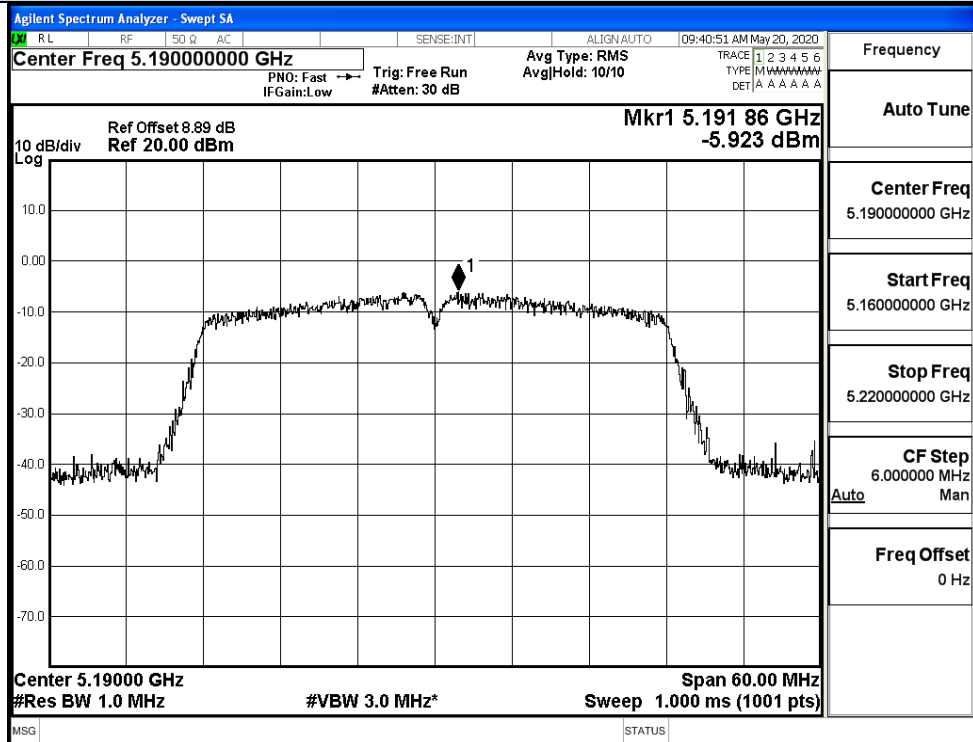
## IEEE 802.11n20 / Channel 40 / 5200MHz



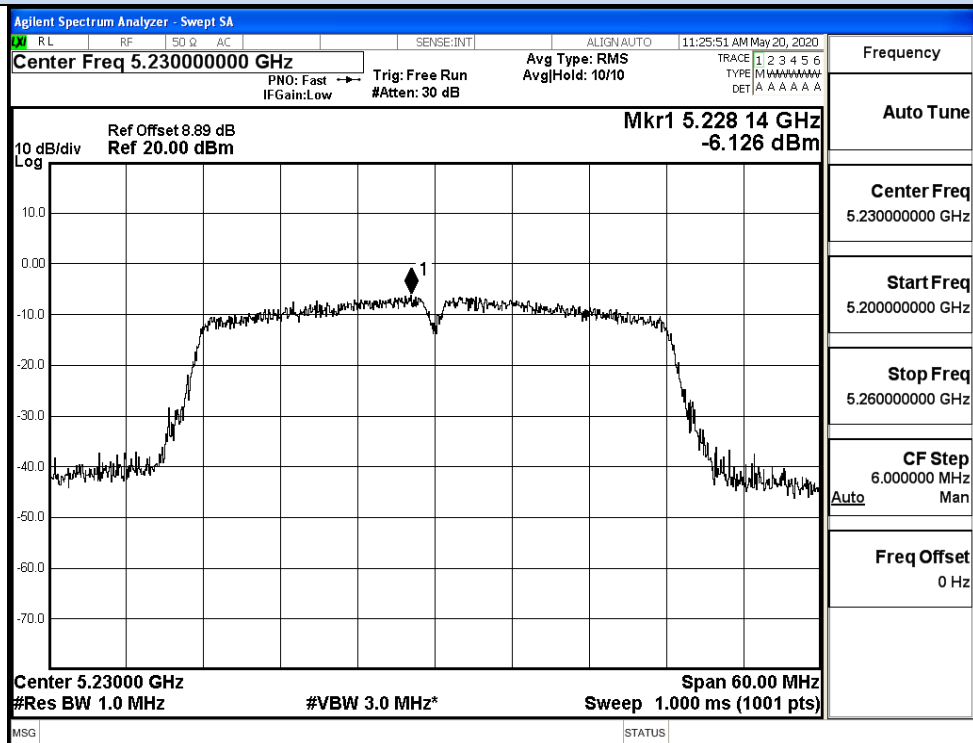
IEEE 802.11n20 / Channel 48 / 5240MHz



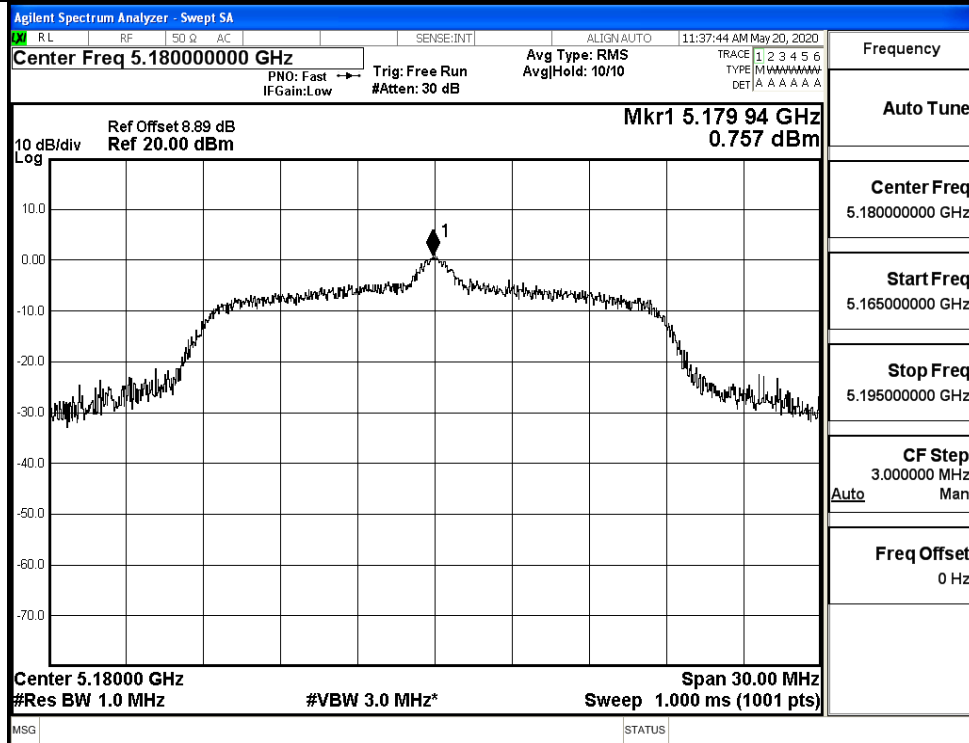
## Power Spectral Density



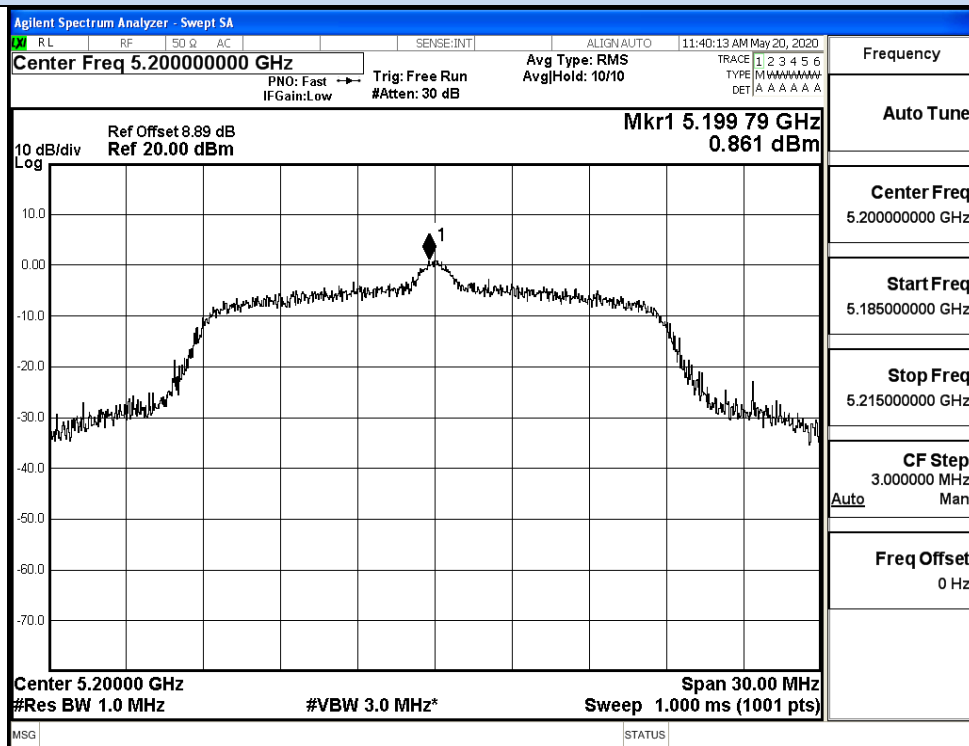
IEEE 802.11n40 / Channel 38 / 5190MHz



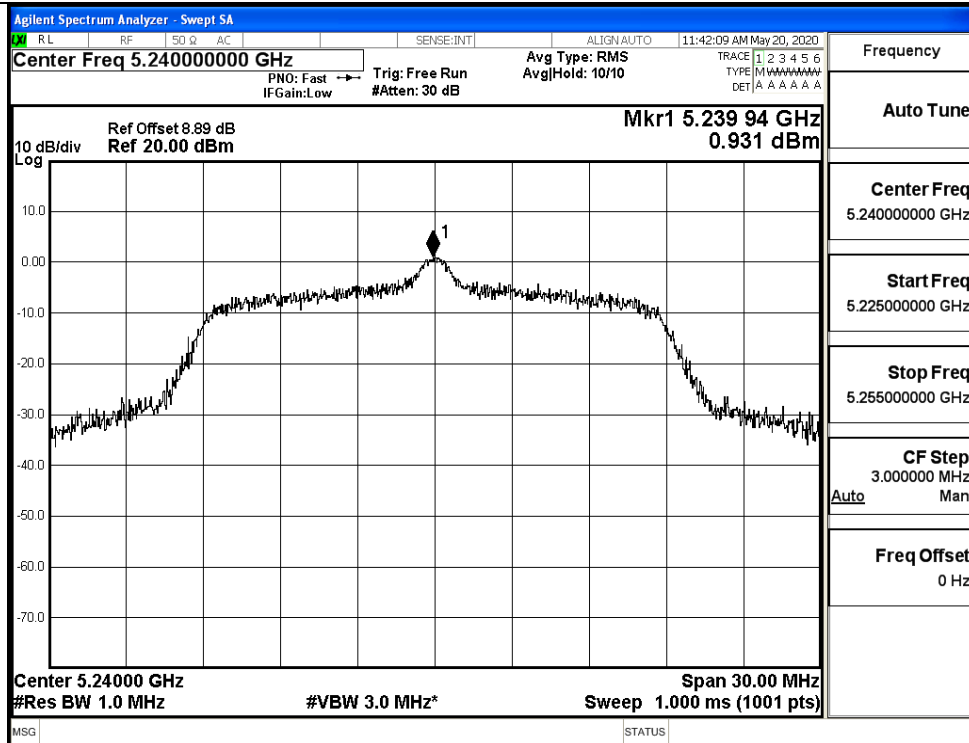
IEEE 802.11n40 / Channel 46 / 5230MHz



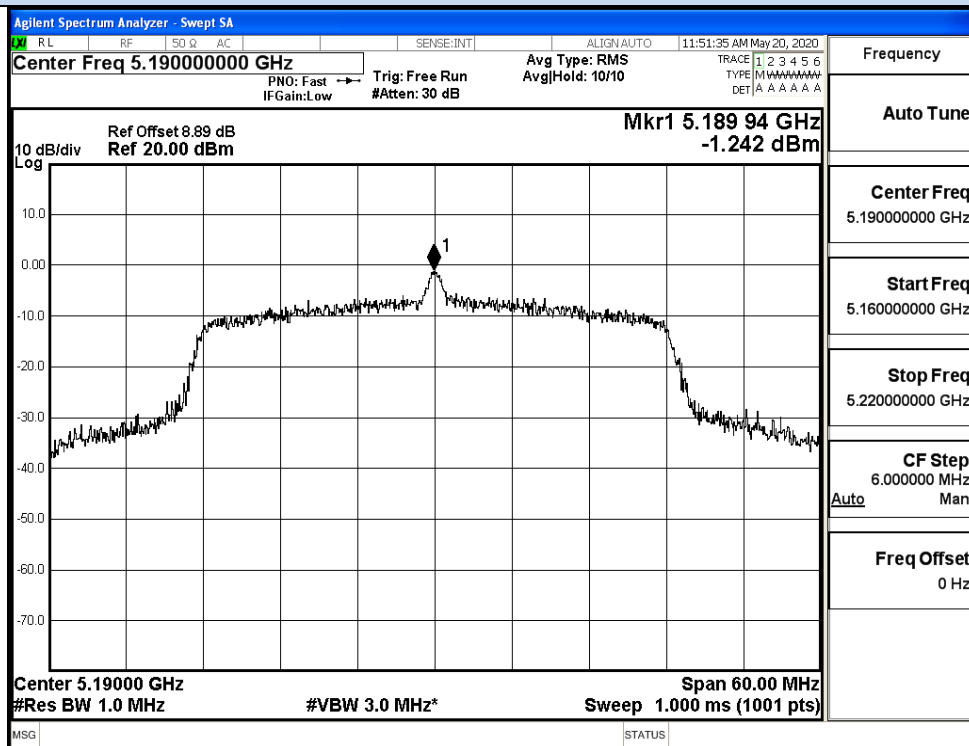
IEEE 802.11ac20 / Channel 36 / 5180MHz



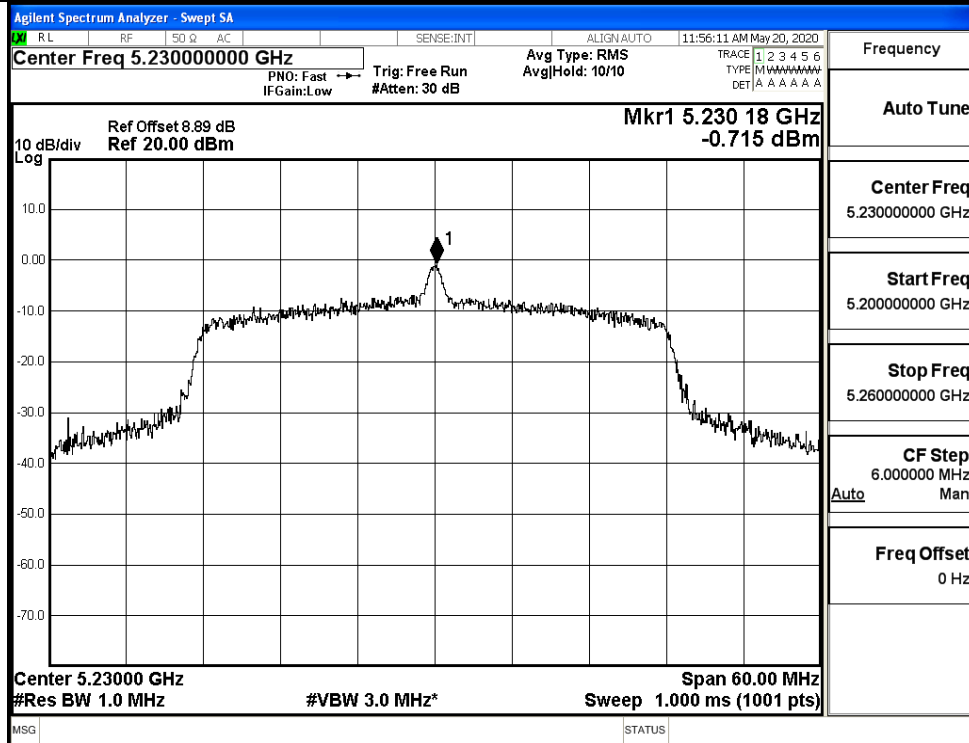
IEEE 802.11ac20 / Channel 40 / 5200MHz



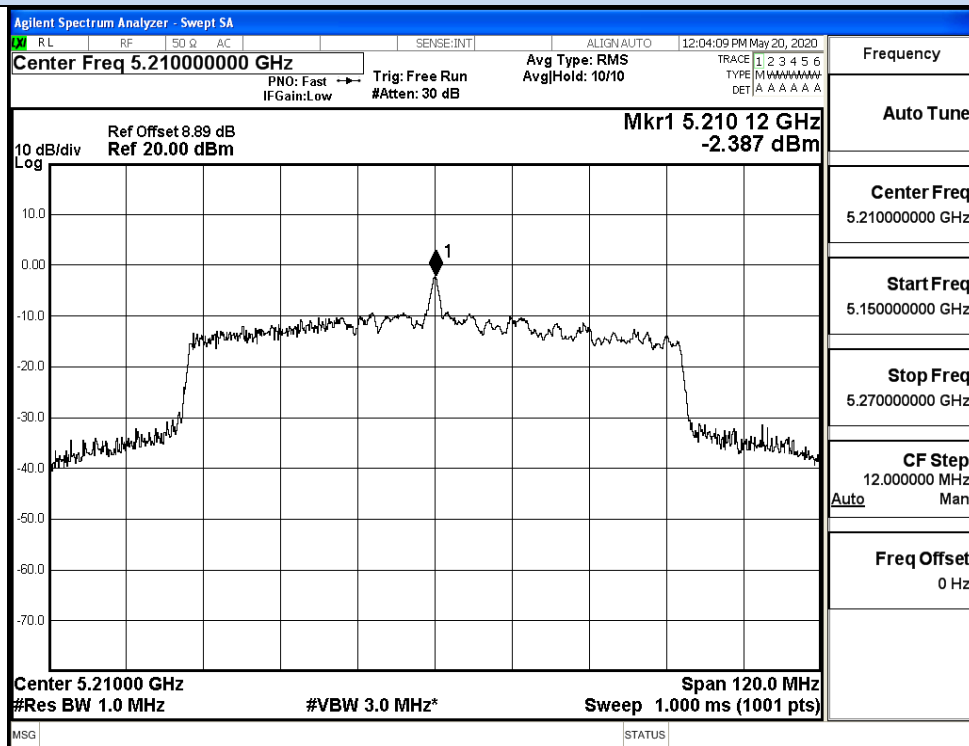
IEEE 802.11ac20 / Channel 48 / 5240MHz



IEEE 802.11ac40 / Channel 38 / 5190MHz



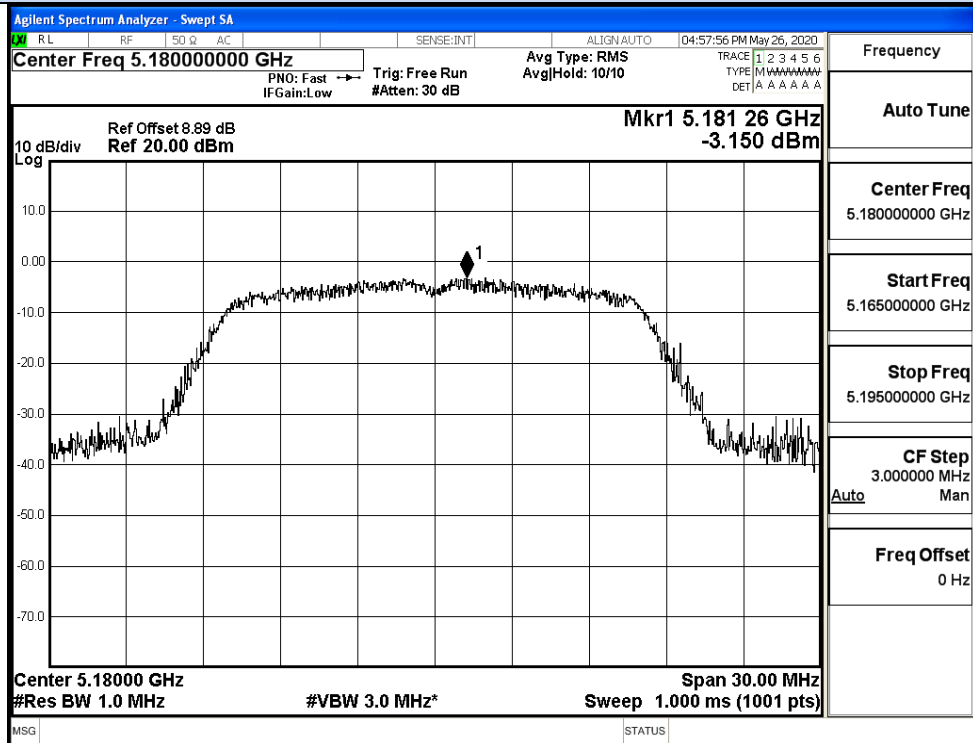
IEEE 802.11ac40 / Channel 46 / 5230MHz



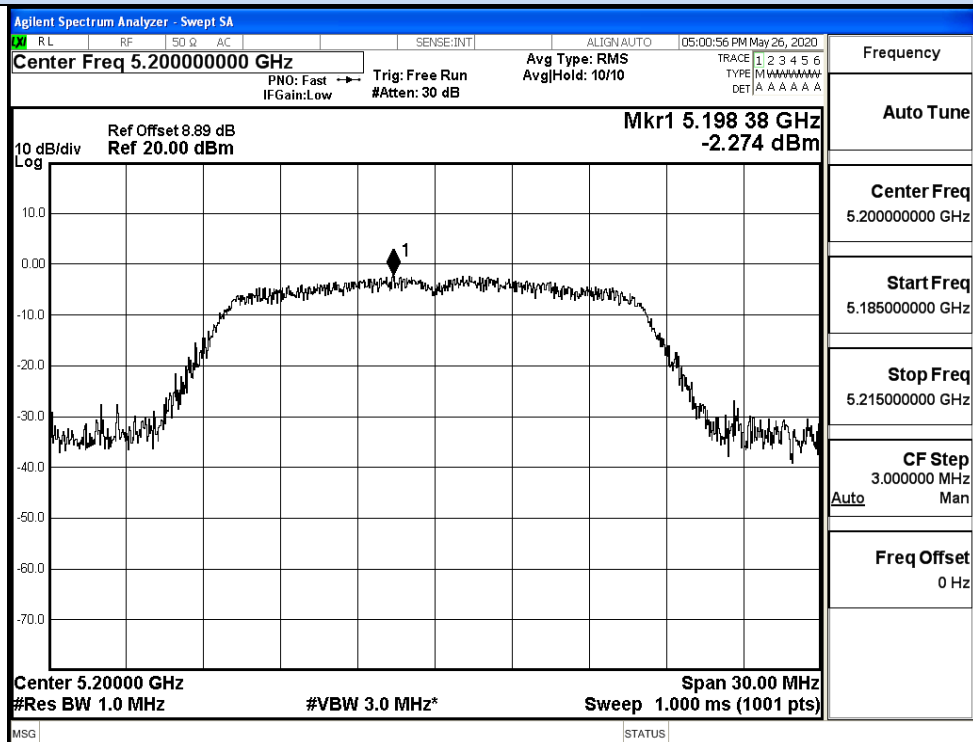
IEEE 802.11ac80 / Channel 42 / 5210MHz

## Ant1

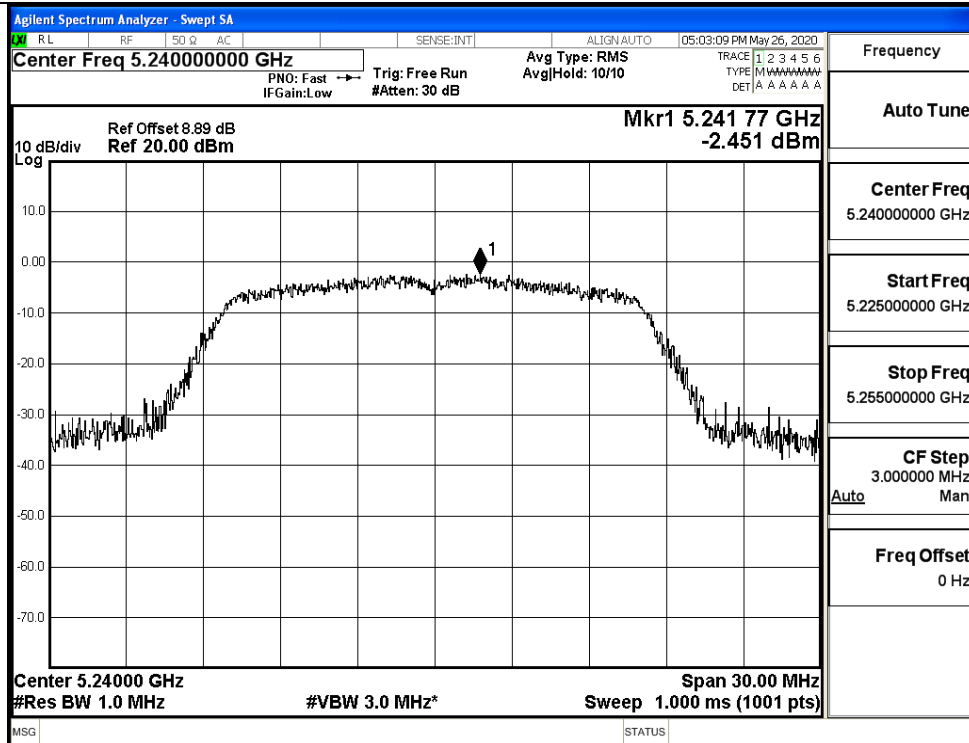
## Power Spectral Density



## IEEE 802.11a / Channel 36 / 5180MHz

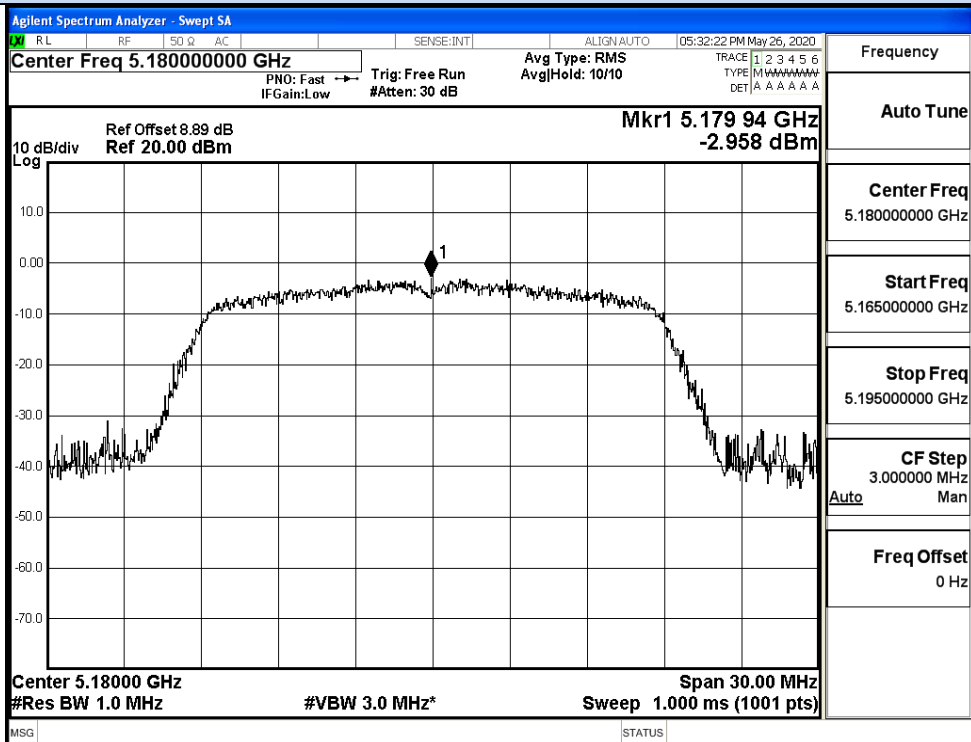


## IEEE 802.11na / Channel 40 / 5200MHz

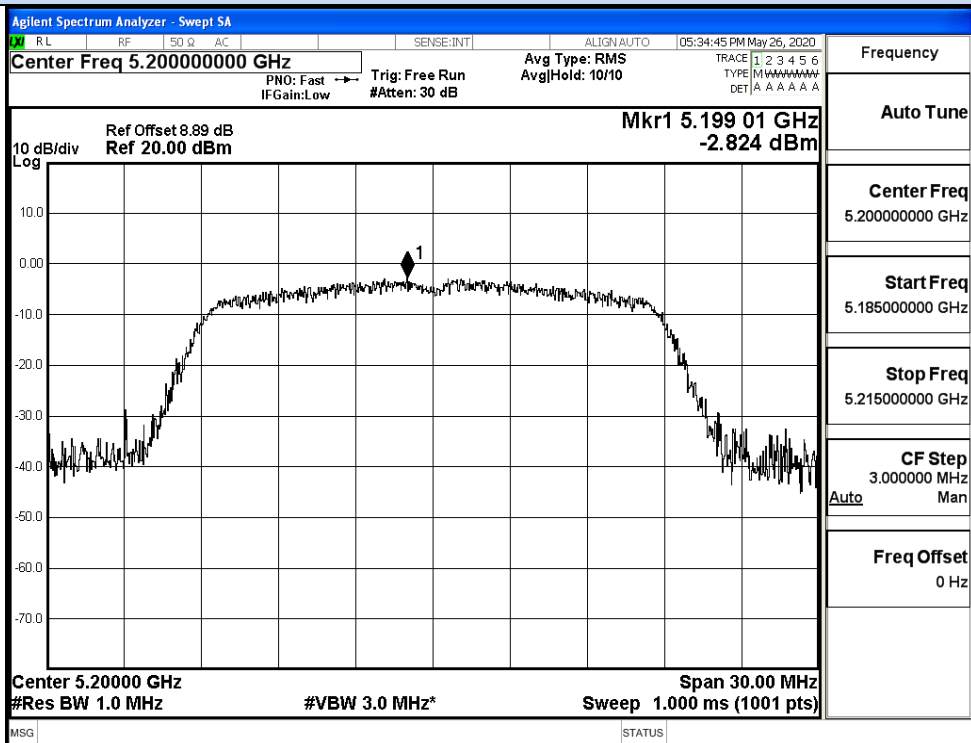


IEEE 802.11na / Channel 48 / 5240MHz

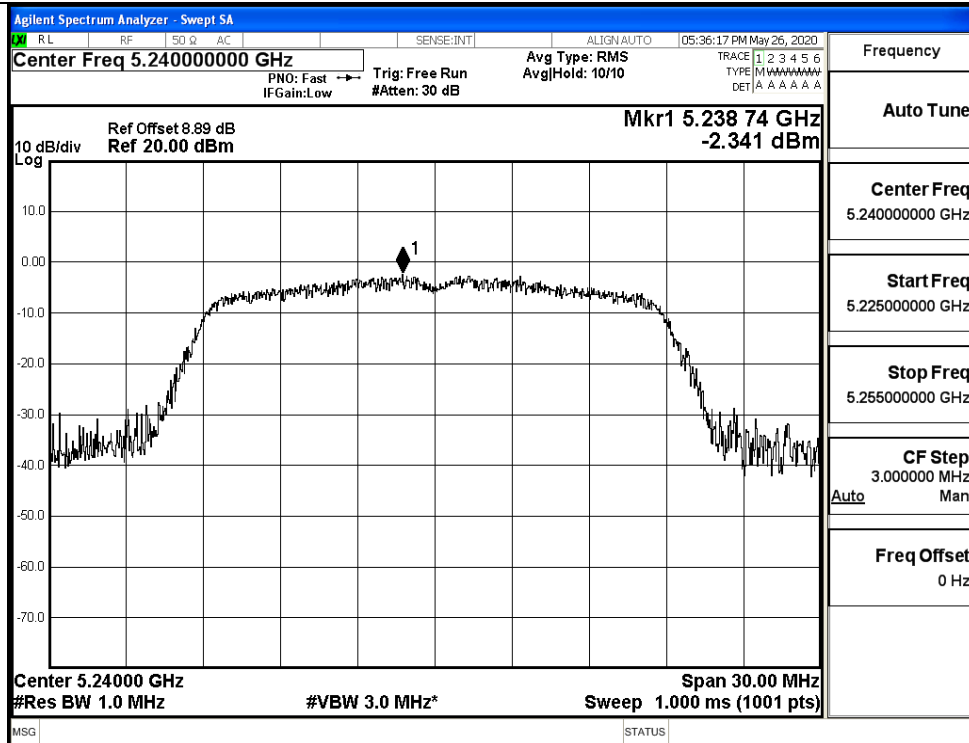
## Power Spectral Density



IEEE 802.11n20 / Channel 36 / 5180MHz



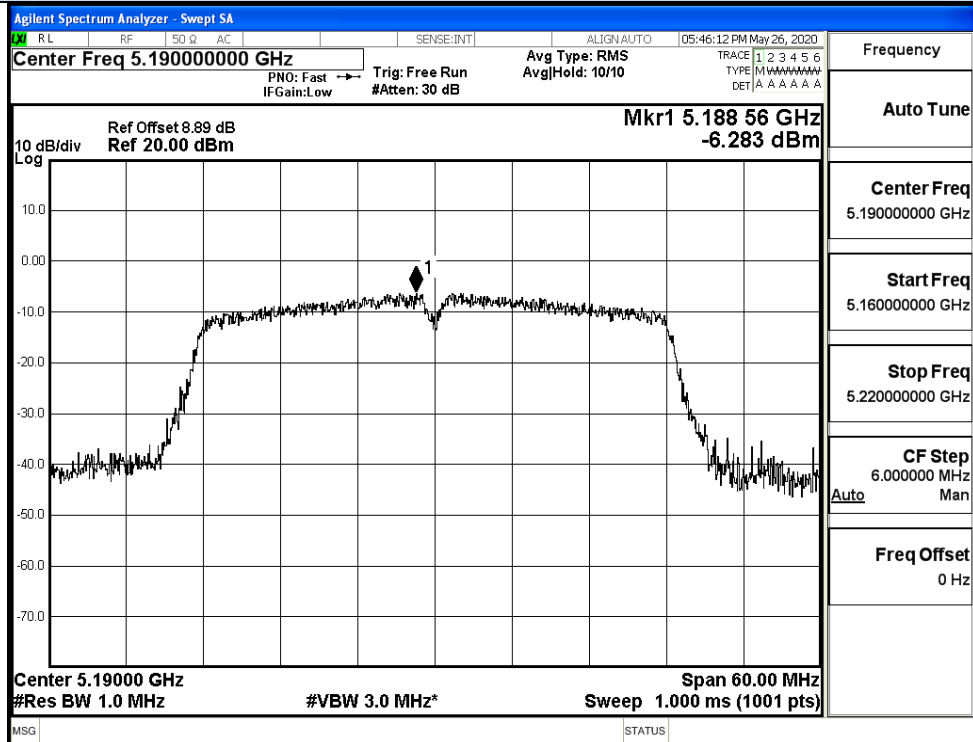
IEEE 802.11n20 / Channel 40 / 5200MHz



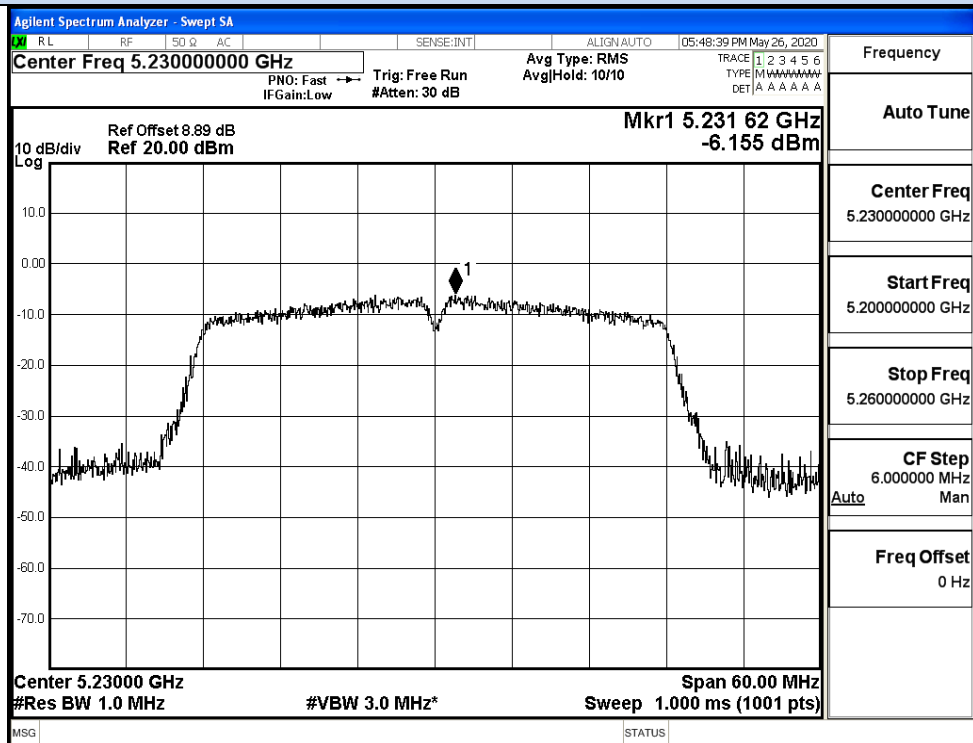
IEEE 802.11n20 / Channel 48 / 5240MHz



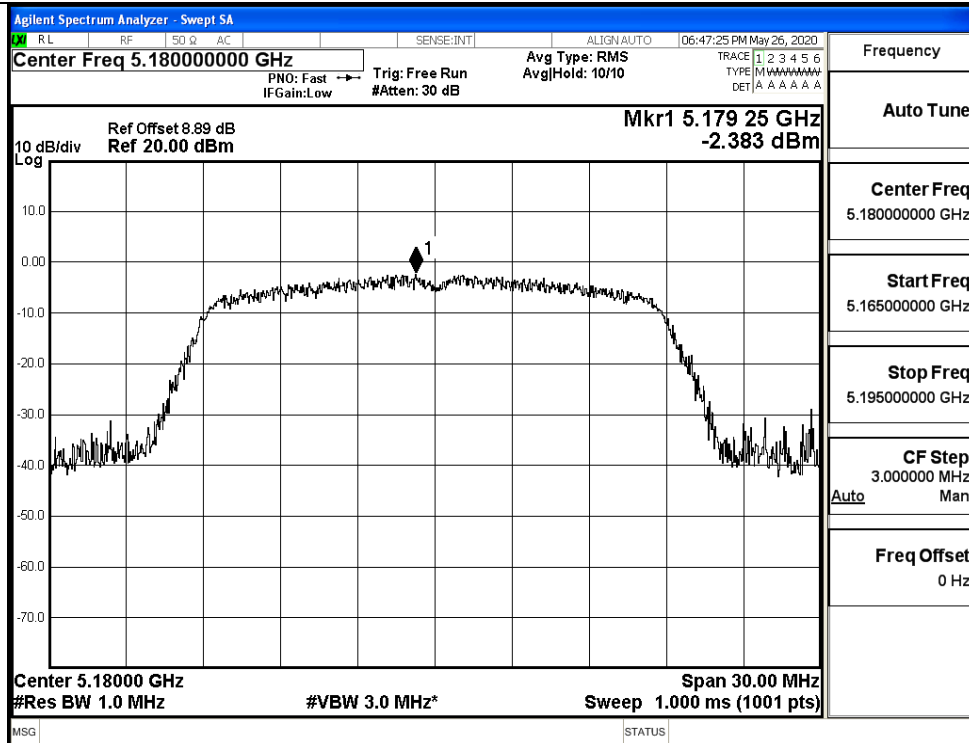
## Power Spectral Density



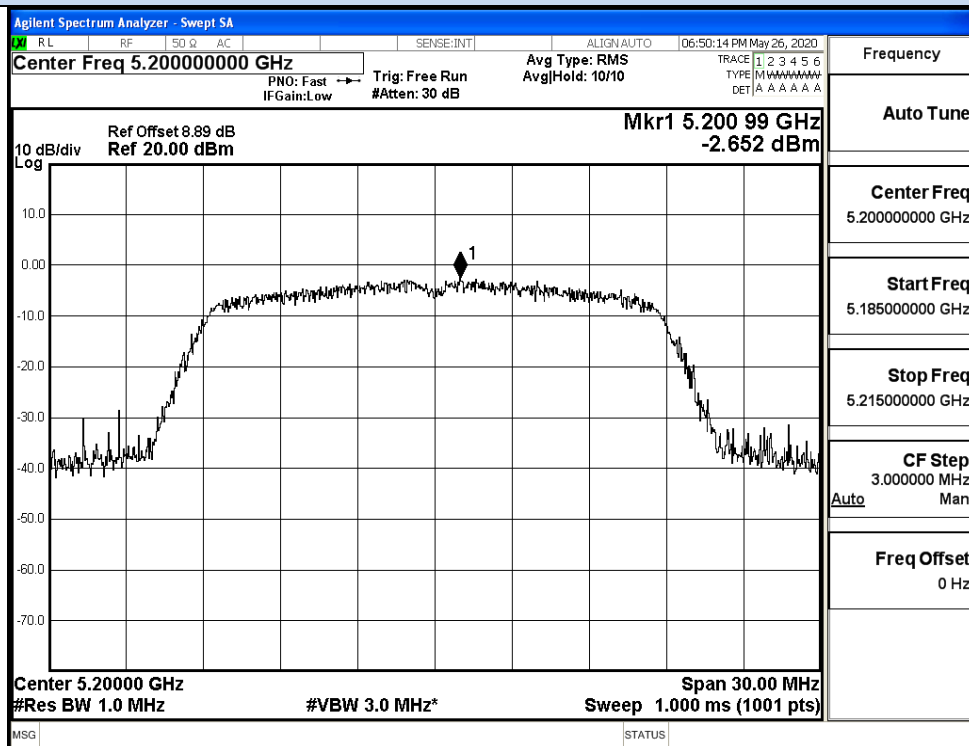
IEEE 802.11n40 / Channel 38 / 5190MHz



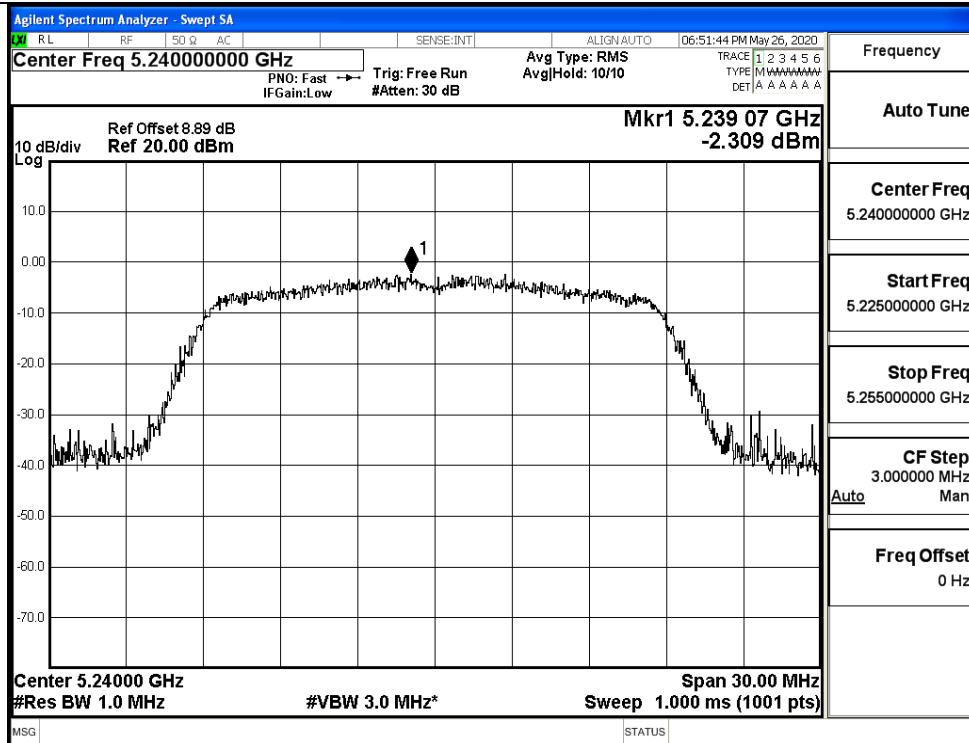
IEEE 802.11n40 / Channel 46 / 5230MHz



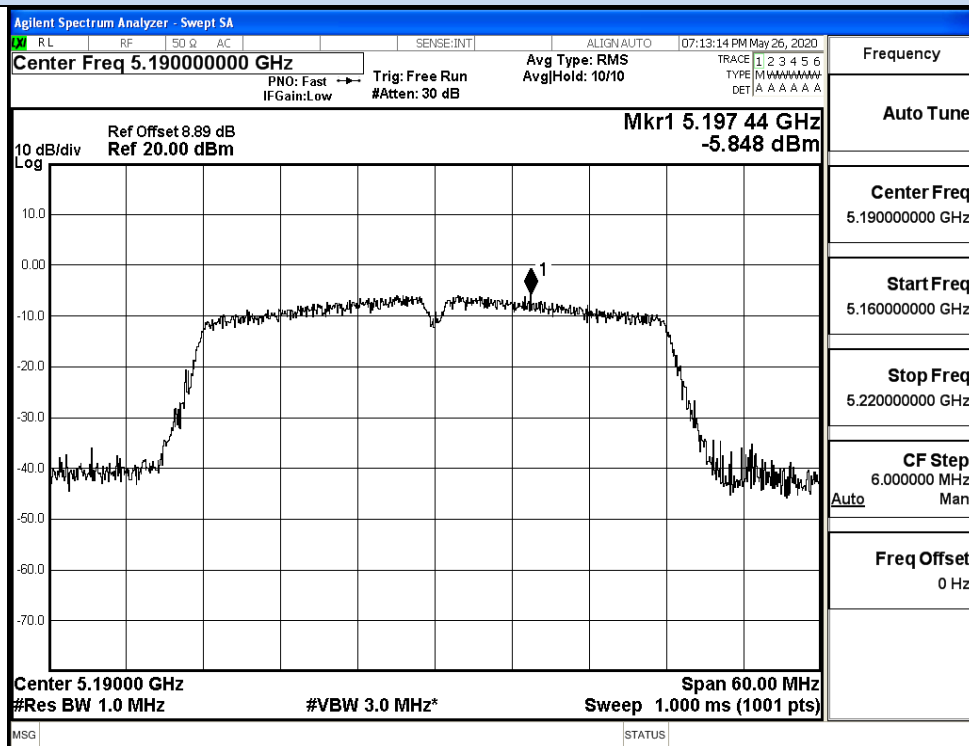
IEEE 802.11ac20 / Channel 36 / 5180MHz



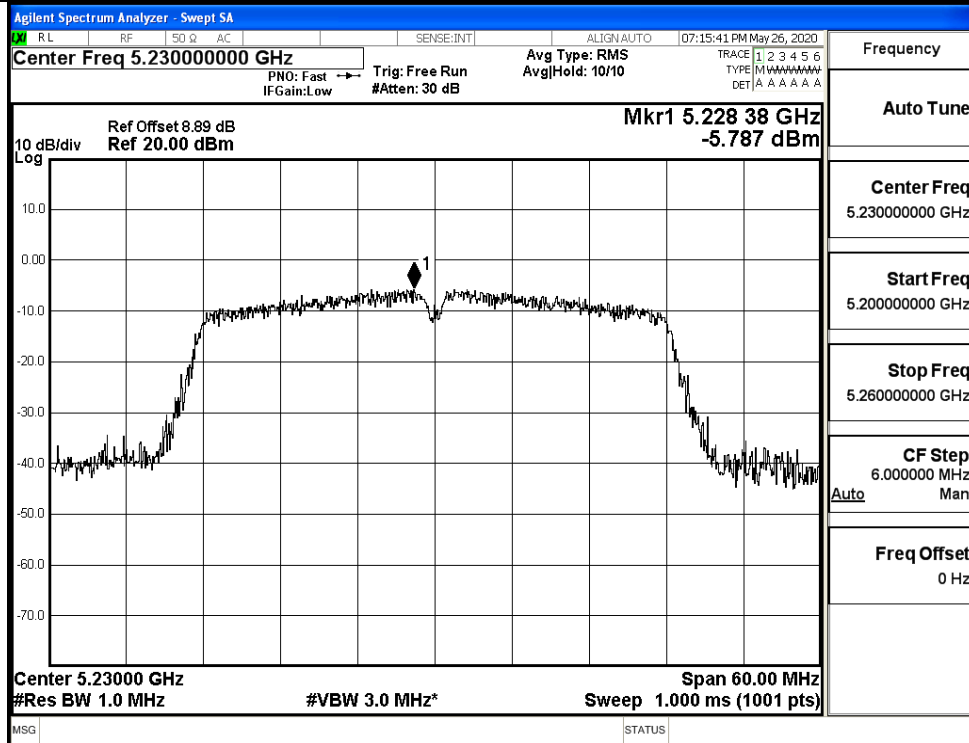
IEEE 802.11ac20 / Channel 40 / 5200MHz



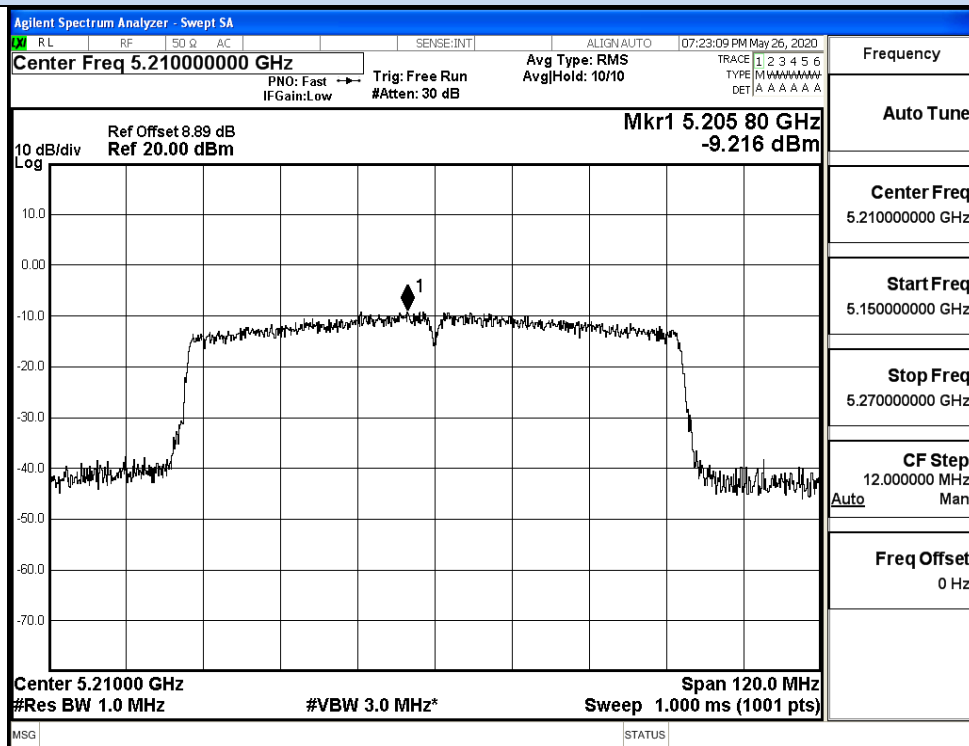
IEEE 802.11ac20 / Channel 48 / 5240MHz



IEEE 802.11ac40 / Channel 38 / 5190MHz



IEEE 802.11ac40 / Channel 46 / 5230MHz

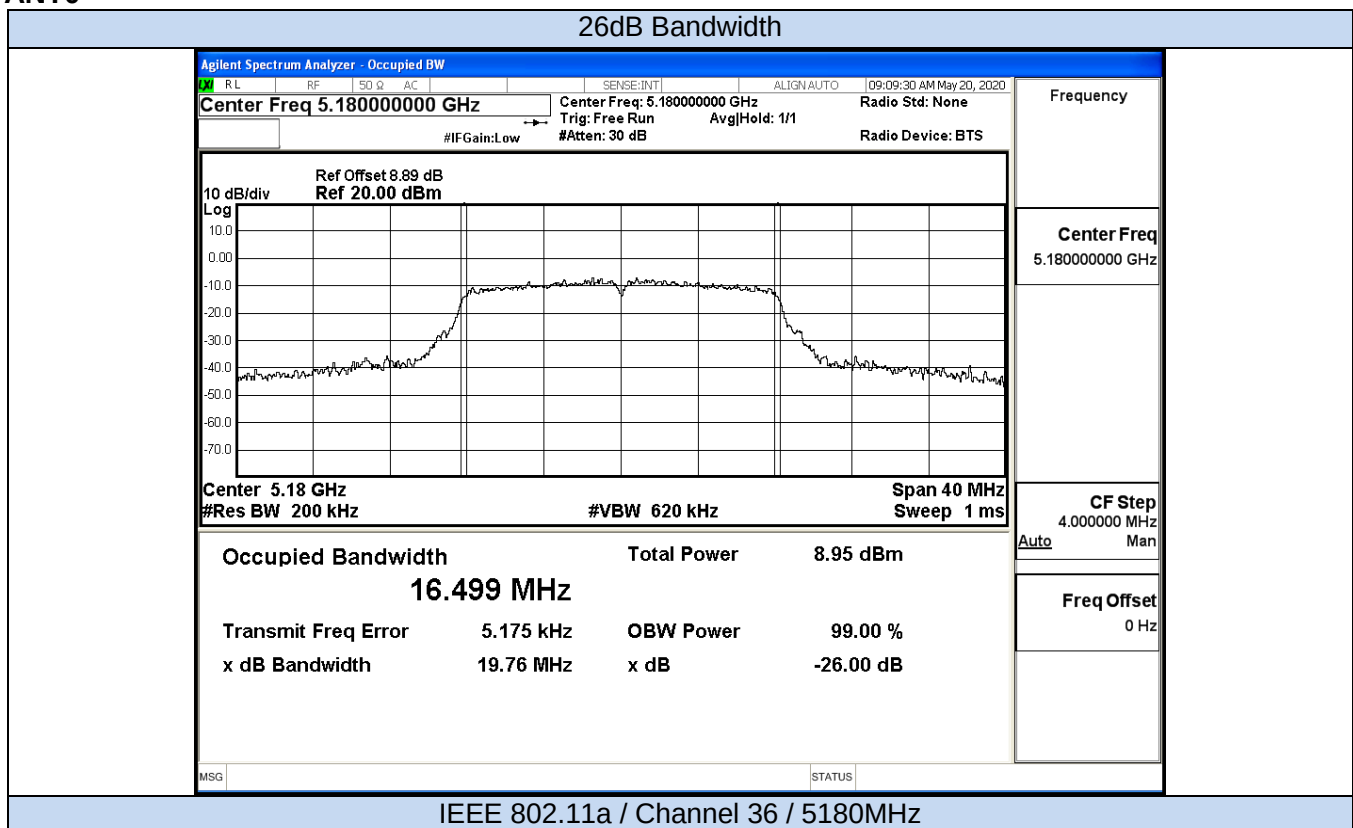


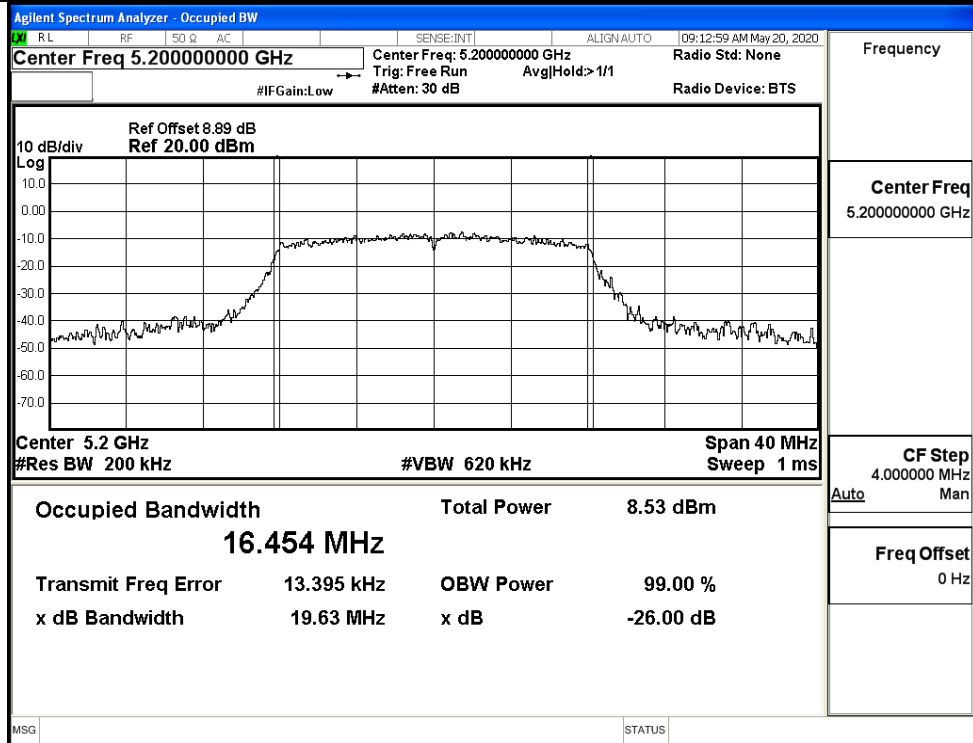
IEEE 802.11ac80 / Channel 42 / 5210MHz

## C.4 Emission Bandwidth

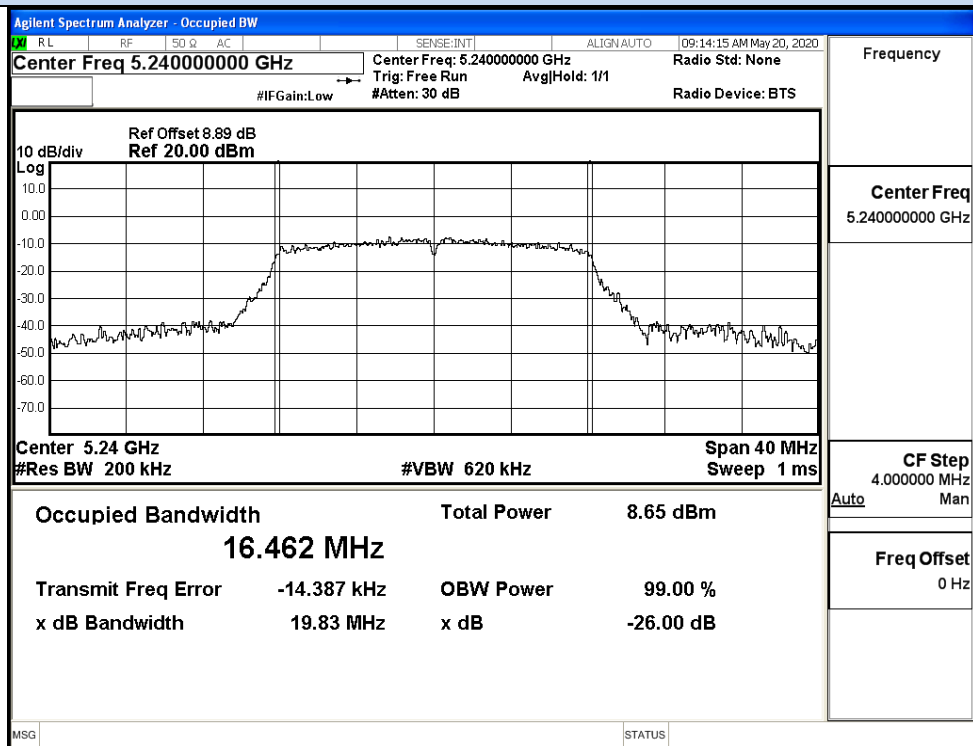
| Test Mode   | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |       | Limit (MHz) | Verdict |
|-------------|---------|-----------------|----------------------|-------|-------------|---------|
|             |         |                 | Ant0                 | Ant1  |             |         |
| 11A         | 36      | 5180            | 19.76                | 23.29 | No Limit    | Pass    |
|             | 40      | 5200            | 19.63                | 20.20 |             | Pass    |
|             | 48      | 5240            | 19.83                | 20.00 |             | Pass    |
| 11N20 SISO  | 36      | 5180            | 19.74                | 20.20 | No Limit    | Pass    |
|             | 40      | 5200            | 20.52                | 20.34 |             | Pass    |
|             | 48      | 5240            | 20.19                | 20.21 |             | Pass    |
| 11N40 SISO  | 38      | 5190            | 40.09                | 40.52 | No Limit    | Pass    |
|             | 46      | 5230            | 40.23                | 39.67 |             | Pass    |
| 11AC20 SISO | 36      | 5180            | 21.85                | 20.04 | No Limi     | Pass    |
|             | 40      | 5200            | 19.44                | 20.09 |             | Pass    |
|             | 48      | 5240            | 19.41                | 20.08 |             | Pass    |
| 11AC40 SISO | 38      | 5190            | 39.74                | 40.01 | No Limi     | Pass    |
|             | 46      | 5230            | 38.98                | 39.80 |             | Pass    |
| 11AC80 SISO | 42      | 5210            | 79.47                | 80.47 | No Limi     | Pass    |

### ANT0



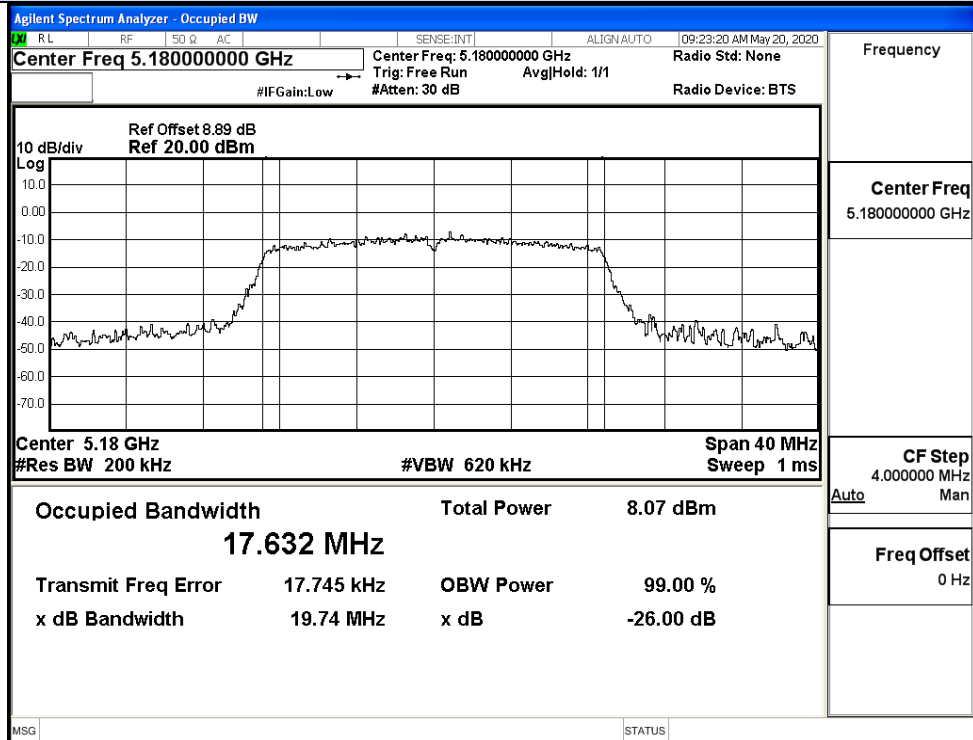


IEEE 802.11a / Channel 40 / 5200MHz

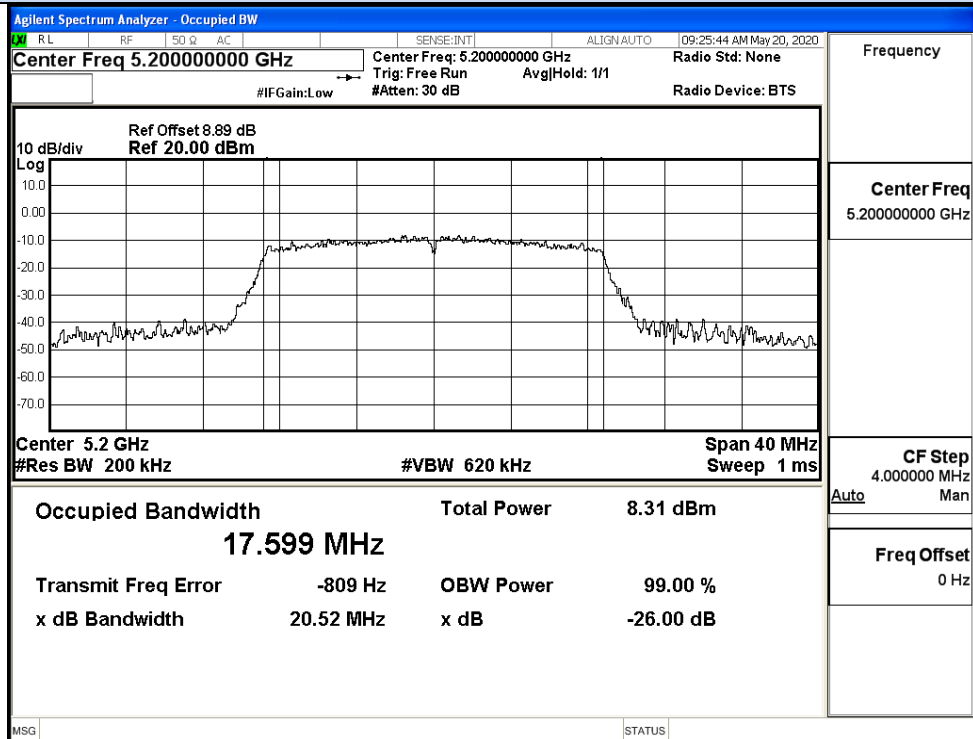


IEEE 802.11a / Channel 48 / 5240MHz

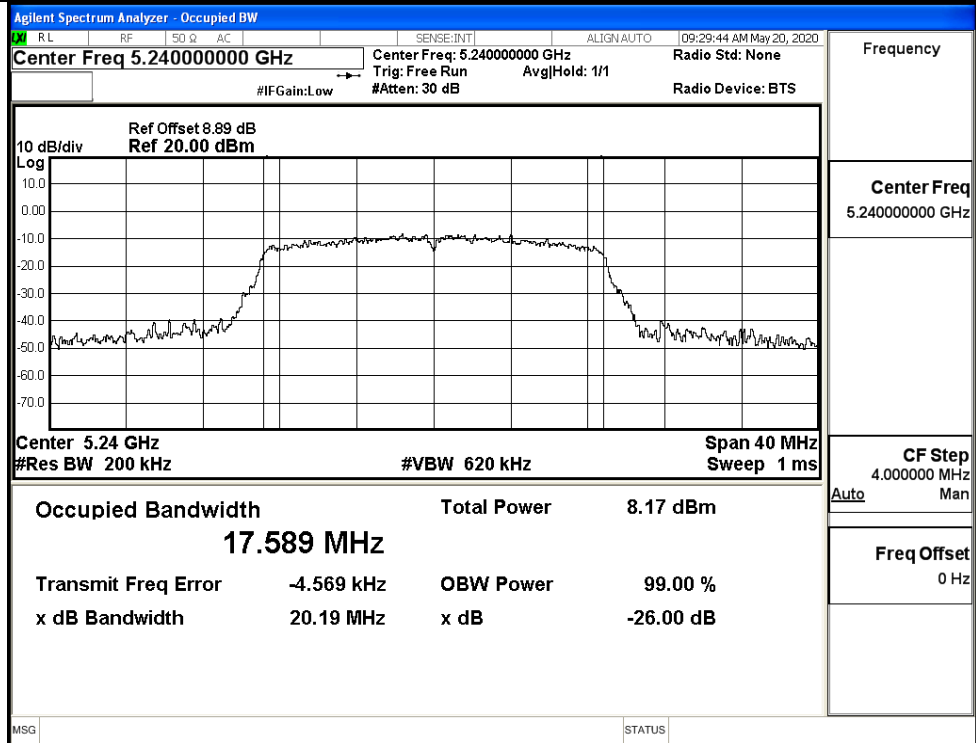
## 26dB Bandwidth



## IEEE 802.11n20 / Channel 36 / 5180MHz



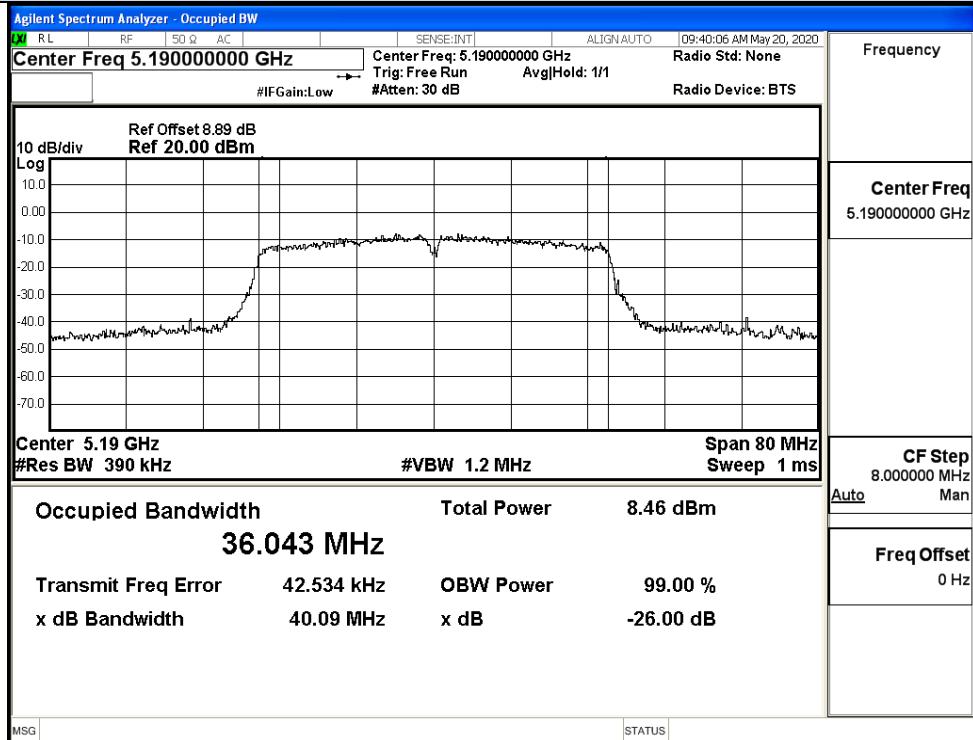
## IEEE 802.11n20 / Channel 40 / 5200MHz



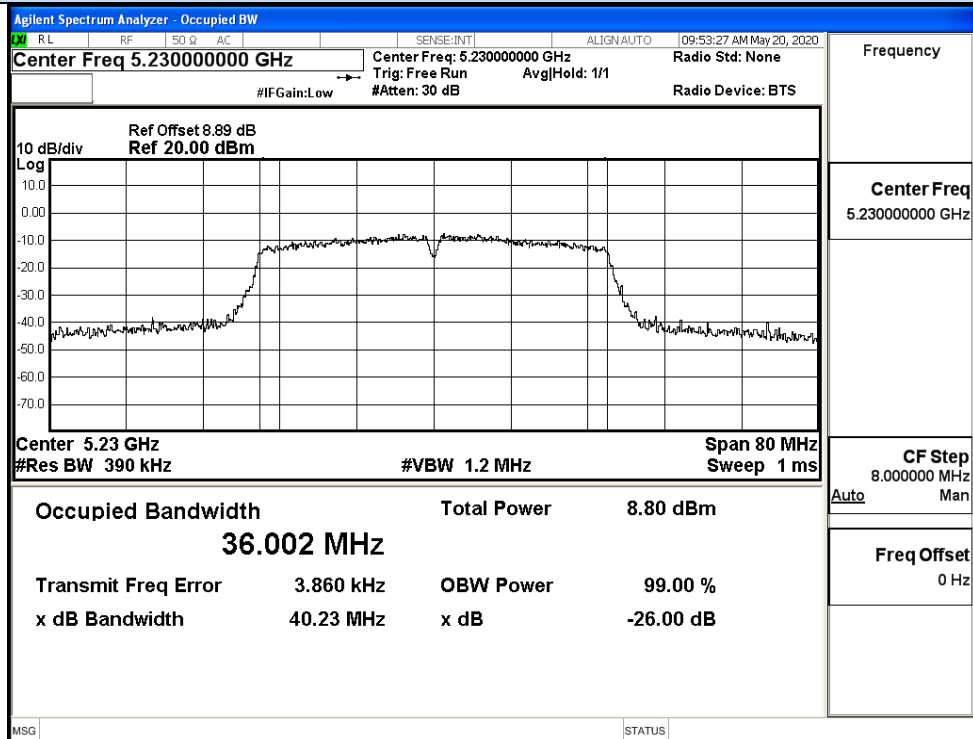
IEEE 802.11n20 / Channel 48 / 5240MHz



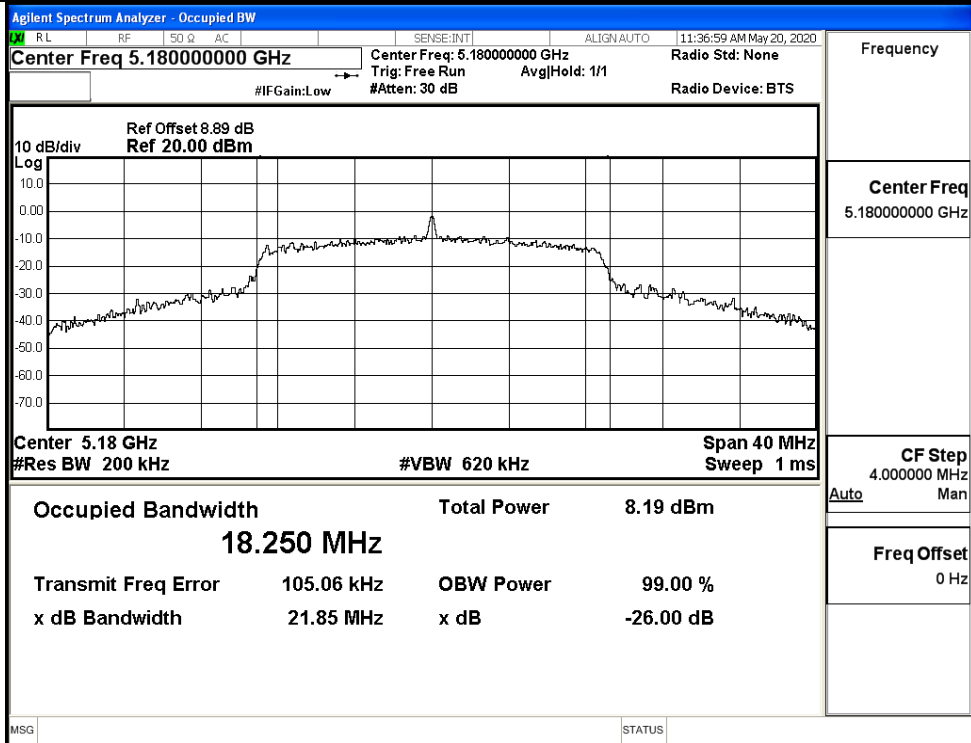
## 26dB Bandwidth



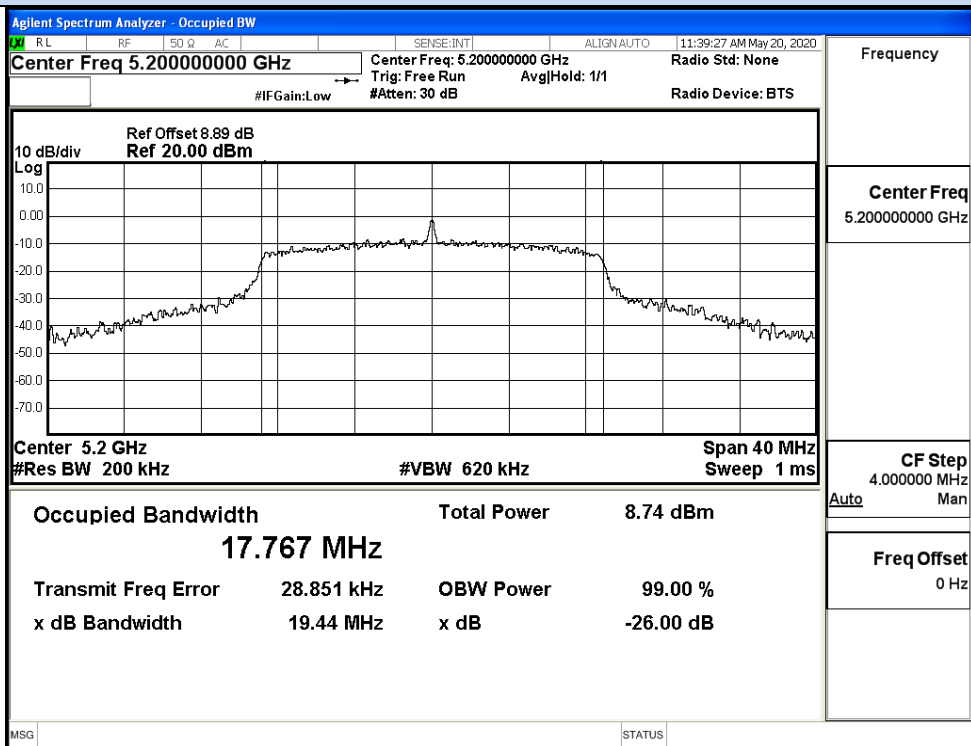
## IEEE 802.11n40 / Channel 38 / 5190MHz



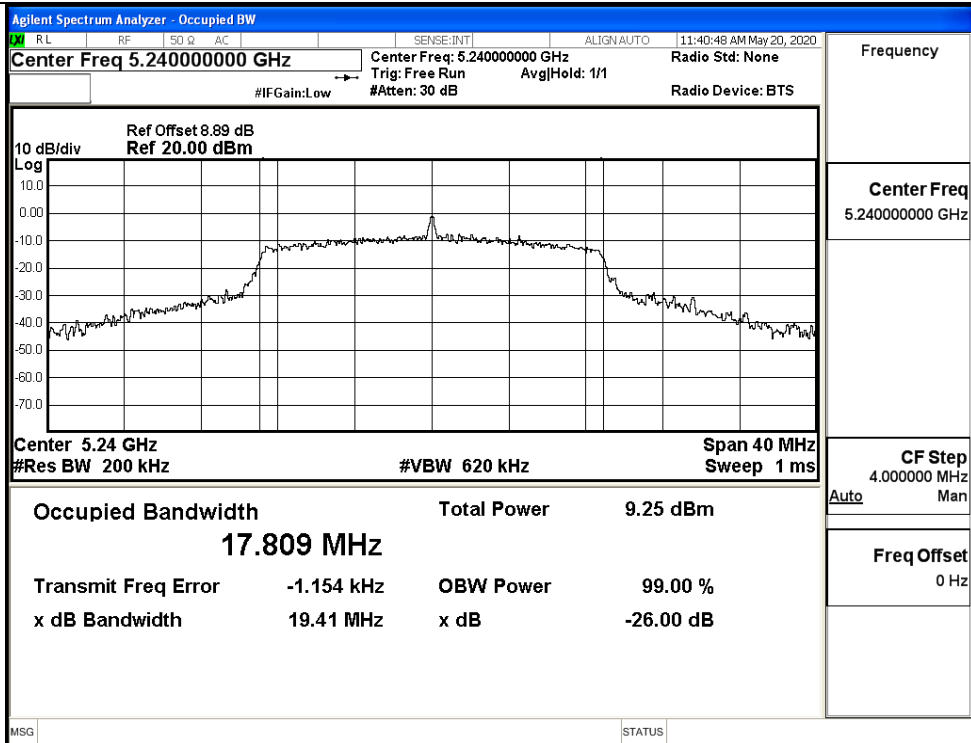
## IEEE 802.11n40 / Channel 46 / 5230MHz



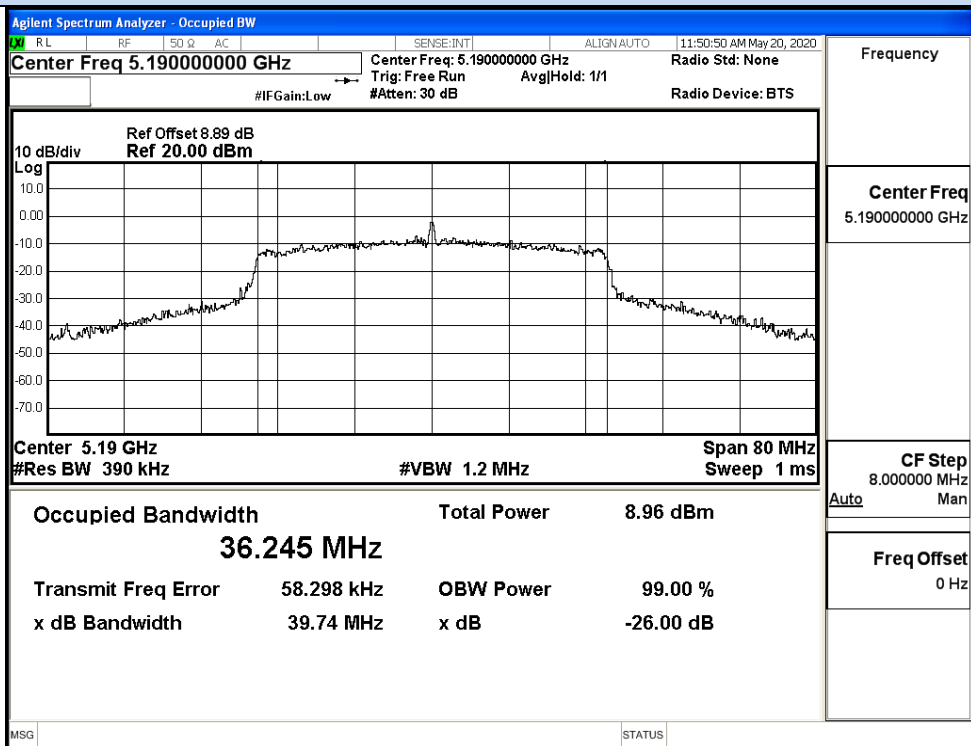
IEEE 802.11ac20 / Channel 36 / 5180MHz



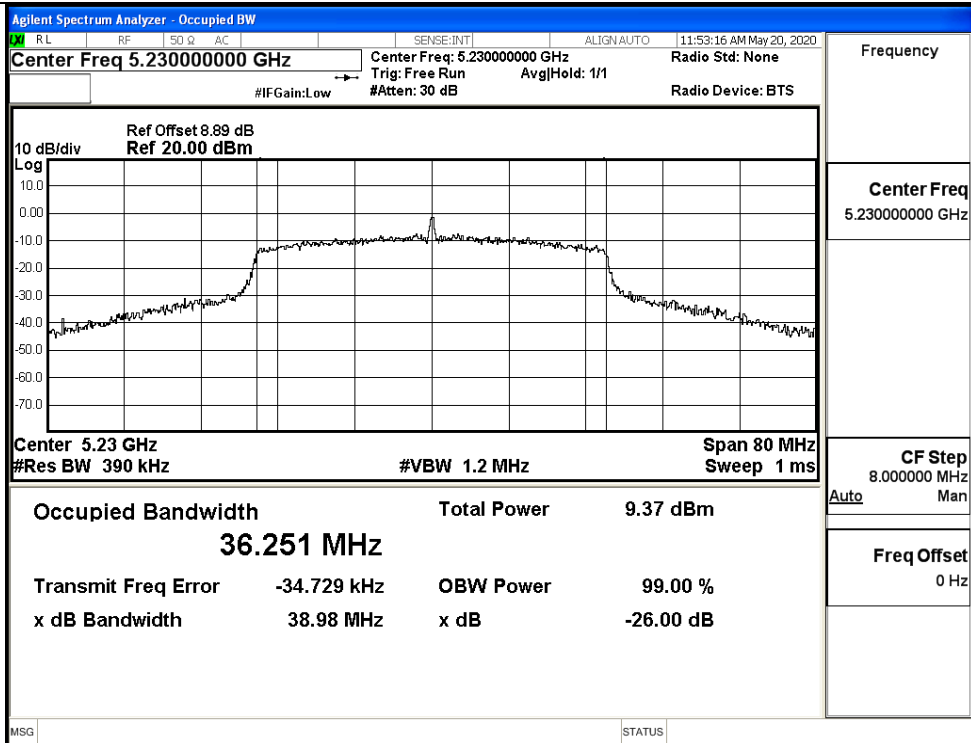
IEEE 802.11ac20 / Channel 40 / 5200MHz



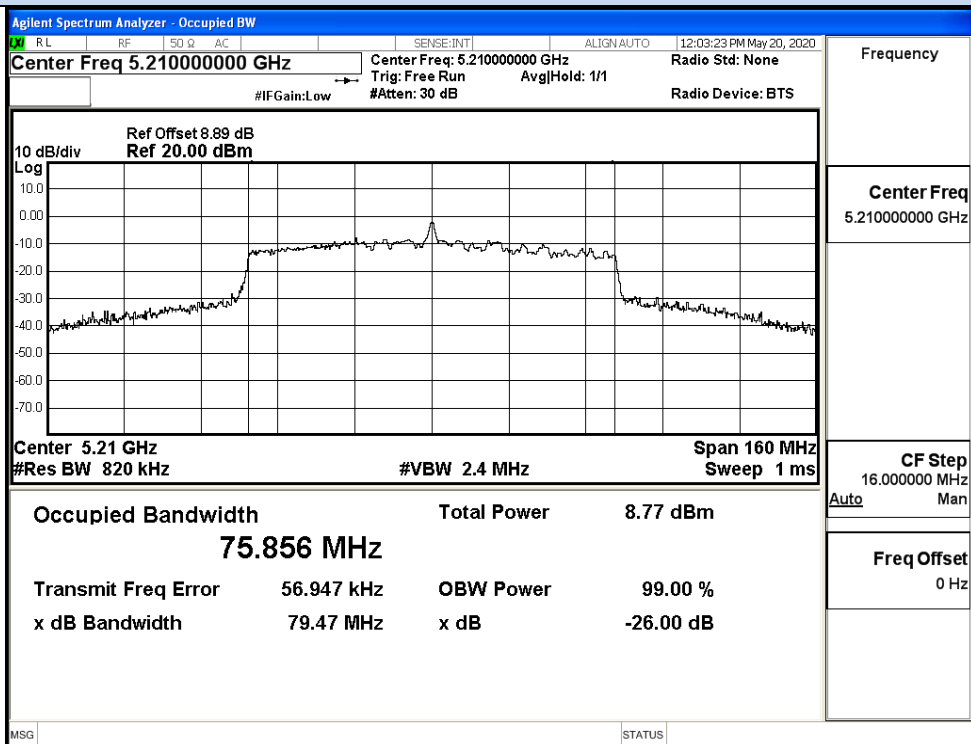
IEEE 802.11ac20 / Channel 48 / 5240MHz



IEEE 802.11ac40 / Channel 38 / 5190MHz



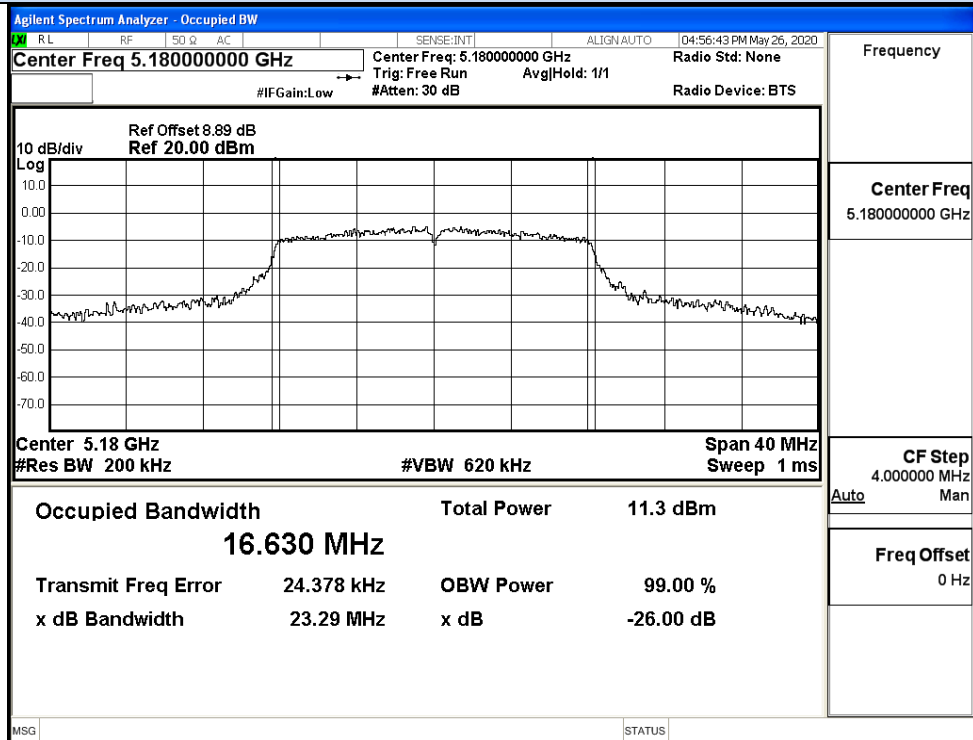
IEEE 802.11ac40 / Channel 46 / 5230MHz



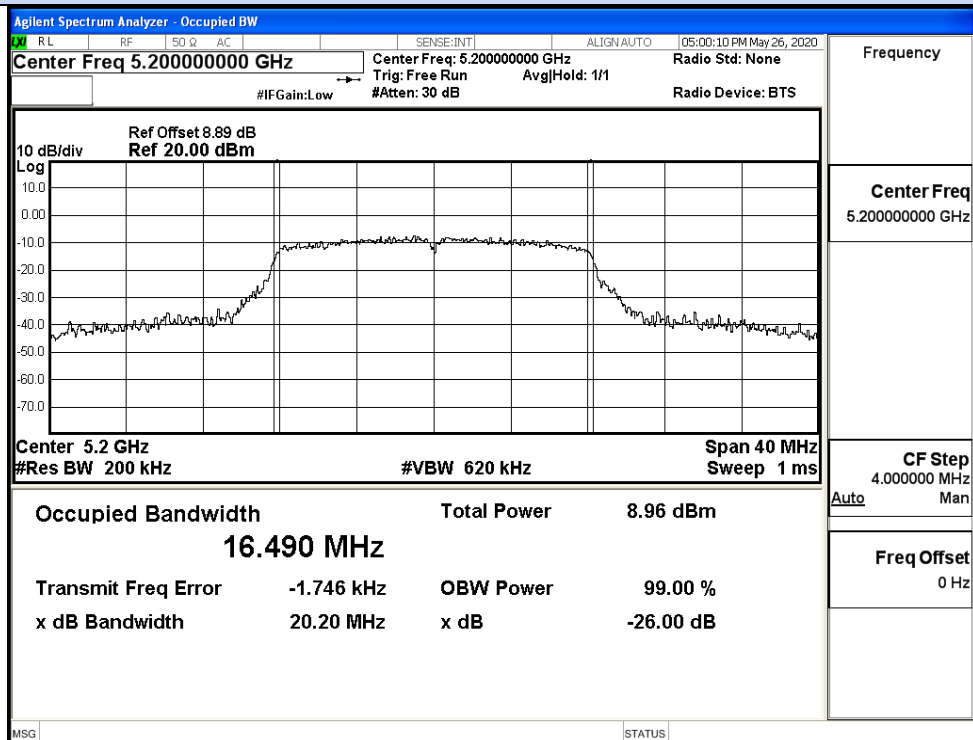
IEEE 802.11ac80 / Channel 42 / 5210MHz

## Ant1

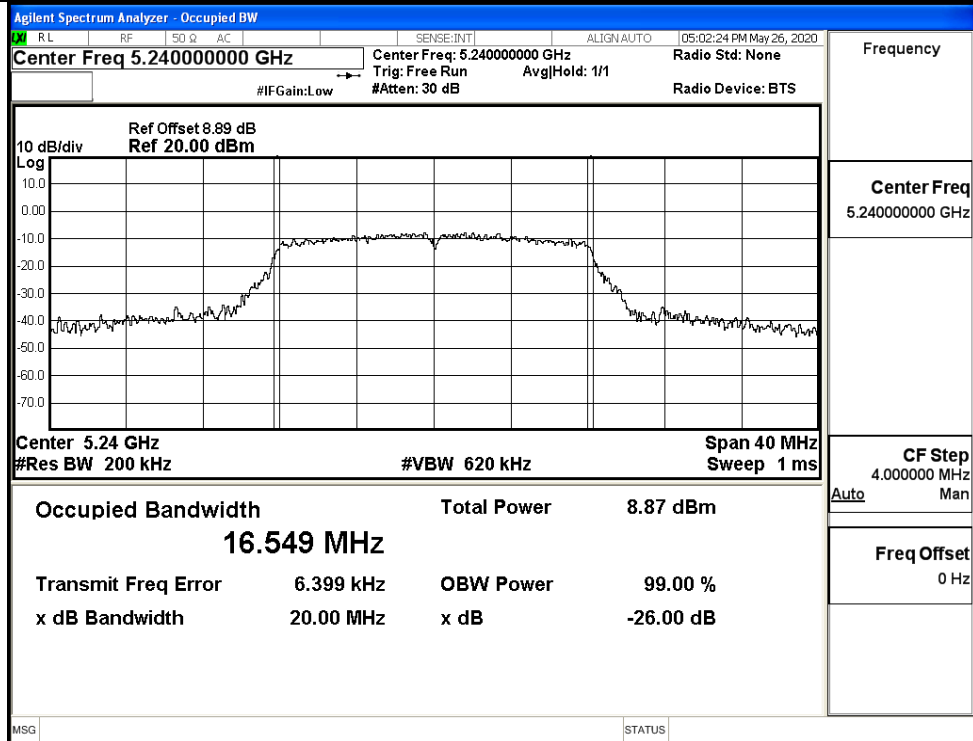
## 26dB Bandwidth



## IEEE 802.11a / Channel 36 / 5180MHz

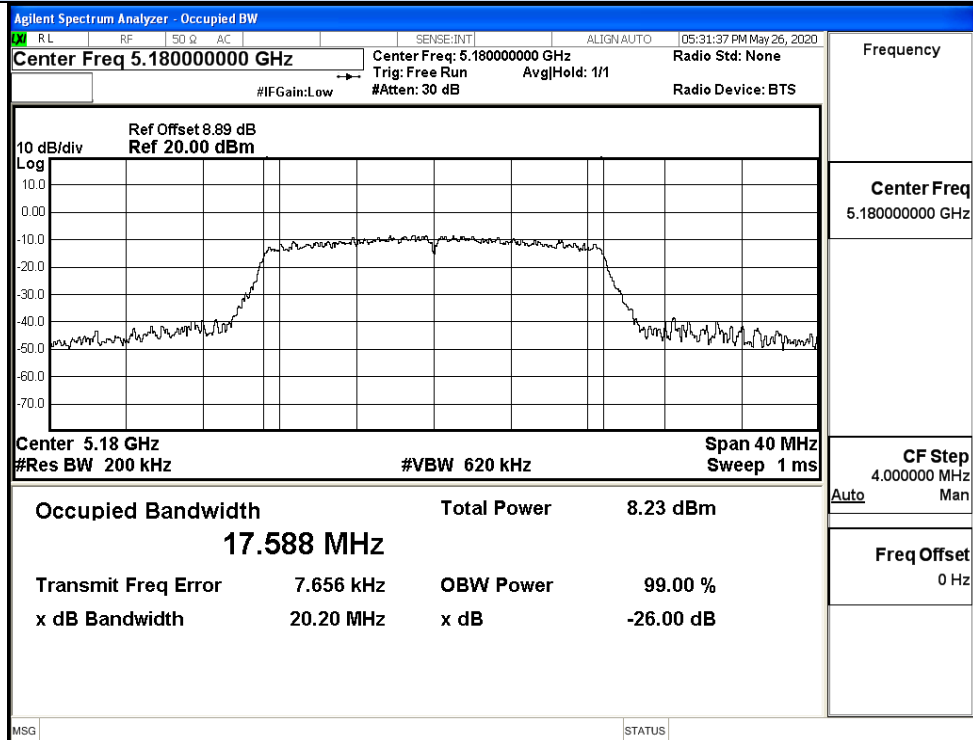


## IEEE 802.11a / Channel 40 / 5200MHz

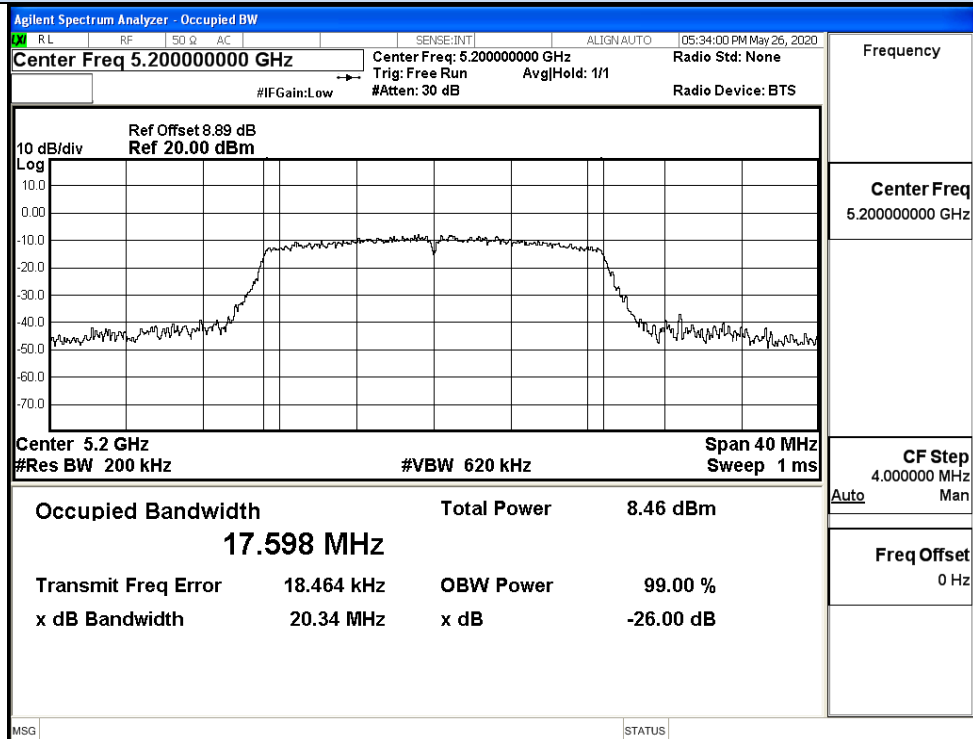


IEEE 802.11a / Channel 48 / 5240MHz

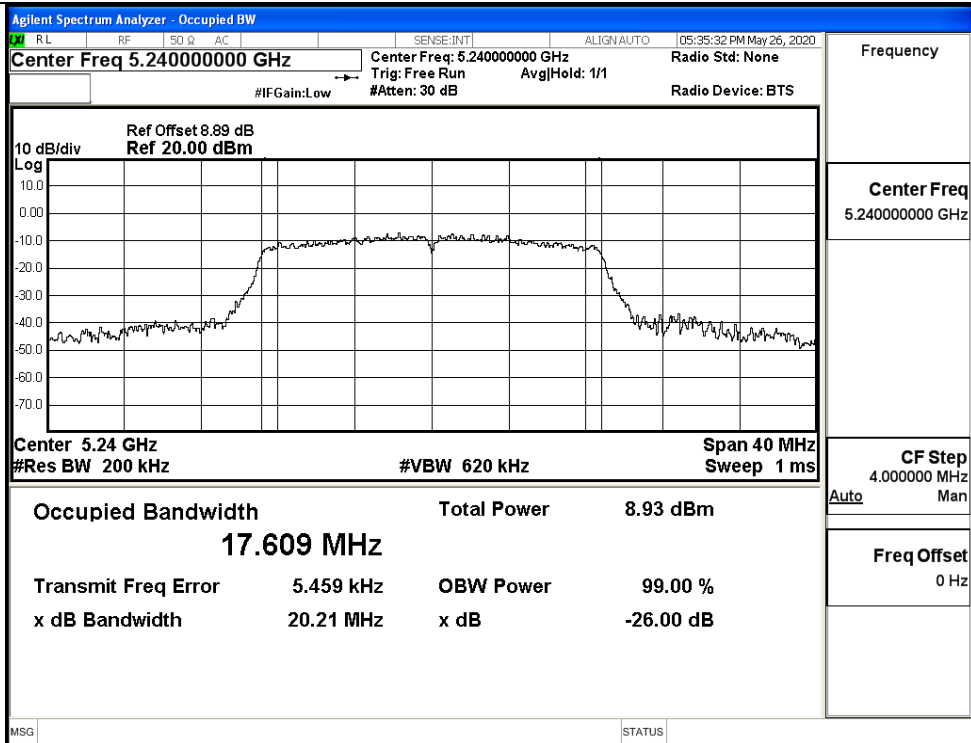
## 26dB Bandwidth



## IEEE 802.11n20 / Channel 36 / 5180MHz



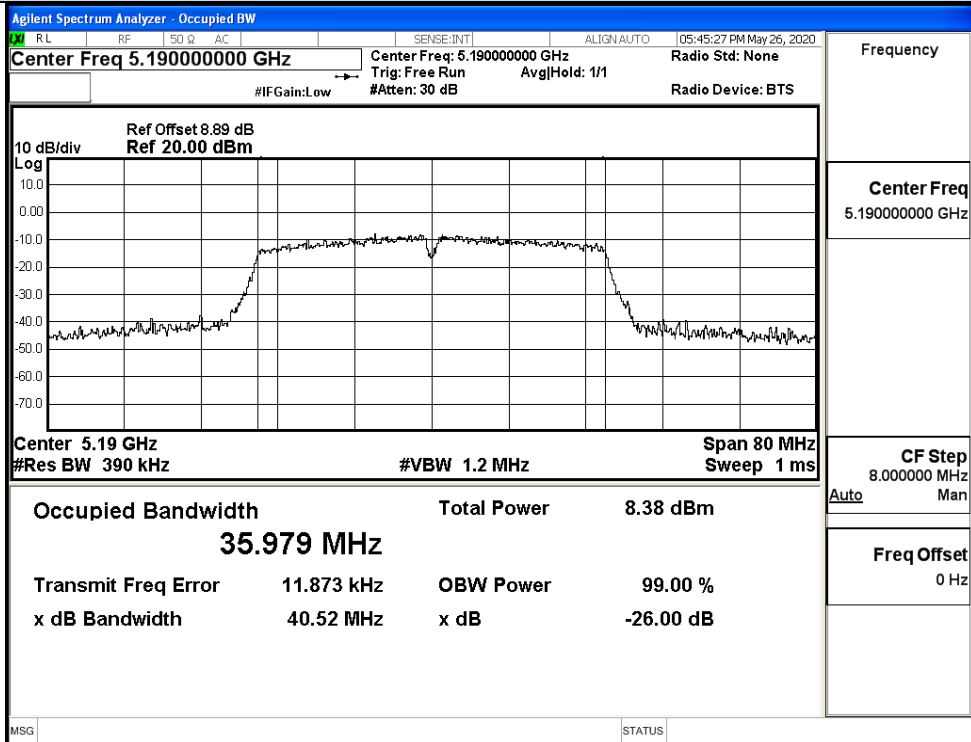
## IEEE 802.11n20 / Channel 40 / 5200MHz



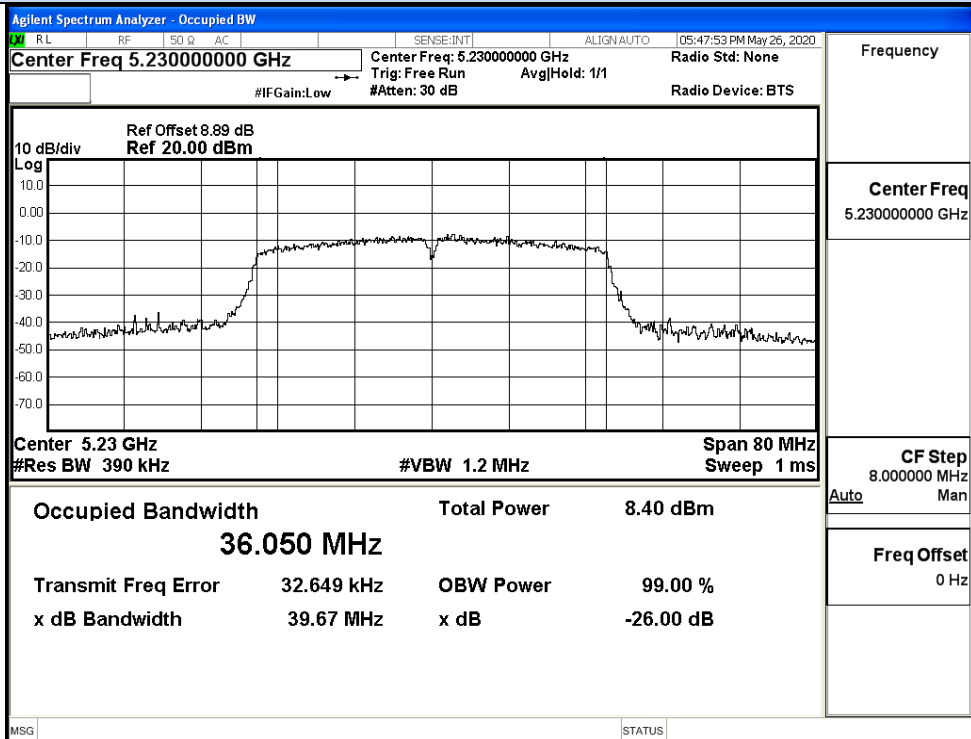
IEEE 802.11n20 / Channel 48 / 5240MHz



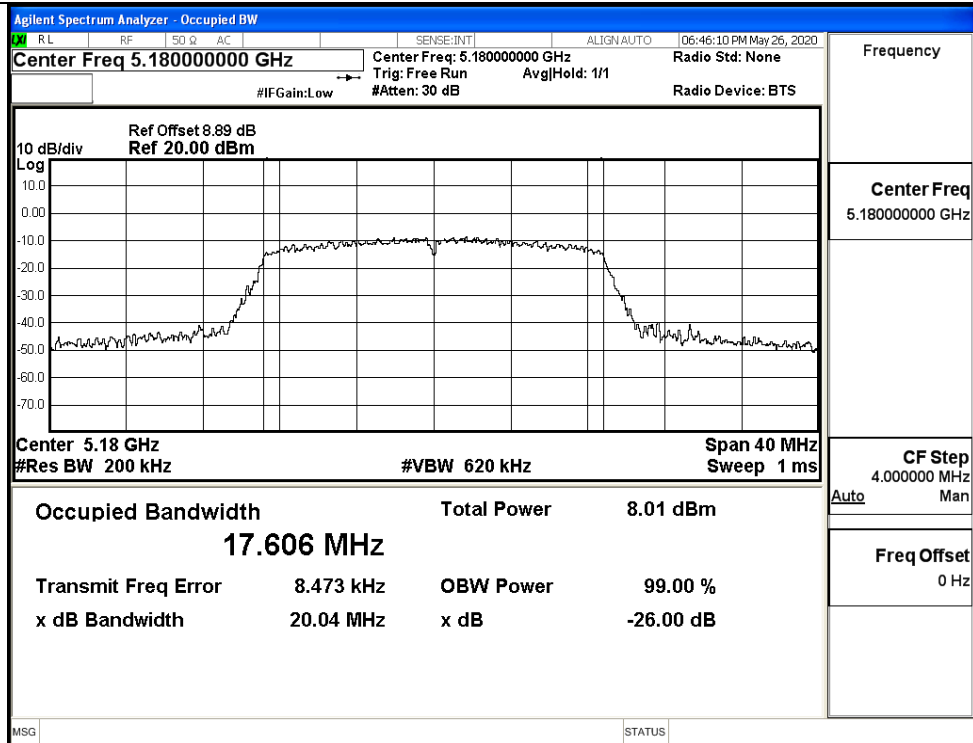
## 26dB Bandwidth



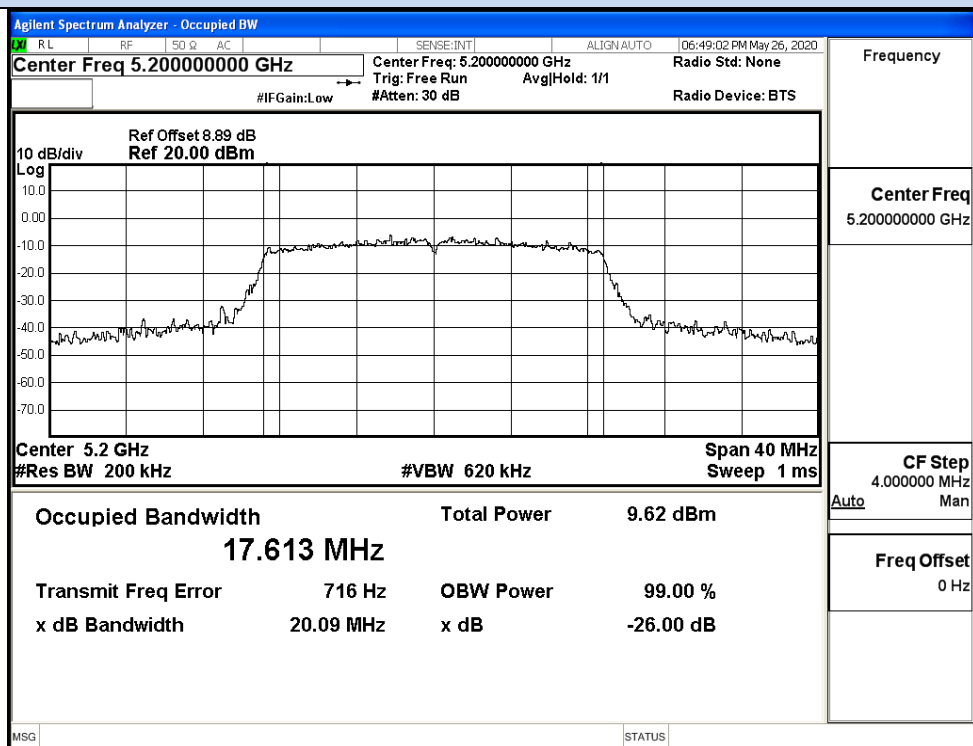
## IEEE 802.11n40 / Channel 38 / 5190MHz



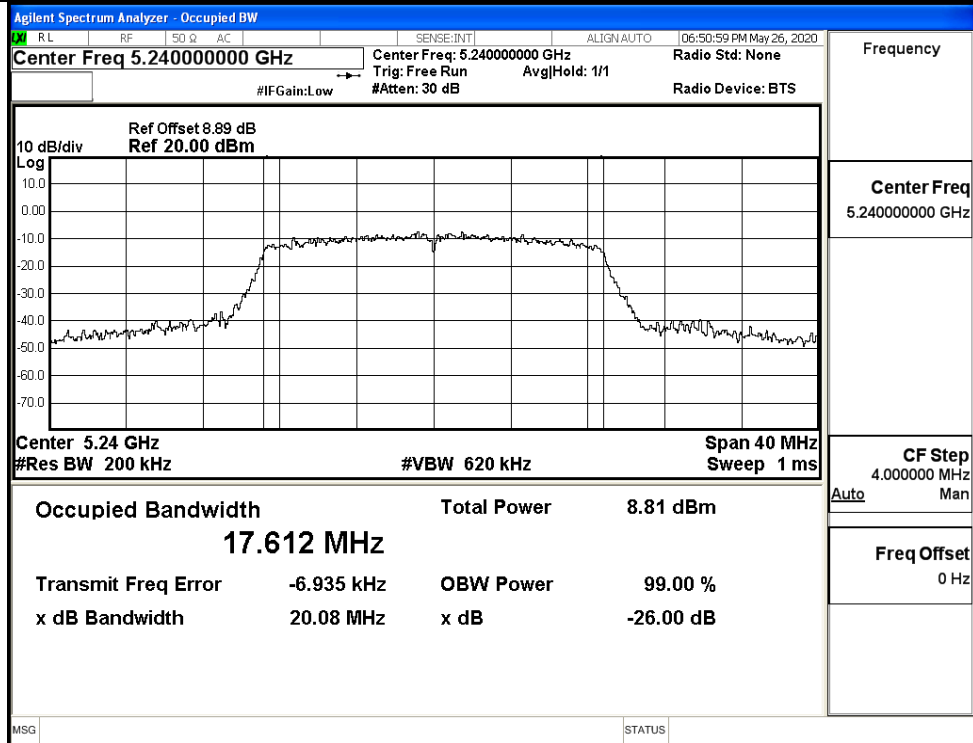
## IEEE 802.11n40 / Channel 46 / 5230MHz



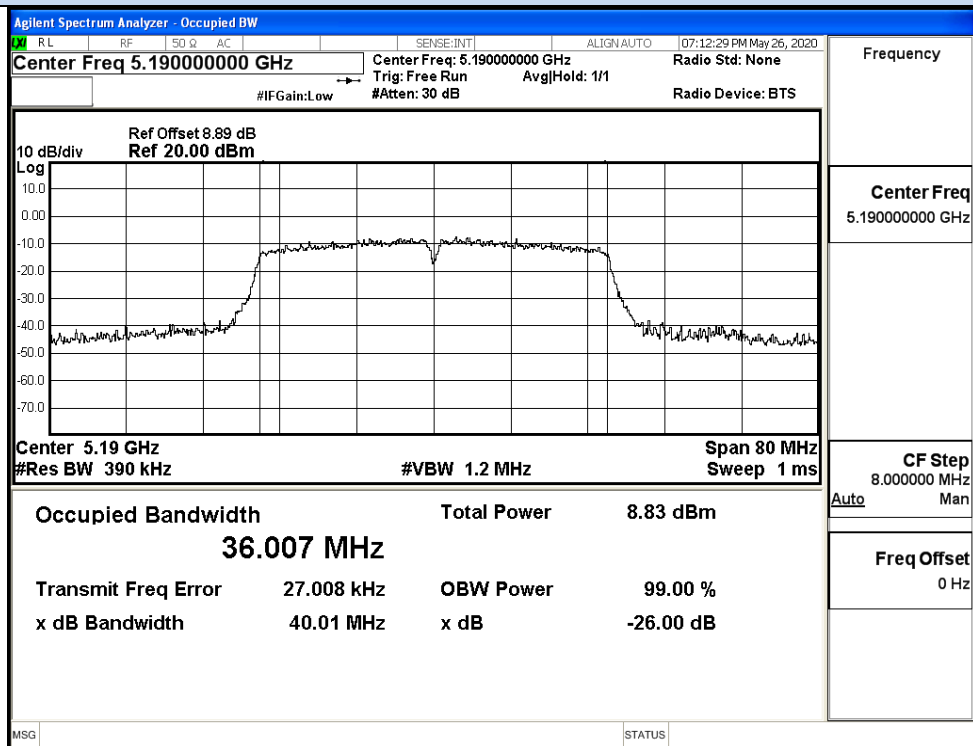
IEEE 802.11ac20 / Channel 36 / 5180MHz



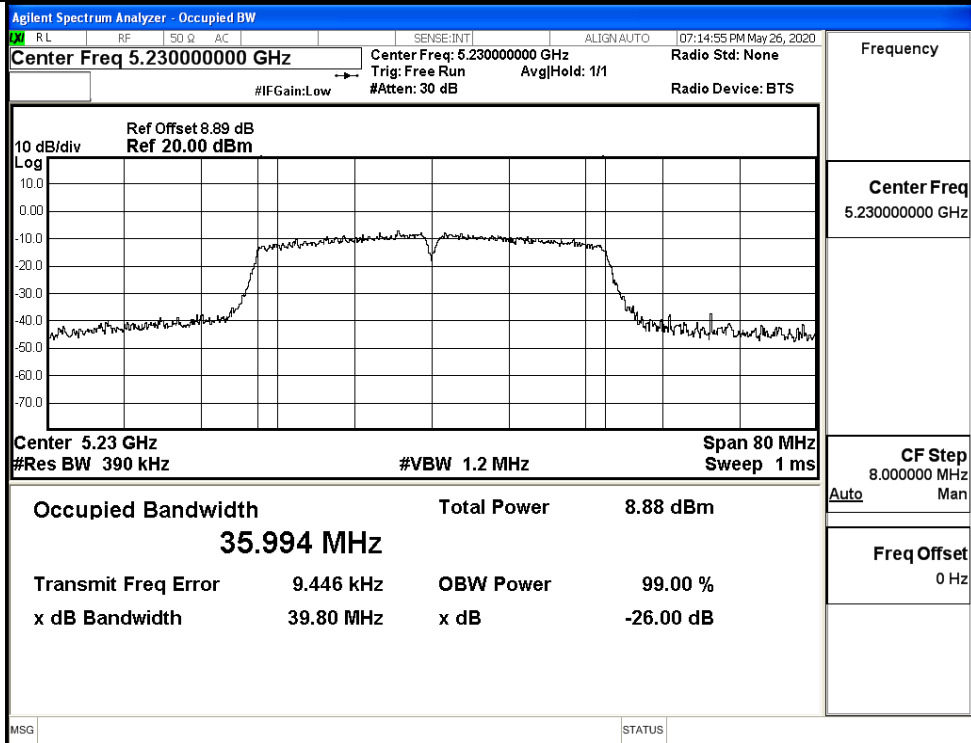
IEEE 802.11ac20 / Channel 40 / 5200MHz



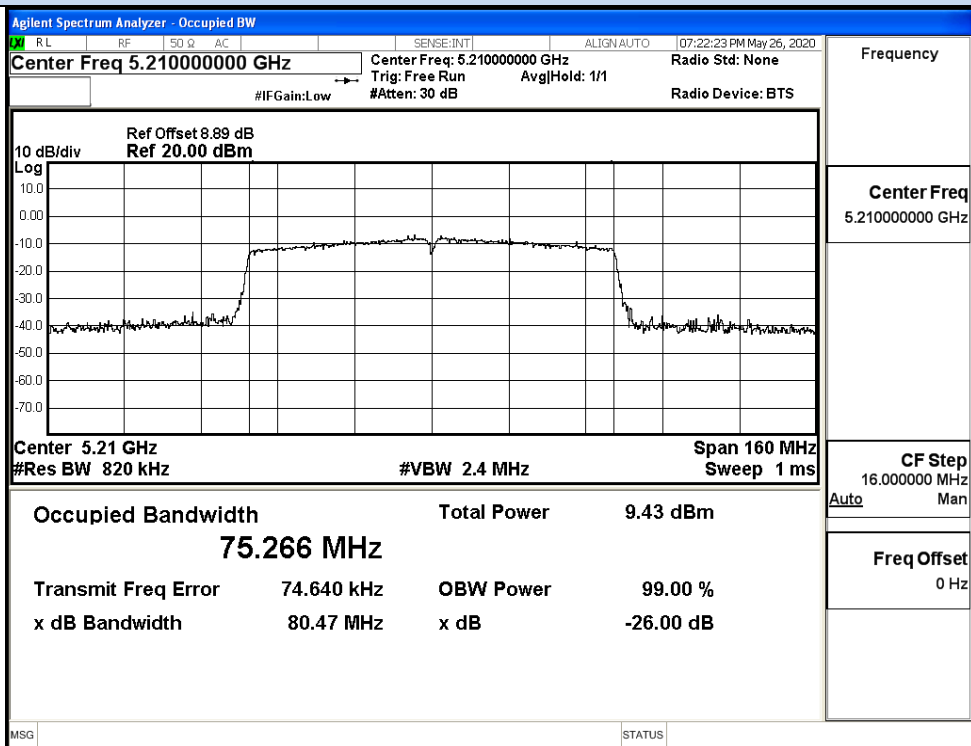
IEEE 802.11ac20 / Channel 48 / 5240MHz



IEEE 802.11ac40 / Channel 38 / 5190MHz



IEEE 802.11ac40 / Channel 46 / 5230MHz



IEEE 802.11ac80 / Channel 42 / 5210MHz

## C.5 Undesirable Emissions Measurement

### Ant0

| 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          | -50.16                | 3                  | 0                             | 48.07                                  | Peak     | 74.00          | Pass    |
|                    |         | 4500.0          | -59.75                | 3                  | 0                             | 38.48                                  | Average  | 54.00          | Pass    |
|                    |         | 5150.0          | -44.15                | 3                  | 0                             | 54.08                                  | Peak     | 74.00          | Pass    |
|                    |         | 5150.0          | -56.83                | 3                  | 0                             | 41.40                                  | Average  | 54.00          | Pass    |
|                    | 48      | 5350.0          | -49.21                | 3                  | 0                             | 49.02                                  | Peak     | 74.00          | Pass    |
|                    |         | 5350.0          | -59.39                | 3                  | 0                             | 38.84                                  | Average  | 54.00          | Pass    |
|                    |         | 5460.0          | -49.48                | 3                  | 0                             | 48.75                                  | Peak     | 74.00          | Pass    |
|                    |         | 5460.0          | -59.65                | 3                  | 0                             | 38.58                                  | Average  | 54.00          | Pass    |
| 11N2<br>0<br>SISO  | 36      | 4500.0          | -50.58                | 3                  | 0                             | 47.65                                  | Peak     | 74.00          | Pass    |
|                    |         | 4500.0          | -59.71                | 3                  | 0                             | 38.52                                  | Average  | 54.00          | Pass    |
|                    |         | 5150.0          | -41.68                | 3                  | 0                             | 56.55                                  | Peak     | 74.00          | Pass    |
|                    |         | 5150.0          | -56.33                | 3                  | 0                             | 41.90                                  | Average  | 54.00          | Pass    |
|                    | 48      | 5350.0          | -48.69                | 3                  | 0                             | 49.54                                  | Peak     | 74.00          | Pass    |
|                    |         | 5350.0          | -59.37                | 3                  | 0                             | 38.86                                  | Average  | 54.00          | Pass    |
|                    |         | 5460.0          | -49.13                | 3                  | 0                             | 49.10                                  | Peak     | 74.00          | Pass    |
|                    |         | 5460.0          | -59.6                 | 3                  | 0                             | 38.63                                  | Average  | 54.00          | Pass    |
| 11N4<br>0<br>SISO  | 38      | 4500.0          | -50.17                | 3                  | 0                             | 48.06                                  | Peak     | 74.00          | Pass    |
|                    |         | 4500.0          | -59.71                | 3                  | 0                             | 38.52                                  | Average  | 54.00          | Pass    |
|                    |         | 5150.0          | -40.32                | 3                  | 0                             | 57.91                                  | Peak     | 74.00          | Pass    |
|                    |         | 5150.0          | -53.72                | 3                  | 0                             | 44.51                                  | Average  | 54.00          | Pass    |
|                    | 46      | 5350.0          | -47.59                | 3                  | 0                             | 50.64                                  | Peak     | 74.00          | Pass    |
|                    |         | 5350.0          | -59.12                | 3                  | 0                             | 39.11                                  | Average  | 54.00          | Pass    |
|                    |         | 5460.0          | -49.12                | 3                  | 0                             | 49.11                                  | Peak     | 74.00          | Pass    |
|                    |         | 5460.0          | -59.43                | 3                  | 0                             | 38.80                                  | Average  | 54.00          | Pass    |
| 11A<br>C20<br>SISO | 36      | 4500.0          | -49.7                 | 3                  | 0                             | 48.53                                  | Peak     | 74.00          | Pass    |
|                    |         | 4500.0          | -59.85                | 3                  | 0                             | 38.38                                  | Average  | 54.00          | Pass    |
|                    |         | 5150.0          | -44.91                | 3                  | 0                             | 53.32                                  | Peak     | 74.00          | Pass    |
|                    |         | 5150.0          | -56.92                | 3                  | 0                             | 41.31                                  | Average  | 54.00          | Pass    |
|                    | 48      | 4500.0          | -49.7                 | 3                  | 0                             | 48.53                                  | Peak     | 74.00          | Pass    |
|                    |         | 4500.0          | -59.85                | 3                  | 0                             | 38.38                                  | Average  | 54.00          | Pass    |
|                    |         | 5150.0          | -44.91                | 3                  | 0                             | 53.32                                  | Peak     | 74.00          | Pass    |
|                    |         | 5150.0          | -56.92                | 3                  | 0                             | 41.31                                  | Average  | 54.00          | Pass    |
| 11A<br>C40<br>SISO | 38      | 4500.0          | -49.79                | 3                  | 0                             | 48.44                                  | Peak     | 74.00          | Pass    |
|                    |         | 4500.0          | -59.8                 | 3                  | 0                             | 38.43                                  | Average  | 54.00          | Pass    |
|                    |         | 5150.0          | -37.81                | 3                  | 0                             | 60.42                                  | Peak     | 74.00          | Pass    |
|                    |         | 5150.0          | -54.02                | 3                  | 0                             | 44.21                                  | Average  | 54.00          | Pass    |
|                    | 46      | 5350.0          | -48.12                | 3                  | 0                             | 50.11                                  | Peak     | 74.00          | Pass    |
|                    |         | 5350.0          | -59.13                | 3                  | 0                             | 39.10                                  | Average  | 54.00          | Pass    |
|                    |         | 5460.0          | -48.7                 | 3                  | 0                             | 49.53                                  | Peak     | 74.00          | Pass    |
|                    |         | 5460.0          | -59.41                | 3                  | 0                             | 38.82                                  | Average  | 54.00          | Pass    |
| 11A<br>C80<br>SISO | 42      | 4500.0          | -48.91                | 3                  | 0                             | 49.32                                  | Peak     | 74.00          | Pass    |
|                    |         | 5150.0          | -58.79                | 3                  | 0                             | 39.44                                  | Average  | 54.00          | Pass    |
|                    |         | 4500.0          | -49.59                | 3                  | 0                             | 48.64                                  | Peak     | 74.00          | Pass    |
|                    |         | 5150.0          | -58.76                | 3                  | 0                             | 39.47                                  | Average  | 54.00          | Pass    |
|                    |         | 5350.0          | -48.91                | 3                  | 0                             | 49.32                                  | Peak     | 74.00          | Pass    |
|                    |         | 5460.0          | -58.79                | 3                  | 0                             | 39.44                                  | Average  | 54.00          | Pass    |
|                    |         | 5350.0          | -49.59                | 3                  | 0                             | 48.64                                  | Peak     | 74.00          | Pass    |
|                    |         | 5460.0          | -58.76                | 3                  | 0                             | 39.47                                  | Average  | 54.00          | Pass    |

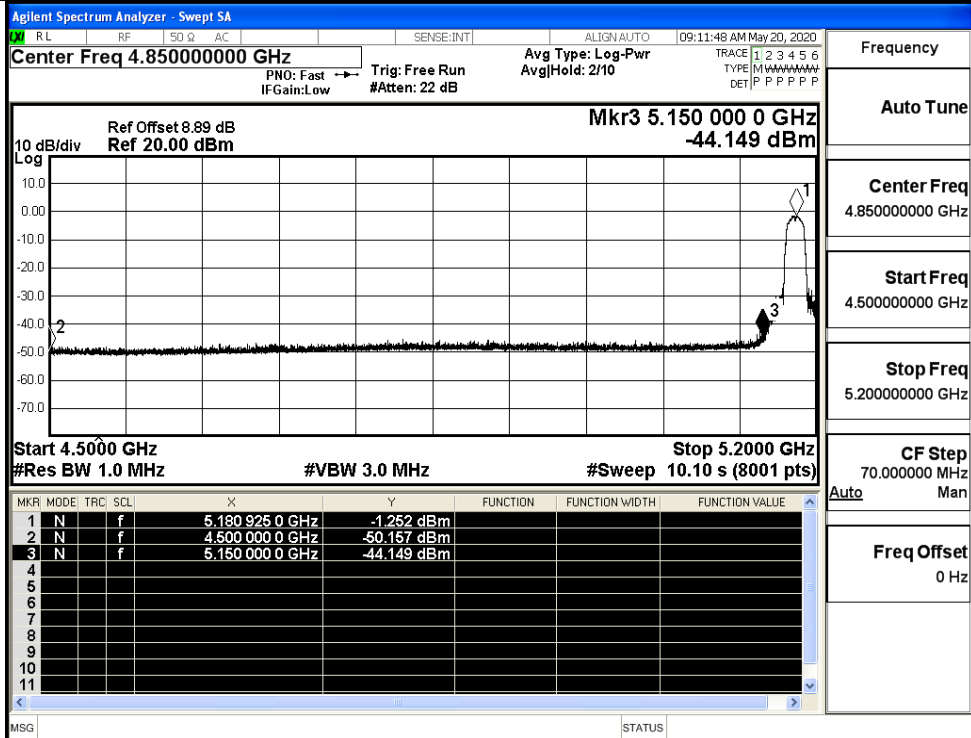
**Ant1**

| 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          | -50.85                | 3                  | 0                             | 47.38                                  | Peak     | 74.00          | Pass    |
|                        |         | 4500.0          | -60.39                | 3                  | 0                             | 37.84                                  | Average  | 54.00          | Pass    |
|                        |         | 5150.0          | -42.34                | 3                  | 0                             | 55.89                                  | Peak     | 74.00          | Pass    |
|                        |         | 5150.0          | -56.23                | 3                  | 0                             | 42.00                                  | Average  | 54.00          | Pass    |
|                        | 48      | 5350.0          | -49.37                | 3                  | 0                             | 48.86                                  | Peak     | 74.00          | Pass    |
|                        |         | 5350.0          | -59.35                | 3                  | 0                             | 38.88                                  | Average  | 54.00          | Pass    |
|                        |         | 5460.0          | -48.4                 | 3                  | 0                             | 49.83                                  | Peak     | 74.00          | Pass    |
|                        |         | 5460.0          | -59.52                | 3                  | 0                             | 38.71                                  | Average  | 54.00          | Pass    |
| 11N2<br>0<br>SISO      | 36      | 4500.0          | -50.69                | 3                  | 0                             | 47.54                                  | Peak     | 74.00          | Pass    |
|                        |         | 4500.0          | -60.38                | 3                  | 0                             | 37.85                                  | Average  | 54.00          | Pass    |
|                        |         | 5150.0          | -43.63                | 3                  | 0                             | 54.60                                  | Peak     | 74.00          | Pass    |
|                        |         | 5150.0          | -56.71                | 3                  | 0                             | 41.52                                  | Average  | 54.00          | Pass    |
|                        | 48      | 5350.0          | -48.66                | 3                  | 0                             | 49.57                                  | Peak     | 74.00          | Pass    |
|                        |         | 5350.0          | -59.3                 | 3                  | 0                             | 38.93                                  | Average  | 54.00          | Pass    |
|                        |         | 5460.0          | -49.49                | 3                  | 0                             | 48.74                                  | Peak     | 74.00          | Pass    |
|                        |         | 5460.0          | -59.55                | 3                  | 0                             | 38.68                                  | Average  | 54.00          | Pass    |
| 11N4<br>0<br>SISO      | 38      | 4500.0          | -50.79                | 3                  | 0                             | 47.44                                  | Peak     | 74.00          | Pass    |
|                        |         | 4500.0          | -60.43                | 3                  | 0                             | 37.80                                  | Average  | 54.00          | Pass    |
|                        |         | 5150.0          | -39.92                | 3                  | 0                             | 58.31                                  | Peak     | 74.00          | Pass    |
|                        |         | 5150.0          | -53.66                | 3                  | 0                             | 44.57                                  | Average  | 54.00          | Pass    |
|                        | 46      | 5350.0          | -49.14                | 3                  | 0                             | 49.09                                  | Peak     | 74.00          | Pass    |
|                        |         | 5350.0          | -59.03                | 3                  | 0                             | 39.20                                  | Average  | 54.00          | Pass    |
|                        |         | 5460.0          | -48.89                | 3                  | 0                             | 49.34                                  | Peak     | 74.00          | Pass    |
|                        |         | 5460.0          | -59.25                | 3                  | 0                             | 38.98                                  | Average  | 54.00          | Pass    |
| 11A<br>C20<br>SIS<br>O | 36      | 4500.0          | -50.5                 | 3                  | 0                             | 47.73                                  | Peak     | 74.00          | Pass    |
|                        |         | 4500.0          | -60.32                | 3                  | 0                             | 37.91                                  | Average  | 54.00          | Pass    |
|                        |         | 5150.0          | -41.44                | 3                  | 0                             | 56.79                                  | Peak     | 74.00          | Pass    |
|                        |         | 5150.0          | -55.96                | 3                  | 0                             | 42.27                                  | Average  | 54.00          | Pass    |
|                        | 48      | 4500.0          | -50.5                 | 3                  | 0                             | 47.73                                  | Peak     | 74.00          | Pass    |
|                        |         | 4500.0          | -60.32                | 3                  | 0                             | 37.91                                  | Average  | 54.00          | Pass    |
|                        |         | 5150.0          | -41.44                | 3                  | 0                             | 56.79                                  | Peak     | 74.00          | Pass    |
|                        |         | 5150.0          | -55.96                | 3                  | 0                             | 42.27                                  | Average  | 54.00          | Pass    |
| 11A<br>C40<br>SIS<br>O | 38      | 4500.0          | -50.24                | 3                  | 0                             | 47.99                                  | Peak     | 74.00          | Pass    |
|                        |         | 4500.0          | -59.73                | 3                  | 0                             | 38.50                                  | Average  | 54.00          | Pass    |
|                        |         | 5150.0          | -38.96                | 3                  | 0                             | 59.27                                  | Peak     | 74.00          | Pass    |
|                        |         | 5150.0          | -52.98                | 3                  | 0                             | 45.25                                  | Average  | 54.00          | Pass    |
|                        | 46      | 5350.0          | -49.5                 | 3                  | 0                             | 48.73                                  | Peak     | 74.00          | Pass    |
|                        |         | 5350.0          | -59.02                | 3                  | 0                             | 39.21                                  | Average  | 54.00          | Pass    |
|                        |         | 5460.0          | -50.56                | 3                  | 0                             | 47.67                                  | Peak     | 74.00          | Pass    |
|                        |         | 5460.0          | -59.3                 | 3                  | 0                             | 38.93                                  | Average  | 54.00          | Pass    |
| 11A<br>C80<br>SIS<br>O | 42      | 4500.0          | -49.68                | 3                  | 0                             | 48.55                                  | Peak     | 74.00          | Pass    |
|                        |         | 5150.0          | -58.28                | 3                  | 0                             | 39.95                                  | Average  | 54.00          | Pass    |
|                        |         | 4500.0          | -49.39                | 3                  | 0                             | 48.84                                  | Peak     | 74.00          | Pass    |
|                        |         | 5150.0          | -58.82                | 3                  | 0                             | 39.41                                  | Average  | 54.00          | Pass    |
|                        |         | 5350.0          | -49.68                | 3                  | 0                             | 48.55                                  | Peak     | 74.00          | Pass    |
|                        |         | 5460.0          | -58.28                | 3                  | 0                             | 39.95                                  | Average  | 54.00          | Pass    |
|                        |         | 5350.0          | -49.39                | 3                  | 0                             | 48.84                                  | Peak     | 74.00          | Pass    |
|                        |         | 5460.0          | -58.82                | 3                  | 0                             | 39.41                                  | Average  | 54.00          | Pass    |

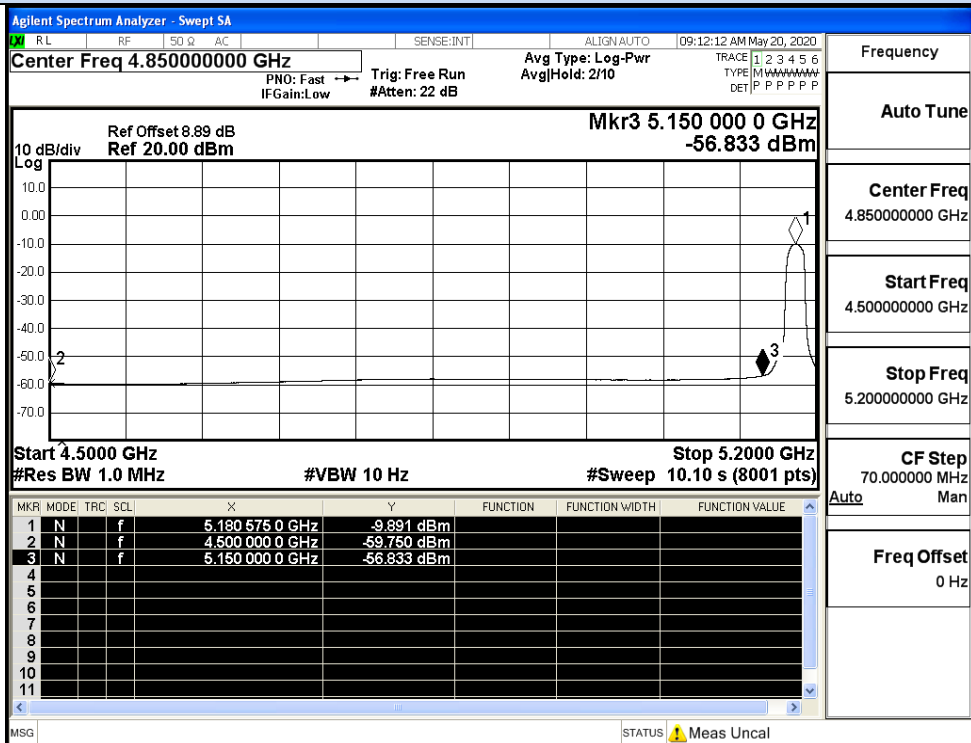
## Combined Ant\_0 and Ant\_1

| 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 |
|--------------|---------|-----------------|-----------------------|--------|--------|--------------------|-------------------------------|----------------------------------------|----------|----------------|---------|
|              |         |                 | Ant0                  | Ant1   | Sum    |                    |                               |                                        |          |                |         |
| 11N20 SISO   | 36      | 4500.0          | -50.58                | -50.69 | -47.62 | 6.01               | 0                             | 53.62                                  | Peak     | 74.00          | Pass    |
|              |         | 4500.0          | -59.71                | -60.38 | -57.02 | 6.01               | 0                             | 44.22                                  | Average  | 54.00          | Pass    |
|              |         | 5150.0          | -41.68                | -43.63 | -39.54 | 6.01               | 0                             | 61.70                                  | Peak     | 74.00          | Pass    |
|              |         | 5150.0          | -56.33                | -56.71 | -53.51 | 6.01               | 0                             | 47.73                                  | Average  | 54.00          | Pass    |
|              | 48      | 5350.0          | -48.69                | -48.66 | -45.66 | 6.01               | 0                             | 55.58                                  | Peak     | 74.00          | Pass    |
|              |         | 5350.0          | -59.37                | -59.3  | -56.32 | 6.01               | 0                             | 44.92                                  | Average  | 54.00          | Pass    |
|              |         | 5460.0          | -49.13                | -49.49 | -46.30 | 6.01               | 0                             | 54.94                                  | Peak     | 74.00          | Pass    |
|              |         | 5460.0          | -59.6                 | -59.55 | -56.56 | 6.01               | 0                             | 44.68                                  | Average  | 54.00          | Pass    |
| 11N40 SISO   | 38      | 4500.0          | -50.17                | -50.79 | -47.46 | 6.01               | 0                             | 53.78                                  | Peak     | 74.00          | Pass    |
|              |         | 4500.0          | -59.71                | -60.43 | -57.04 | 6.01               | 0                             | 44.20                                  | Average  | 54.00          | Pass    |
|              |         | 5150.0          | -40.32                | -39.92 | -37.11 | 6.01               | 0                             | 64.13                                  | Peak     | 74.00          | Pass    |
|              |         | 5150.0          | -53.72                | -53.66 | -50.68 | 6.01               | 0                             | 50.56                                  | Average  | 54.00          | Pass    |
|              | 46      | 5350.0          | -47.59                | -49.14 | -45.29 | 6.01               | 0                             | 55.95                                  | Peak     | 74.00          | Pass    |
|              |         | 5350.0          | -59.12                | -59.03 | -56.06 | 6.01               | 0                             | 45.18                                  | Average  | 54.00          | Pass    |
|              |         | 5460.0          | -49.12                | -48.89 | -45.99 | 6.01               | 0                             | 55.25                                  | Peak     | 74.00          | Pass    |
|              |         | 5460.0          | -59.43                | -59.25 | -56.33 | 6.01               | 0                             | 44.91                                  | Average  | 54.00          | Pass    |
| 11AC 20 SISO | 36      | 4500.0          | -49.7                 | -50.5  | -47.07 | 6.01               | 0                             | 54.17                                  | Peak     | 74.00          | Pass    |
|              |         | 4500.0          | -59.85                | -60.32 | -57.07 | 6.01               | 0                             | 44.17                                  | Average  | 54.00          | Pass    |
|              |         | 5150.0          | -44.91                | -41.44 | -39.83 | 6.01               | 0                             | 61.41                                  | Peak     | 74.00          | Pass    |
|              |         | 5150.0          | -56.92                | -55.96 | -53.40 | 6.01               | 0                             | 47.84                                  | Average  | 54.00          | Pass    |
|              | 48      | 4500.0          | -49.7                 | -50.5  | -47.07 | 6.01               | 0                             | 54.17                                  | Peak     | 74.00          | Pass    |
|              |         | 4500.0          | -59.85                | -60.32 | -57.07 | 6.01               | 0                             | 44.17                                  | Average  | 54.00          | Pass    |
|              |         | 5150.0          | -44.91                | -41.44 | -39.83 | 6.01               | 0                             | 61.41                                  | Peak     | 74.00          | Pass    |
|              |         | 5150.0          | -56.92                | -55.96 | -53.40 | 6.01               | 0                             | 47.84                                  | Average  | 54.00          | Pass    |
| 11AC 40 SISO | 38      | 4500.0          | -49.79                | -50.24 | -47.00 | 6.01               | 0                             | 54.24                                  | Peak     | 74.00          | Pass    |
|              |         | 4500.0          | -59.8                 | -59.73 | -56.75 | 6.01               | 0                             | 44.49                                  | Average  | 54.00          | Pass    |
|              |         | 5150.0          | -37.81                | -38.96 | -35.34 | 6.01               | 0                             | 65.9                                   | Peak     | 74.00          | Pass    |
|              |         | 5150.0          | -54.02                | -52.98 | -50.46 | 6.01               | 0                             | 50.78                                  | Average  | 54.00          | Pass    |
|              | 46      | 5350.0          | -48.12                | -49.5  | -45.75 | 6.01               | 0                             | 55.49                                  | Peak     | 74.00          | Pass    |
|              |         | 5350.0          | -59.13                | -59.02 | -56.06 | 6.01               | 0                             | 45.18                                  | Average  | 54.00          | Pass    |
|              |         | 5460.0          | -48.7                 | -50.56 | -46.52 | 6.01               | 0                             | 54.72                                  | Peak     | 74.00          | Pass    |
|              |         | 5460.0          | -59.41                | -59.3  | -56.34 | 6.01               | 0                             | 44.90                                  | Average  | 54.00          | Pass    |
| 11AC 80 SISO | 42      | 4500.0          | -48.91                | -49.68 | -46.27 | 6.01               | 0                             | 54.97                                  | Peak     | 74.00          | Pass    |
|              |         | 5150.0          | -58.79                | -58.28 | -55.52 | 6.01               | 0                             | 45.72                                  | Average  | 54.00          | Pass    |
|              |         | 4500.0          | -49.59                | -49.39 | -46.48 | 6.01               | 0                             | 54.76                                  | Peak     | 74.00          | Pass    |
|              |         | 5150.0          | -58.76                | -58.82 | -55.78 | 6.01               | 0                             | 45.46                                  | Average  | 54.00          | Pass    |
|              |         | 5350.0          | -48.91                | -49.68 | -46.27 | 6.01               | 0                             | 54.97                                  | Peak     | 74.00          | Pass    |
|              |         | 5460.0          | -58.79                | -58.28 | -55.52 | 6.01               | 0                             | 45.72                                  | Average  | 54.00          | Pass    |
|              |         | 5350.0          | -49.59                | -49.39 | -46.48 | 6.01               | 0                             | 54.76                                  | Peak     | 74.00          | Pass    |
|              |         | 5460.0          | -58.76                | -58.82 | -55.78 | 6.01               | 0                             | 45.46                                  | Average  | 54.00          | Pass    |

## Undesirable Emissions Measurement



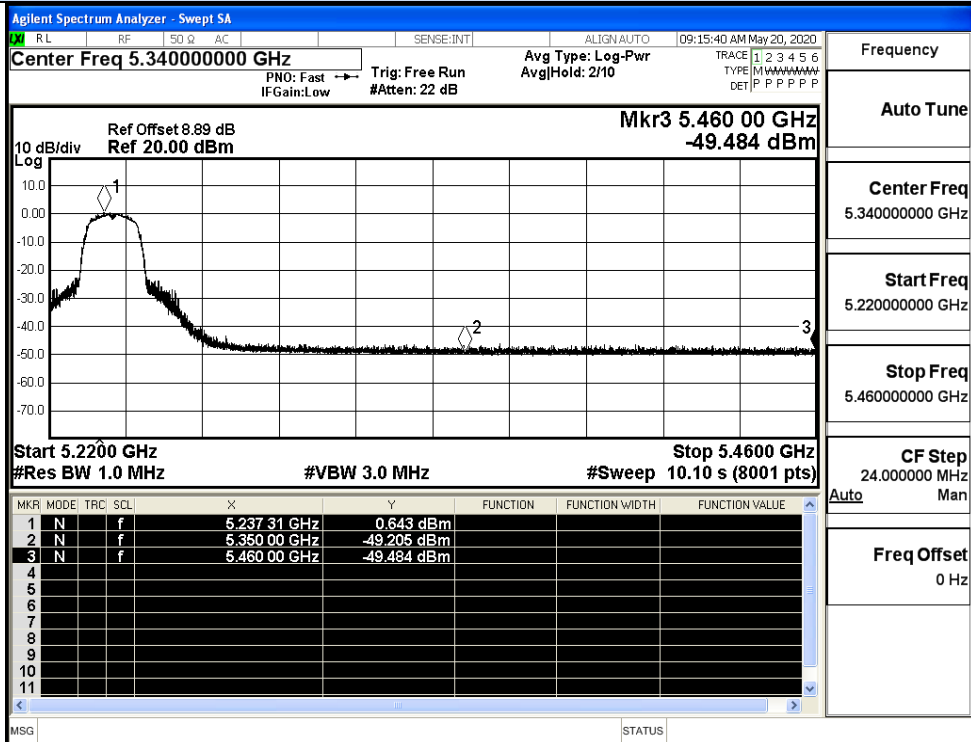
## IEEE 802.11a / Channel 36 / 5180MHz / Peak



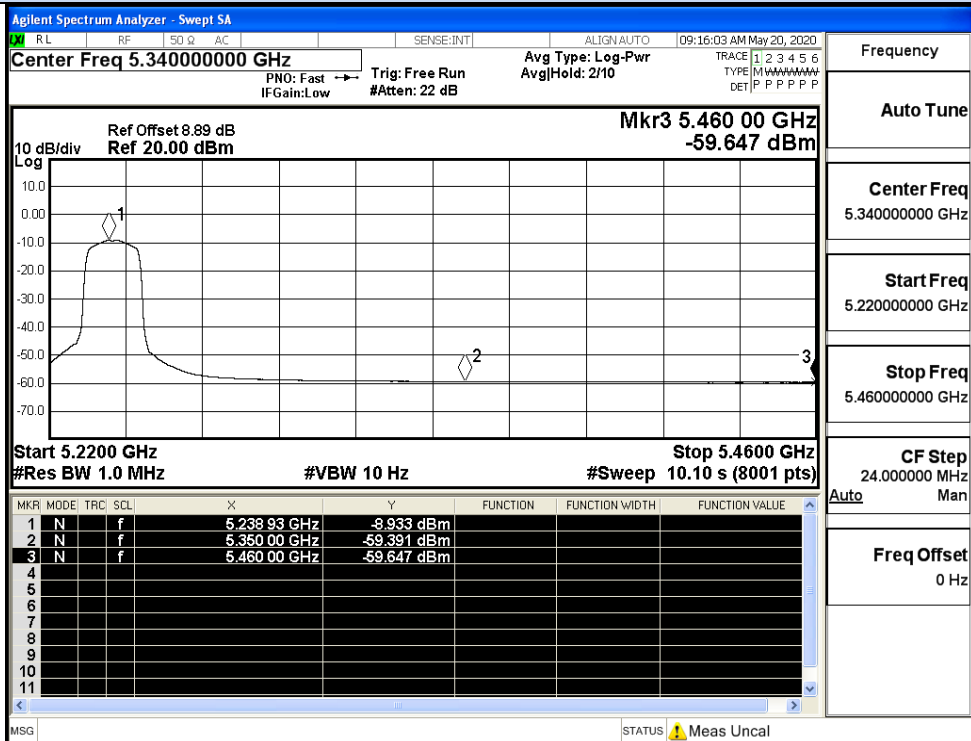
## IEEE 802.11a / Channel 36 / 5180MHz / Average



## Undesirable Emissions Measurement

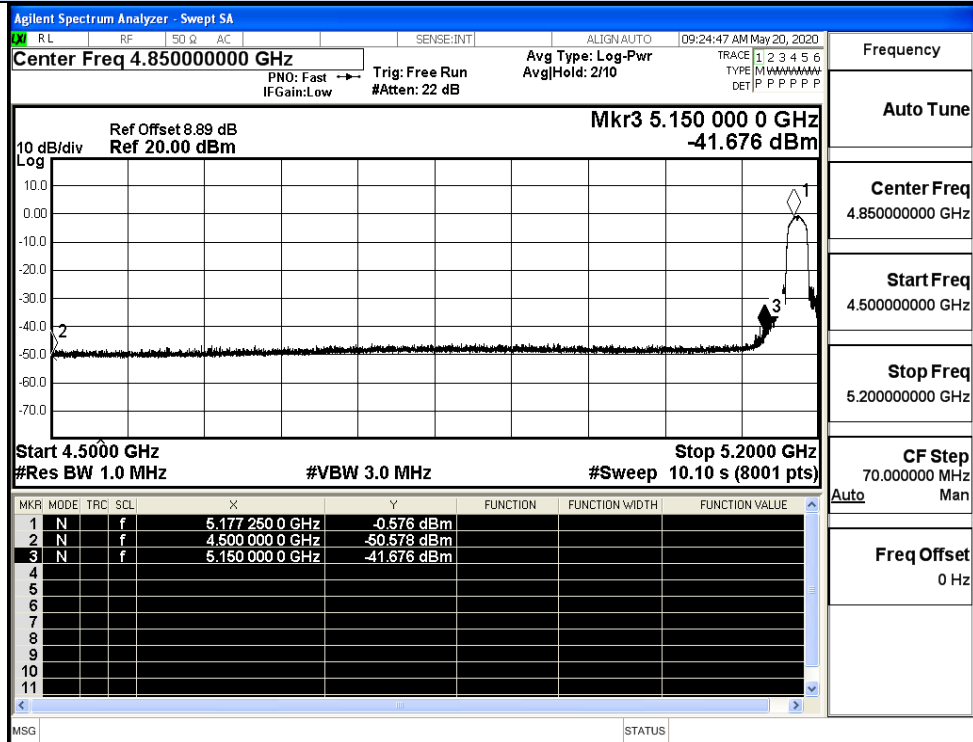


## IEEE 802.11a / Channel 48 / 5240MHz / Peak

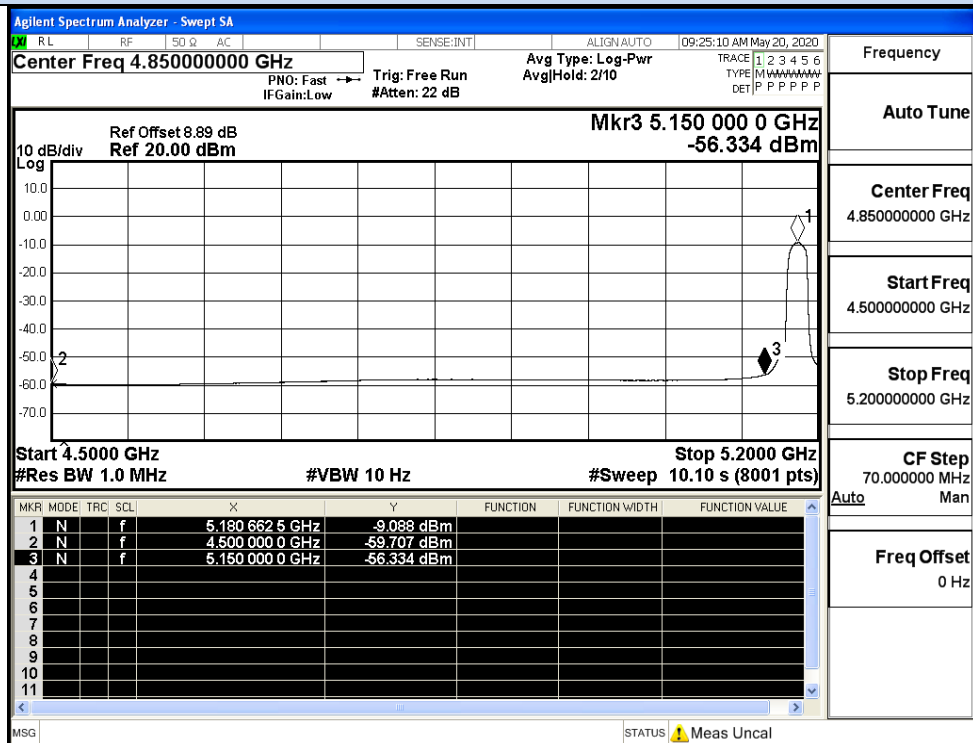


## IEEE 802.11a / Channel 48 / 5240MHz / Average

## Undesirable Emissions Measurement

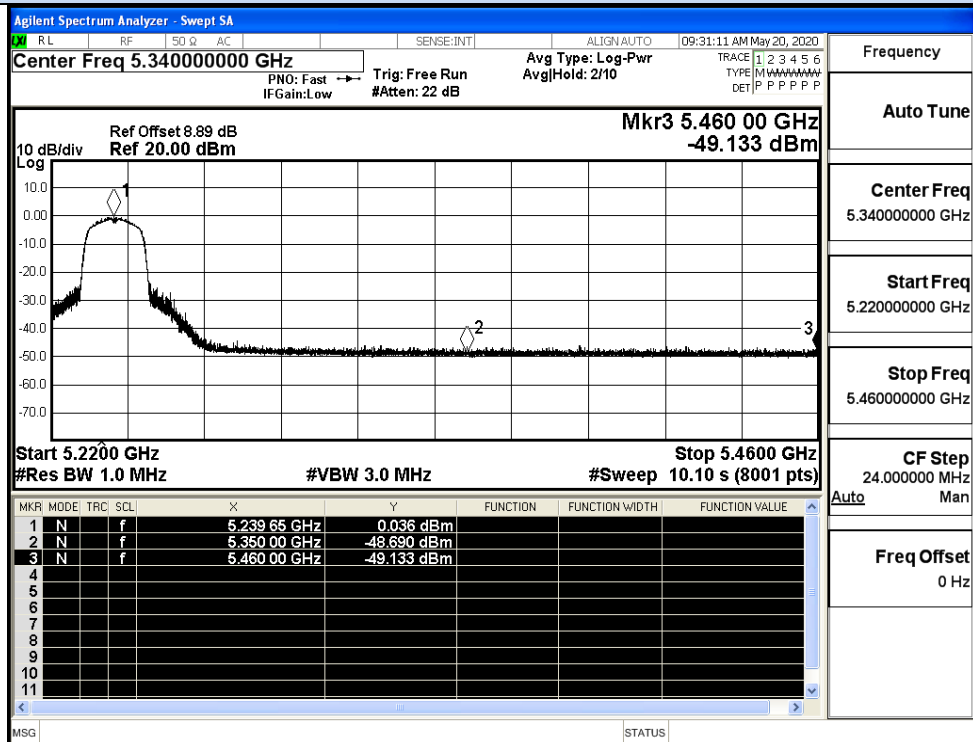


## IEEE 802.11n20 / Channel 36 / 5180MHz / Peak

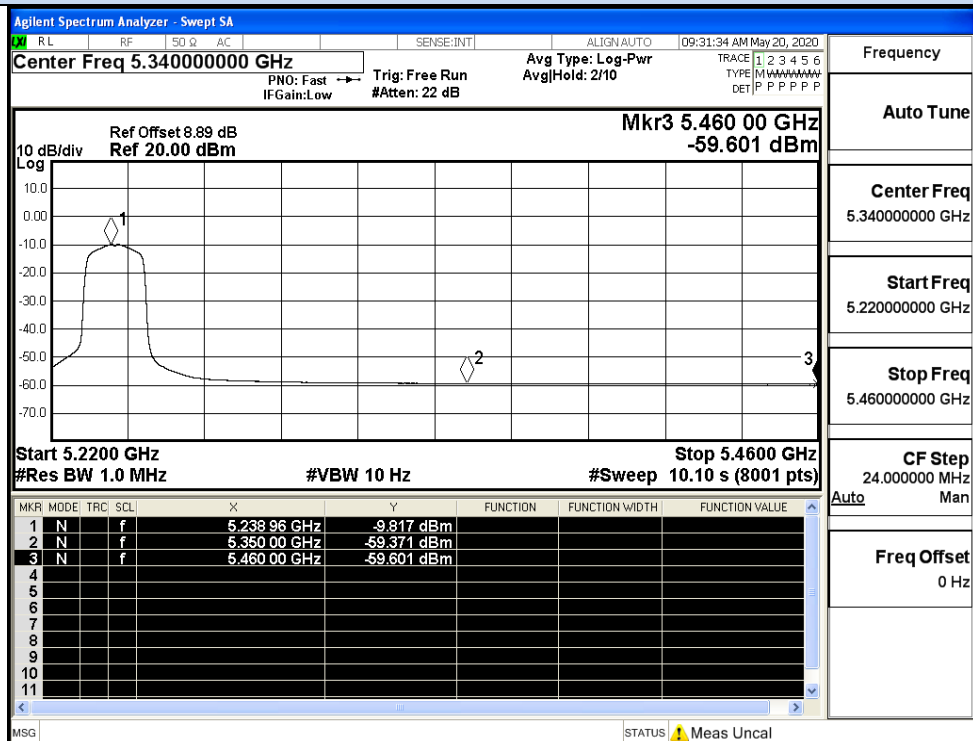


## IEEE 802.11n20 / Channel 36 / 5180MHz / Average

## Undesirable Emissions Measurement

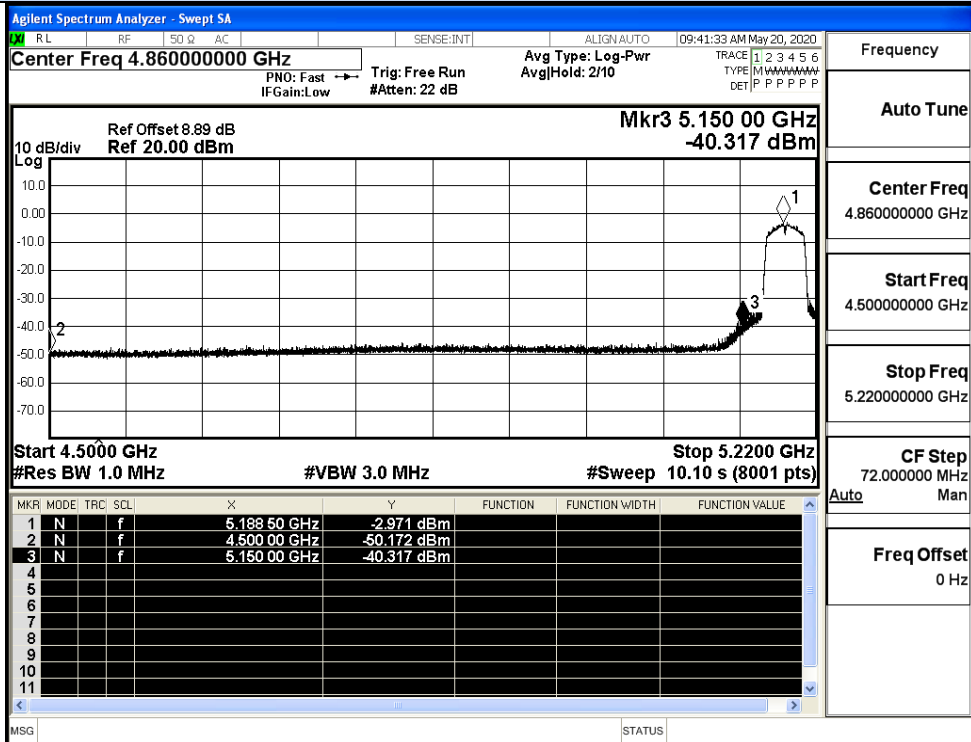


## IEEE 802.11n20 / Channel 48 / 5240MHz / Peak

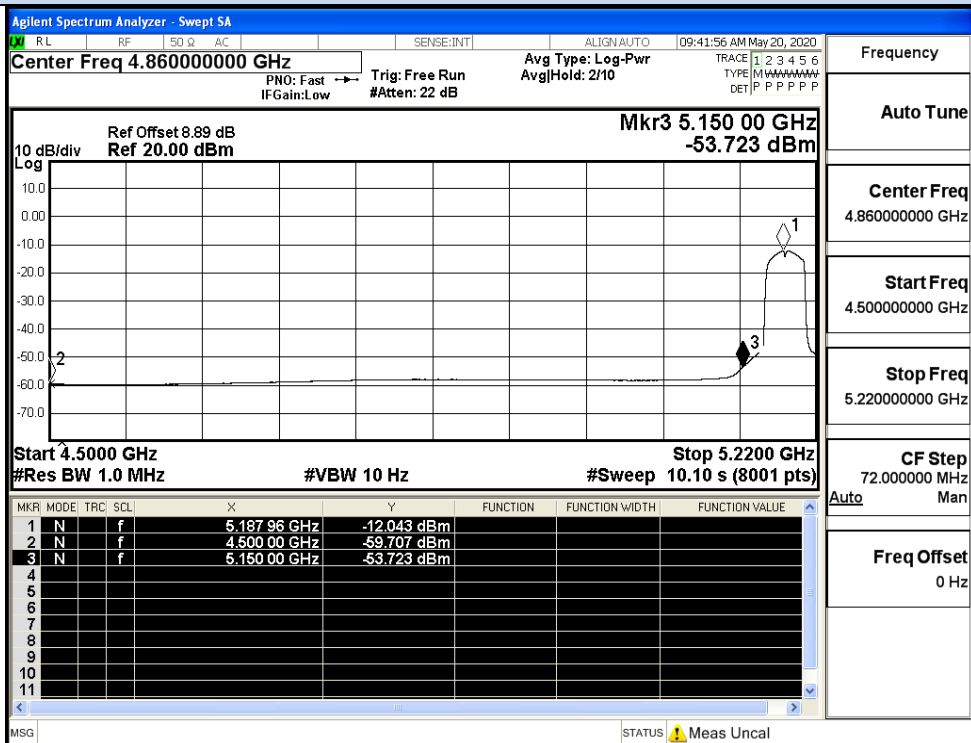


## IEEE 802.11n20 / Channel 48 / 5240MHz / Average

## Undesirable Emissions Measurement

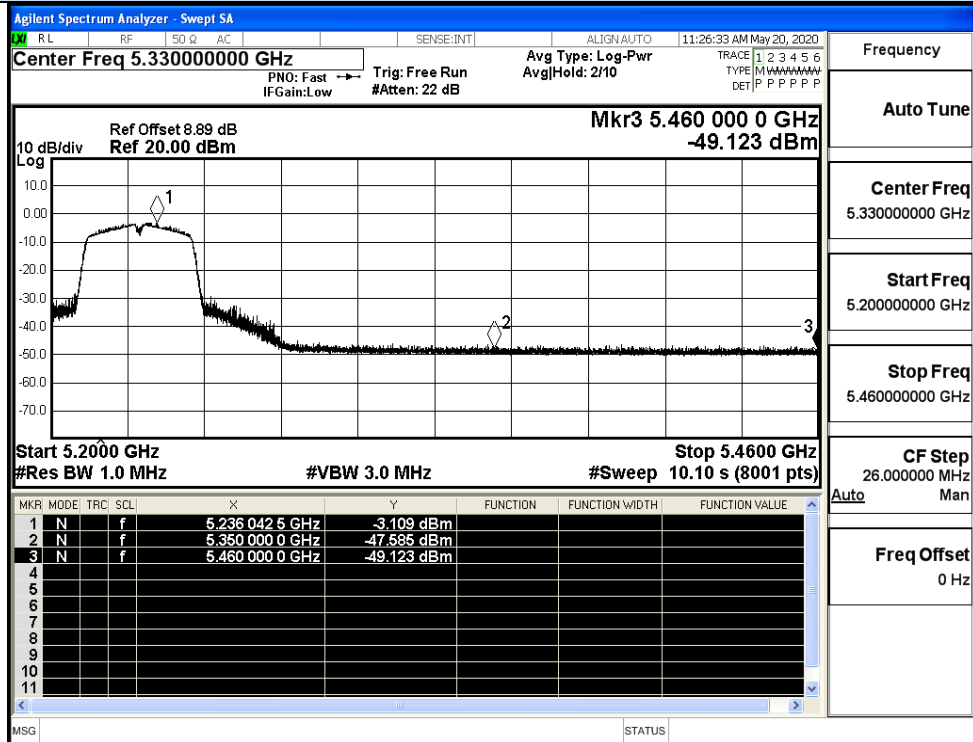


## IEEE 802.11n40 / Channel 38 / 5190MHz / Peak

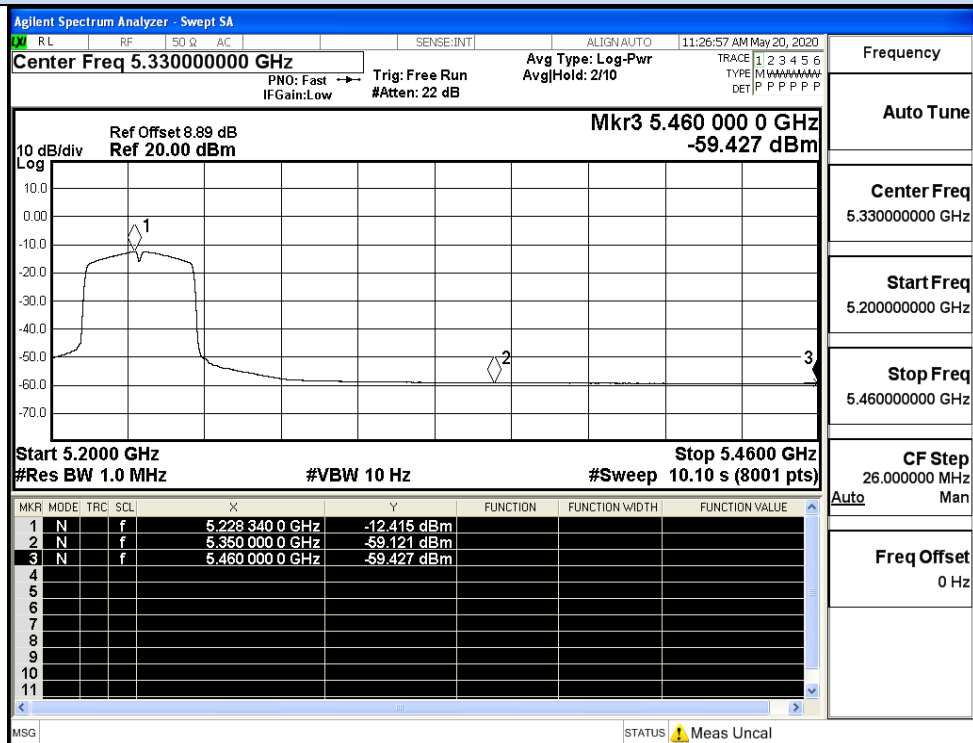


## IEEE 802.11n40 / Channel 38 / 5190MHz / Average

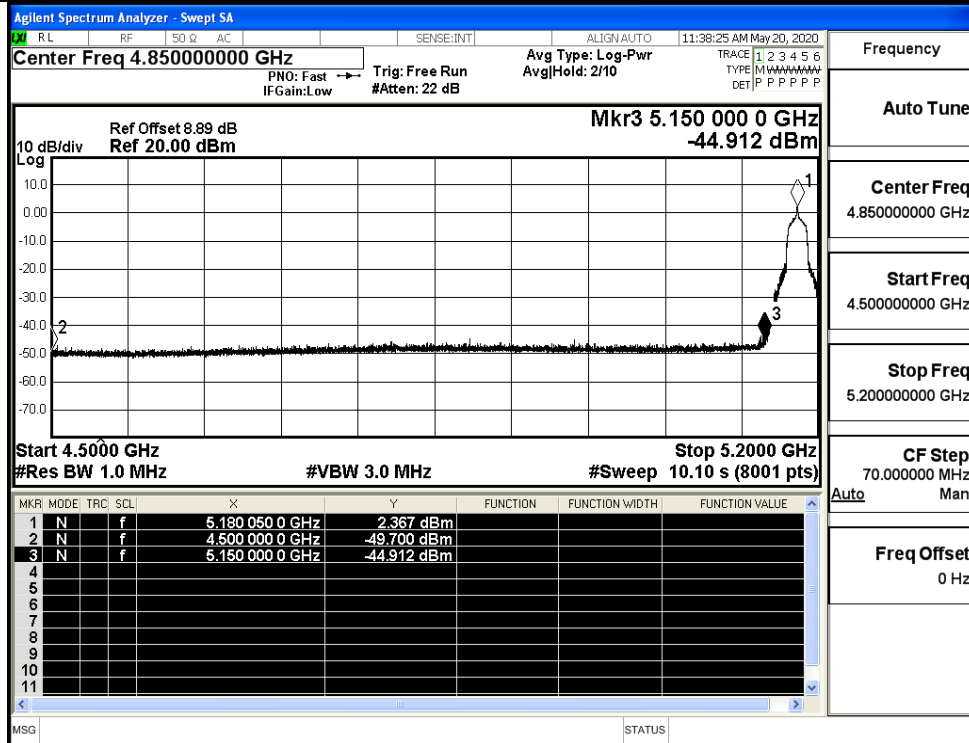
## Undesirable Emissions Measurement



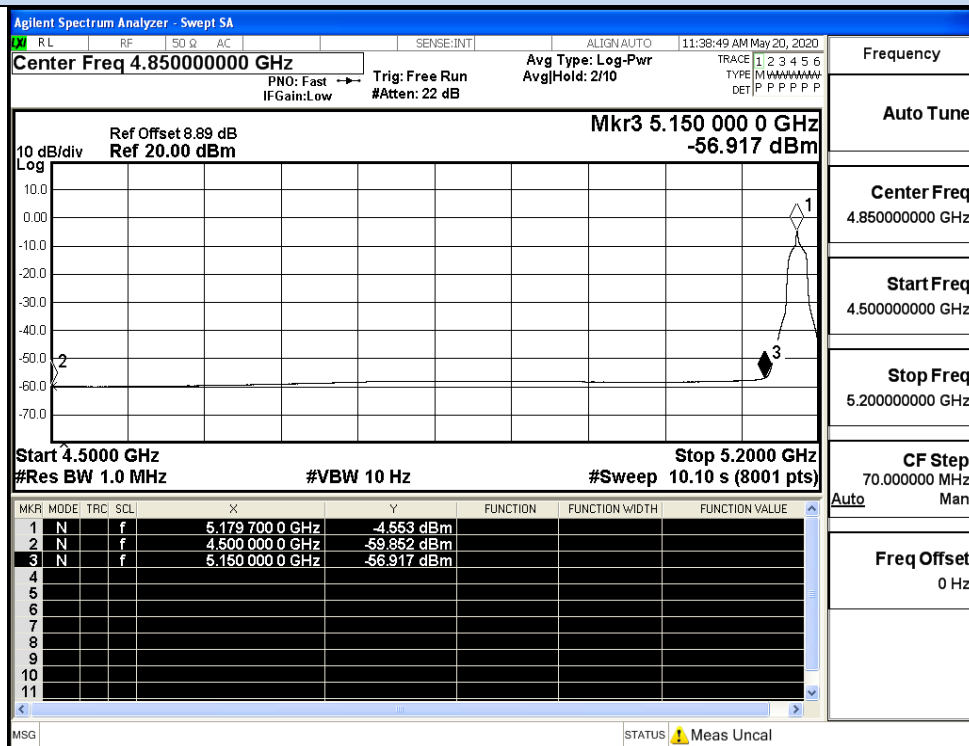
## IEEE 802.11n40 / Channel 46 / 5230MHz / Peak



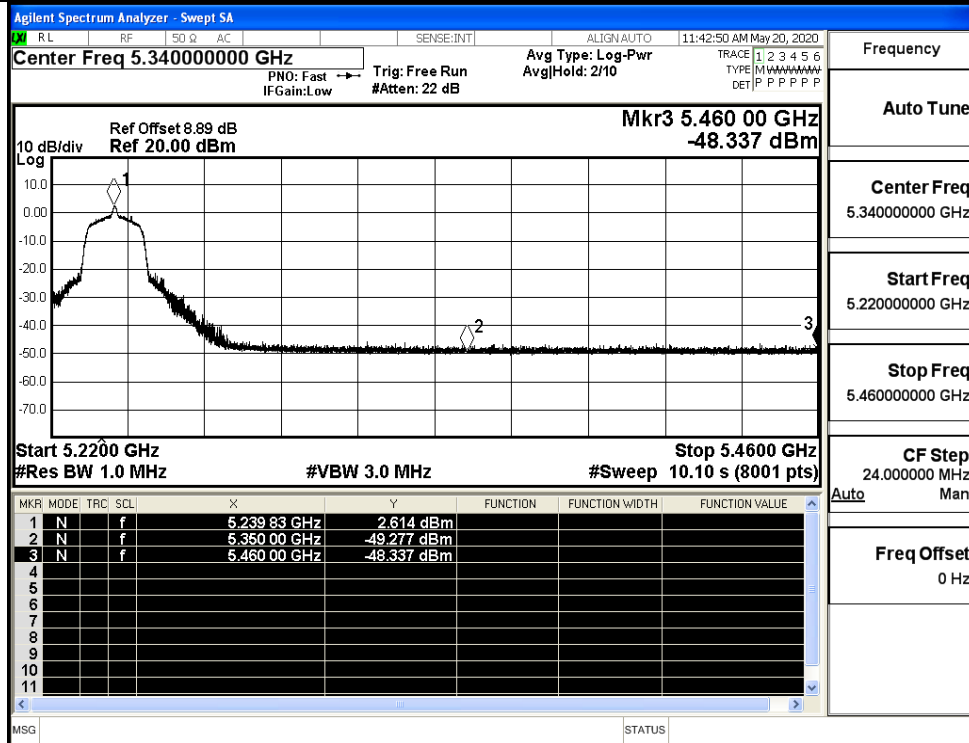
## IEEE 802.11n40 / Channel 46 / 5230MHz / Average



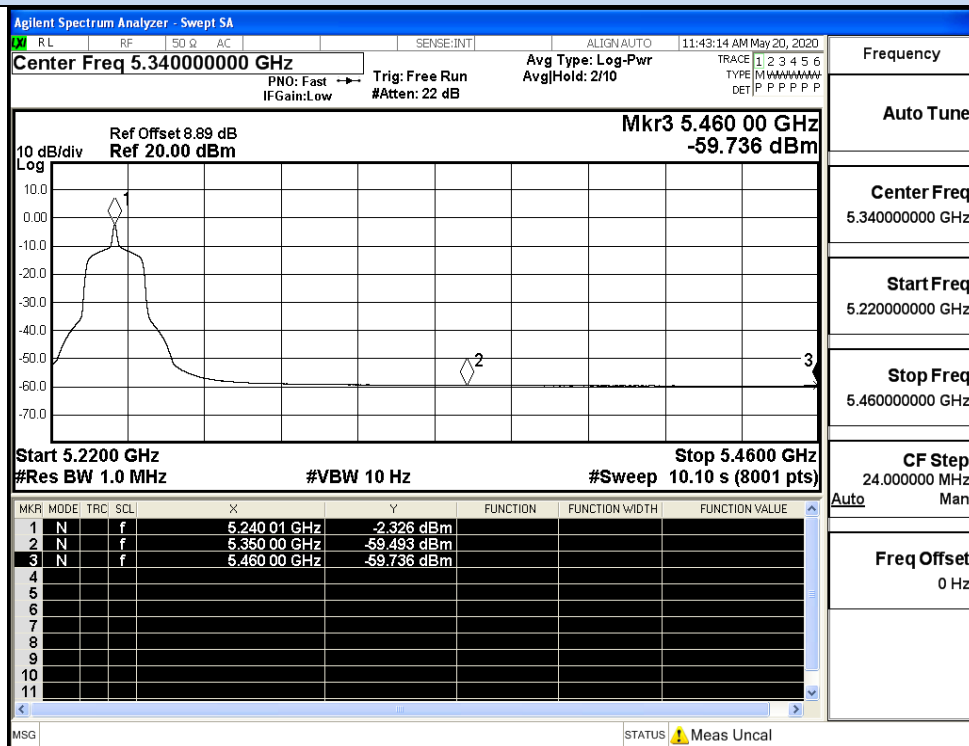
IEEE 802.11ac20 / Channel 36 / 5180MHz / Peak



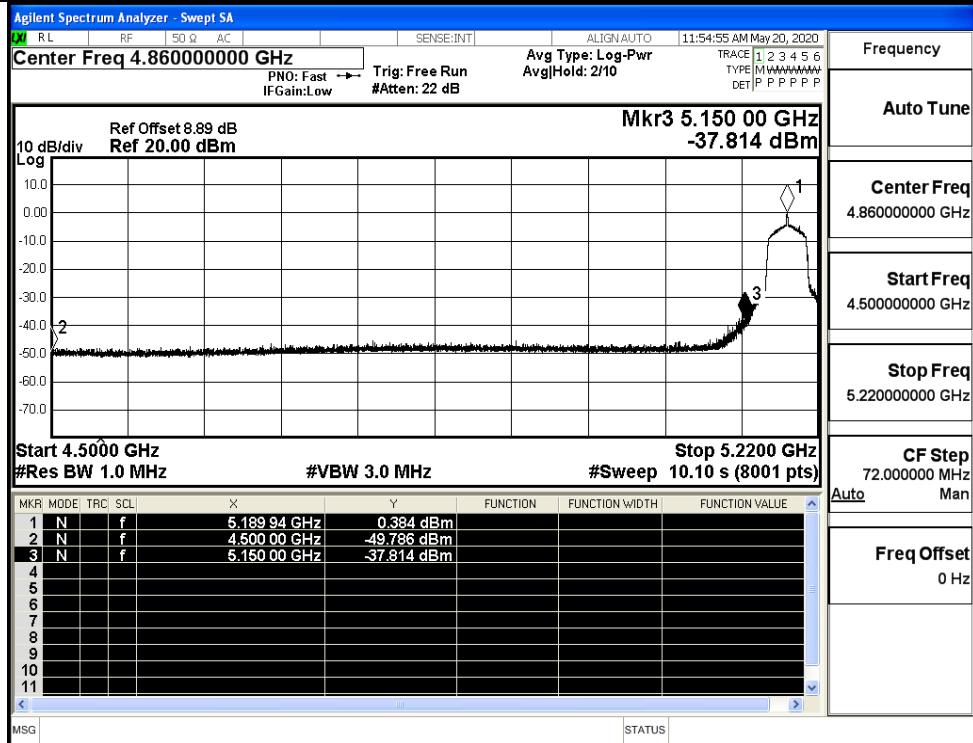
IEEE 802.11ac20 / Channel 36 / 5180MHz / Average



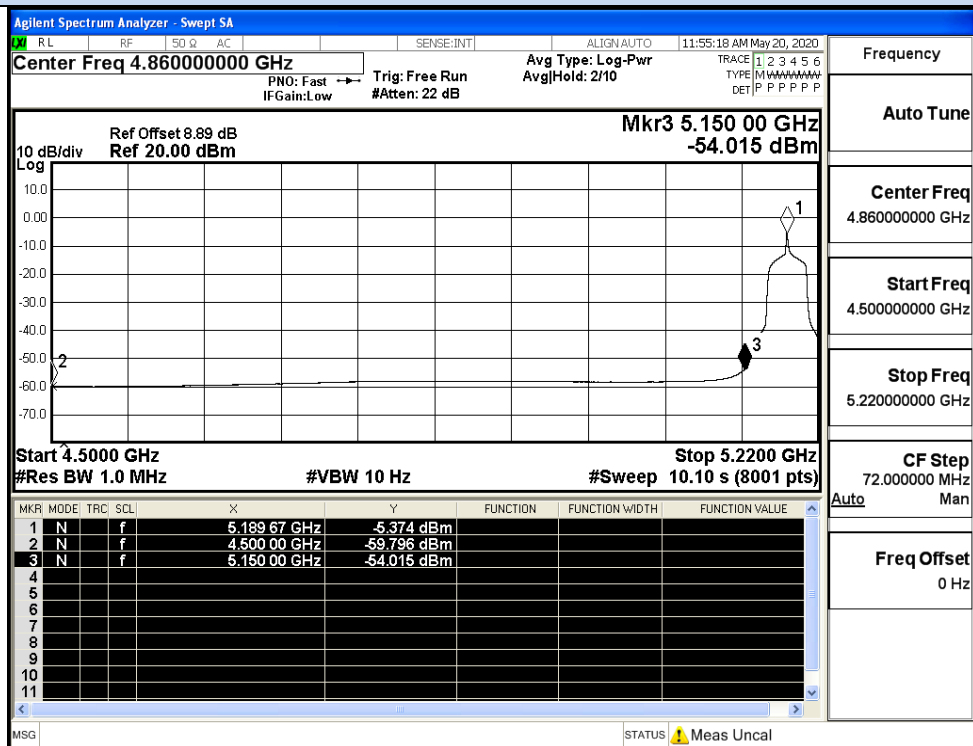
IEEE 802.11ac20 / Channel 48 / 5240MHz / Peak



IEEE 802.11ac20 / Channel 48 / 5240MHz / Average

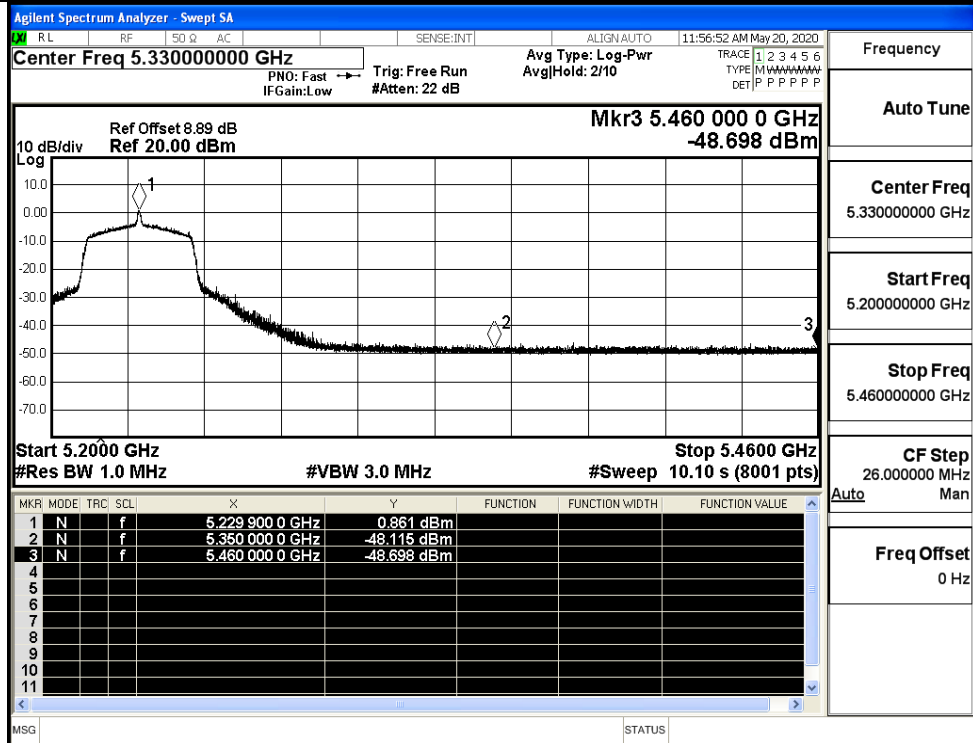


IEEE 802.11ac40 / Channel 38/ 5190MHz / Peak

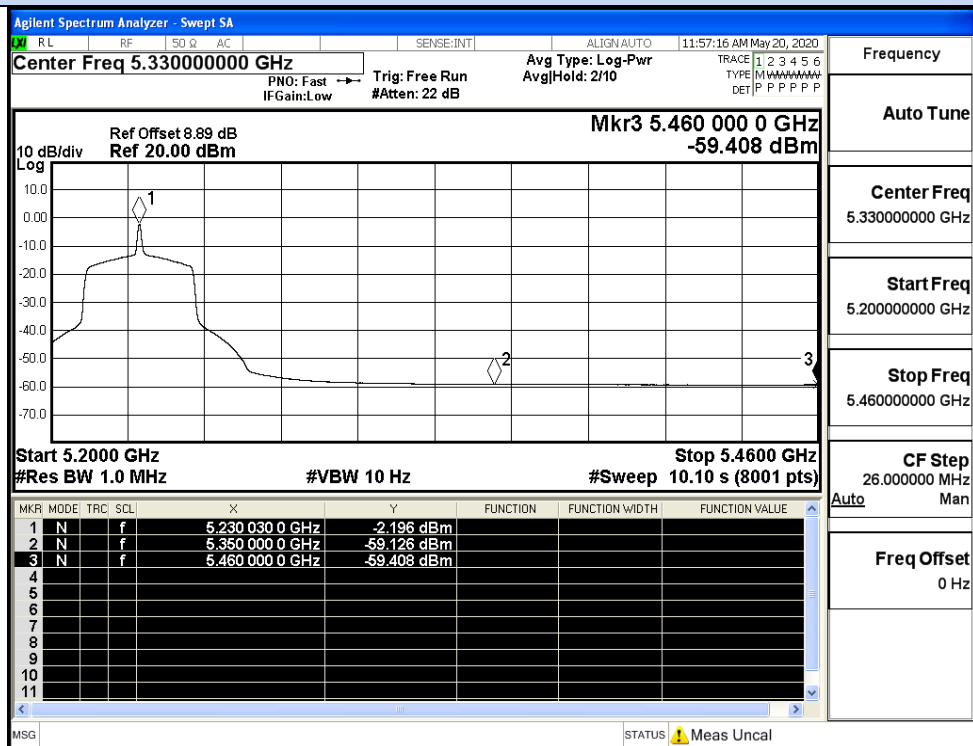


IEEE 802.11ac40 / Channel 38 / 5190MHz / Average

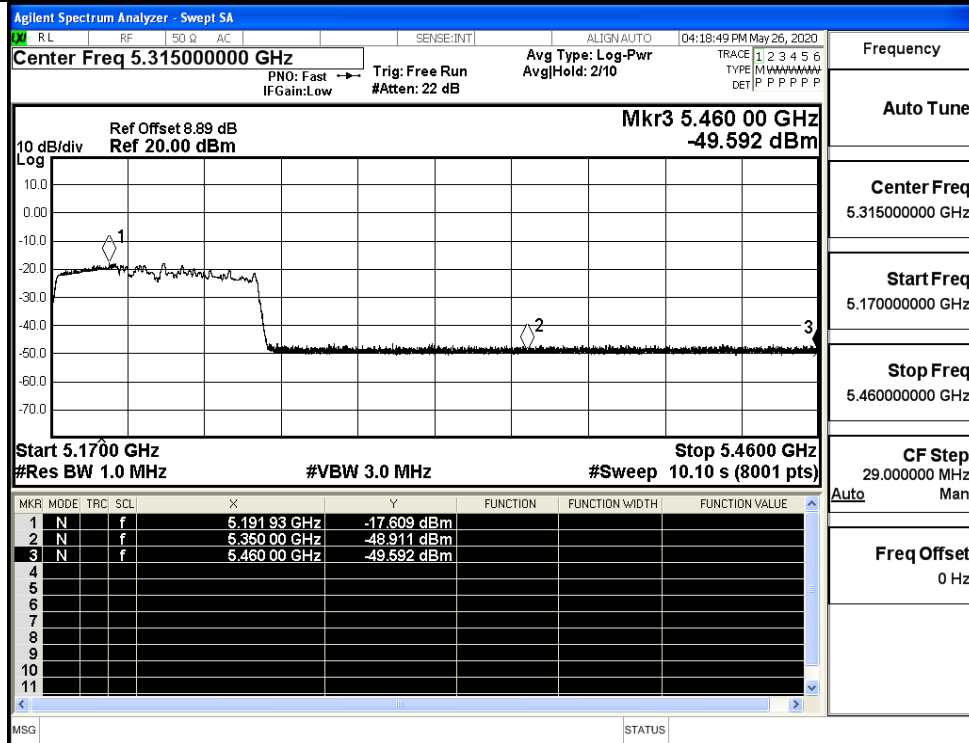




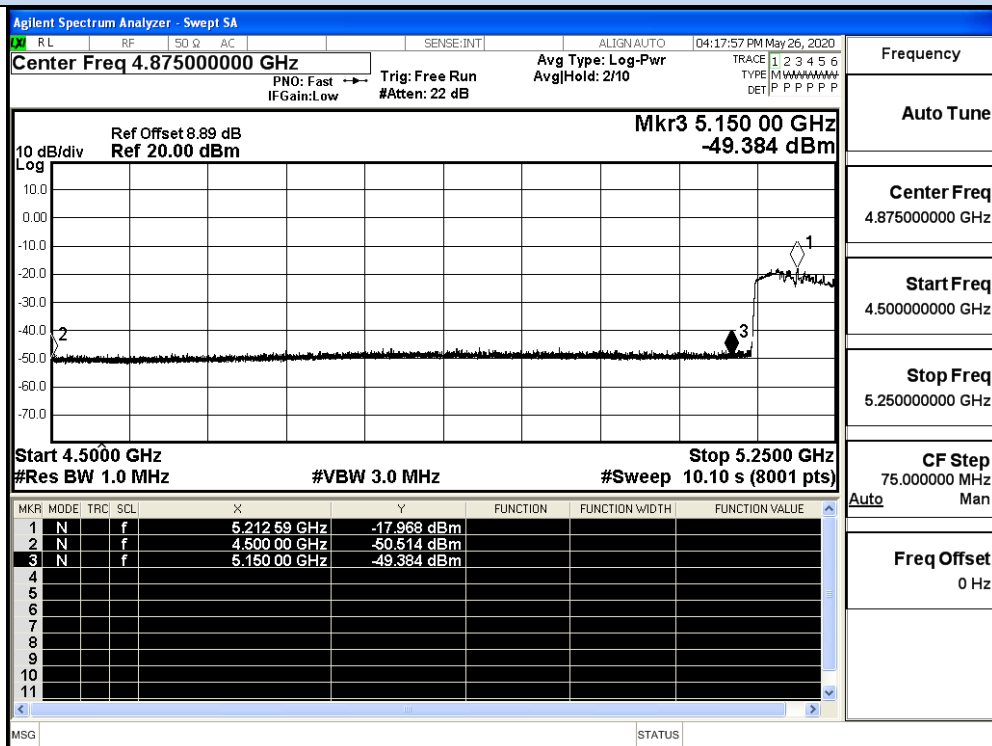
IEEE 802.11ac40 / Channel 46 / 5230MHz / Peak



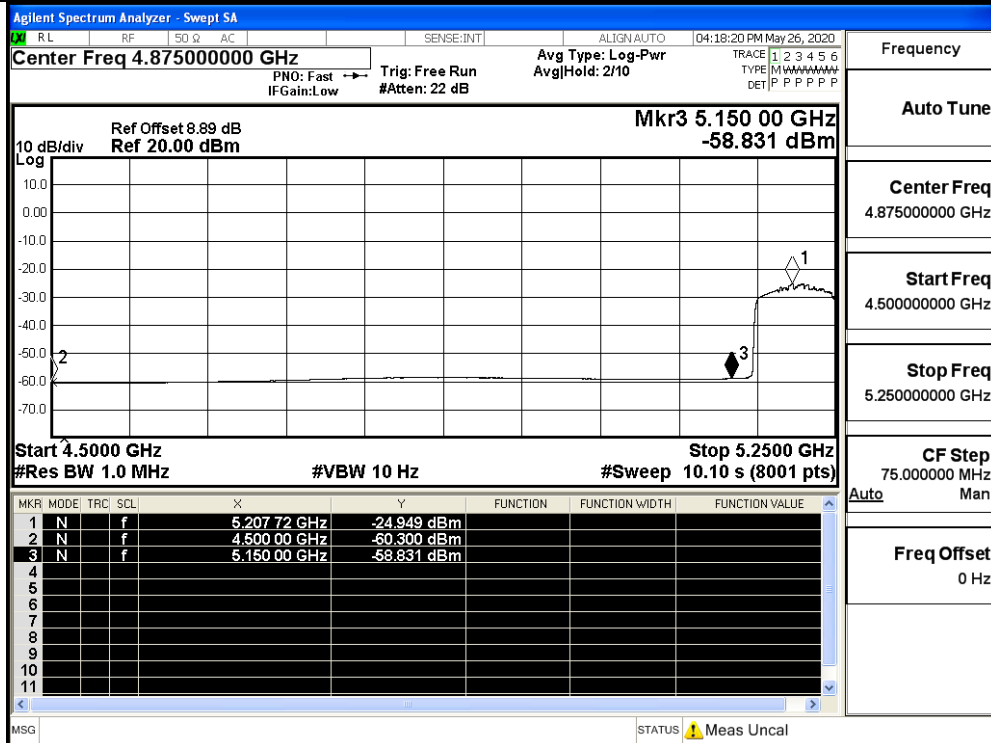
IEEE 802.11ac40 / Channel 46 / 5230MHz / Average



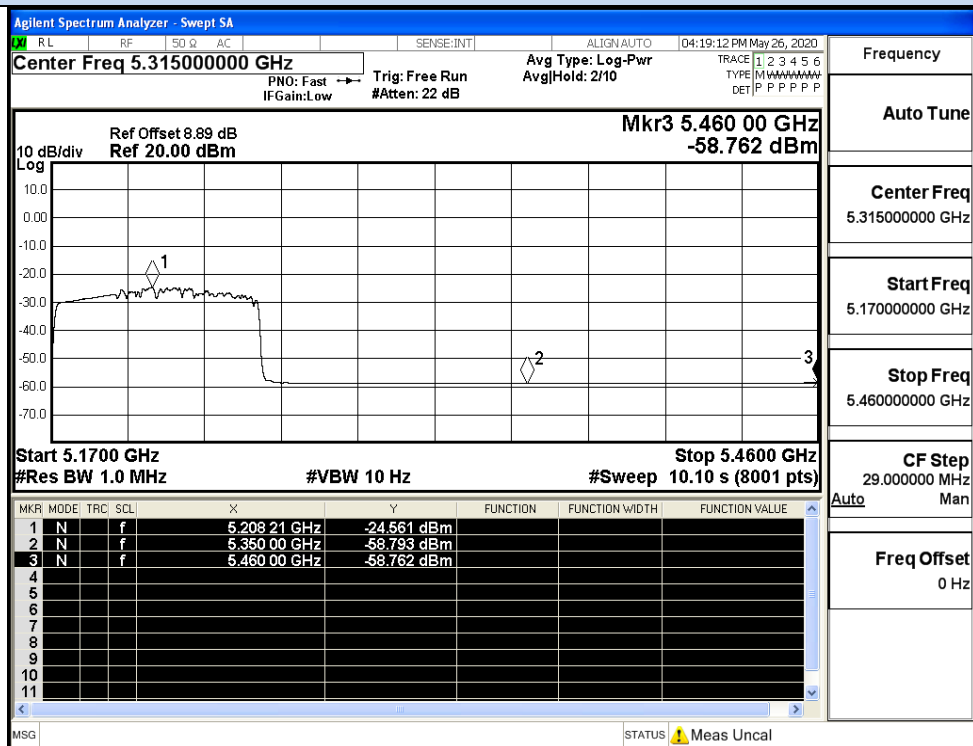
IEEE 802.11ac80 / Channel 42 / 5210MHz / Peak



IEEE 802.11ac80 / Channel 42 / 5210MHz / Average



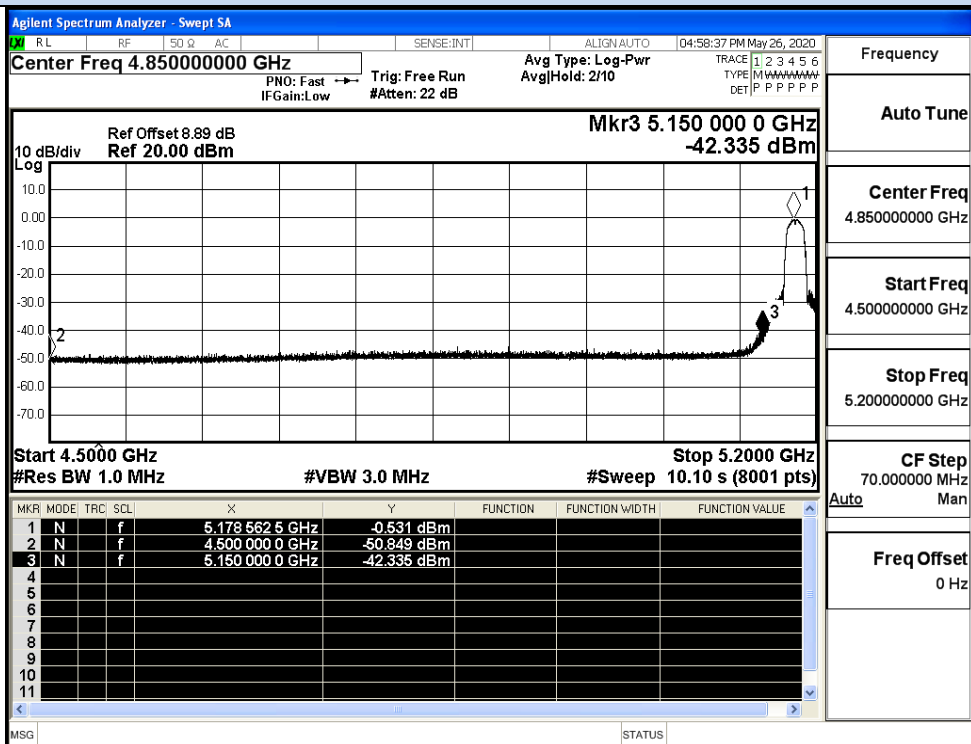
IEEE 802.11ac80 / Channel 42 / 5210MHz / Peak



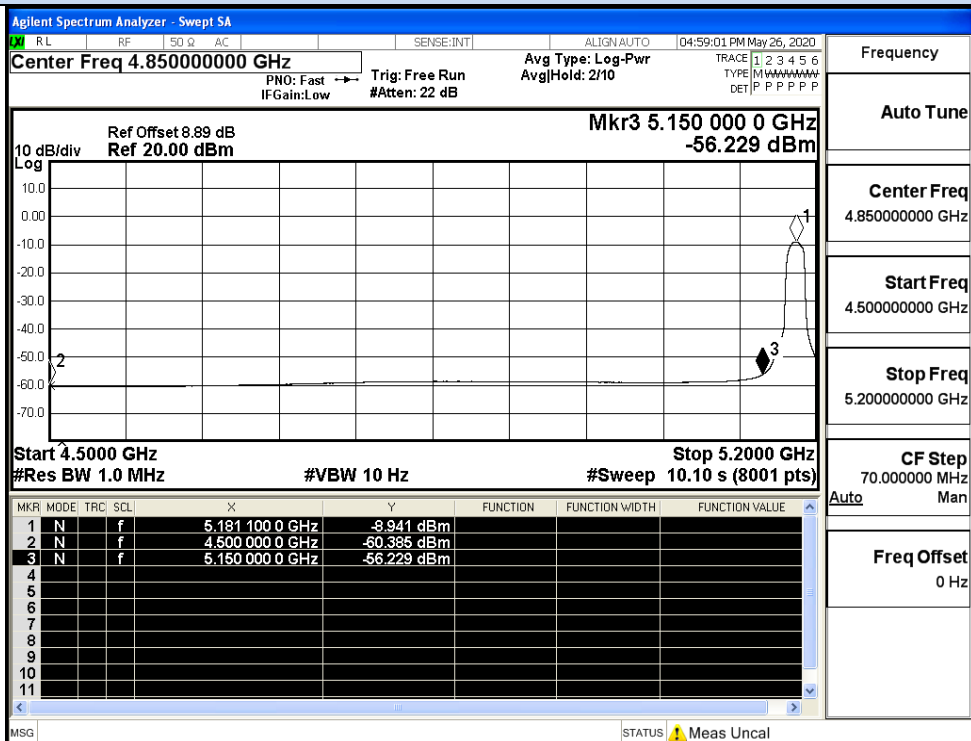
IEEE 802.11ac80 / Channel 42 / 5210MHz / Average

## ANT1

## Undesirable Emissions Measurement

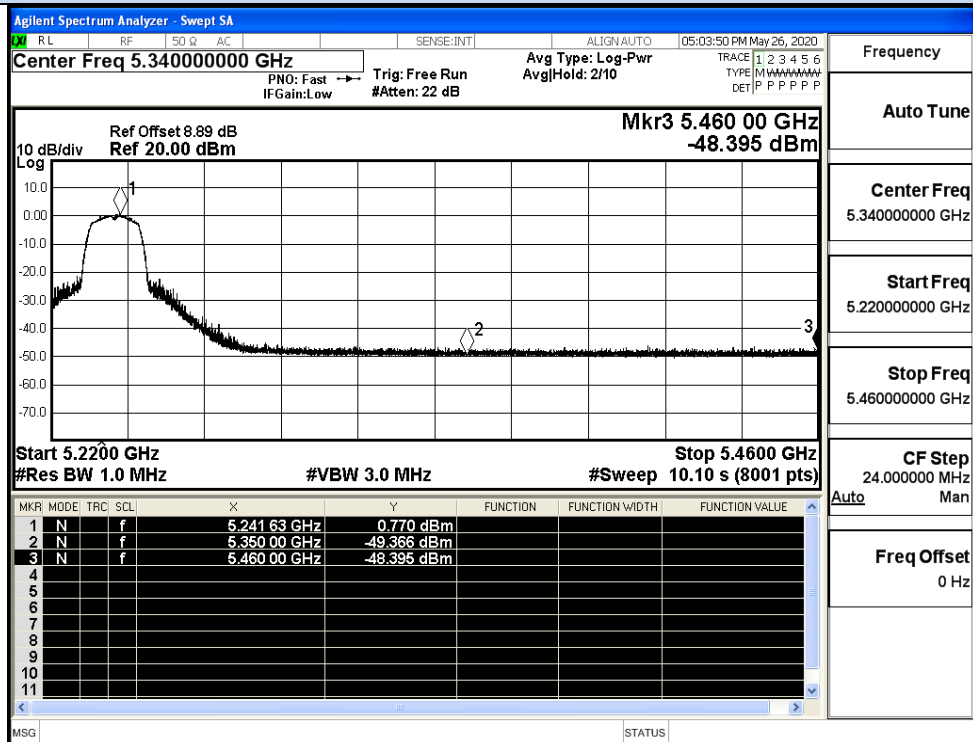


## IEEE 802.11a / Channel 36 / 5180MHz / Peak

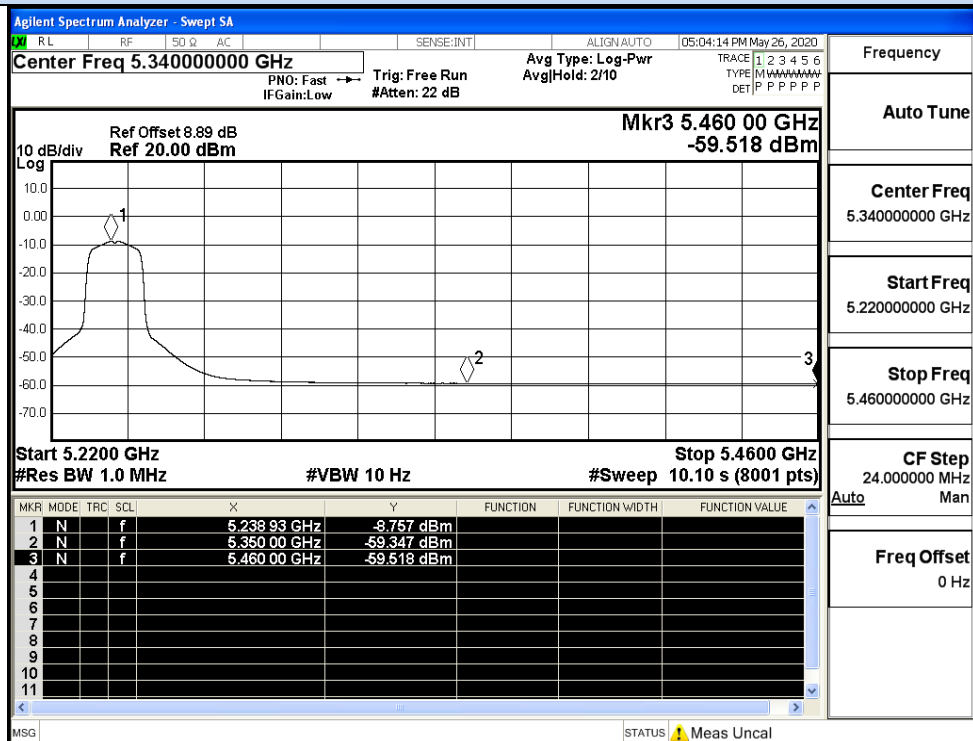


## IEEE 802.11a / Channel 36 / 5180MHz / Average

## Undesirable Emissions Measurement

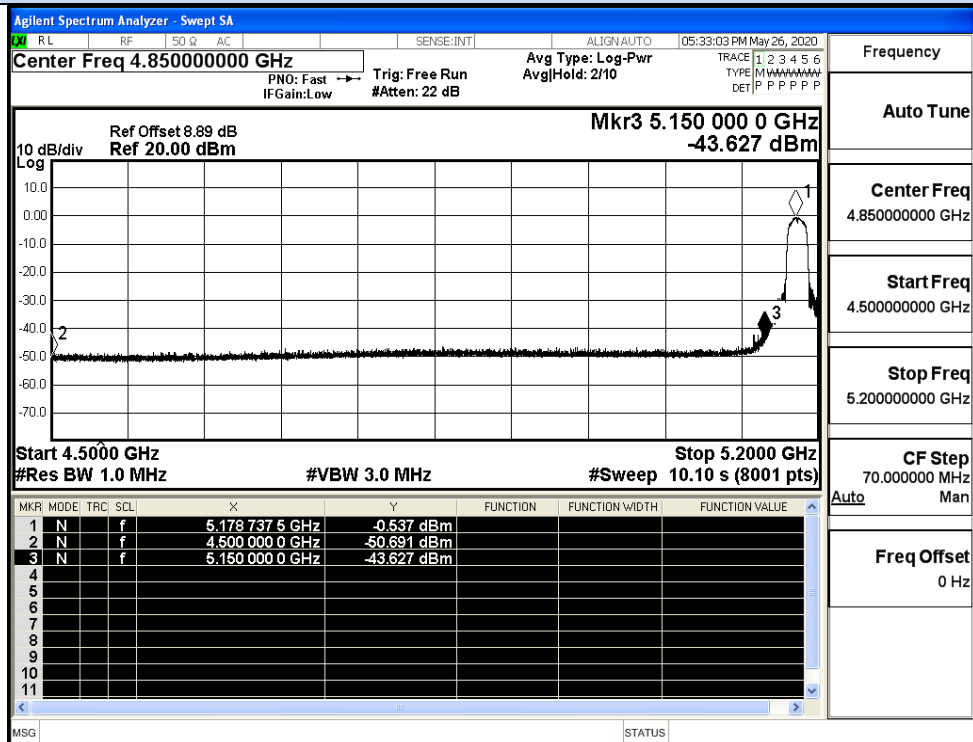


## IEEE 802.11a / Channel 48 / 5240MHz / Peak

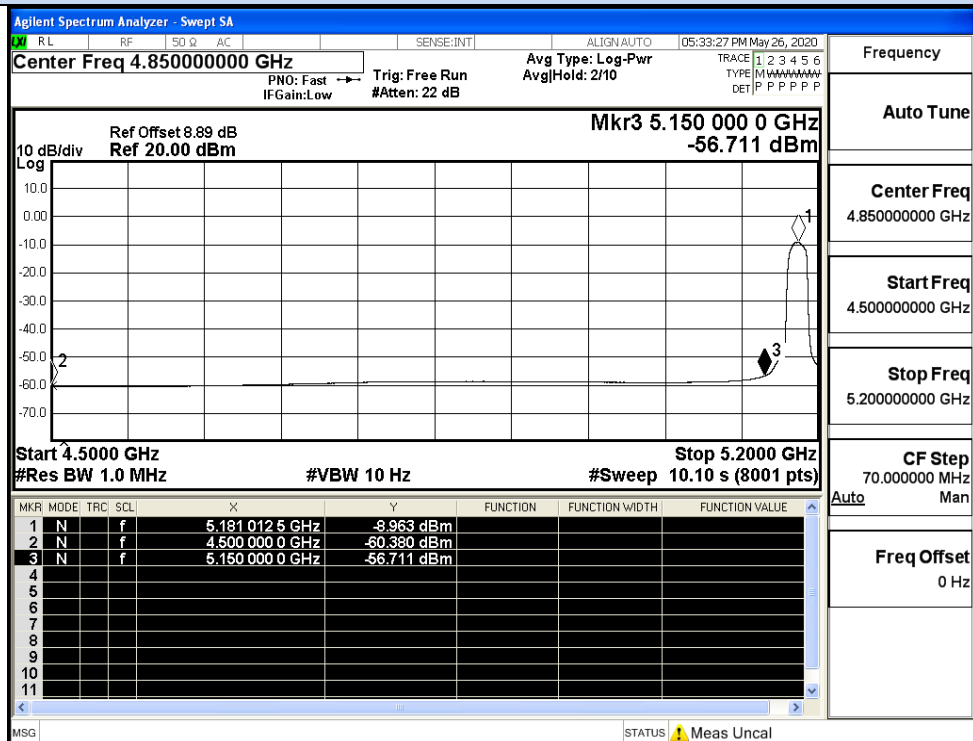


## IEEE 802.11a / Channel 48 / 5240MHz / Average

## Undesirable Emissions Measurement

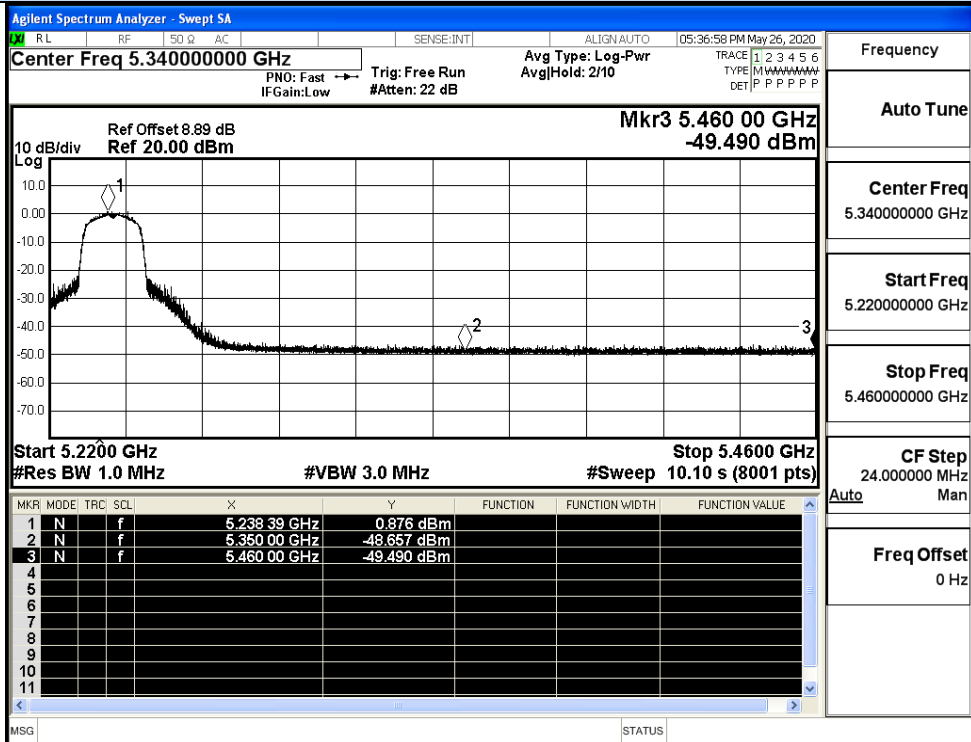


## IEEE 802.11n20 / Channel 36 / 5180MHz / Peak

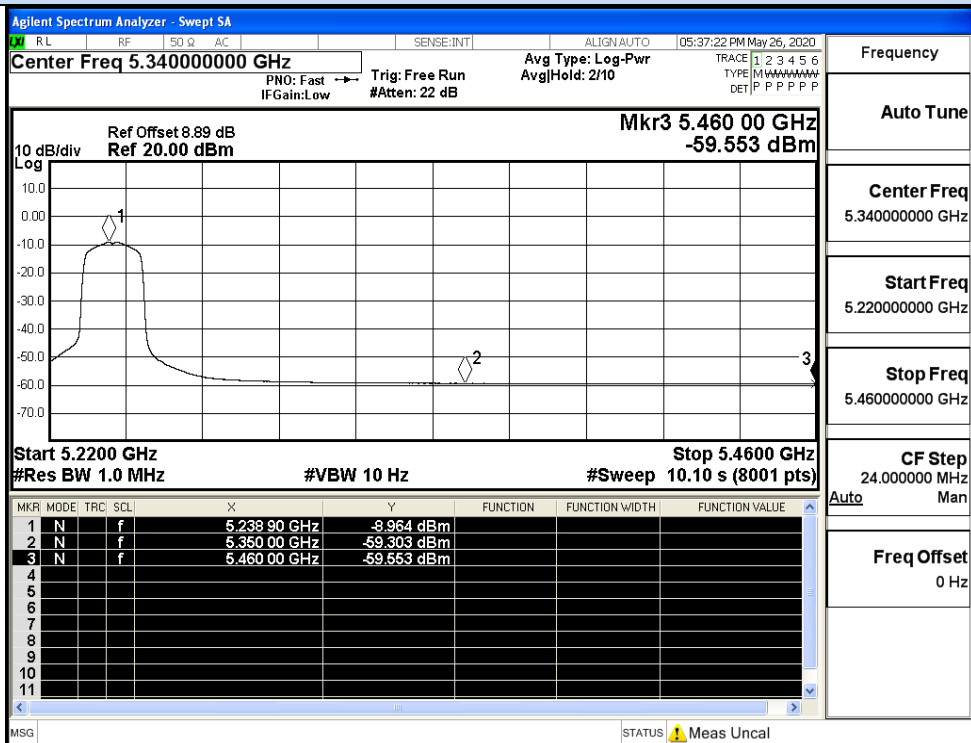


## IEEE 802.11n20 / Channel 36 / 5180MHz / Average

## Undesirable Emissions Measurement

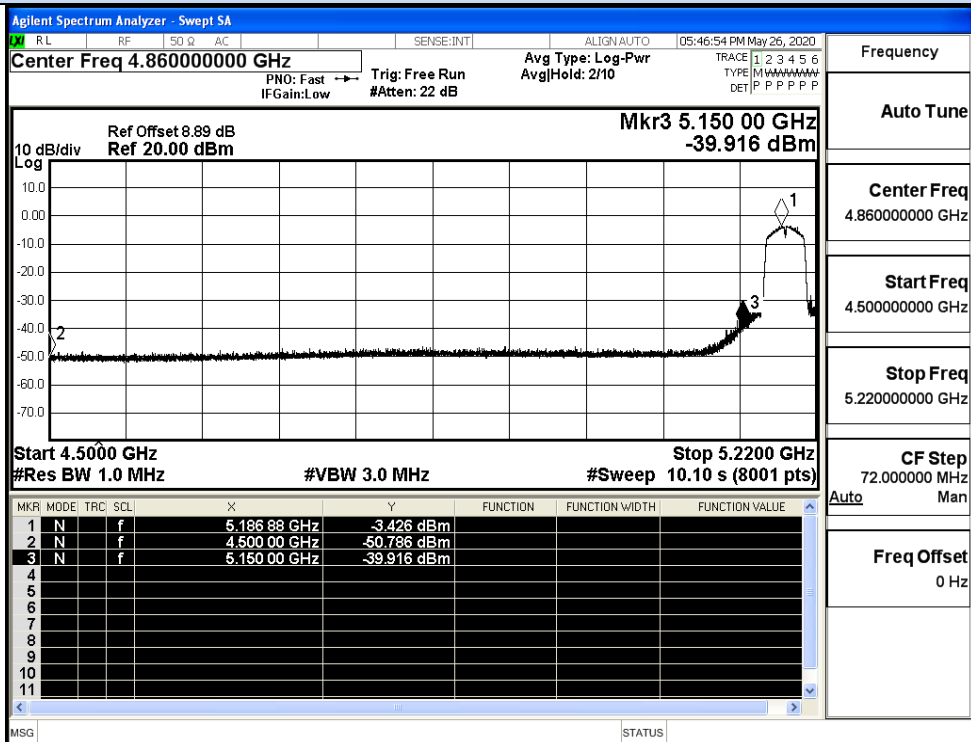


## IEEE 802.11n20 / Channel 48 / 5240MHz / Peak

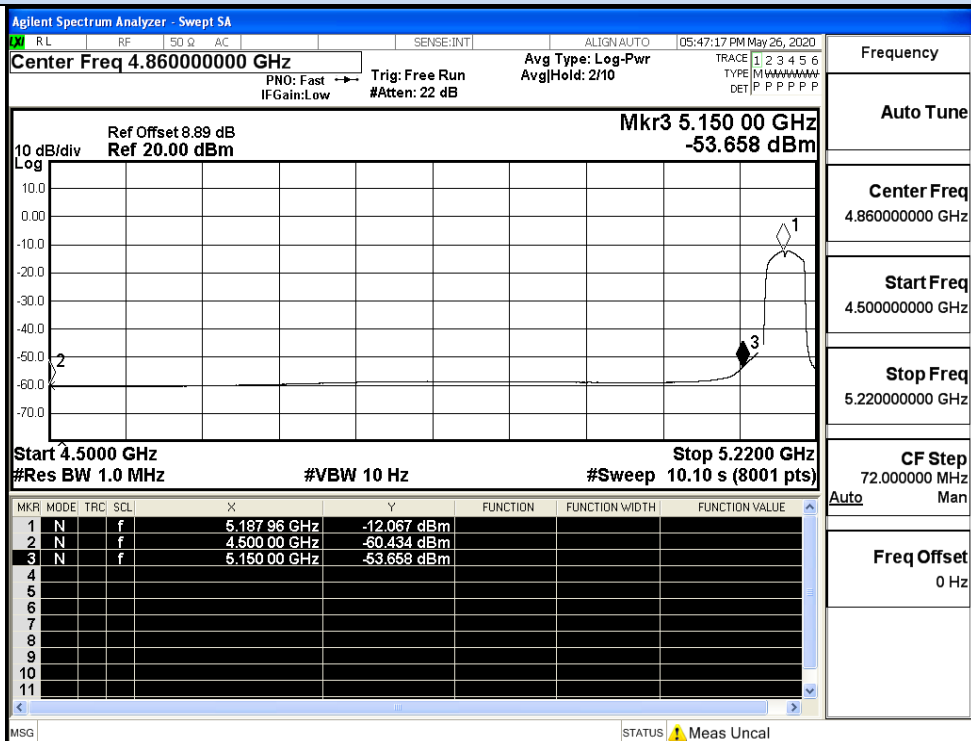


## IEEE 802.11n20 / Channel 48 / 5240MHz / Average

## Undesirable Emissions Measurement



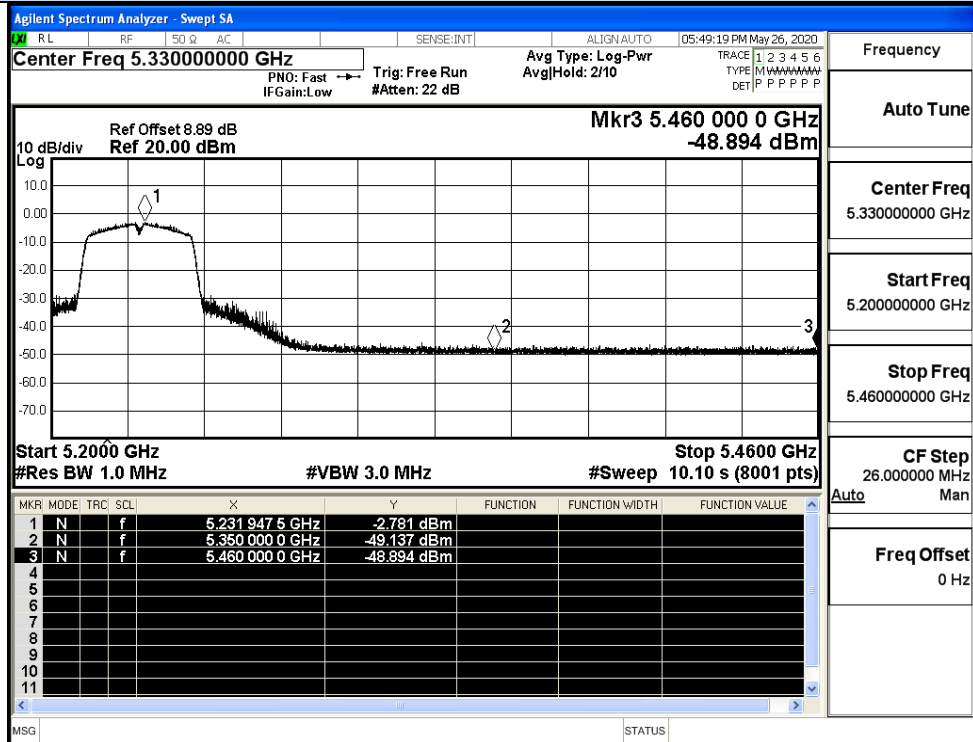
## IEEE 802.11n40 / Channel 38 / 5190MHz / Peak



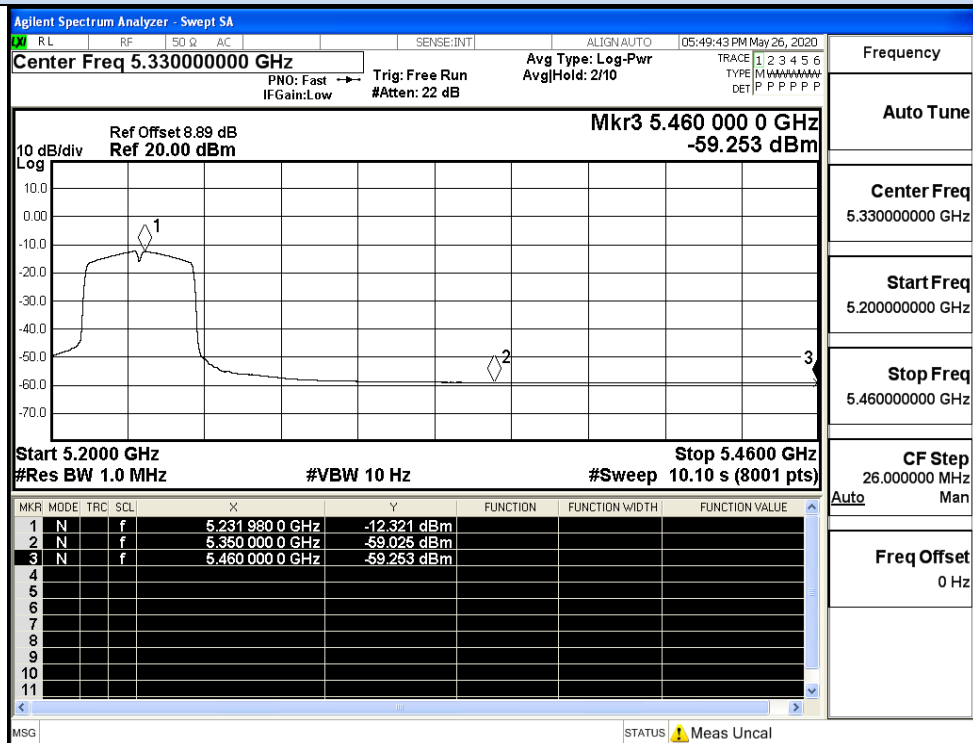
## IEEE 802.11n40 / Channel 38 / 5190MHz / Average



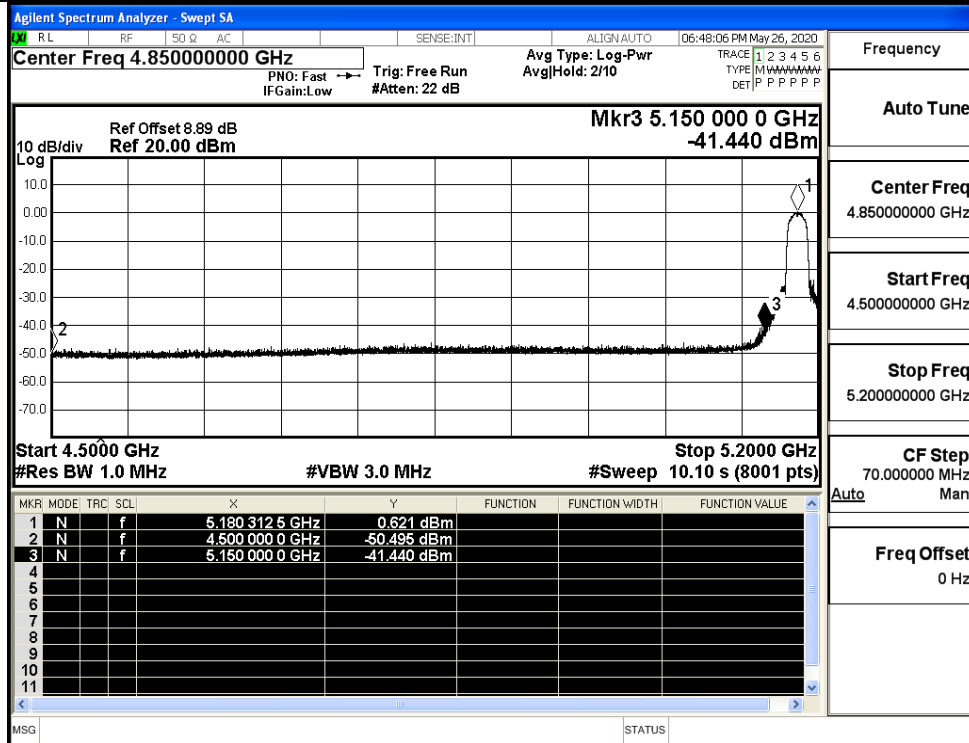
## Undesirable Emissions Measurement



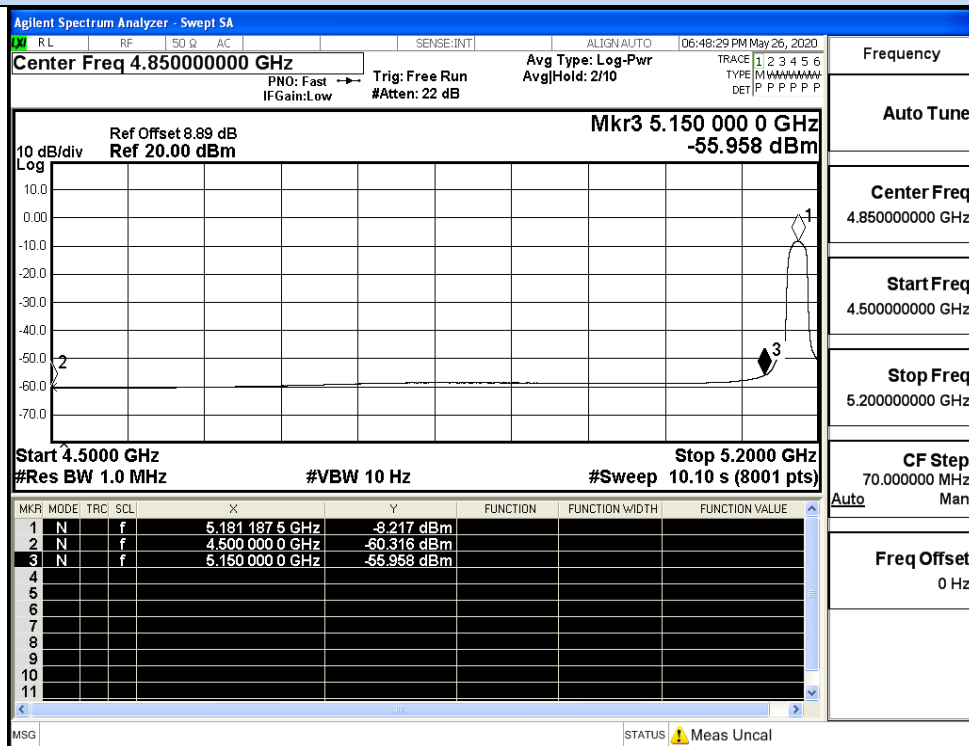
## IEEE 802.11n40 / Channel 46 / 5230MHz / Peak



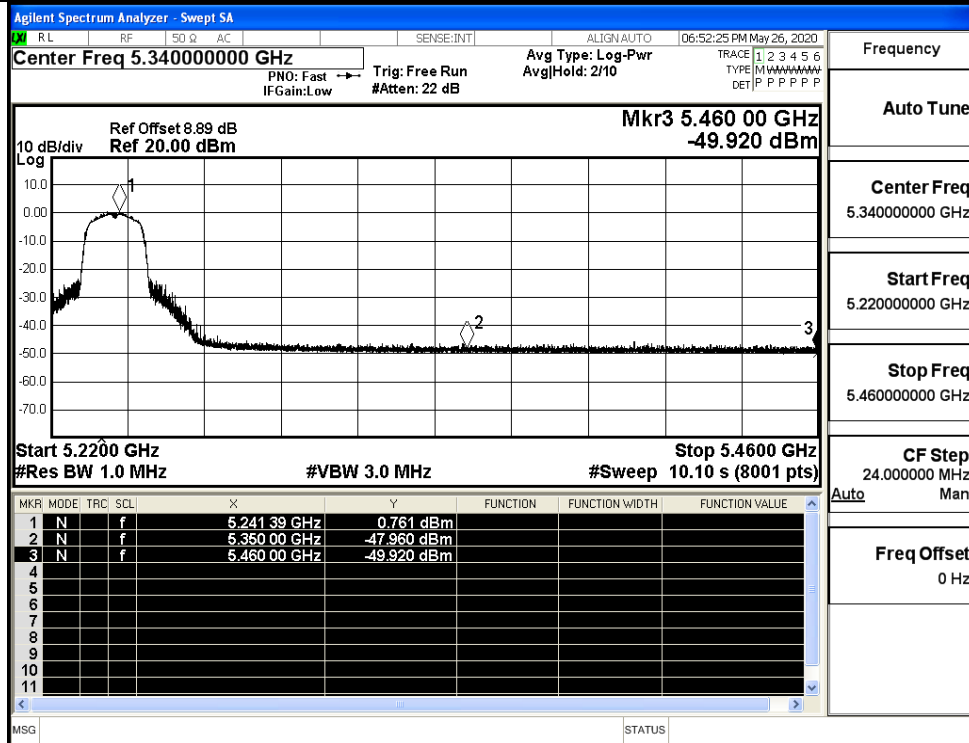
## IEEE 802.11n40 / Channel 46 / 5230MHz / Average



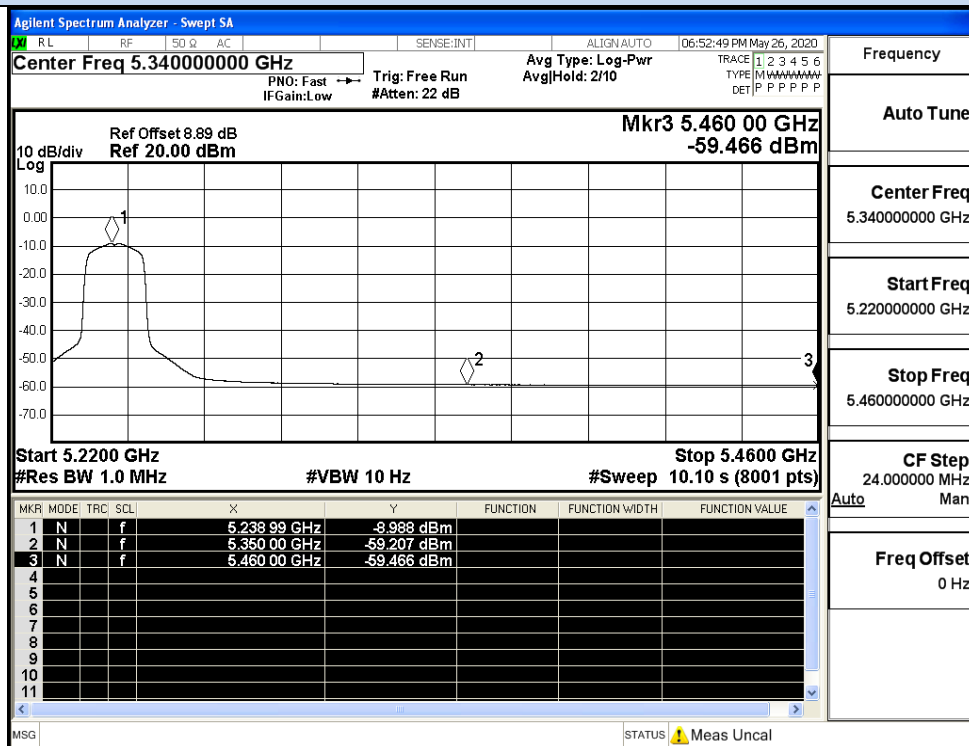
IEEE 802.11ac20 / Channel 36 / 5180MHz / Peak



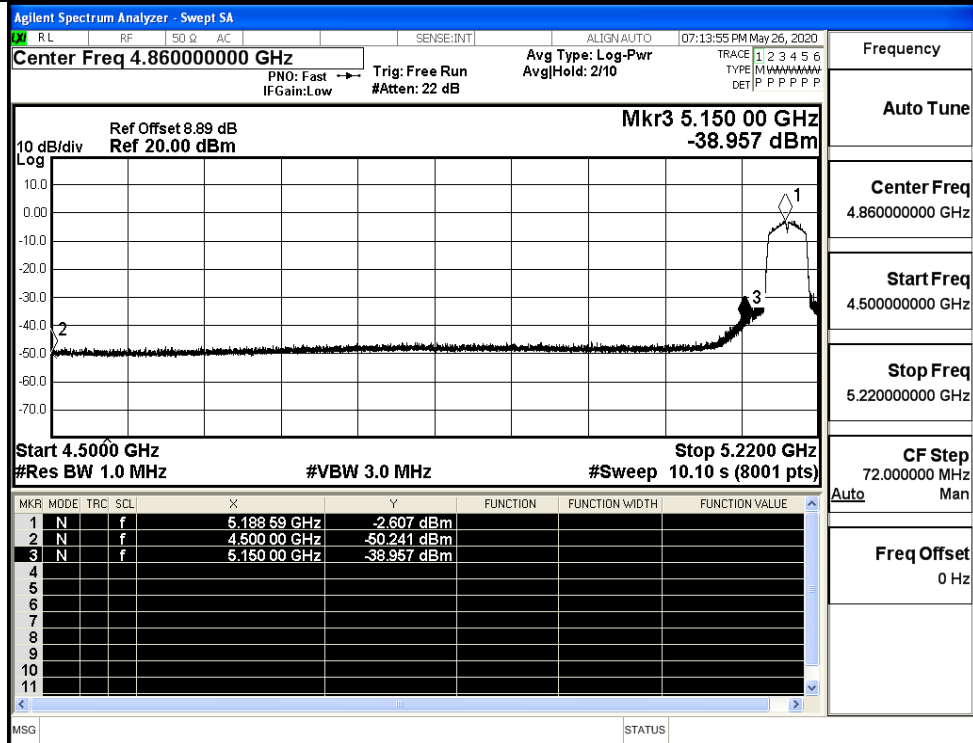
IEEE 802.11ac20 / Channel 36 / 5180MHz / Average



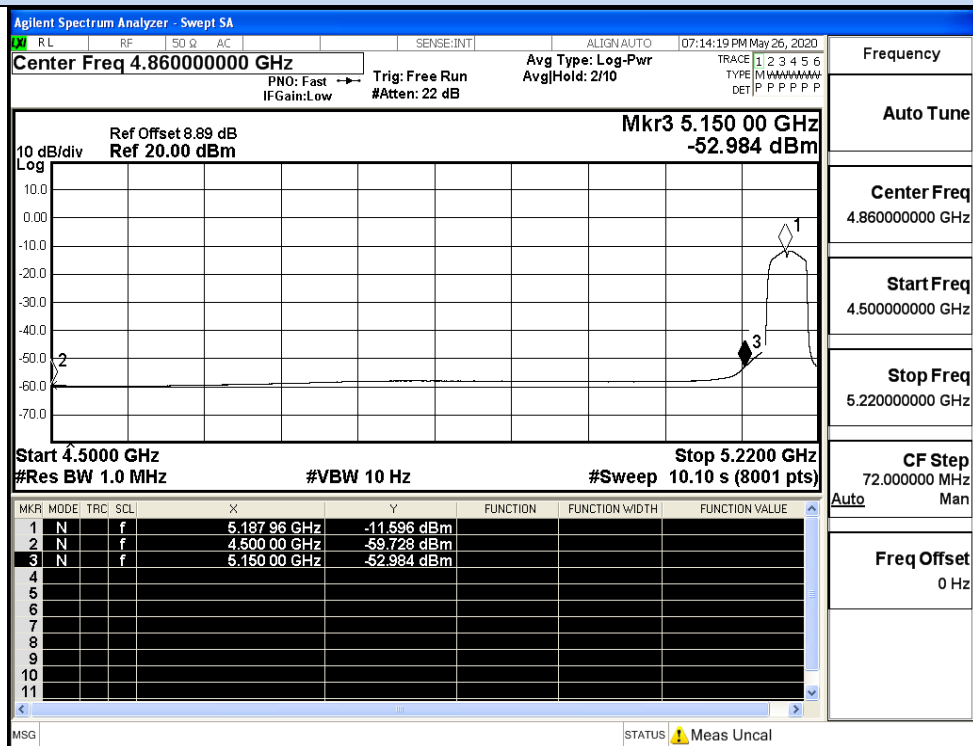
IEEE 802.11ac20 / Channel 48 / 5240MHz / Peak



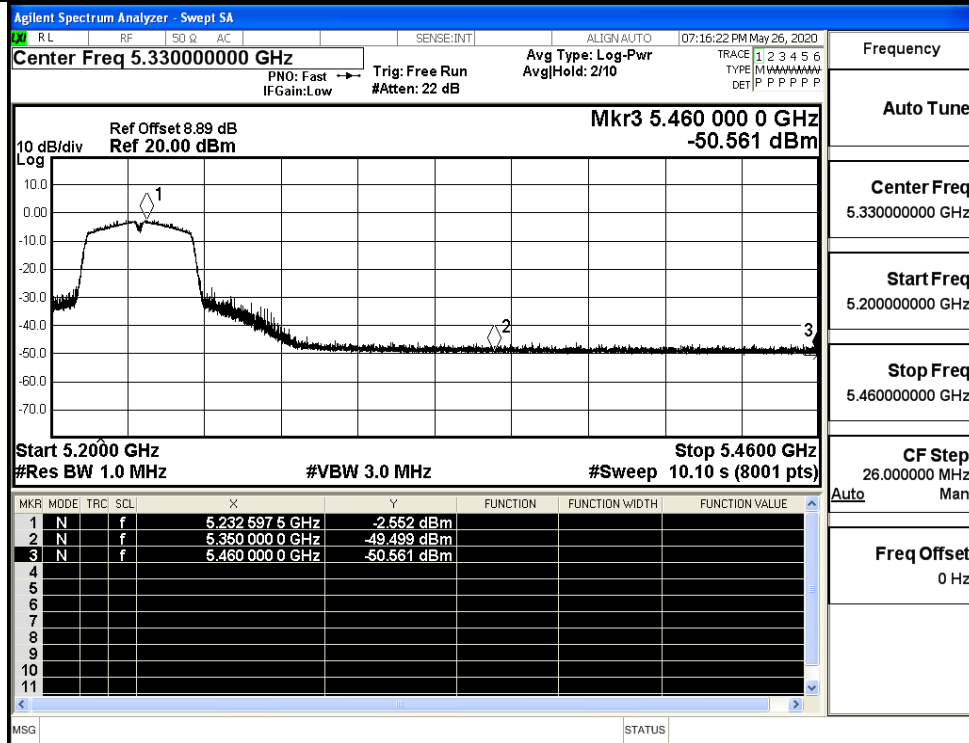
IEEE 802.11ac20 / Channel 48 / 5240MHz / Average



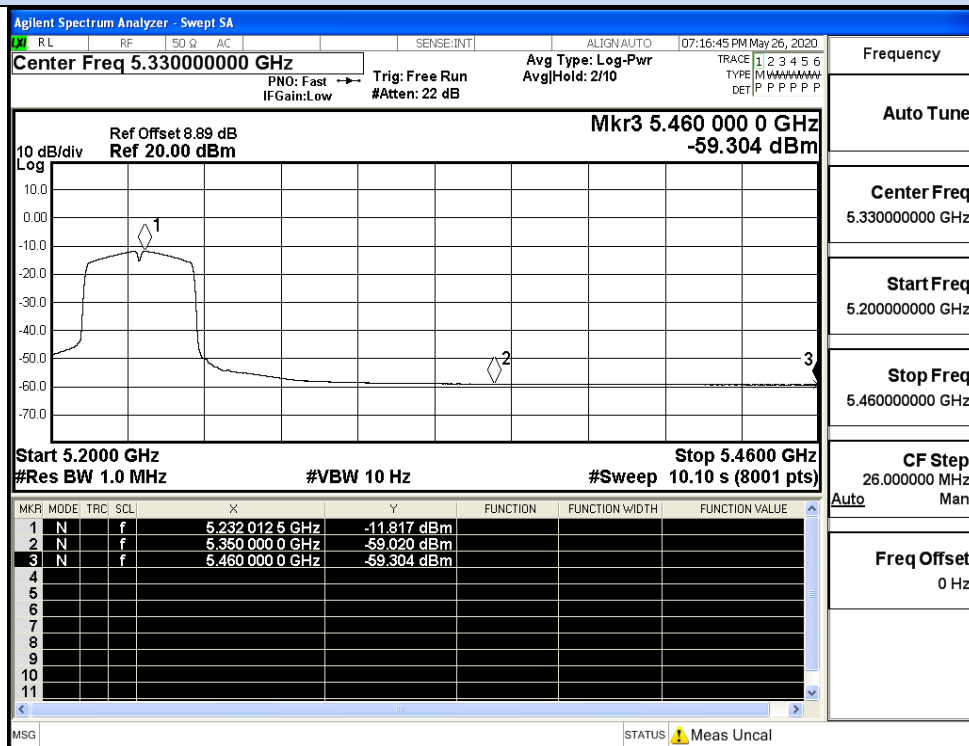
IEEE 802.11ac40 / Channel 38/ 5190MHz / Peak



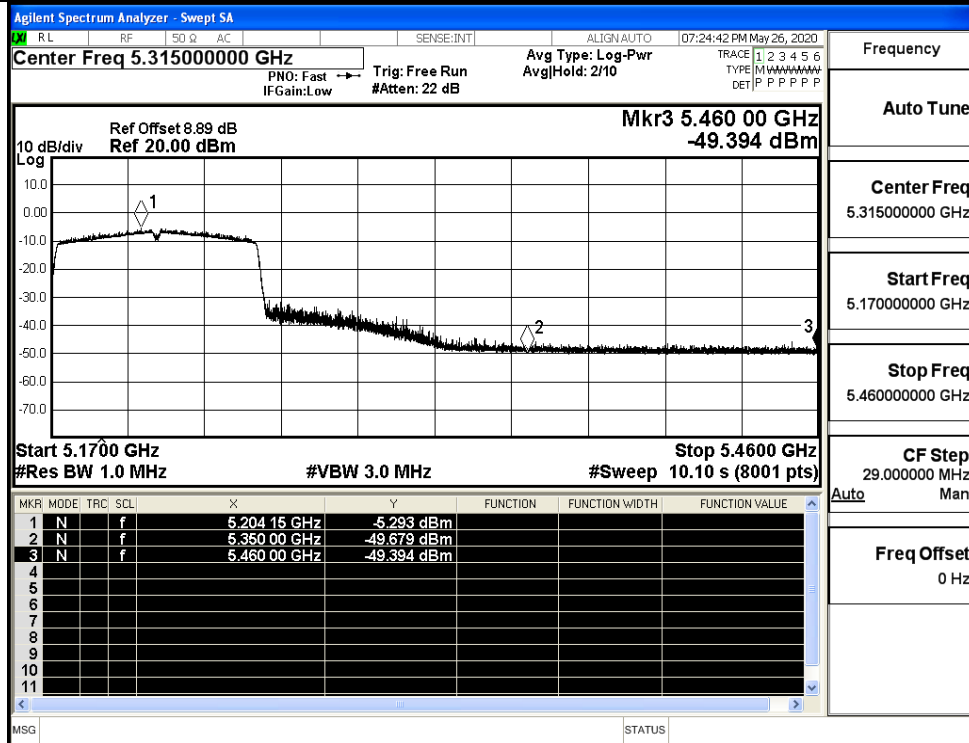
IEEE 802.11ac40 / Channel 38 / 5190MHz / Average



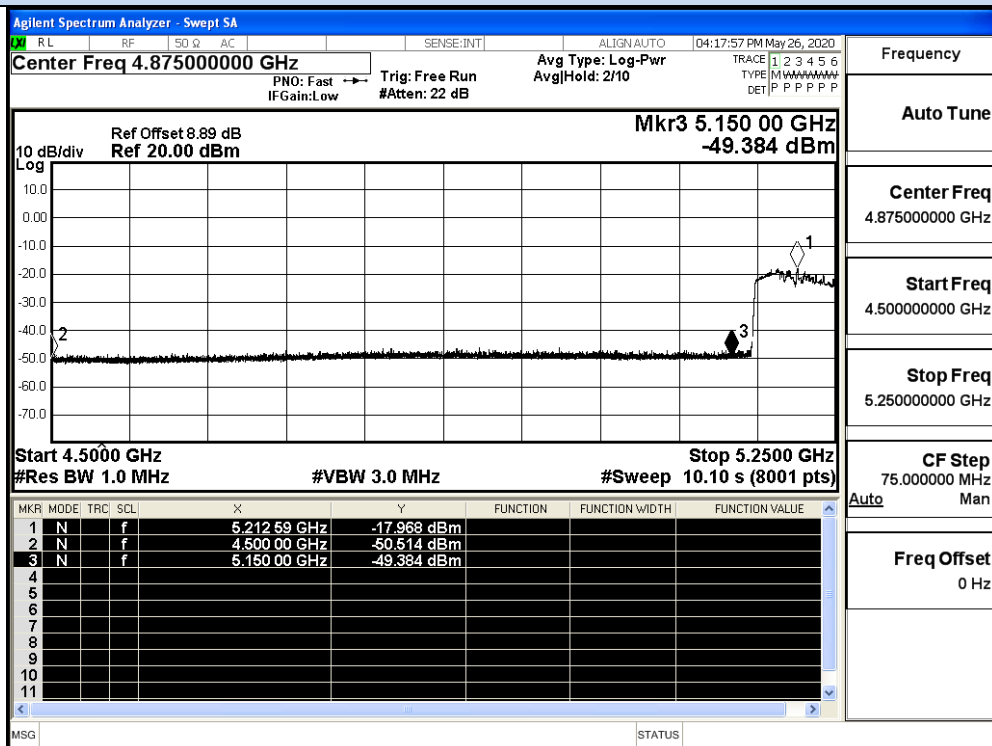
IEEE 802.11ac40 / Channel 46 / 5230MHz / Peak



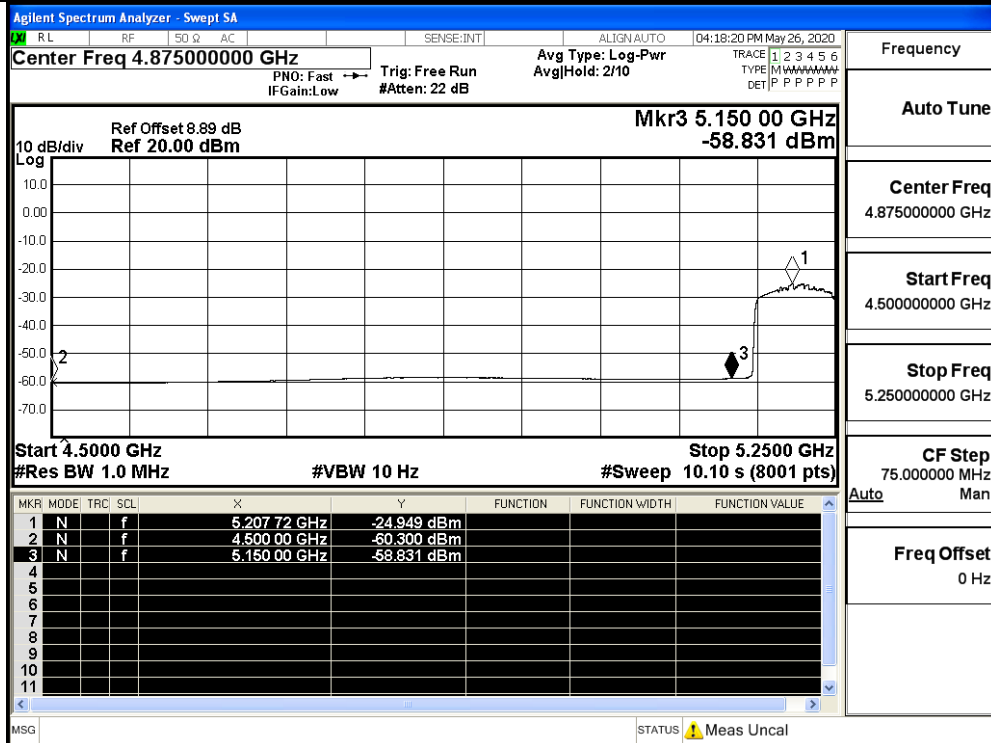
IEEE 802.11ac40 / Channel 46 / 5230MHz / Average



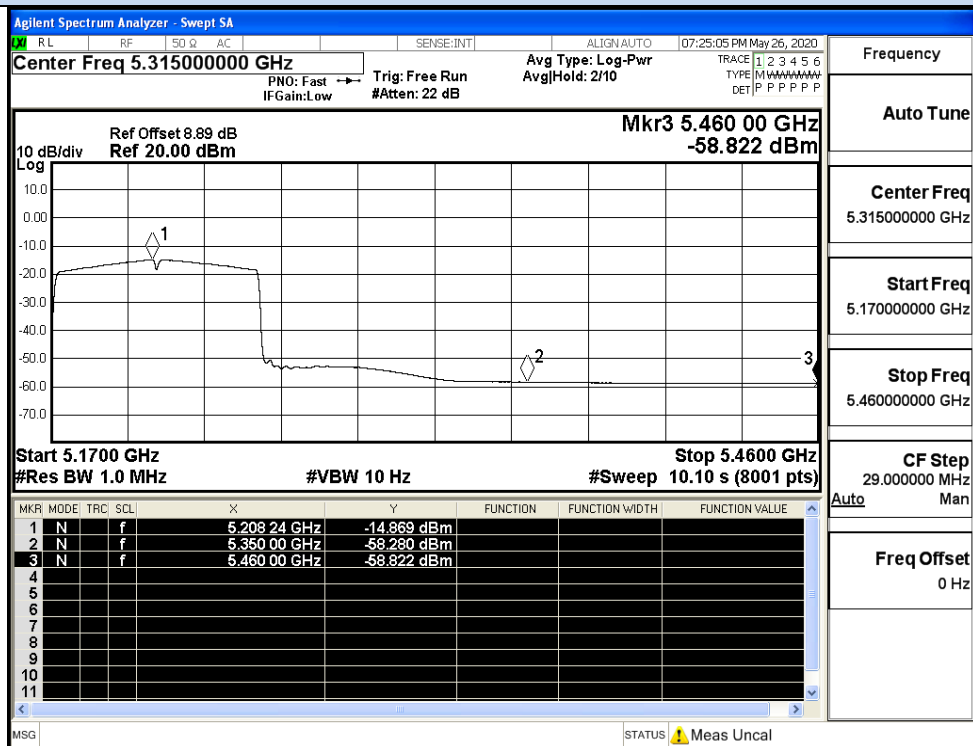
IEEE 802.11ac80 / Channel 42 / 5210MHz / Peak



IEEE 802.11ac80 / Channel 42 / 5210MHz / Average



IEEE 802.11ac80 / Channel 42/ 5210MHz / Peak



IEEE 802.11ac80 / Channel 42 / 5210MHz / Average