

## Appendix C

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

Product Name: Laptop

Trade Mark: FUSION5

Test Model: T90B+ Pro

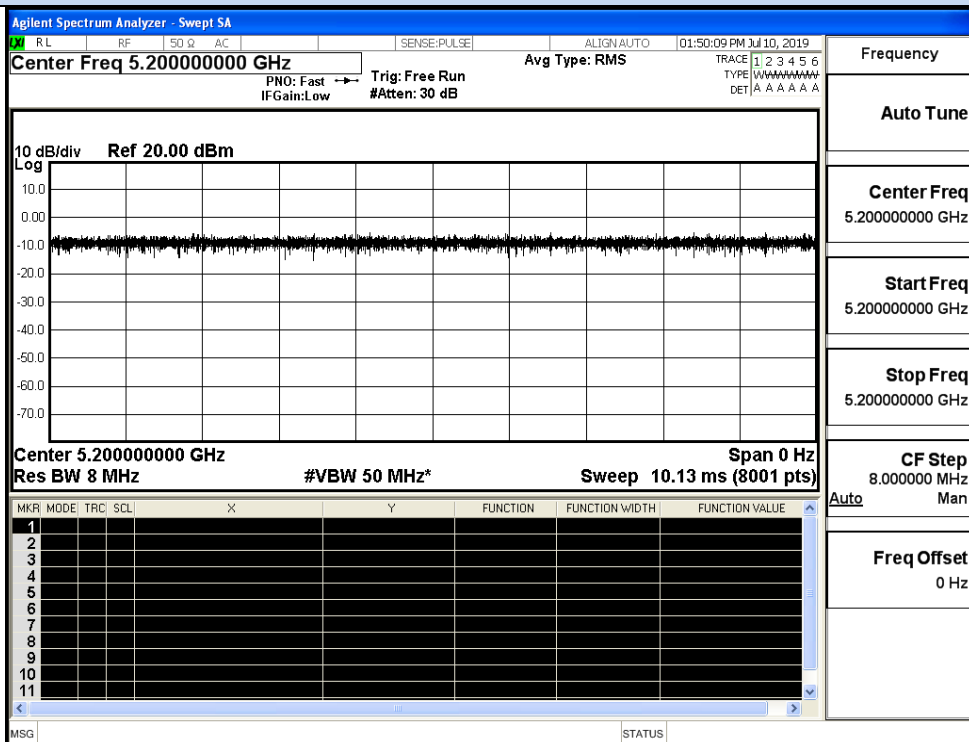
#### Environmental Conditions

|                    |             |
|--------------------|-------------|
| Temperature:       | 24.3 ° C    |
| Relative Humidity: | 52.8%       |
| ATM Pressure:      | 100.0 kPa   |
| Test Engineer:     | JERRY.ZENG  |
| Supervised by:     | Wang.Chuang |

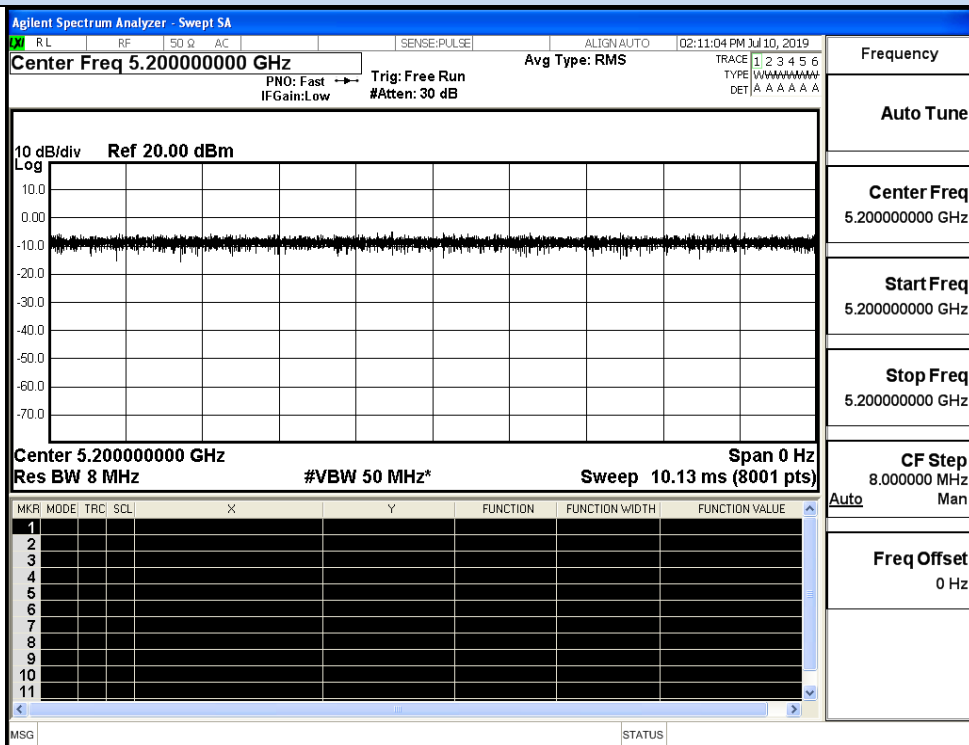
#### C.1 Duty Cycle

| 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                 |

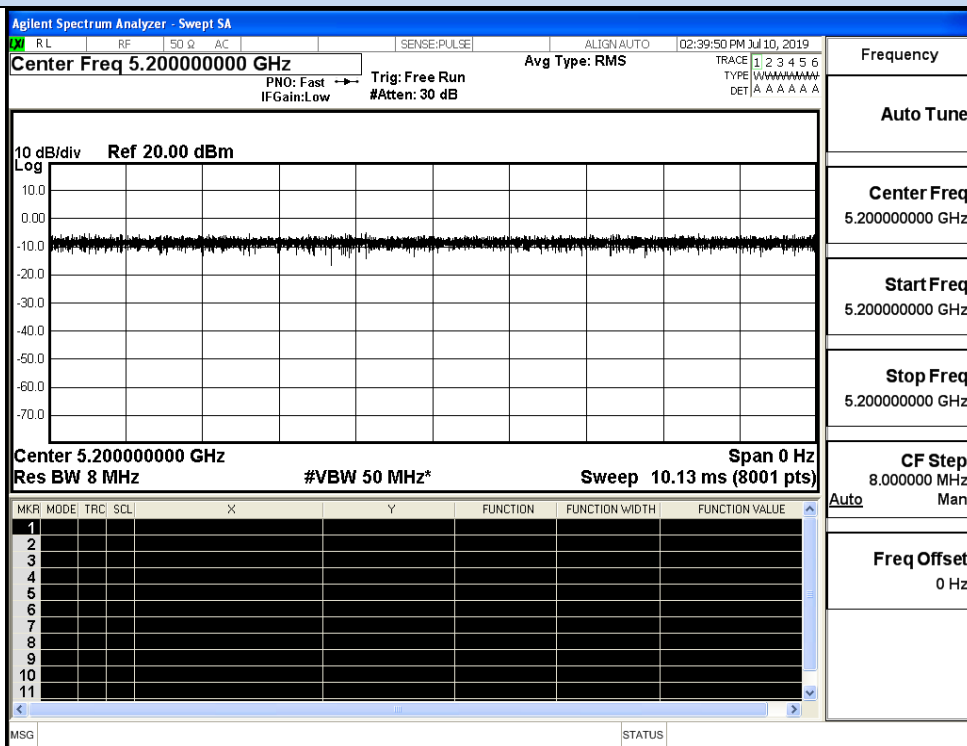
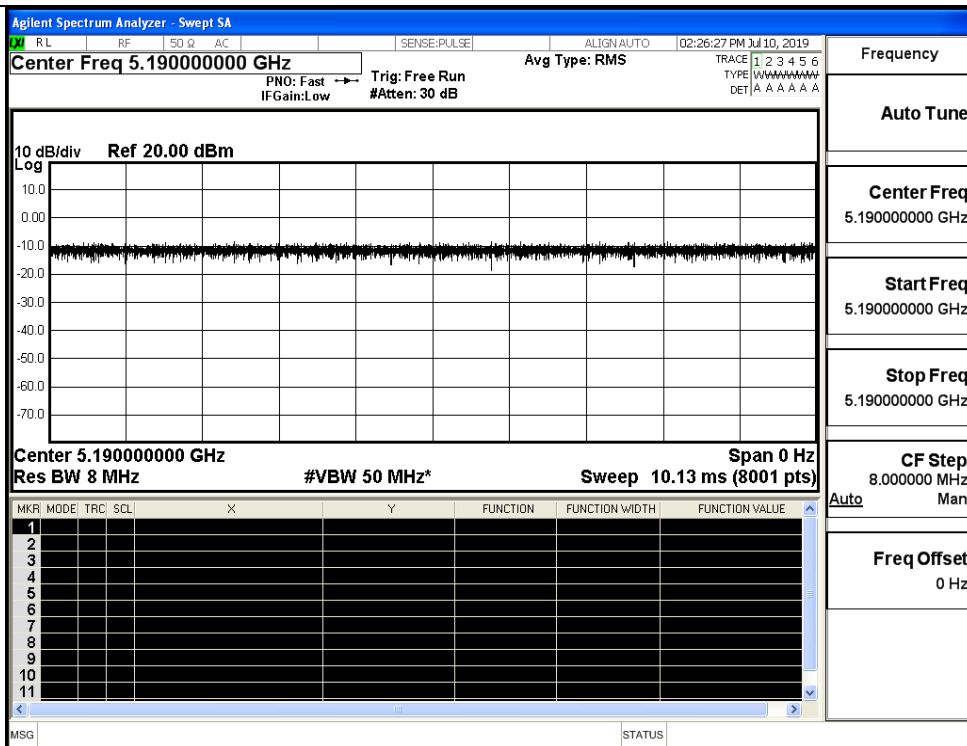
## On Time and Duty Cycle

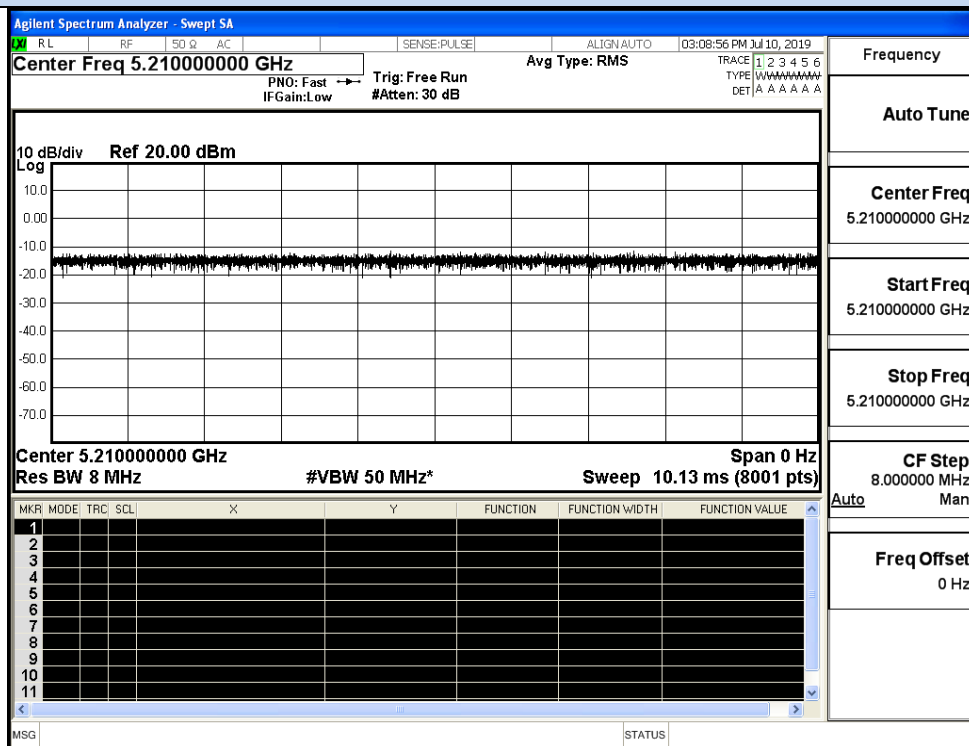
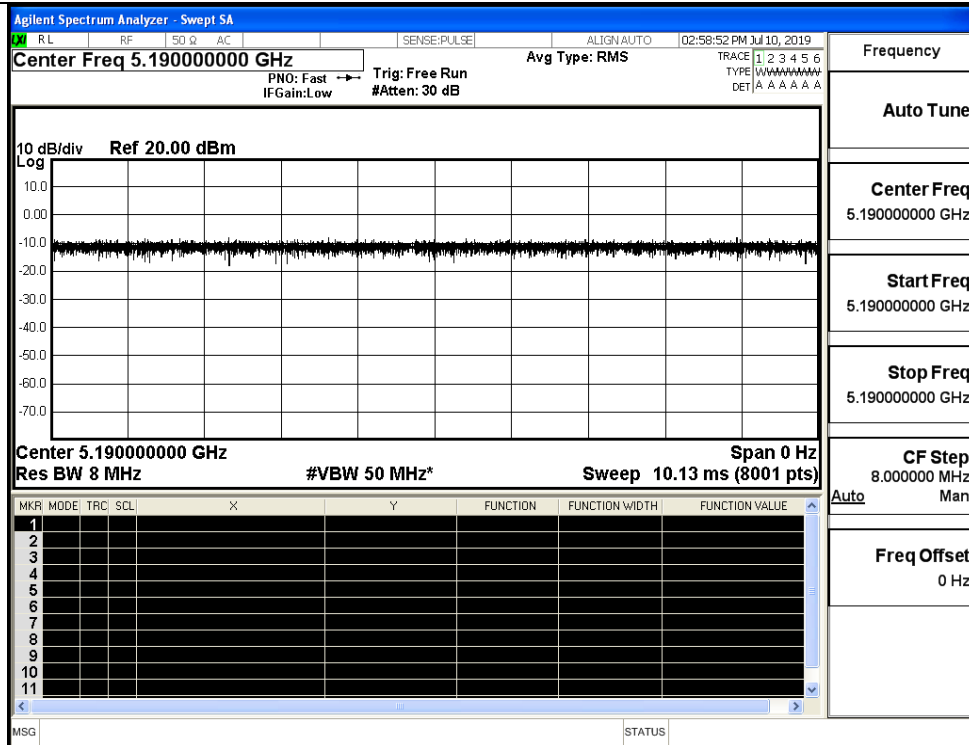


## IEEE 802.11a



## IEEE 802.11n HT20



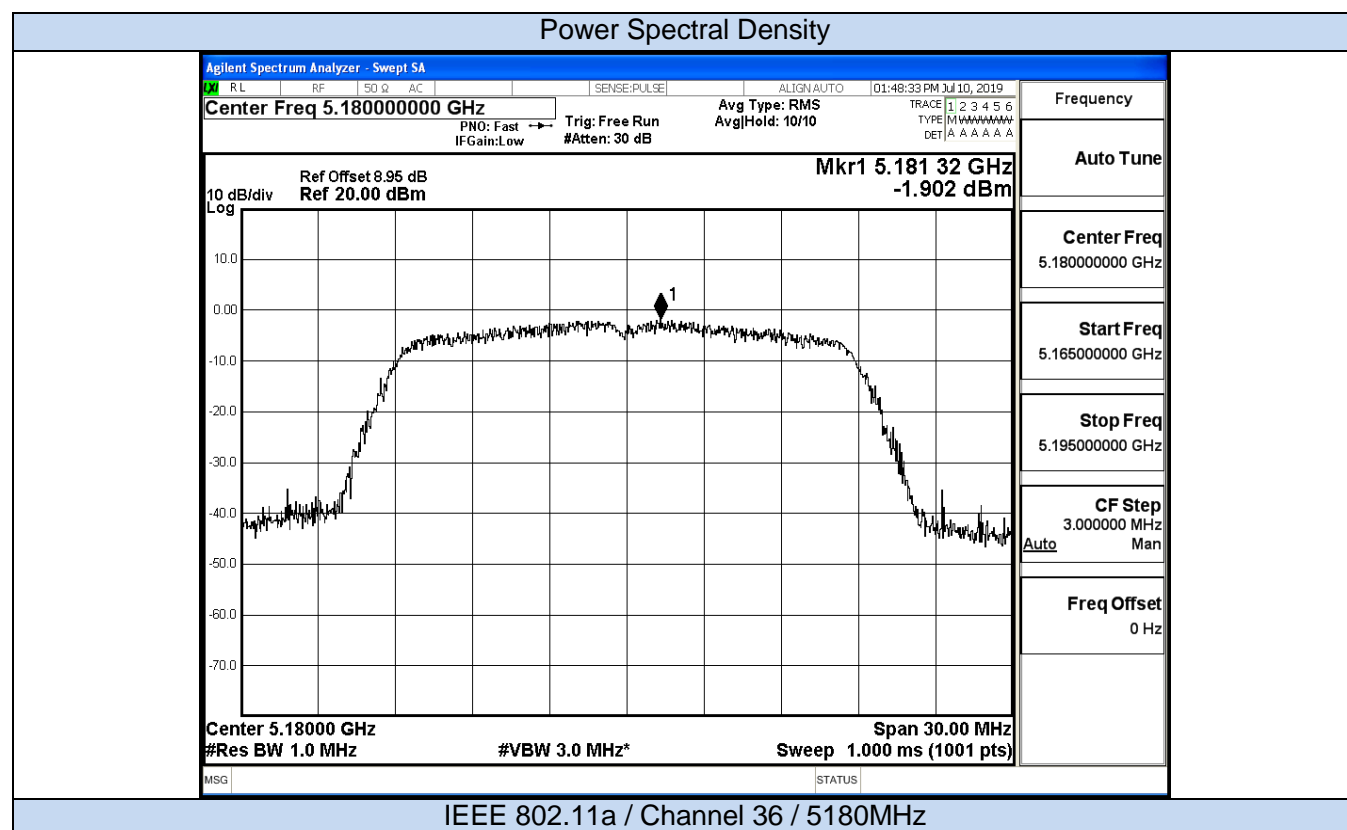


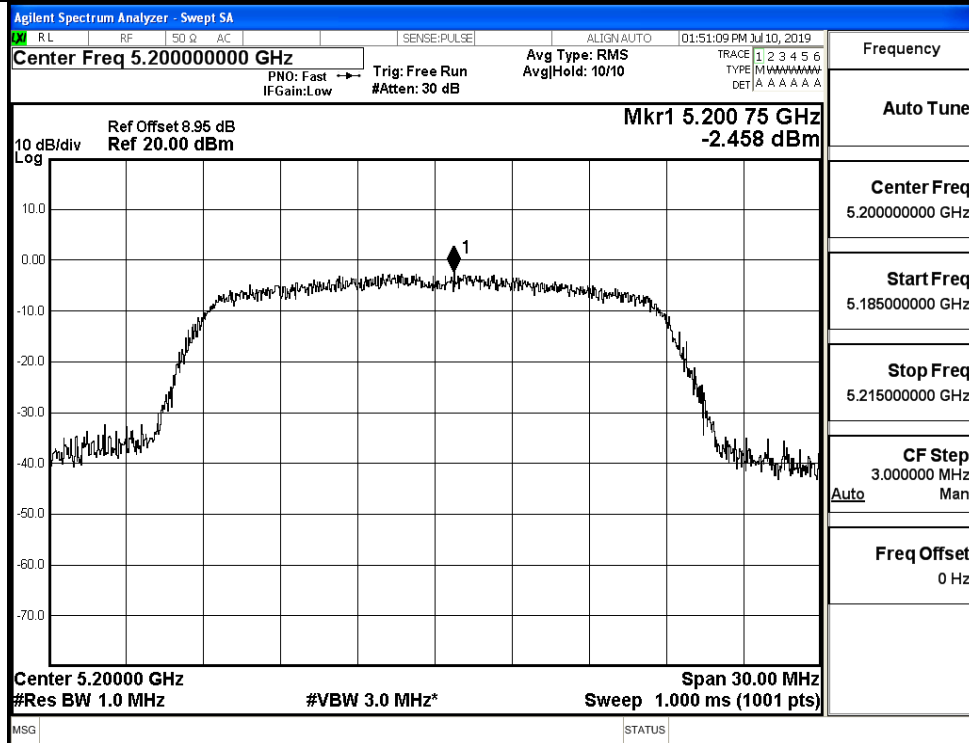
## C.2 Maximum Conduct Output Power

| Test Mode   | Channel | Frequency (MHz) | AVG Conducted Power (dBm) | Duty Cycle Factor(dB) | Report Conducted Power(dBm) | Limit (dBm) | Verdict |
|-------------|---------|-----------------|---------------------------|-----------------------|-----------------------------|-------------|---------|
| 11A         | 36      | 5180            | 7.05                      | 0                     | 7.05                        | 24          | Pass    |
|             | 40      | 5200            | 7.14                      | 0                     | 7.14                        |             | Pass    |
|             | 48      | 5240            | 7.25                      | 0                     | 7.25                        |             | Pass    |
| 11N20 SISO  | 36      | 5180            | 7.84                      | 0                     | 7.84                        | 24          | Pass    |
|             | 40      | 5200            | 7.37                      | 0                     | 7.37                        |             | Pass    |
|             | 48      | 5240            | 7.24                      | 0                     | 7.24                        |             | Pass    |
| 11N40 SISO  | 38      | 5190            | 6.56                      | 0                     | 6.56                        | 24          | Pass    |
|             | 46      | 5230            | 6.81                      | 0                     | 6.81                        |             | Pass    |
| 11AC20 SISO | 36      | 5180            | 7.82                      | 0                     | 7.82                        | 24          | Pass    |
|             | 40      | 5200            | 7.01                      | 0                     | 7.01                        |             | Pass    |
|             | 48      | 5240            | 7.98                      | 0                     | 7.98                        |             | Pass    |
| 11AC40 SISO | 38      | 5190            | 7.88                      | 0                     | 7.88                        | 24          | Pass    |
|             | 46      | 5230            | 7.02                      | 0                     | 7.02                        |             | Pass    |
| 11AC80 SISO | 42      | 5210            | 7.55                      | 0                     | 7.55                        | 24          | Pass    |

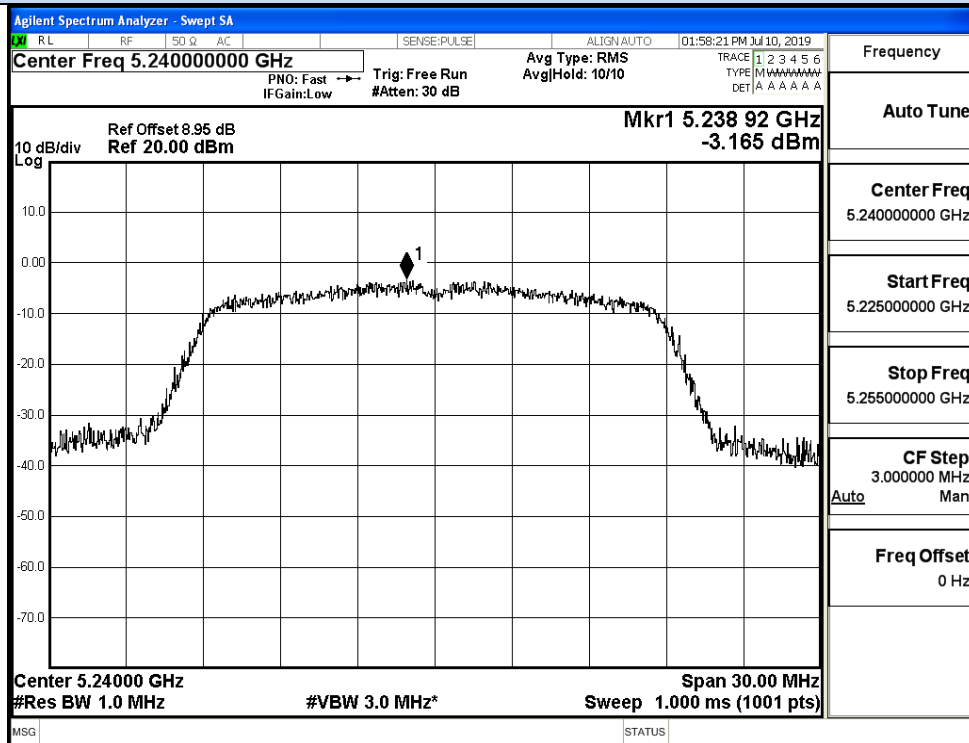
### C.3 Power Spectral Density

| 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            | -1.90                   | 0                      | -1.90                          | 11              | Pass    |
|             | 40      | 5200            | -2.46                   | 0                      | -2.46                          |                 | Pass    |
|             | 48      | 5240            | -3.17                   | 0                      | -3.17                          |                 | Pass    |
| 11N20 SISO  | 36      | 5180            | -1.13                   | 0                      | -1.13                          | 11              | Pass    |
|             | 40      | 5200            | -2.36                   | 0                      | -2.36                          |                 | Pass    |
|             | 48      | 5240            | -3.00                   | 0                      | -3.00                          |                 | Pass    |
| 11N40 SISO  | 38      | 5190            | -4.23                   | 0                      | -4.23                          | 11              | Pass    |
|             | 46      | 5230            | -5.92                   | 0                      | -5.92                          |                 | Pass    |
| 11AC20 SISO | 36      | 5180            | -2.05                   | 0                      | -2.05                          | 11              | Pass    |
|             | 40      | 5200            | -1.83                   | 0                      | -1.83                          |                 | Pass    |
|             | 48      | 5240            | -3.36                   | 0                      | -3.36                          |                 | Pass    |
| 11AC40 SISO | 38      | 5190            | -5.19                   | 0                      | -5.19                          | 11              | Pass    |
|             | 46      | 5230            | -5.66                   | 0                      | -5.66                          |                 | Pass    |
| 11AC80 SISO | 42      | 5210            | -7.89                   | 0                      | -7.89                          | 11              | Pass    |



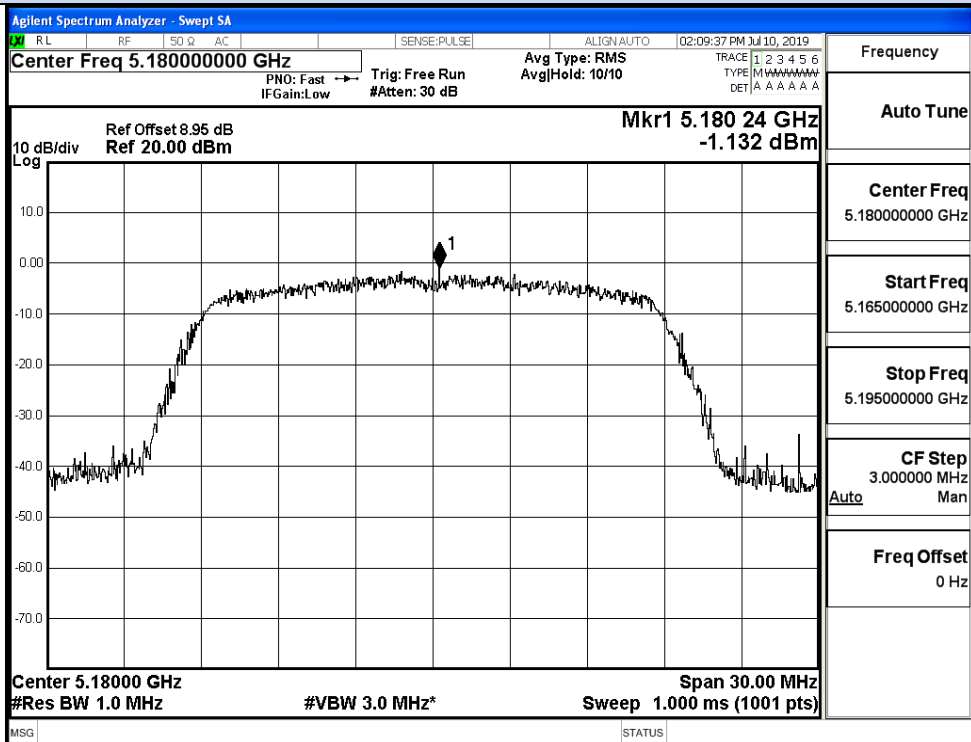


IEEE 802.11na / Channel 40 / 5200MHz

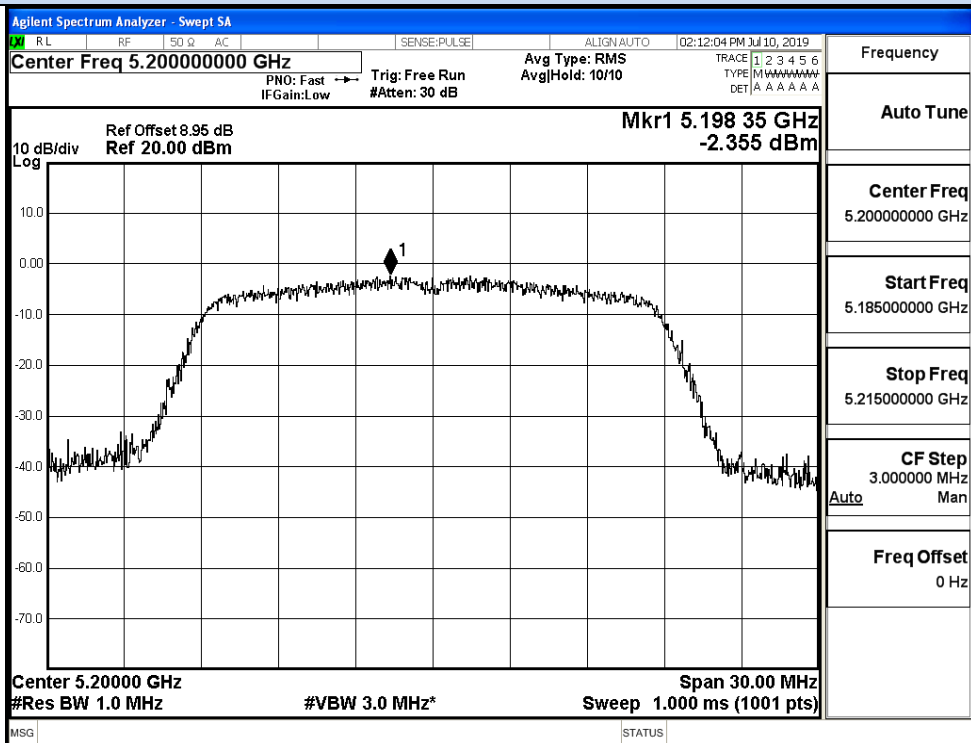


IEEE 802.11na / Channel 48 / 5240MHz

## Power Spectral Density

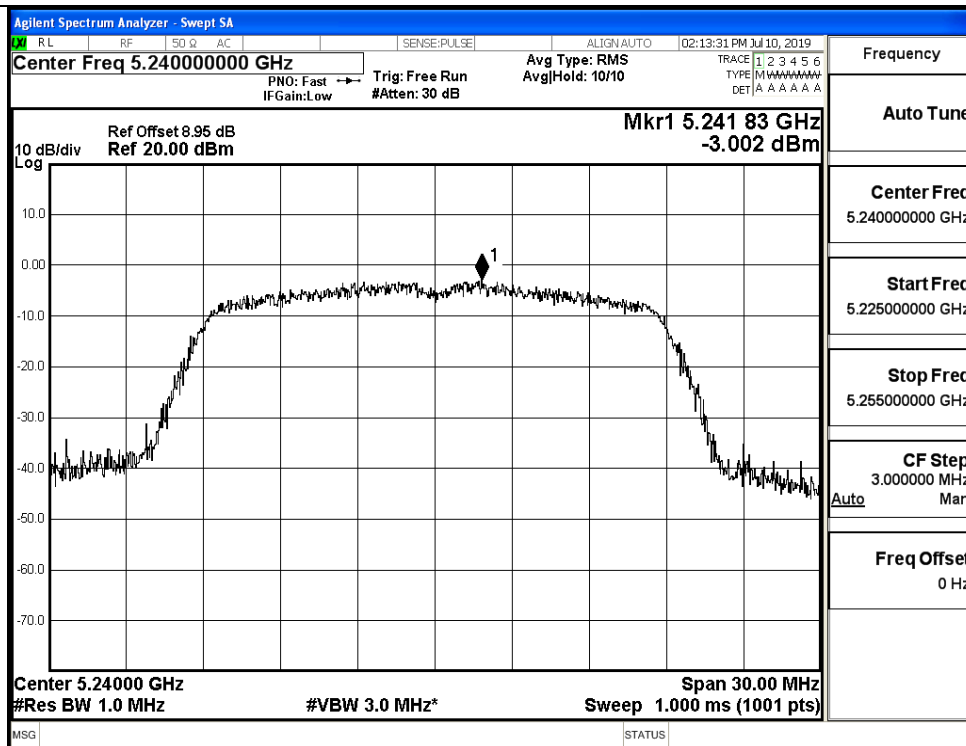


## IEEE 802.11n20 / Channel 36 / 5180MHz



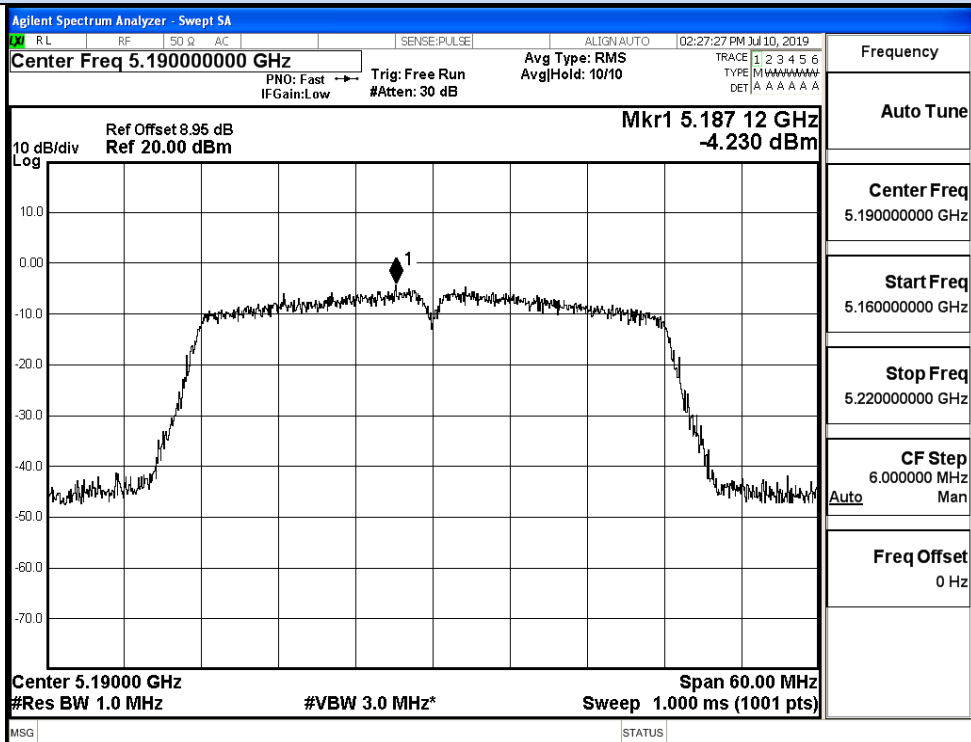
## IEEE 802.11n20 / Channel 40 / 5200MHz



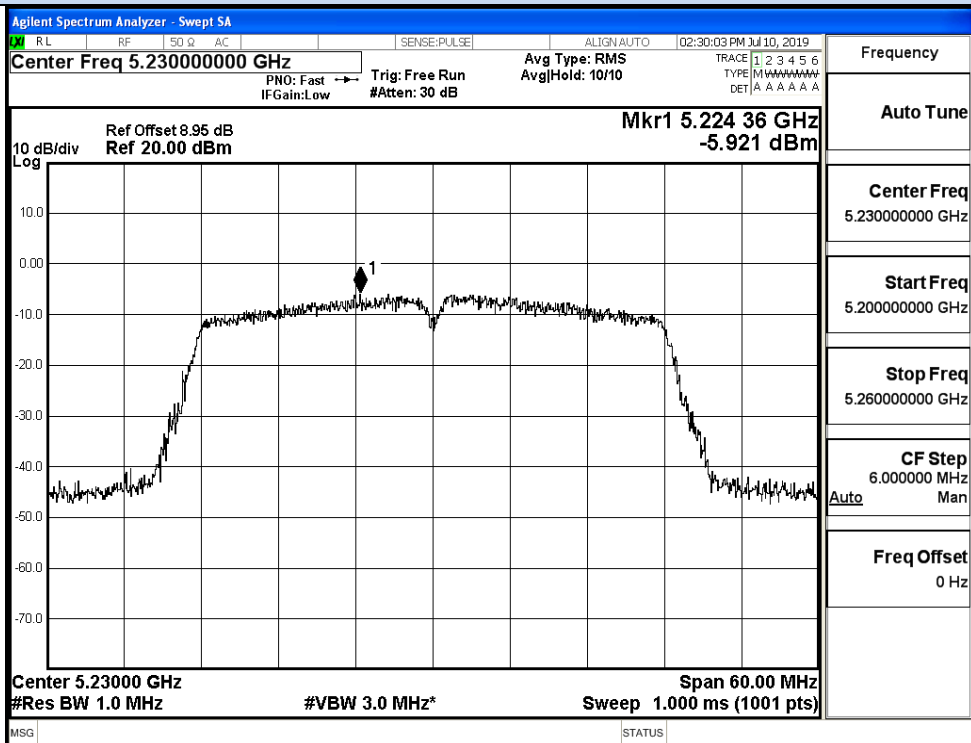


IEEE 802.11n20 / Channel 48 / 5240MHz

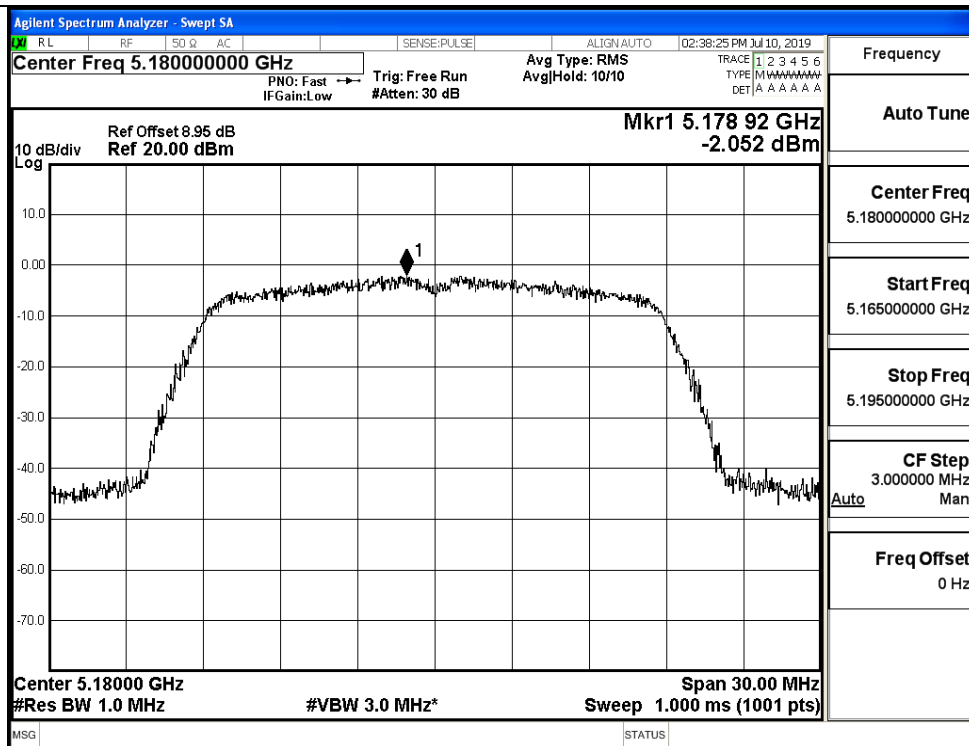
## Power Spectral Density



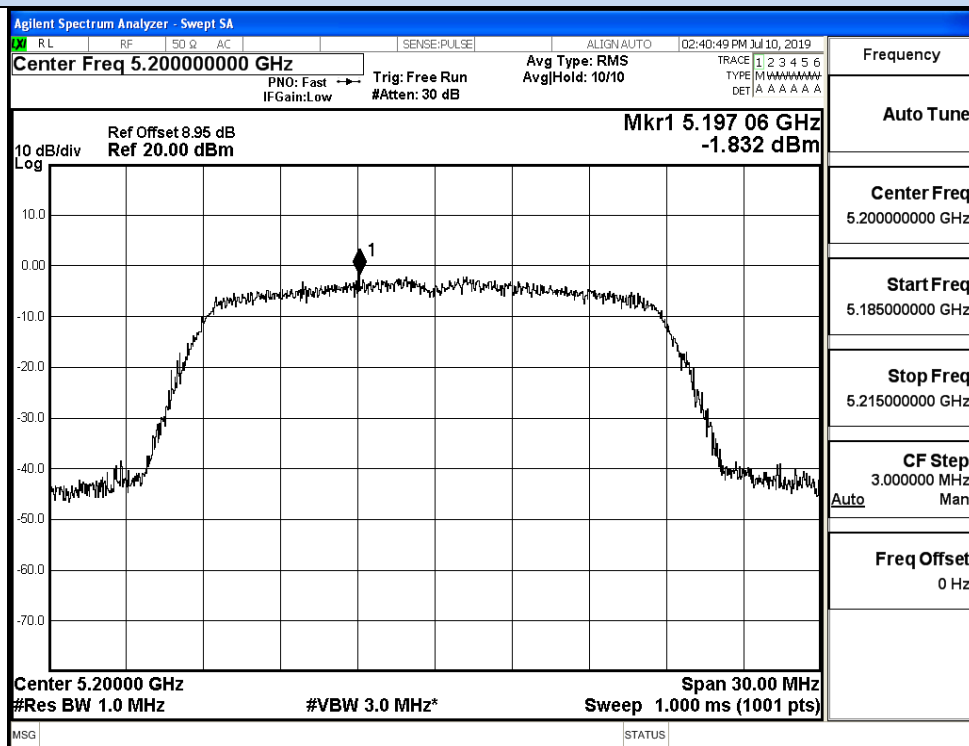
IEEE 802.11n40 / Channel 38 / 5190MHz



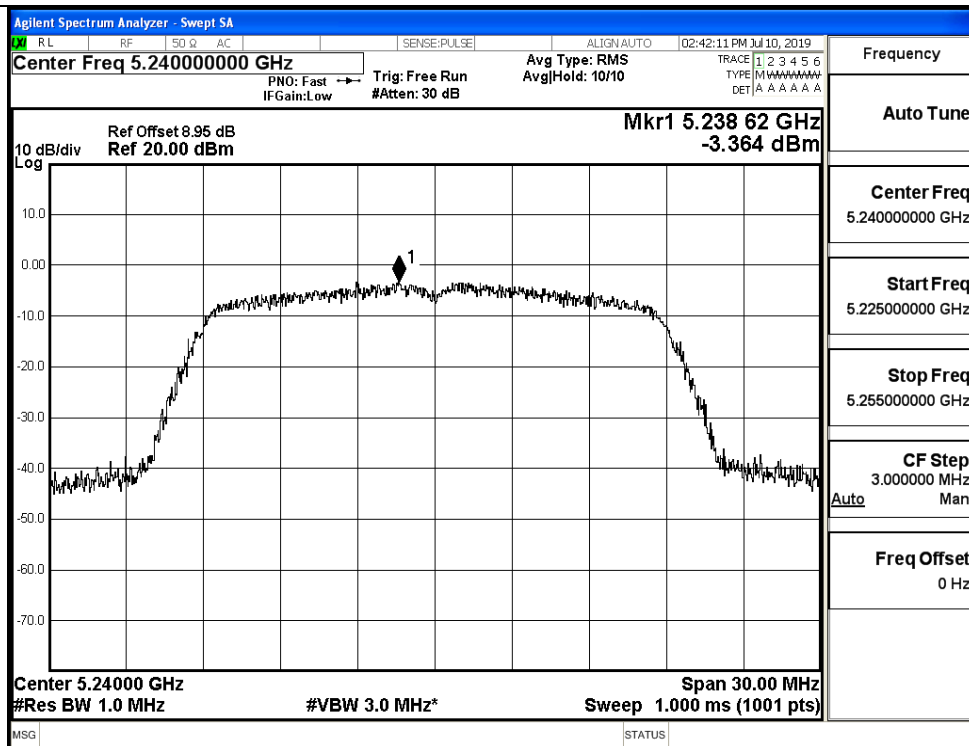
IEEE 802.11n40 / Channel 46 / 5230MHz



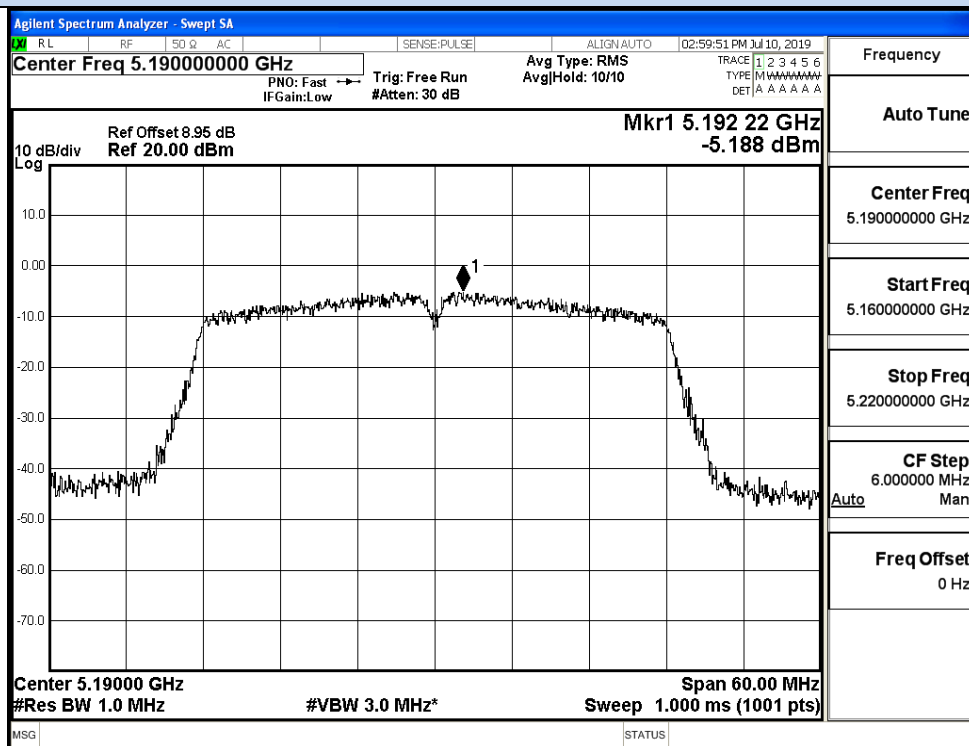
IEEE 802.11ac20 / Channel 36 / 5180MHz



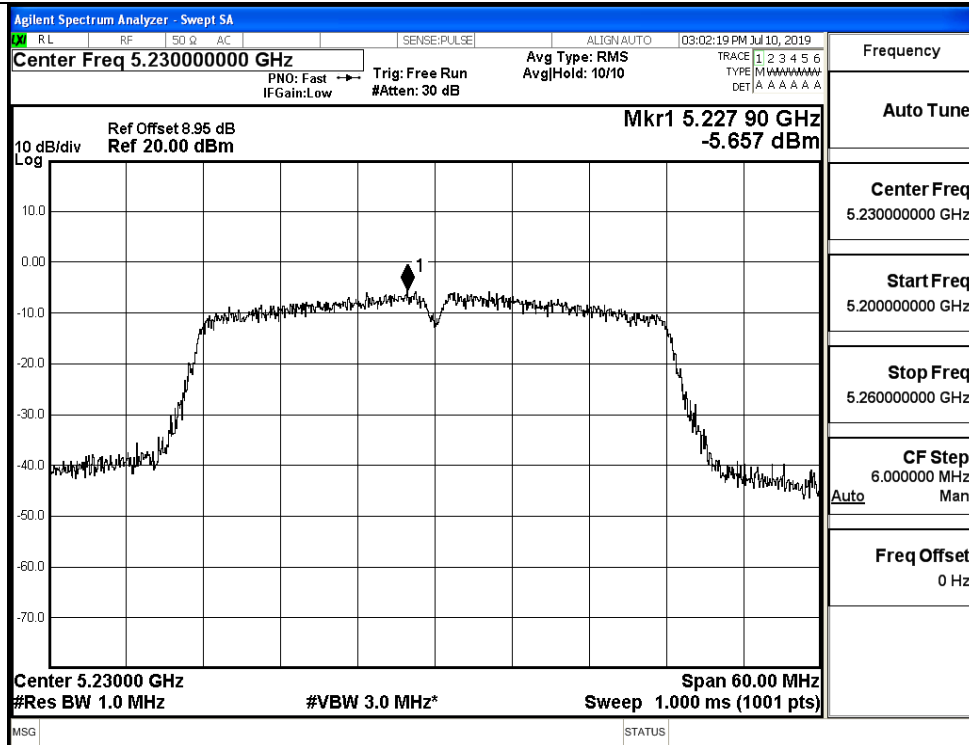
IEEE 802.11ac20 / Channel 40 / 5200MHz



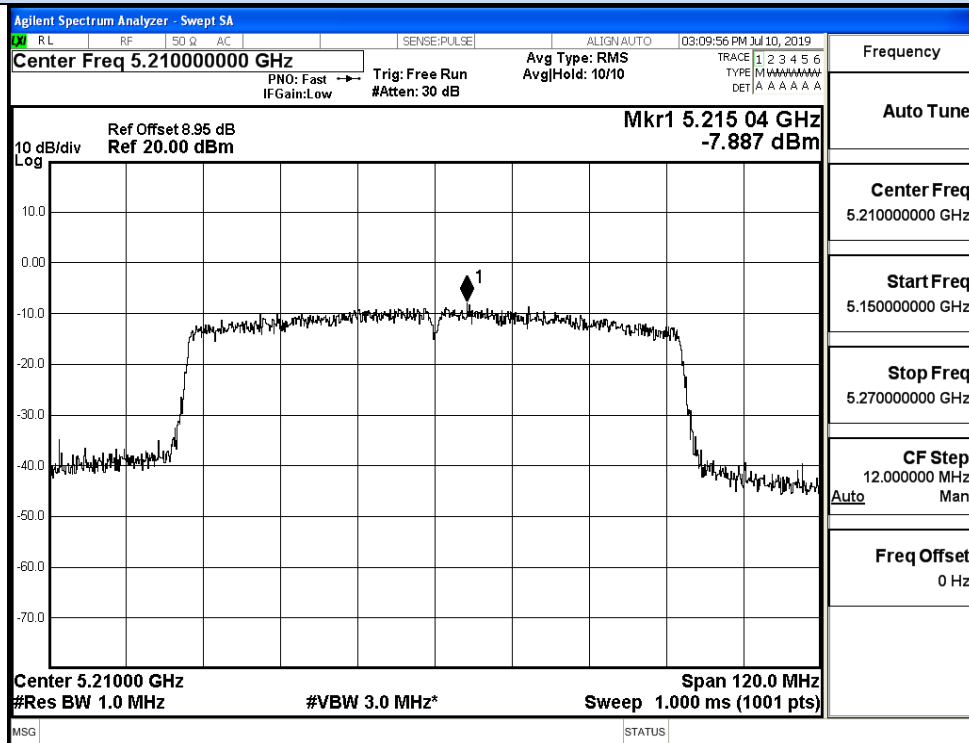
IEEE 802.11ac20 / Channel 48 / 5240MHz



IEEE 802.11ac40 / Channel 38 / 5190MHz



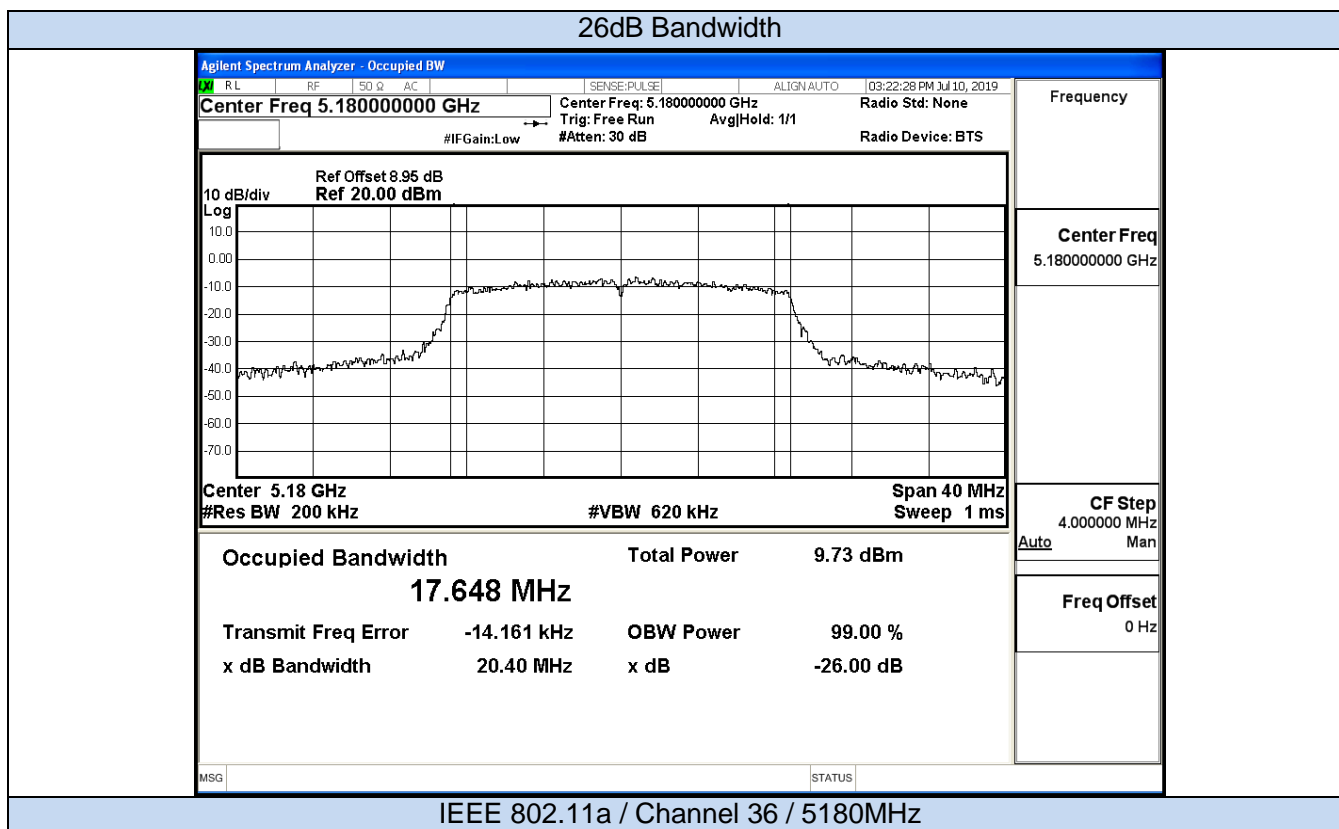
IEEE 802.11ac40 / Channel 46 / 5230MHz

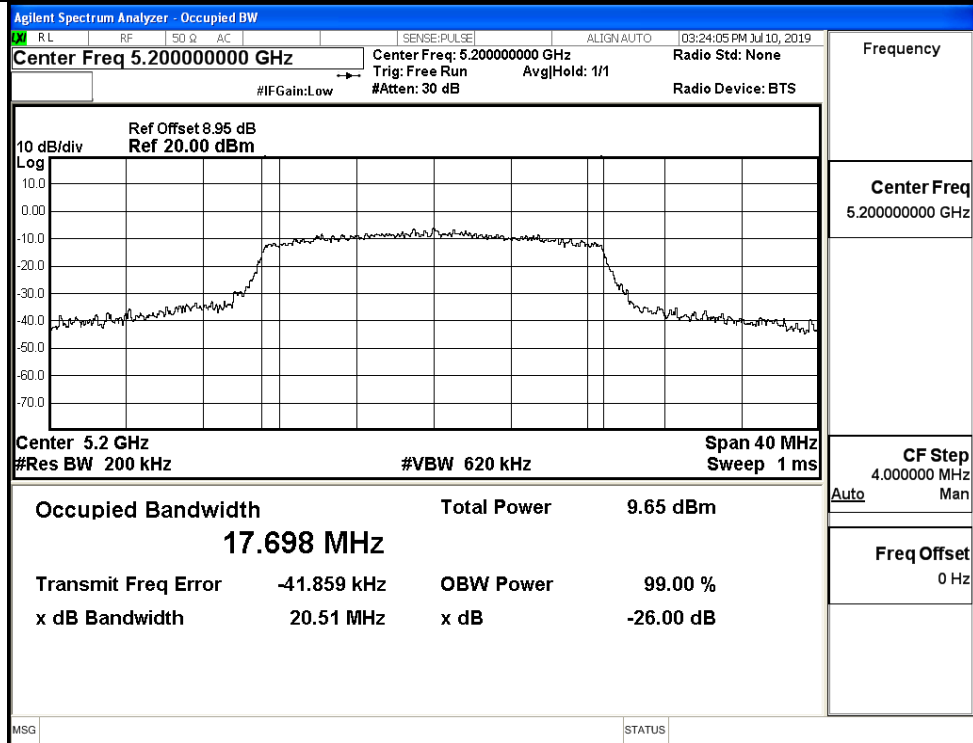


IEEE 802.11ac80 / Channel 42 / 5210MHz

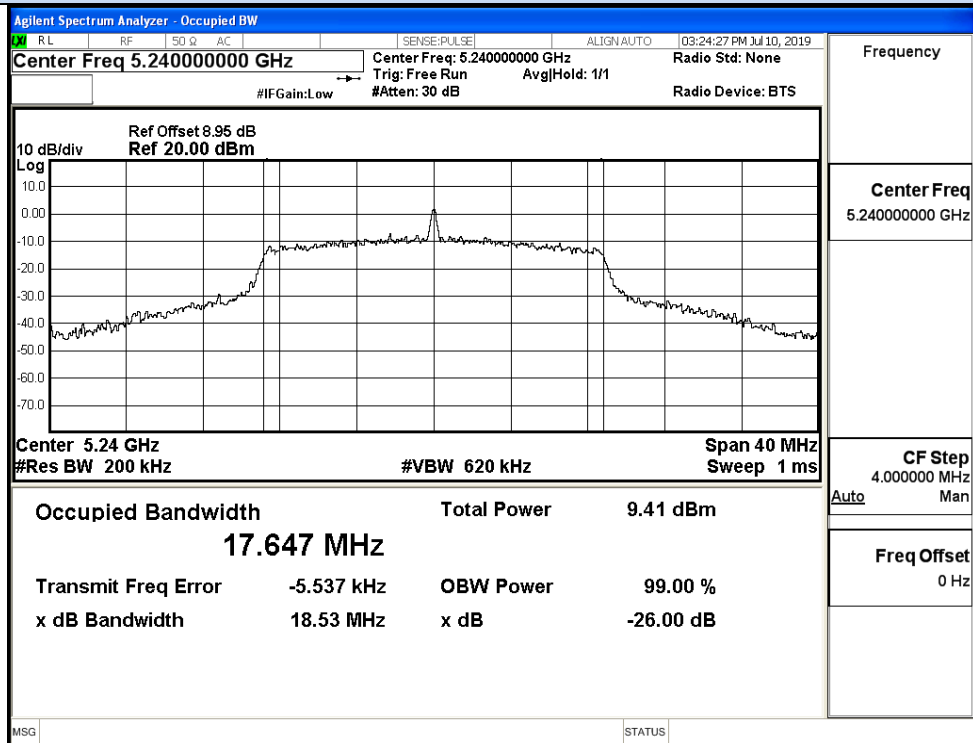
## C.4 Emission Bandwidth

| Test Mode   | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Limit (MHz) | Verdict |
|-------------|---------|-----------------|----------------------|-------------|---------|
| 11A         | 36      | 5180            | 20.40                | No Limit    | Pass    |
|             | 40      | 5200            | 20.51                |             | Pass    |
|             | 48      | 5240            | 18.53                |             | Pass    |
| 11N20 SISO  | 36      | 5180            | 27.41                | No Limit    | Pass    |
|             | 40      | 5200            | 23.15                |             | Pass    |
|             | 48      | 5240            | 23.94                |             | Pass    |
| 11N40 SISO  | 38      | 5190            | 49.69                | No Limit    | Pass    |
|             | 46      | 5230            | 50.60                |             | Pass    |
| 11AC20 SISO | 36      | 5180            | 24.91                | No Limi     | Pass    |
|             | 40      | 5200            | 22.66                |             | Pass    |
|             | 48      | 5240            | 25.73                |             | Pass    |
| 11AC40 SISO | 38      | 5190            | 50.99                | No Limi     | Pass    |
|             | 46      | 5230            | 52.83                |             | Pass    |
| 11AC80 SISO | 42      | 5210            | 80.41                | No Limi     | Pass    |



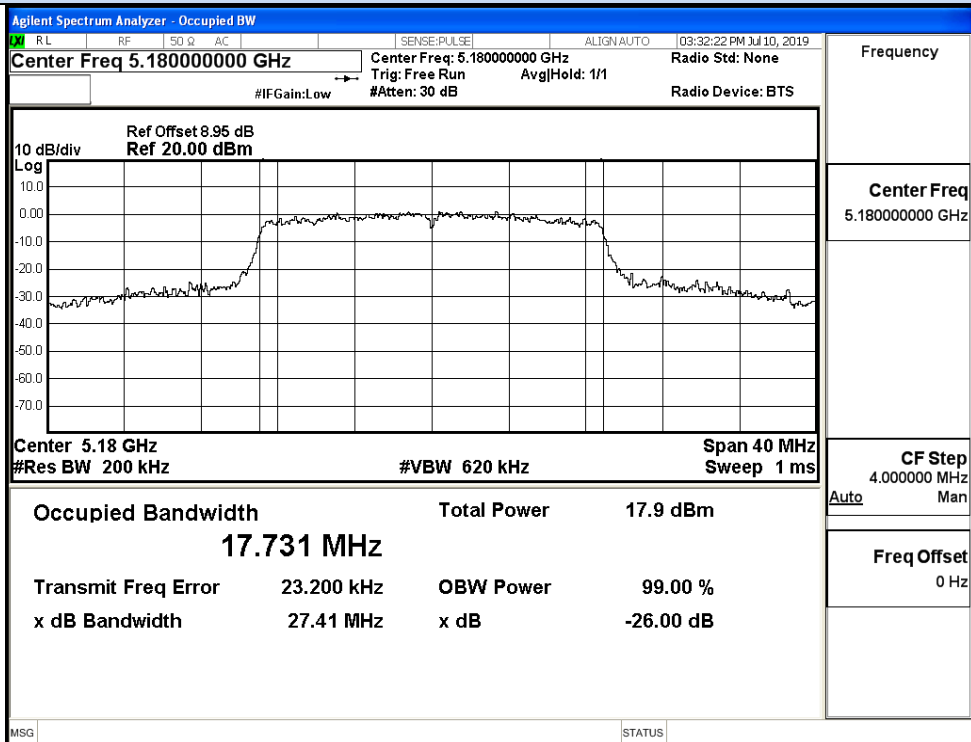


IEEE 802.11a / Channel 40 / 5200MHz

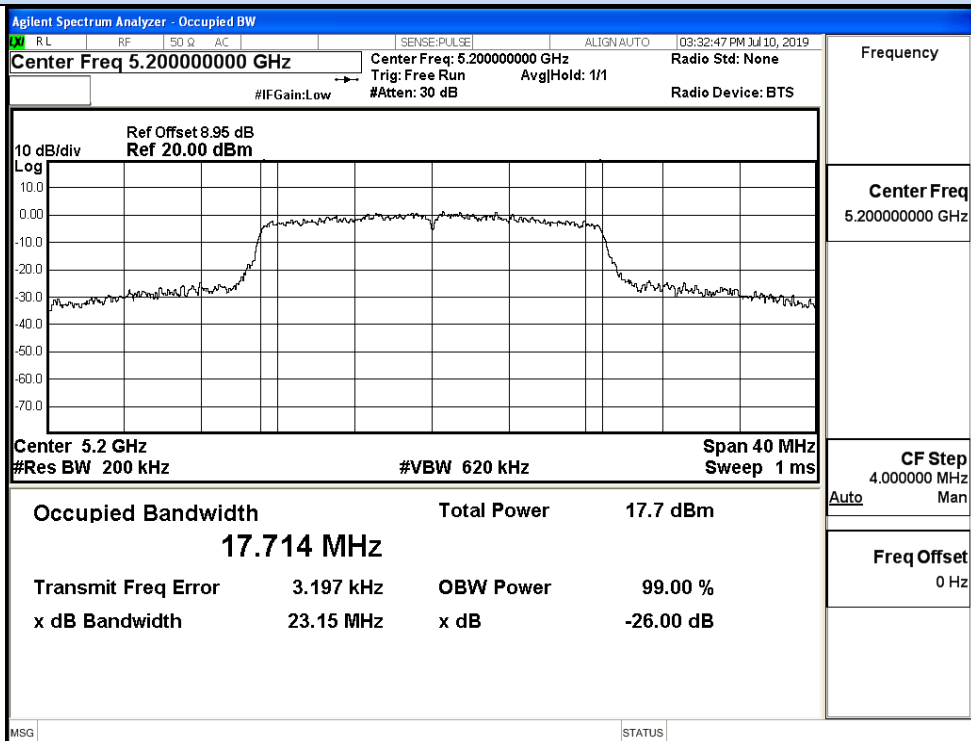


IEEE 802.11a / Channel 48 / 5240MHz

## 26dB Bandwidth

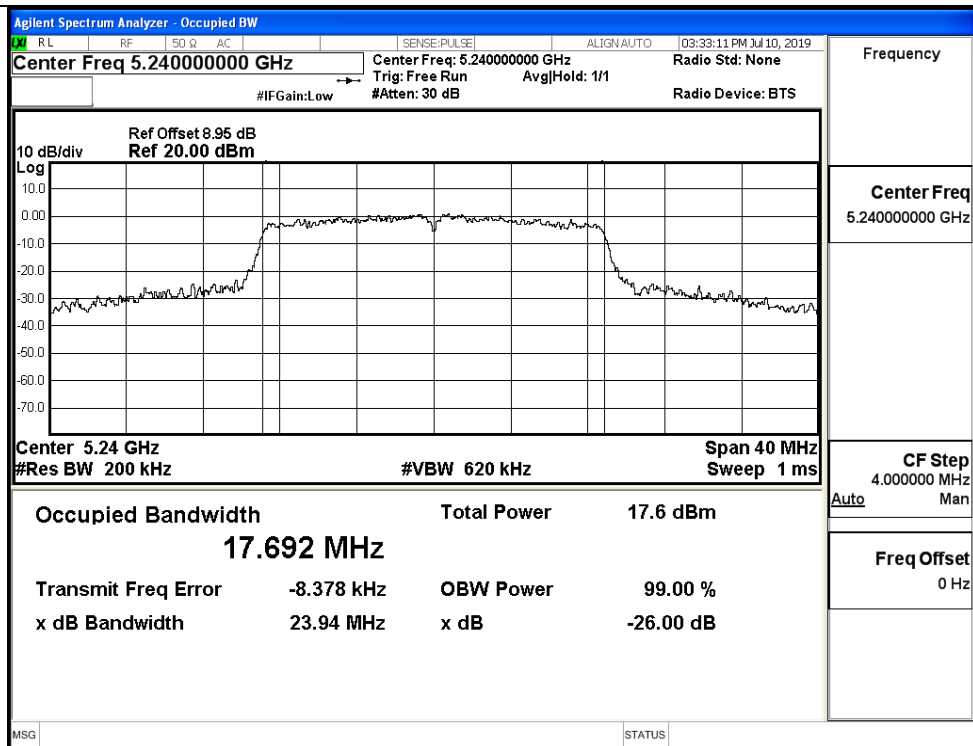


## IEEE 802.11n20 / Channel 36 / 5180MHz



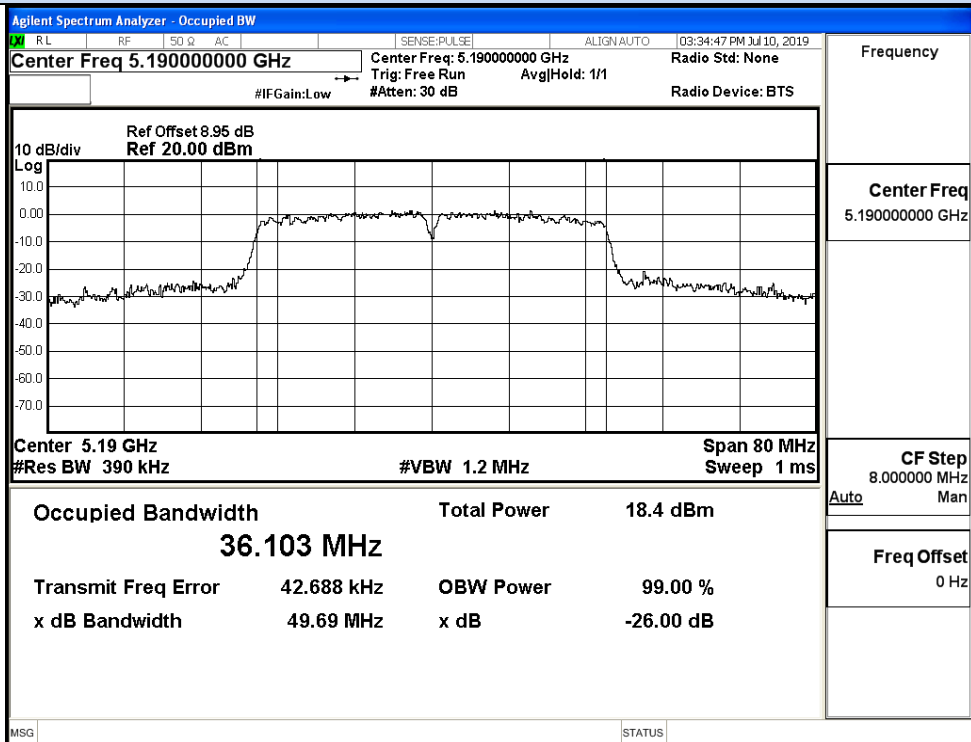
## IEEE 802.11n20 / Channel 40 / 5200MHz



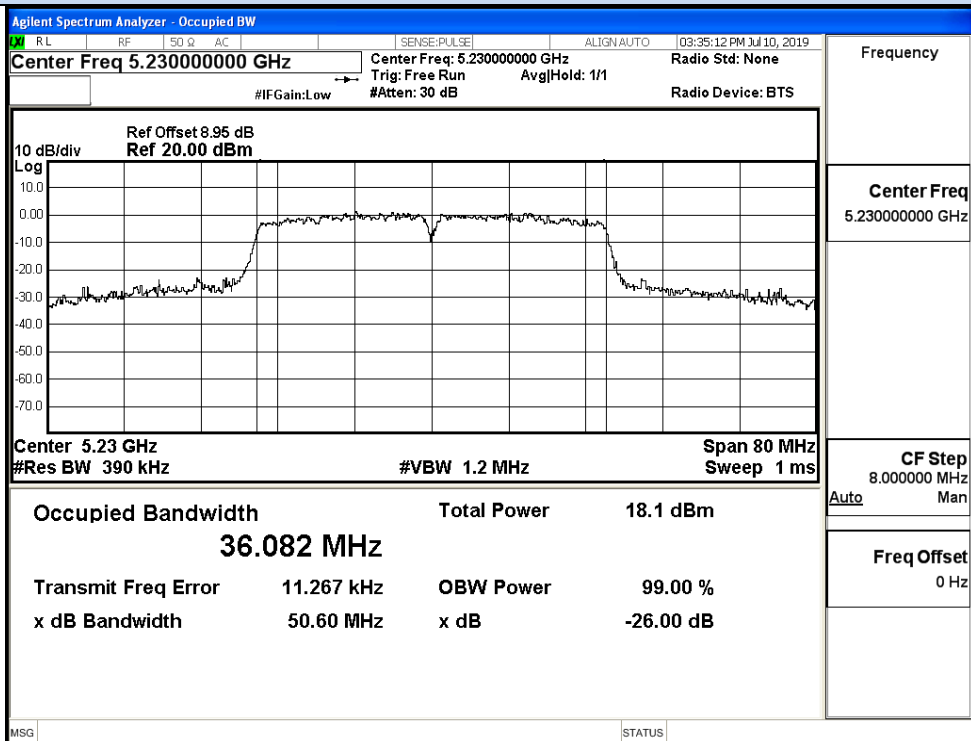


IEEE 802.11n20 / Channel 48 / 5240MHz

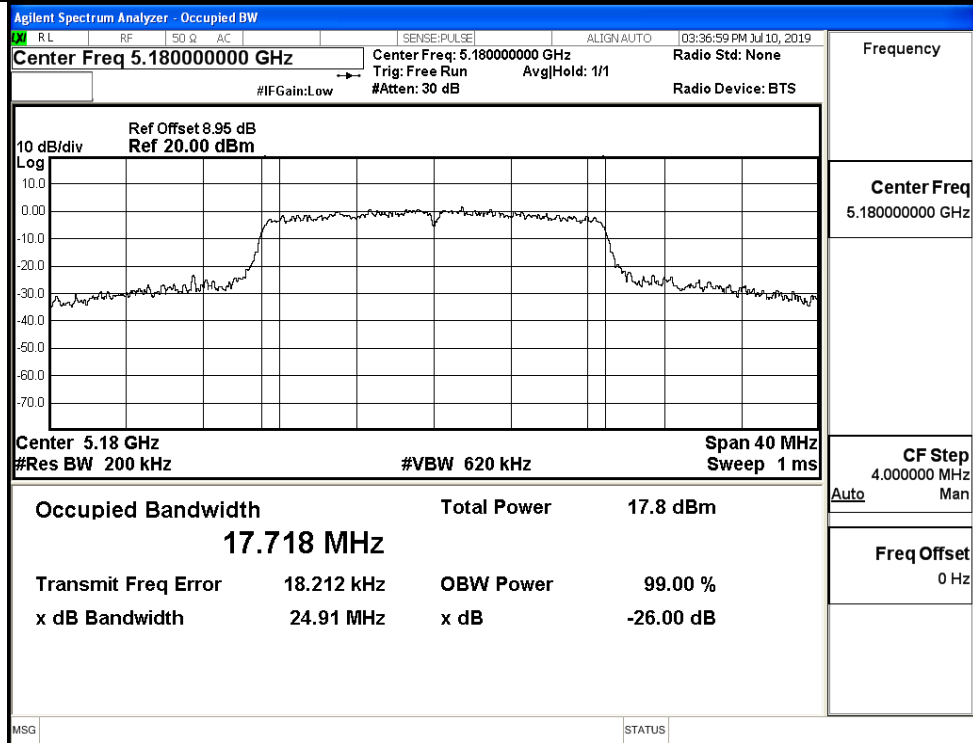
### 26dB Bandwidth



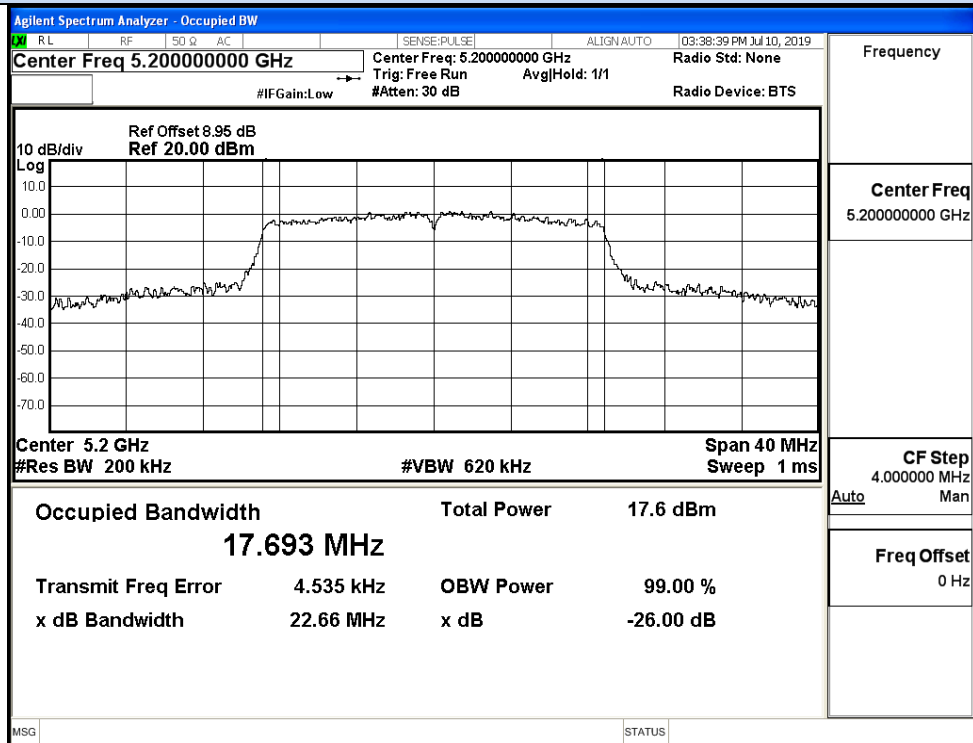
### IEEE 802.11n40 / Channel 38 / 5190MHz



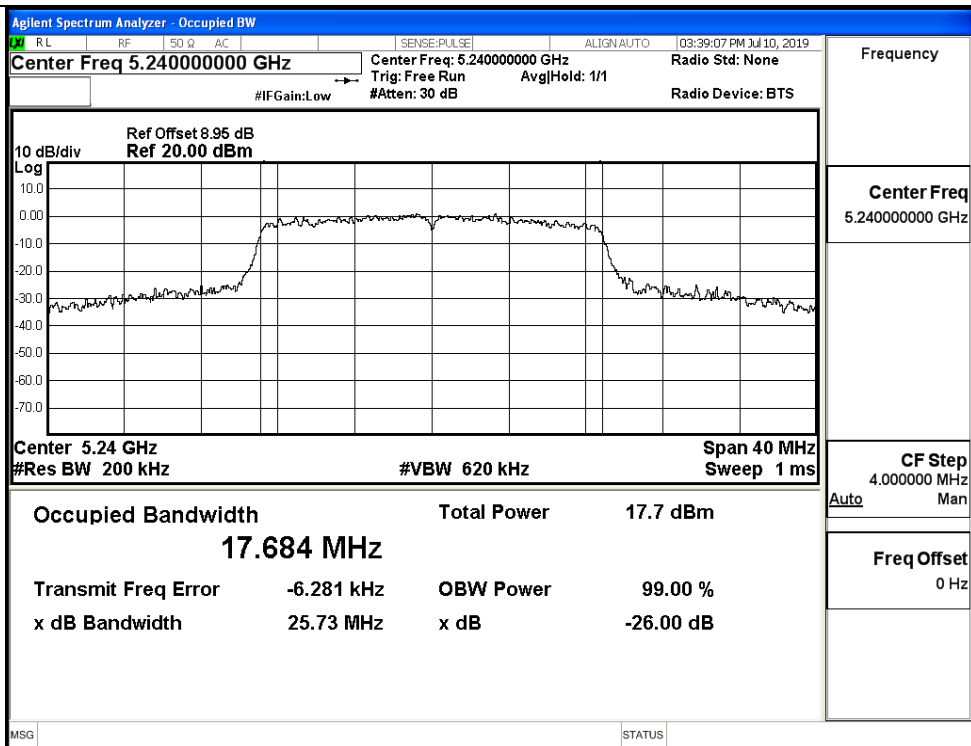
### IEEE 802.11n40 / Channel 46 / 5230MHz



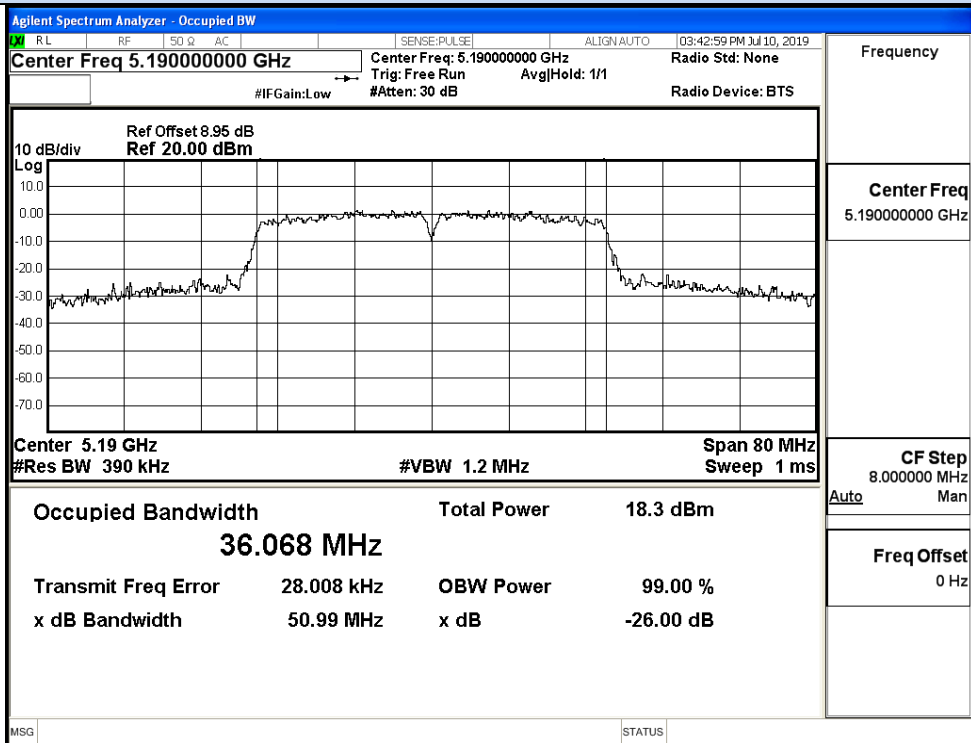
IEEE 802.11ac20 / Channel 36 / 5180MHz



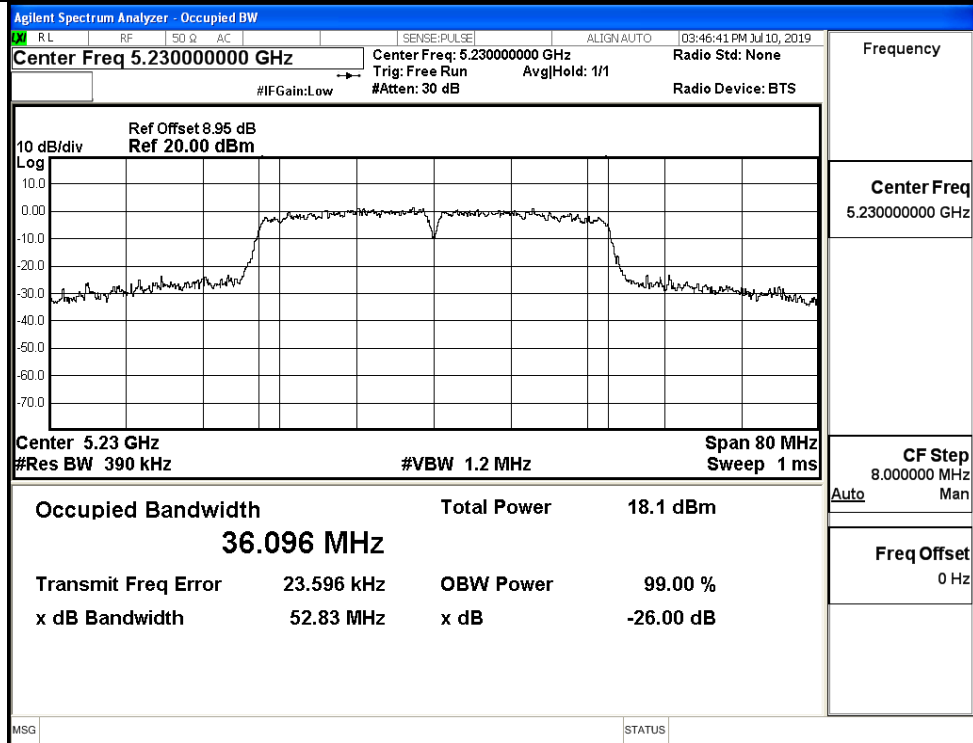
IEEE 802.11ac20 / Channel 40 / 5200MHz



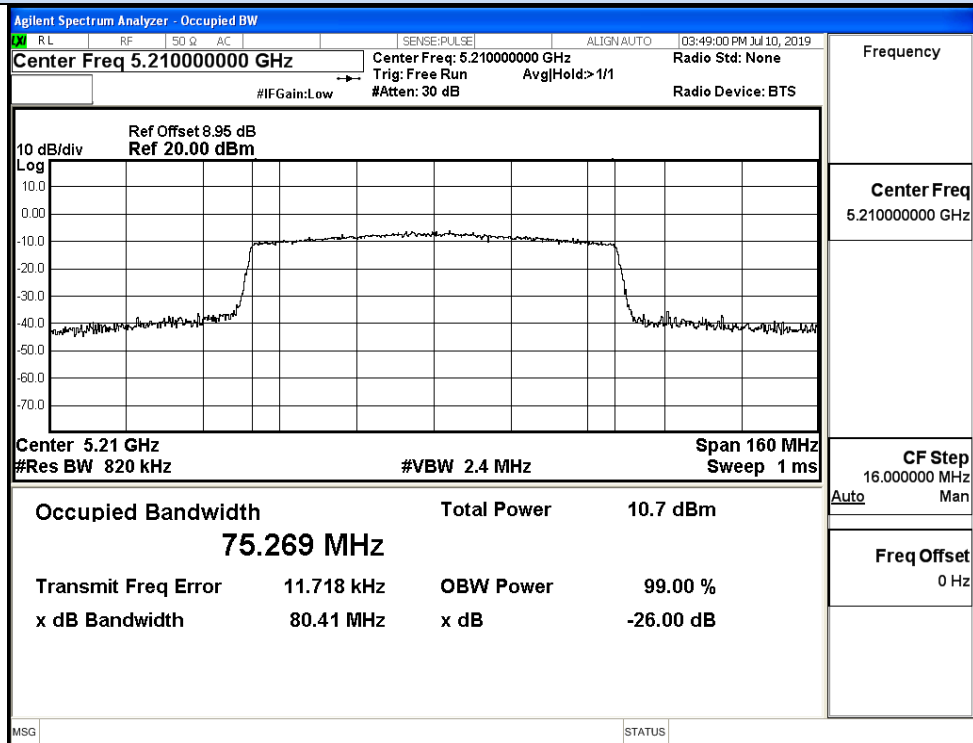
IEEE 802.11ac20 / Channel 48 / 5240MHz



IEEE 802.11ac40 / Channel 38 / 5190MHz



IEEE 802.11ac40 / Channel 46 / 5230MHz

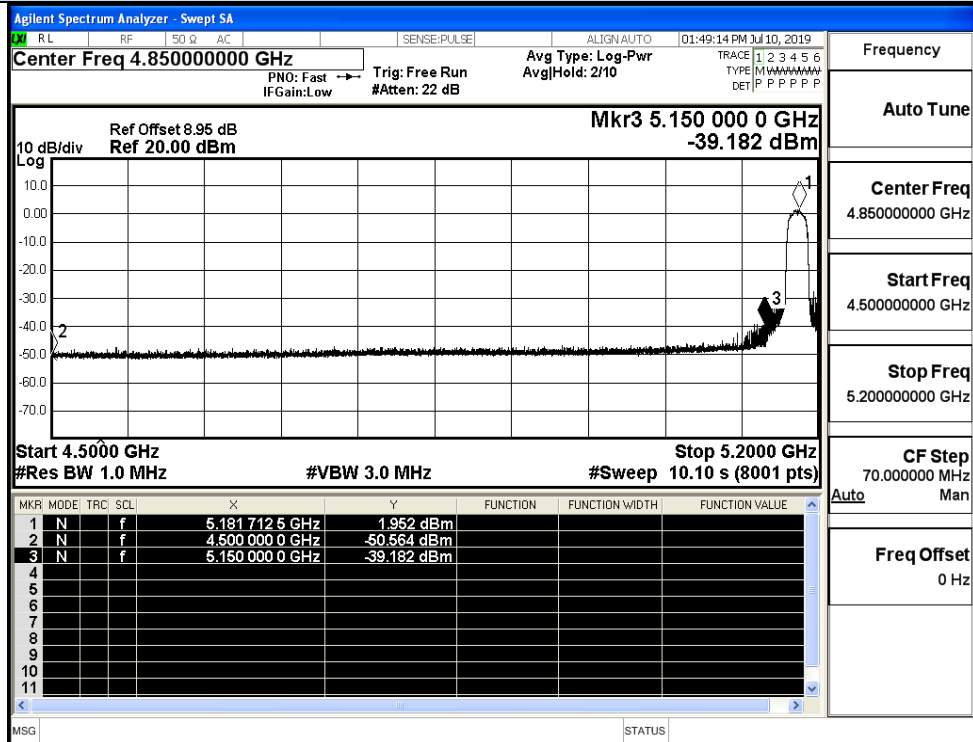


IEEE 802.11ac80 / Channel 42 / 5210MHz

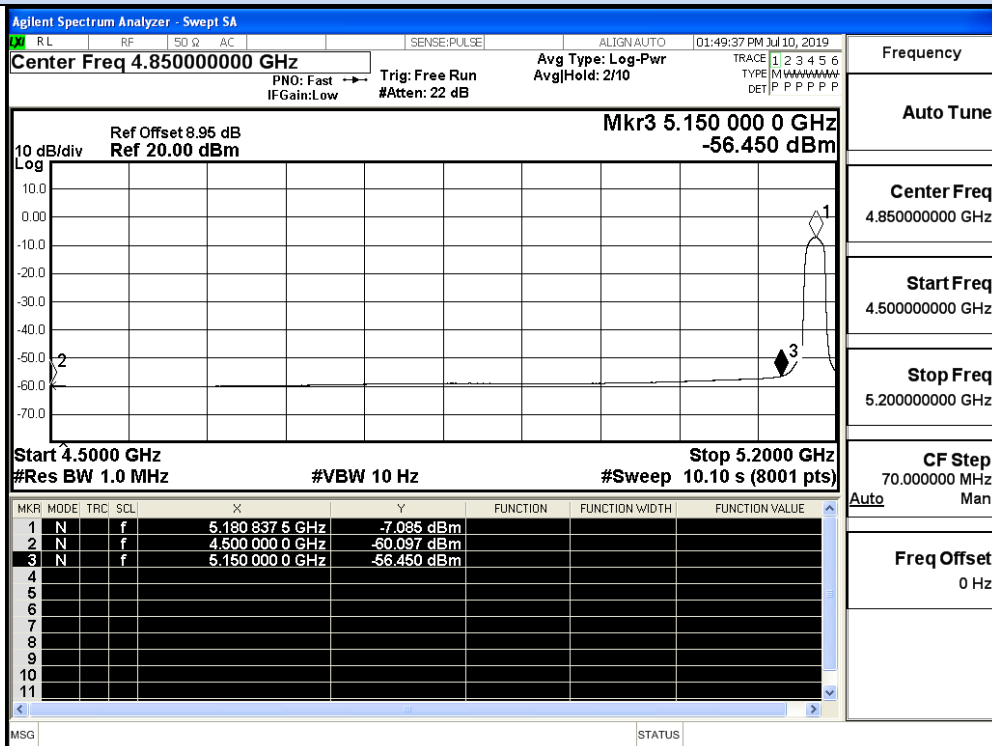
## C.5 Undesirable Emissions Measurement

| 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          | -50.56                | 3.00               | 0                             | 47.7                                   | Peak     | 68.20          | Pass    |
|                    |         | 4500.0          | -60.10                | 3.00               | 0                             | 38.16                                  | Average  | 54.00          | Pass    |
|                    |         | 5150.0          | -39.18                | 3.00               | 0                             | 59.08                                  | Peak     | 68.20          | Pass    |
|                    |         | 5150.0          | -56.45                | 3.00               | 0                             | 41.81                                  | Average  | 54.00          | Pass    |
|                    | 48      | 5350.0          | -49.16                | 3.00               | 0                             | 49.1                                   | Peak     | 68.20          | Pass    |
|                    |         | 5350.0          | -59.83                | 3.00               | 0                             | 38.43                                  | Average  | 54.00          | Pass    |
|                    |         | 5460.0          | -49.86                | 3.00               | 0                             | 48.4                                   | Peak     | 68.20          | Pass    |
|                    |         | 5460.0          | -60.38                | 3.00               | 0                             | 37.88                                  | Average  | 54.00          | Pass    |
| 11N2<br>0<br>SISO  | 36      | 4500.0          | -50.38                | 3.00               | 0                             | 47.88                                  | Peak     | 68.20          | Pass    |
|                    |         | 4500.0          | -60.06                | 3.00               | 0                             | 38.2                                   | Average  | 54.00          | Pass    |
|                    |         | 5150.0          | -37.99                | 3.00               | 0                             | 60.27                                  | Peak     | 68.20          | Pass    |
|                    |         | 5150.0          | -56.56                | 3.00               | 0                             | 41.7                                   | Average  | 54.00          | Pass    |
|                    | 48      | 5350.0          | -48.51                | 3.00               | 0                             | 49.75                                  | Peak     | 68.20          | Pass    |
|                    |         | 5350.0          | -59.61                | 3.00               | 0                             | 38.65                                  | Average  | 54.00          | Pass    |
|                    |         | 5460.0          | -48.61                | 3.00               | 0                             | 49.65                                  | Peak     | 68.20          | Pass    |
|                    |         | 5460.0          | -60.26                | 3.00               | 0                             | 38.0                                   | Average  | 54.00          | Pass    |
| 11N4<br>0<br>SISO  | 38      | 4500.0          | -50.67                | 3.00               | 0                             | 47.59                                  | Peak     | 68.20          | Pass    |
|                    |         | 4500.0          | -60.10                | 3.00               | 0                             | 38.16                                  | Average  | 54.00          | Pass    |
|                    |         | 5150.0          | -44.40                | 3.00               | 0                             | 53.86                                  | Peak     | 68.20          | Pass    |
|                    |         | 5150.0          | -56.19                | 3.00               | 0                             | 42.07                                  | Average  | 54.00          | Pass    |
|                    | 46      | 5350.0          | -49.12                | 3.00               | 0                             | 49.14                                  | Peak     | 68.20          | Pass    |
|                    |         | 5350.0          | -59.29                | 3.00               | 0                             | 38.97                                  | Average  | 54.00          | Pass    |
|                    |         | 5460.0          | -47.99                | 3.00               | 0                             | 50.27                                  | Peak     | 68.20          | Pass    |
|                    |         | 5460.0          | -59.99                | 3.00               | 0                             | 38.27                                  | Average  | 54.00          | Pass    |
| 11A<br>C20<br>SISO | 36      | 4500.0          | -50.21                | 3.00               | 0                             | 48.05                                  | Peak     | 68.20          | Pass    |
|                    |         | 4500.0          | -60.07                | 3.00               | 0                             | 38.19                                  | Average  | 54.00          | Pass    |
|                    |         | 5150.0          | -47.23                | 3.00               | 0                             | 51.03                                  | Peak     | 68.20          | Pass    |
|                    |         | 5150.0          | -56.75                | 3.00               | 0                             | 41.51                                  | Average  | 54.00          | Pass    |
|                    | 48      | 4500.0          | -50.21                | 3.00               | 0                             | 48.05                                  | Peak     | 68.20          | Pass    |
|                    |         | 4500.0          | -60.07                | 3.00               | 0                             | 38.19                                  | Average  | 54.00          | Pass    |
|                    |         | 5150.0          | -47.23                | 3.00               | 0                             | 51.03                                  | Peak     | 68.20          | Pass    |
|                    |         | 5150.0          | -56.75                | 3.00               | 0                             | 41.51                                  | Average  | 54.00          | Pass    |
| 11A<br>C40<br>SISO | 38      | 4500.0          | -50.56                | 3.00               | 0                             | 47.7                                   | Peak     | 68.20          | Pass    |
|                    |         | 4500.0          | -60.08                | 3.00               | 0                             | 38.18                                  | Average  | 54.00          | Pass    |
|                    |         | 5150.0          | -30.39                | 3.00               | 0                             | 67.87                                  | Peak     | 68.20          | Pass    |
|                    |         | 5150.0          | -45.12                | 3.00               | 0                             | 53.14                                  | Average  | 54.00          | Pass    |
|                    | 46      | 5350.0          | -50.03                | 3.00               | 0                             | 48.23                                  | Peak     | 68.20          | Pass    |
|                    |         | 5350.0          | -59.30                | 3.00               | 0                             | 38.96                                  | Average  | 54.00          | Pass    |
|                    |         | 5460.0          | -49.05                | 3.00               | 0                             | 49.21                                  | Peak     | 68.20          | Pass    |
|                    |         | 5460.0          | -59.98                | 3.00               | 0                             | 38.28                                  | Average  | 54.00          | Pass    |
| 11A<br>C80<br>SISO | 42      | 4500.0          | -49.35                | 3.00               | 0                             | 48.91                                  | Peak     | 68.20          | Pass    |
|                    |         | 5150.0          | -58.45                | 3.00               | 0                             | 39.81                                  | Average  | 54.00          | Pass    |
|                    |         | 4500.0          | -50.71                | 3.00               | 0                             | 47.55                                  | Peak     | 68.20          | Pass    |
|                    |         | 5150.0          | -59.50                | 3.00               | 0                             | 38.76                                  | Average  | 54.00          | Pass    |
|                    |         | 5350.0          | -49.35                | 3.00               | 0                             | 48.91                                  | Peak     | 68.20          | Pass    |
|                    |         | 5460.0          | -58.45                | 3.00               | 0                             | 39.81                                  | Average  | 54.00          | Pass    |
|                    |         | 5350.0          | -50.71                | 3.00               | 0                             | 47.55                                  | Peak     | 68.20          | Pass    |
|                    |         | 5460.0          | -59.50                | 3.00               | 0                             | 38.76                                  | Average  | 54.00          | Pass    |

### Undesirable Emissions Measurement

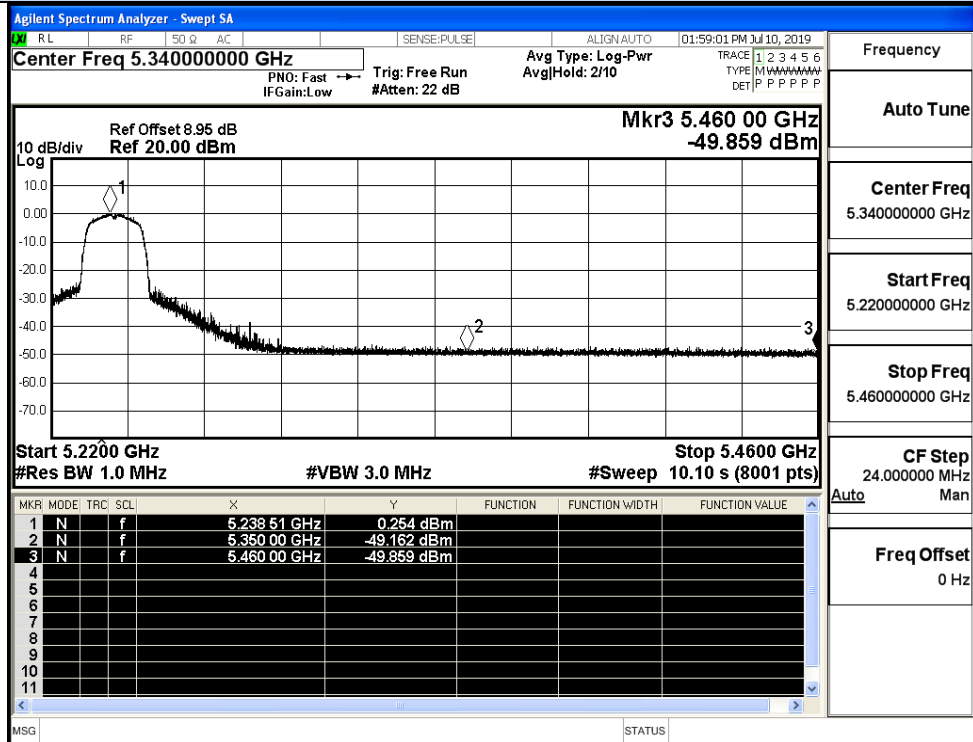


### IEEE 802.11a / Channel 36 / 5180MHz / Peak

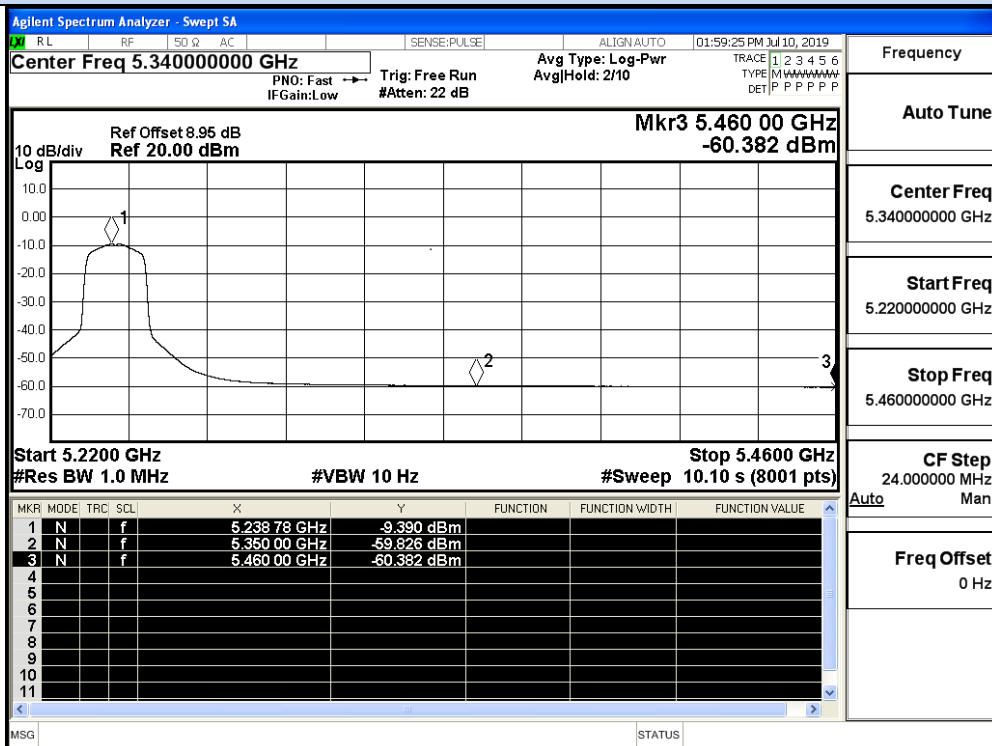


### IEEE 802.11a / Channel 36 / 5180MHz / Average

### Undesirable Emissions Measurement



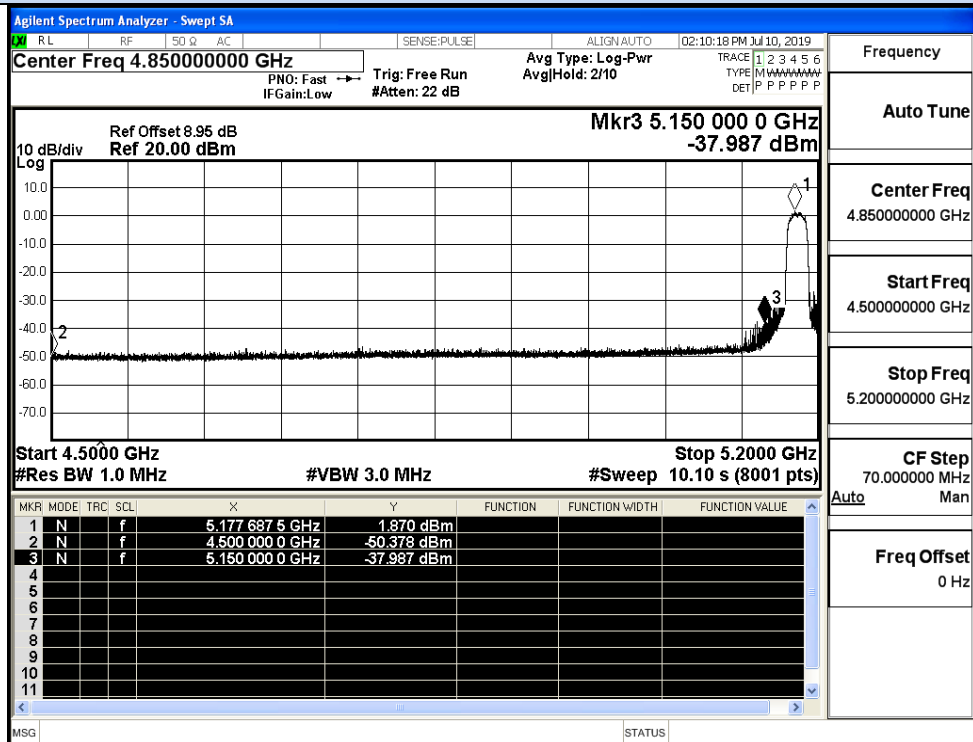
### IEEE 802.11a / Channel 48 / 5240MHz / Peak



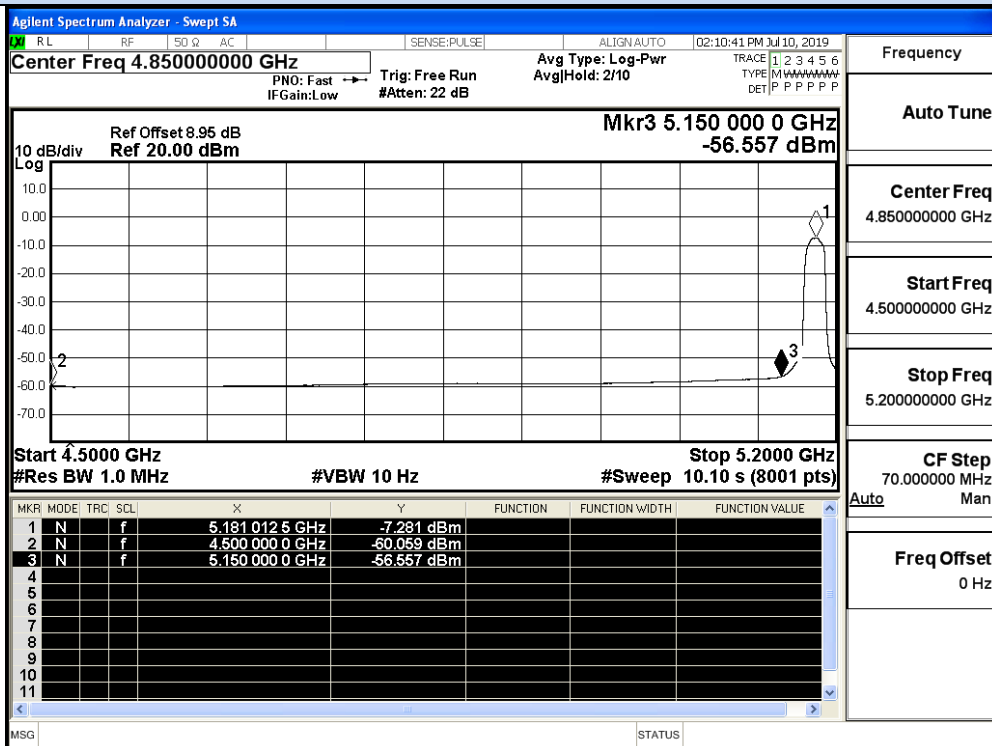
### IEEE 802.11a / Channel 48 / 5240MHz / Average



## Undesirable Emissions Measurement

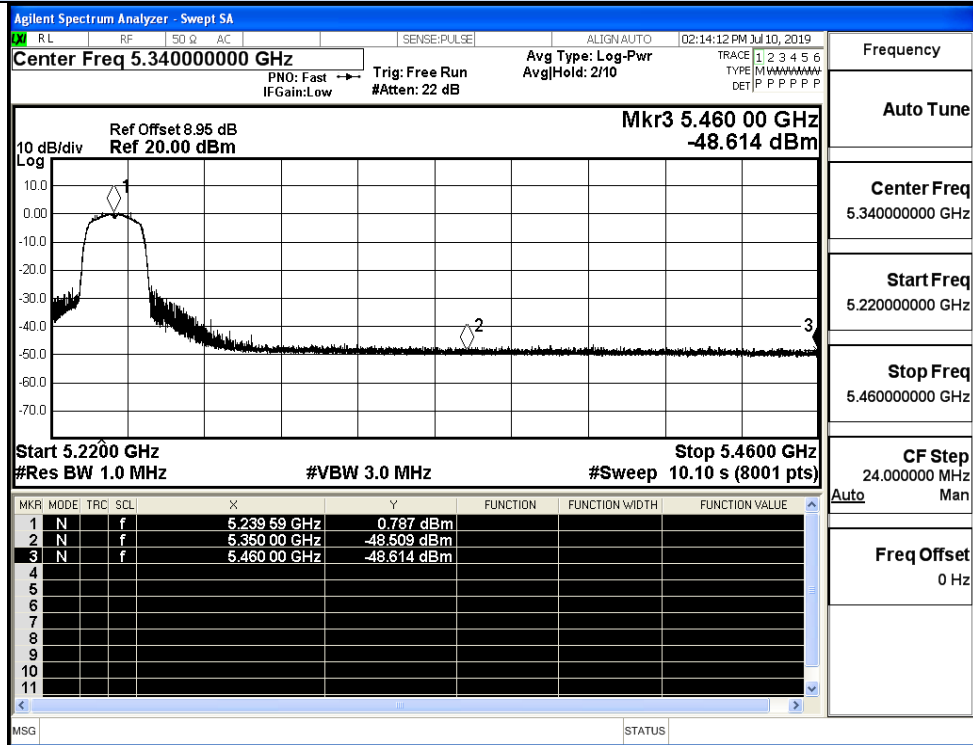


## IEEE 802.11n20 / Channel 36 / 5180MHz / Peak

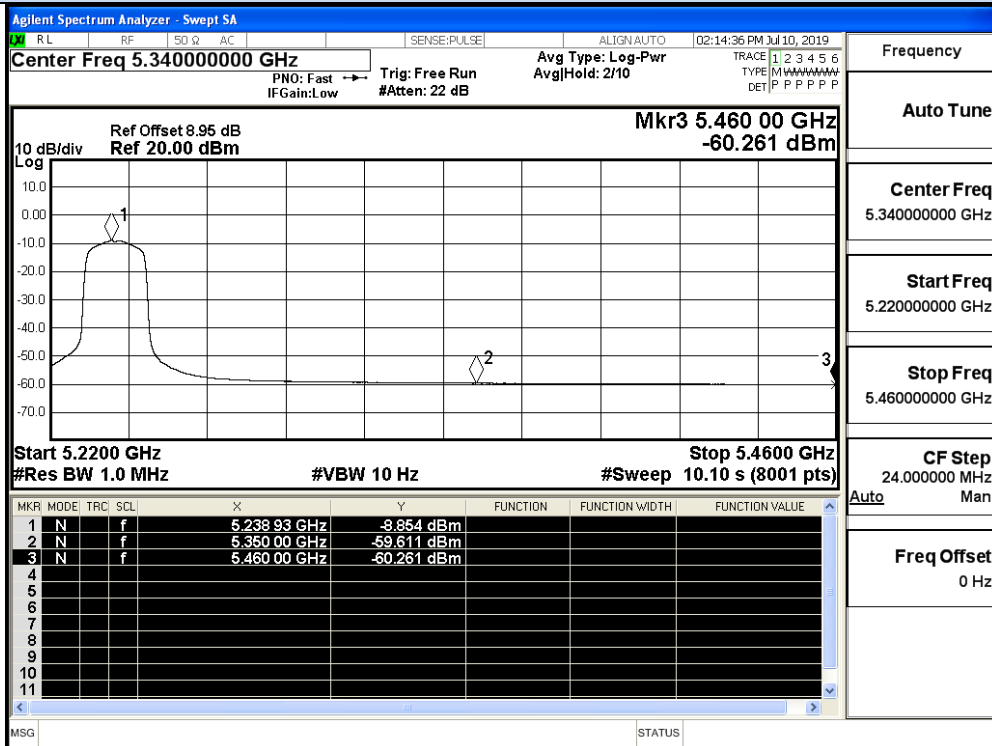


## IEEE 802.11n20 / Channel 36 / 5180MHz / Average

### Undesirable Emissions Measurement

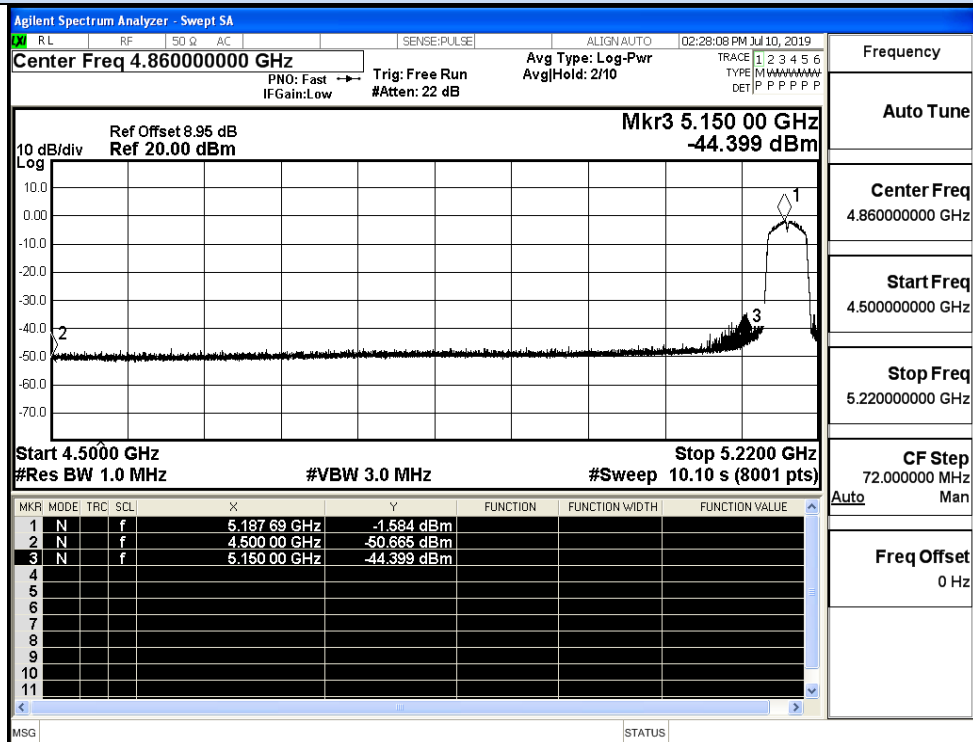


### IEEE 802.11n20 / Channel 48 / 5240MHz / Peak

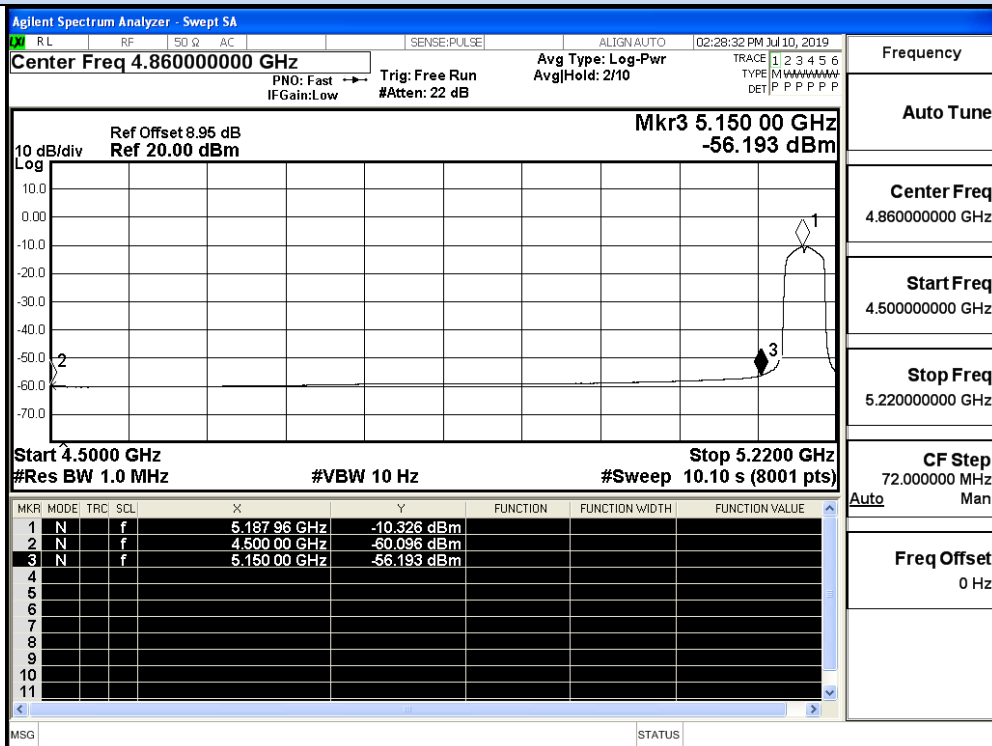


### IEEE 802.11n20 / Channel 48 / 5240MHz / Average

# Undesirable Emissions Measurement

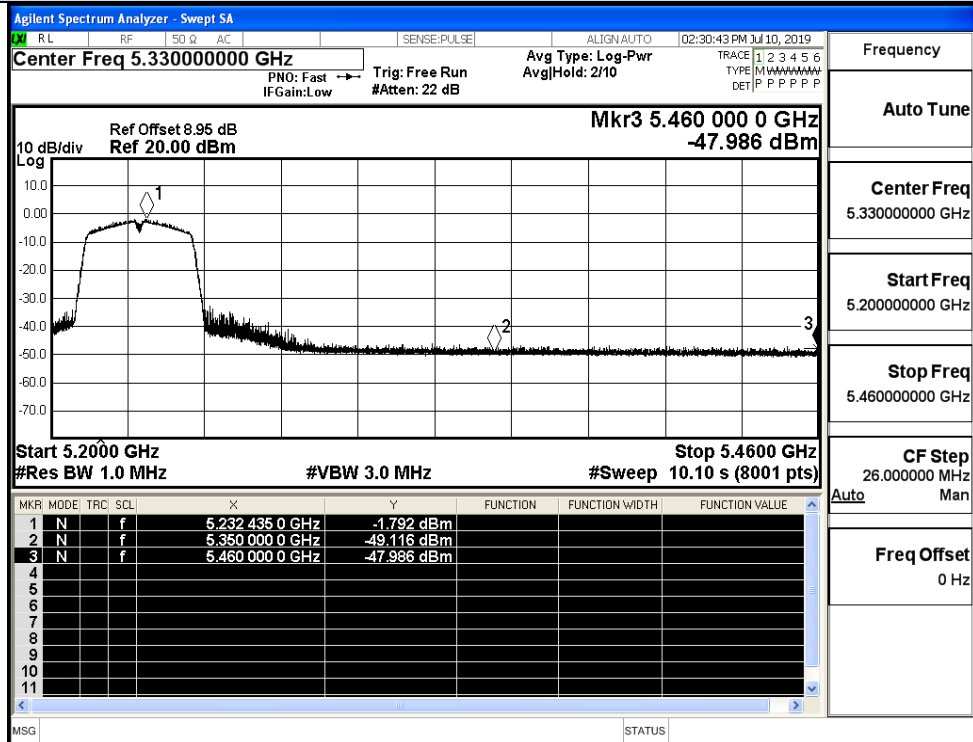


## IEEE 802.11n40 / Channel 38 / 5190MHz / Peak

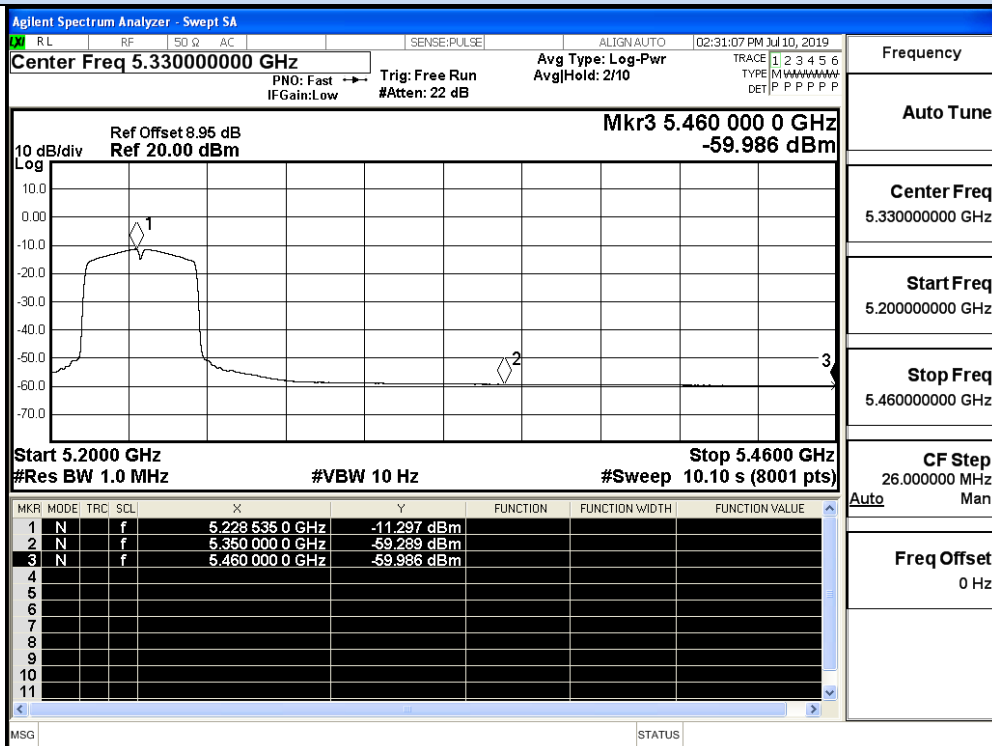


## IEEE 802.11n40 / Channel 38 / 5190MHz / Average

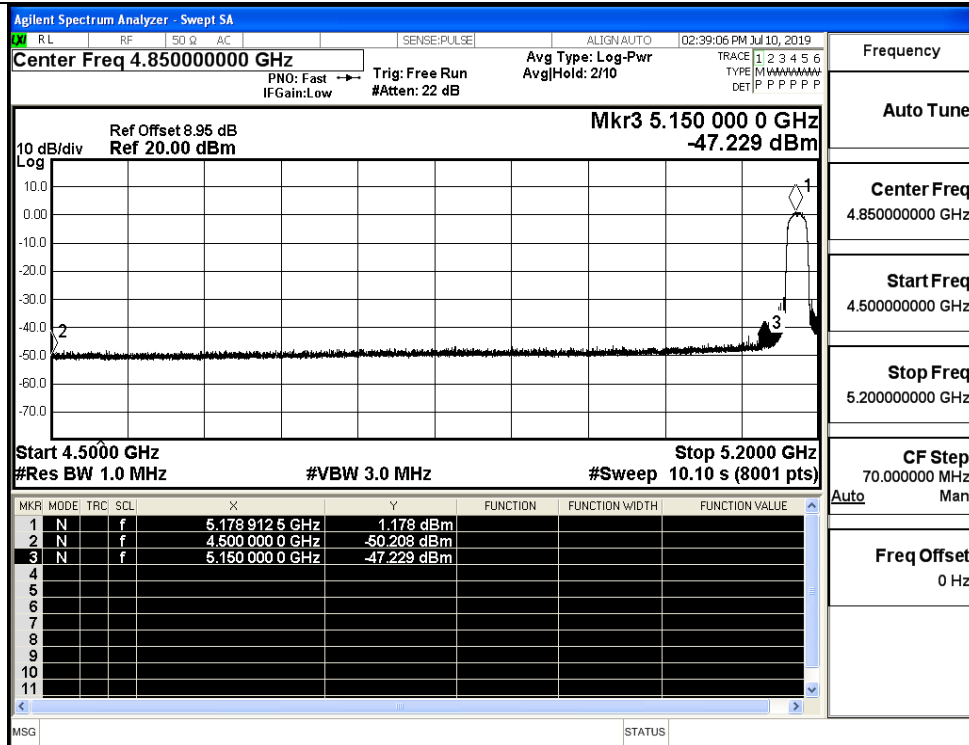
### Undesirable Emissions Measurement



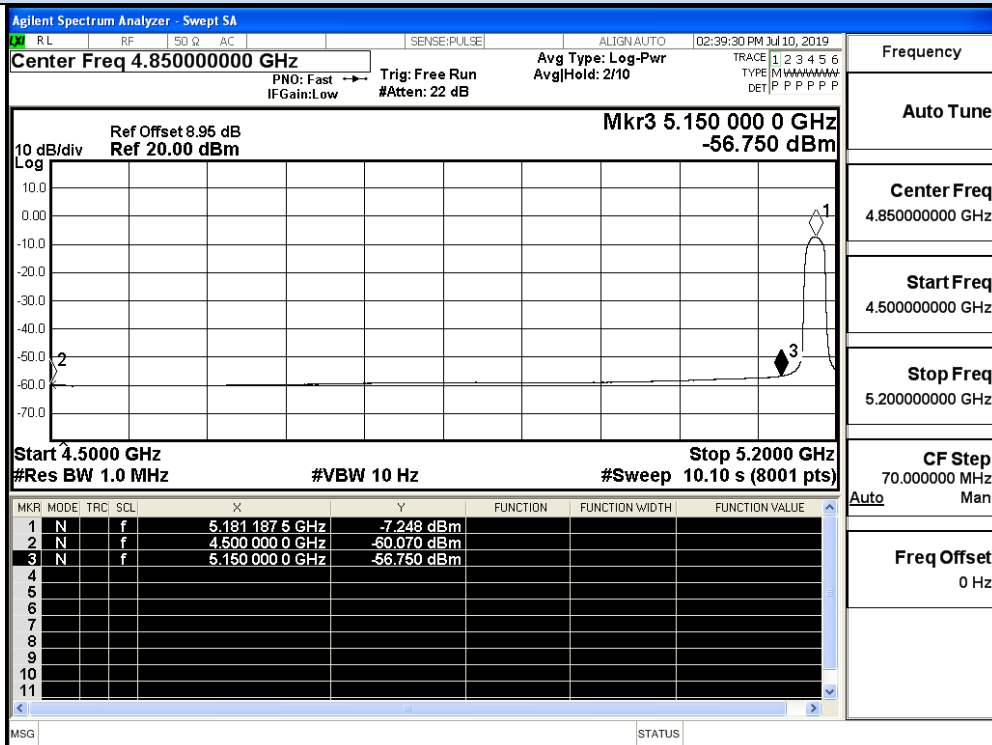
### IEEE 802.11n40 / Channel 46 / 5230MHz / Peak



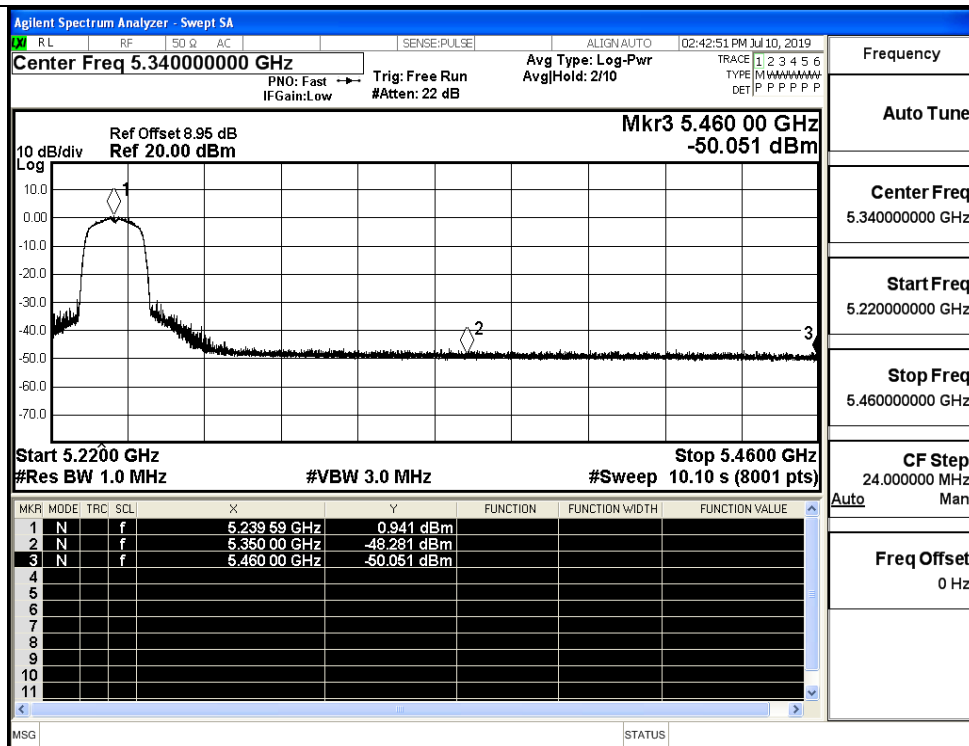
### IEEE 802.11n40 / Channel 46 / 5230MHz / Average



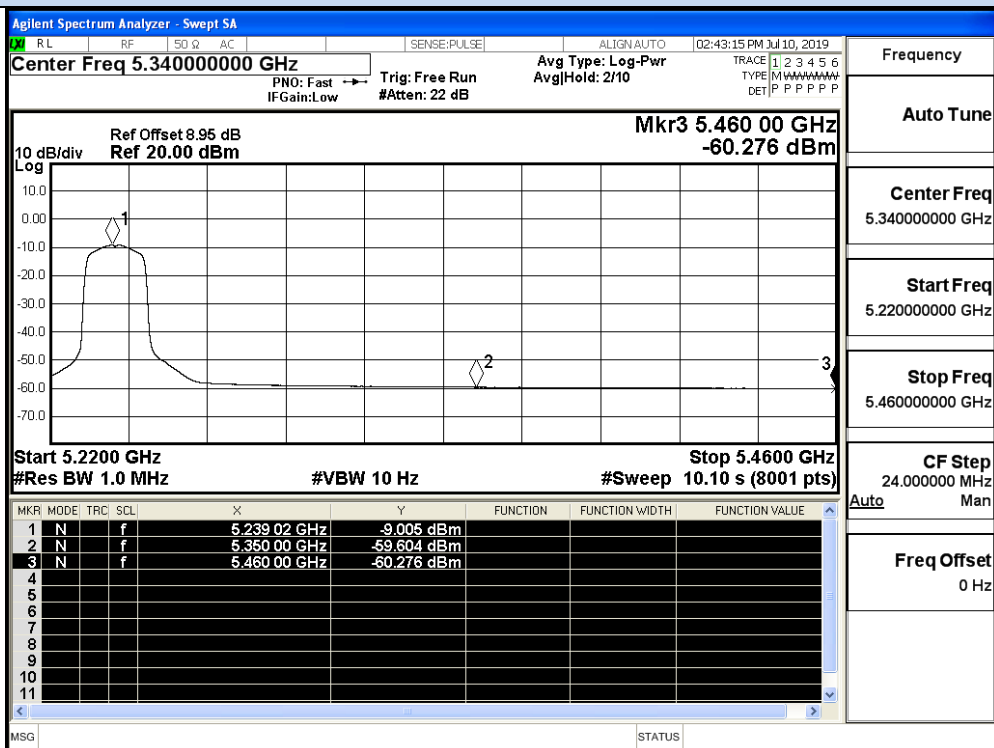
IEEE 802.11ac20 / Channel 36 / 5180MHz / Peak



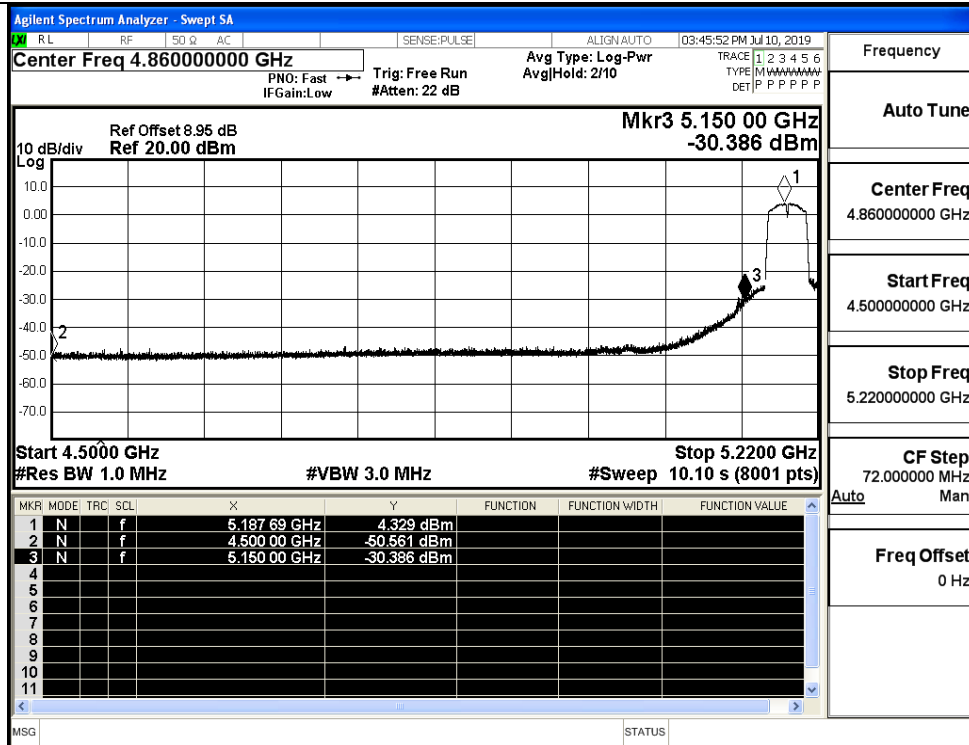
IEEE 802.11ac20 / Channel 36 / 5180MHz / Average



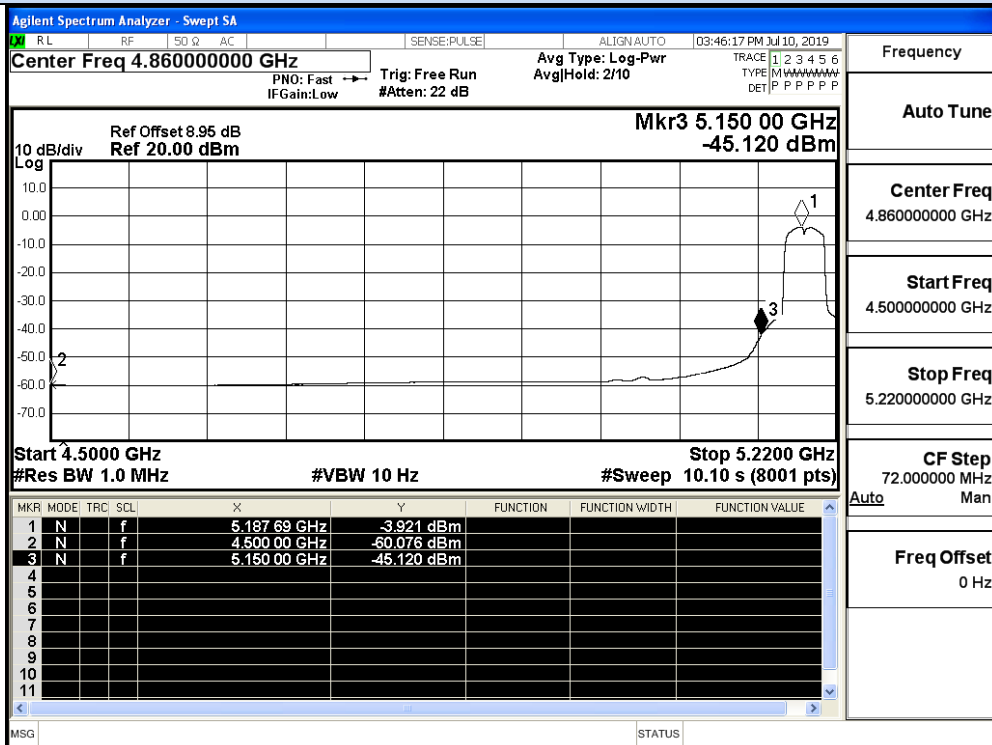
IEEE 802.11ac20 / Channel 48 / 5240MHz / Peak



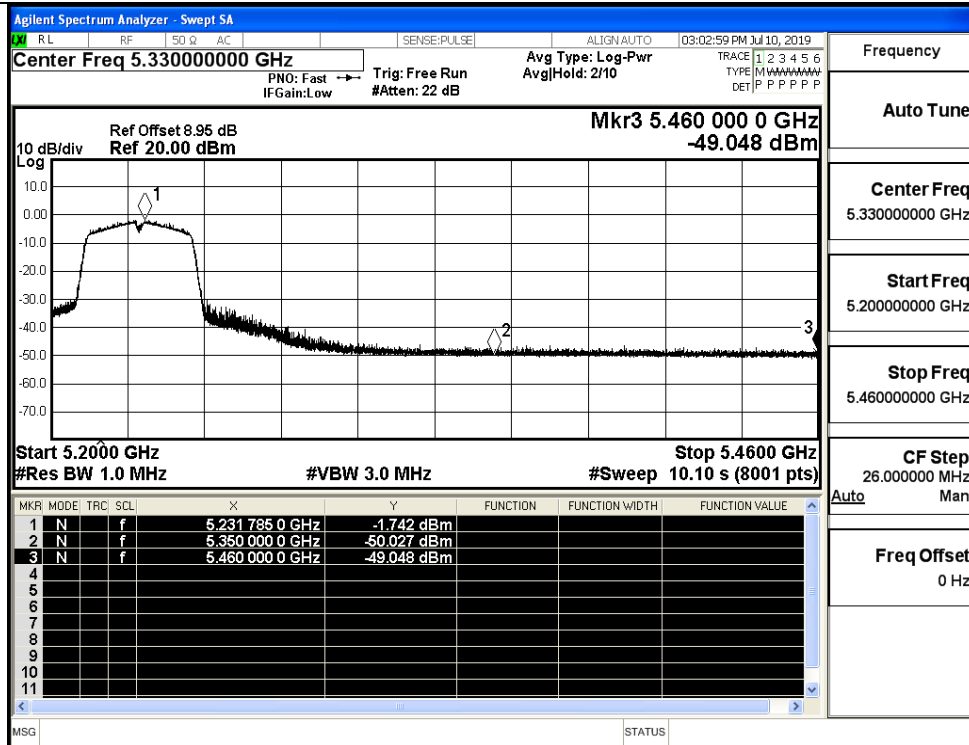
IEEE 802.11ac20 / Channel 48 / 5240MHz / Average



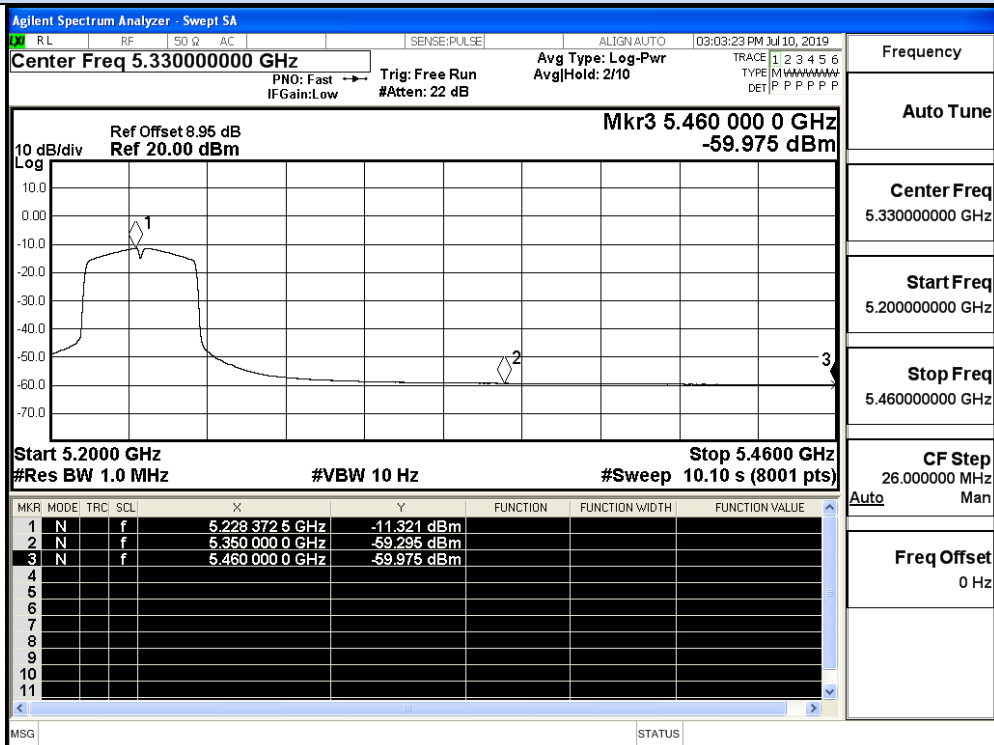
IEEE 802.11ac40 / Channel 38/ 5190MHz / Peak



IEEE 802.11ac40 / Channel 38 / 5190MHz / Average

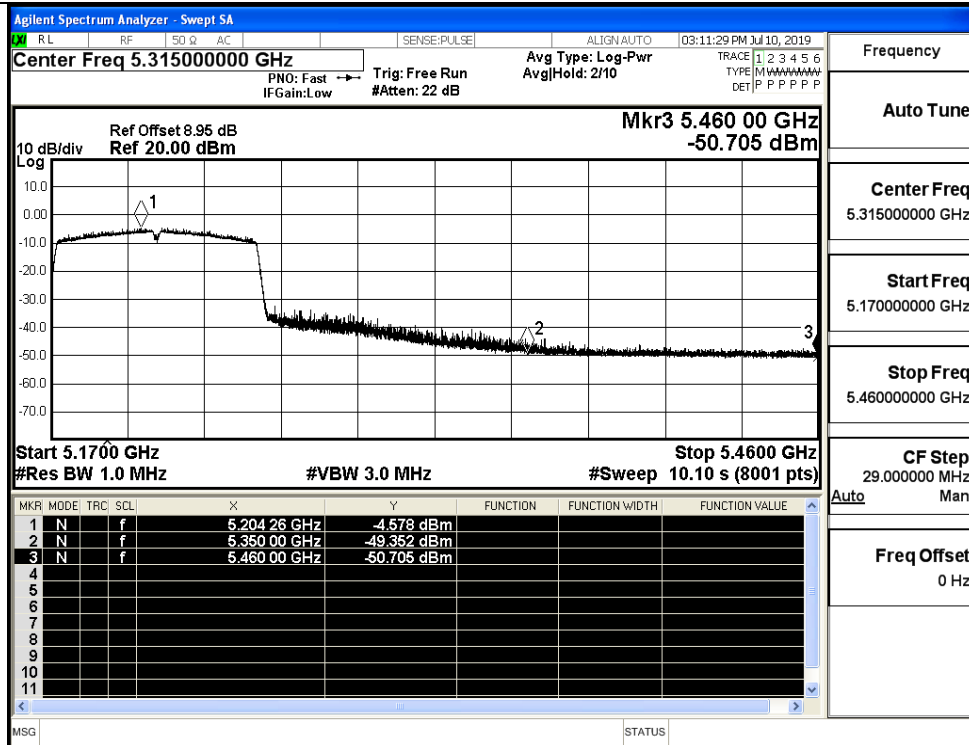


IEEE 802.11ac40 / Channel 46/ 5230MHz / Peak

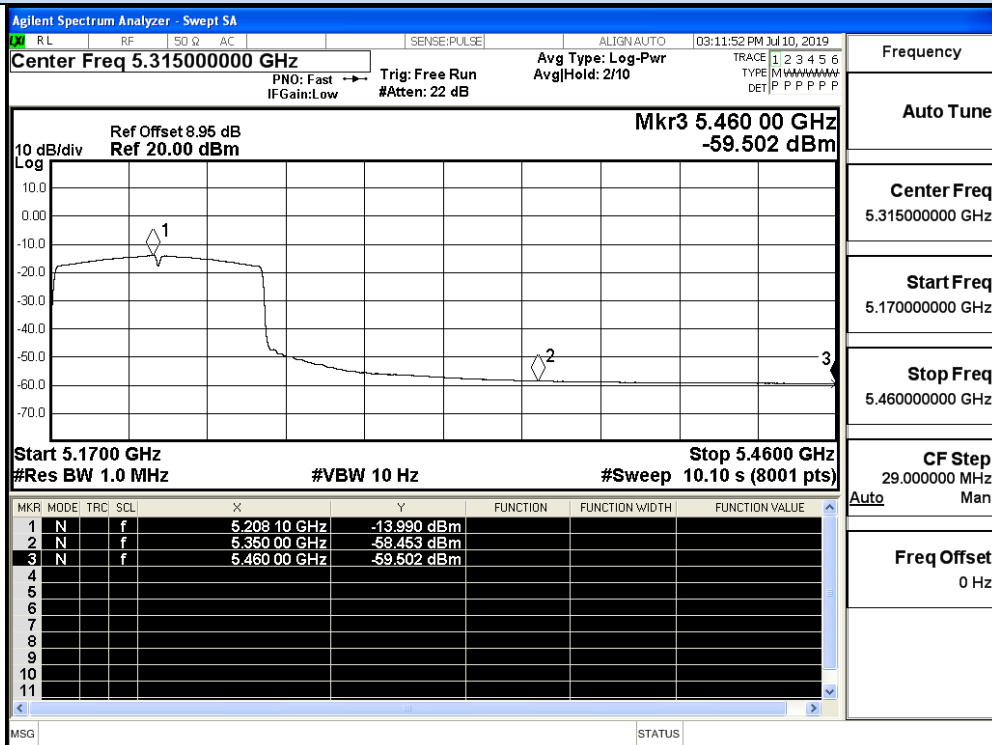


IEEE 802.11ac40 / Channel 46 / 5230MHz / Average





IEEE 802.11ac80 / Channel 42 / 5210MHz / Peak



IEEE 802.11ac80 / Channel 42 / 5210MHz / Average